UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31 , 2024

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to _________

Commission File Number 1-2116

ARMSTRONG WORLD INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania	**23-0366390**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
2500 Columbia Avenue , **Lancaster** , **Pennsylvania**	**17603**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code (717) 397-0611

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value per share	AWI	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter time period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the Common Stock of Armstrong World Industries, Inc. held by non-affiliates based on the closing price ($113.24 per share) on the New York Stock Exchange (trading symbol AWI) as of June 28, 2024 was approximately $

4.9
billion. As of February 19, 2025, the number of shares outstanding of the registrant's Common Stock was

43,464,252

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Documents Incorporated by Reference

Certain sections of Armstrong World Industries, Inc.'s definitive Proxy Statement for use in connection with its 2025 annual meeting of shareholders, to be filed no later than April 30, 2025 (120 days after the last day of our 2024 fiscal year), are incorporated by reference into Part III of this Form 10-K Report where indicated.

Auditor Name:	Auditor Location:	Auditor Firm ID:
KPMG LLP	Philadelphia, PA	185

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When we refer to "AWI," the "Company," "we," "our" and "us," we are referring to Armstrong World Industries, Inc. and its subsidiaries.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Annual Report on Form 10-K and the documents incorporated by reference herein may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Those forward-looking statements are subject to various risks and uncertainties and include all statements that are not historical statements of fact and those regarding our intent, belief or expectations, including, but not limited to, our expectations concerning our markets and demand for our products, broader economic conditions and their effect on our operating results; our expectations regarding the payment of dividends and stock repurchases; and our ability to increase revenues, earnings and earnings before interest, taxes, depreciation and amortization. Words such as "anticipate," "estimate," "expect," "project," "intend," "plan," "believe," "outlook," "target," "predict," "may," "will," "would," "could," "should," "seek," and similar expressions are intended to identify such forward-looking statements. These statements are based on management's current expectations and beliefs and are subject to a number of factors that could lead to actual results materially different from those described in the forward-looking statements. Although we believe that the assumptions underlying the forward-looking statements are reasonable, we can give no assurance that our expectations will be attained. Factors that could have a material adverse effect on our financial condition, liquidity, results of operations or future prospects or which could cause actual results to differ materially from our expectations include, but are not limited to:

Risks Related to Our Operations

- changes in key customer relationships;
- availability and costs of manufacturing inputs or sourced products;
- financial contribution of Worthington Armstrong Venture ("WAVE"), our joint venture with Worthington Enterprises, Inc.;
- cost savings and productivity initiatives;
- labor costs and relations;
- progress towards meeting objectives and related compliance for climate and other sustainability matters;

Risks Related to Our Strategy

- benefits from strategic initiatives, including investments in product innovation and digitalization;
- identification, completion and successful integration of strategic transactions;

Risks Related to Financial Matters

- liquidity needs and indebtedness;
- ability to make dividend payments and stock repurchases;
- unanticipated negative tax consequences;
- defined benefit plan obligations;

Risks Related to Legal and Regulatory Matters

- claims, litigation and regulatory actions;
- environmental liability exposure;
- effectiveness of intellectual property rights protection;
- operations in Canada and Latin America;

Risks Related to General Economic and Other Factors

- economic conditions;
- construction activity;
- market competition;
- customer consolidation;

- information technology disruptions and cybersecurity breaches;
- dependence on third-party vendors and suppliers;
- geographic concentration;
- public health epidemics or pandemics; and
- other risks detailed from time to time in our filings with the Securities and Exchange Commission (the "SEC"), press releases and other communications, including those set forth under "Risk Factors" included elsewhere in this Annual Report on Form 10-K.

Such forward-looking statements speak only as of the date they are made. We expressly disclaim any obligation to release publicly any updates or revisions to any forward-looking statements to reflect any change in our expectations with regard thereto or change in events, conditions or circumstances on which any statement is based.

ITEM 1. BUSINESS

Armstrong World Industries, Inc. (“AWI” or the “Company”) is a Pennsylvania corporation incorporated in 1891. When we refer to “we,” “our” and “us” in this report, we are referring to AWI and its subsidiaries.

AWI is an Americas leader in the design, innovation and manufacture of interior and exterior architectural applications including ceilings, specialty walls and exterior metal solutions. We manufacture and source products made of numerous materials, including mineral fiber, fiberglass, metal, felt, wood, resin, wood fiber and glass-reinforced-gypsum. We also manufacture ceiling suspension system (grid) products through a joint venture with Worthington Enterprises, Inc. called Worthington Armstrong Venture (“WAVE”).

Reportable Segments

Our operating segments are as follows: Mineral Fiber, Architectural Specialties and Unallocated Corporate.

Mineral Fiber – produces suspended mineral fiber and fiberglass ceiling systems. Our mineral fiber products offer various performance attributes such as acoustical control, rated fire protection, and energy efficiency, along with other health and sustainability features and aesthetic appeal. Ceiling products are primarily sold to resale distributors, ceiling systems contractors and wholesalers, and retailers (including large home centers). The Mineral Fiber segment also includes the results of WAVE, which manufactures and sells suspension system (grid) products and ceiling component products that are invoiced by both AWI and WAVE. Segment results relating to WAVE consist primarily of equity earnings and reflect our 50% equity interest in the joint venture. Ceiling component products consist of ceiling perimeters and trim, in addition to grid products that support drywall ceiling systems. For some customers, WAVE sells its suspension system products to AWI for resale to customers. Mineral Fiber segment results reflect those sales transactions. The Mineral Fiber segment also includes all assets and liabilities not specifically allocated to our Architectural Specialties or Unallocated Corporate segment, including all property and related depreciation associated with our Lancaster, Pennsylvania headquarters. Operating results for the Mineral Fiber segment include a significant majority of allocated Corporate administrative expenses that represent a reasonable allocation of general services to support its operations.

Architectural Specialties – designs, produces and sources specialty ceilings, walls, and other interior and exterior architectural applications primarily for use in commercial settings. Products are available in numerous materials, such as metal, felt, wood, resin, wood fiber and glass-reinforced-gypsum in various colors, shapes and designs. These products offer a range of design options and performance attributes such as acoustical control, rated fire protection, light, aesthetic appeal, energy conservation and building performance. We sell standard, premium and customized products, a portion of which are sourced from third-party producers. Architectural Specialties products are sold primarily to resale distributors and direct customers, primarily ceiling systems contractors. This segment’s revenues are primarily project driven, which can lead to more variability in sales patterns. Operating results for the Architectural Specialties segment include a portion of allocated Corporate administrative expenses that represent a reasonable allocation of general services to support its operations.

Unallocated Corporate – includes certain assets, liabilities, income and expenses that have not been allocated to our other business segments and consists of: cash and cash equivalents, our Overcast Innovations LLC investment and related equity earnings/losses, the net funded status of our U.S. Retirement Income Plan (“RIP”), the estimated fair value of interest rate swap contracts, outstanding borrowings under our senior secured credit facility and income tax balances.

Overview

Our business has been built on providing high-quality, innovative products through a highly effective service model as well as by maintaining strong brand awareness and trust. We are committed to delivering profitable revenue growth, strong cash flow generation and sustainable shareholder value by strengthening our core Mineral Fiber segment and expanding our Architectural Specialties segment into new, adjacent business categories and sectors. Through this strategy, we have delivered consistent growth in mineral fiber sales dollars per unit sold through product innovation, including our Total Acoustics® solutions and Sustain® family of products, and we have built a broad portfolio of architectural specialties products for ceilings, specialty walls and exterior metal architectural applications. Our growth initiatives continue to focus on market-driven innovation and digital tools to accelerate renovation and further differentiate our products and solutions, including our development of Templok® energy saving ceiling tiles. In addition, we continue to invest in expanding our Architectural Specialties market and reach capabilities into new adjacencies through both organic investment and acquisitions.

Acquisitions and Investments in Unconsolidated Affiliates

In December 2024, we acquired all the issued and outstanding stock of A. Zahner Company (“Zahner”), based in Kansas City, Missouri. Zahner is a designer and manufacturer of exterior metal architectural solutions. The operations, assets and liabilities of Zahner are included in our Architectural Specialties segment.

In April 2024, we acquired all the issued and outstanding membership interests in 3form, LLC (“3form”), based in Salt Lake City, Utah from Hunter Douglas, Inc. 3form is a designer and manufacturer of architectural resin and glass products used for specialty walls, partitions and ceilings. The operations, assets and liabilities of 3form are included in our Architectural Specialties segment.

In January 2024, we entered into a strategic partnership and equity investment in Overcast Innovations LLC (“Overcast”) with McKinstry Essention, LLC whereby we contributed $5.5 million in exchange for a 19.5% ownership interest in Overcast, with future rights to increase our ownership interest. Overcast is a solutions company offering prefabricated ceiling cloud systems, modular grid platforms and engineering design services to reduce waste and inefficiencies in the built environment. Our investment and equity earnings in Overcast are included in our Unallocated Corporate segment.

In October 2023, we acquired a portion of the business and certain assets of Insolcorp, LLC (“Insolcorp”), based in Albemarle, North Carolina. Insolcorp develops, tests and manufactures energy saving products deployed in building and roofing installations. The acquired operations, assets and liabilities of Insolcorp are included in our Mineral Fiber segment.

In July 2023, we acquired all the issued and outstanding stock of BOK Modern, LLC (“BOK”), based in San Rafael, California. BOK is a designer of exterior metal architectural solutions. The operations, assets and liabilities of BOK are included in our Architectural Specialties segment.

In November 2022, we acquired the business of GC Products, Inc. (“GC Products”), based in Lincoln, California. GC Products is a designer and manufacturer of glass-reinforced-gypsum, glass-reinforced-cement, molded ceiling and specialty wall products. The operations, assets and liabilities of GC Products are included in our Architectural Specialties segment.

Markets

We primarily serve markets in the United States, Canada and Latin America. We believe we are well positioned in the industry sectors and categories in which we operate, often holding a leadership position. Our products compete against mineral fiber and fiberglass ceiling products from other manufacturers, as well as drywall and a wide range of specialty ceiling and exterior metal products. We compete directly with other domestic and international suppliers of these products. The major markets in which we compete are:

Commercial Construction. Our revenue opportunities come from new construction as well as renovation of existing buildings. Most of our revenue comes from the following sectors of commercial construction – office, education, healthcare, transportation and retail. We closely monitor publicly available macroeconomic data and trends that provide insight into commercial construction market activity, including, but not limited to, gross domestic product (“GDP”), office vacancy rates, the Architecture Billings Index, new commercial construction starts, state and local government spending, corporate profits and retail sales. Our revenue from new construction can lag behind construction starts by as much as 24 months. We believe that these statistics, taking into account the time-lag effect, provide a reasonable indication of our future revenue opportunity from commercial renovation and new construction. Additionally, we believe that customer preferences for product type, style, color, performance attributes (such as acoustics, energy efficiency, sustainability and health attributes), availability, affordability and ease of installation also affect our revenue.

In our Mineral Fiber segment, we estimate that a majority of our commercial construction market sales are used for existing building renovation purposes by end-users of our products. We classify our renovation opportunities as major renovation projects, which tend to be larger in scope, or repair and remodel projects, which generally involve the replacement of old products with new products. In our Architectural Specialties segment, we estimate that a majority of our commercial construction market sales are used for new building construction by end-users of our products. The end-use of our products is based on management estimates as such information is not easily determinable.

Residential Construction. We also sell a small portion of our products for use in single and multi-family housing. We estimate that existing home renovation work represents the majority of the residential construction market opportunity. Key U.S. statistics that indicate market opportunity include existing home sales (a key indicator for renovation opportunity), housing starts, housing completions, home prices, interest rates and consumer confidence.

Customers

We use our product quality, broad product portfolio, design capabilities, service, innovation and brand recognition to develop long-standing relationships with our customers. We principally sell commercial products to building materials distributors, who re-sell our products to contractors, subcontractors' alliances, large architect and design firms, and major facility owners. We have important relationships with national home centers such as Lowe's Companies, Inc. and The Home Depot, Inc., with wholesalers who re-sell our products to dealers who service builders, and with direct customers, which include sales to contractors, architects and designers who specify products.

In 2024, nearly 65% of our consolidated net sales were to distributors. Sales to large home centers accounted for nearly 10% of our consolidated net sales. Our remaining sales were primarily to direct customers.

Gross sales to Foundation Building Materials, Inc. and GMS, Inc. totaled $735.6 million and individually exceeded 10% of our consolidated gross sales in 2024. Sales to these distributors are included in both our Mineral Fiber and Architectural Specialties segment net sales.

Working Capital

We primarily produce goods for inventory and sell on credit to our customers. Generally, we believe our distributors and home center customers carry inventory as needed to meet local or rapid delivery requirements. We sell our products to select, pre-approved customers using customary trade terms that allow for payment in the future. These practices are typical within the industry.

Competition

The markets in which our products are sold are highly competitive. Principal attributes of competition include product performance, product styling, service and price. Competition comes from both domestic and international manufacturers. Additionally, some of our products compete with alternative products or finishing solutions, namely, drywall and exposed structure (also known as open plenum). Excess industry capacity exists for certain products, which tends to increase price competition. The following companies are our primary competitors:

CertainTeed Corporation (a subsidiary of Saint-Gobain), Chicago Metallic Corporation (owned by Rockwool International A/S), Georgia-Pacific Corporation, Rockfon A/S (owned by Rockwool International A/S), USG Corporation (owned by Gebr. Knauf KG), Ceilings Plus (owned by USG Corporation), Rulon International, SAS International, and 9Wood.

Raw Materials

We purchase raw materials from numerous suppliers worldwide in the ordinary course of business. Our principal raw materials are fiberglass, perlite, recycled paper and starch. Other raw materials we purchase include clays, felt, pigment, resin, wood and wood fiber. We manufacture most of our mineral wool needs at one of our facilities. Finally, we use aluminum and steel in the production of metal products by us and by WAVE, our joint venture that manufactures ceiling and wall grid products.

We also purchase significant amounts of packaging materials and consume substantial amounts of energy, such as electricity and natural gas, and water.

In general, adequate supplies of raw materials are available to all of our operations. However, availability can change for a number of reasons, including environmental conditions, laws and regulations, shifts in demand by other industries competing for the same materials, transportation disruptions and/or business decisions made by, or events that affect, our suppliers. There is no assurance that these raw materials will remain in adequate supply to us.

Prices for certain high usage raw materials can fluctuate dramatically. Cost increases for these materials can have a significant adverse impact on our manufacturing costs. Given the competitiveness of our markets, we may not be able to recover the increased manufacturing costs through increasing selling prices to our customers.

Sourced Products

Some of the products we sell are sourced from third parties. Our primary sourced products include specialty ceiling and external metal products. A portion of our sourced products are from suppliers located outside of the U.S., primarily from Europe and the Pacific Rim. Sales of sourced products represented less than 10% of our total consolidated revenue in 2024.

In general, we believe we have adequate supplies of sourced products. However, we cannot guarantee that the supply will remain adequate.

Seasonality

Historically, our sales tend to be stronger in the second and third quarters of our fiscal year due to more favorable weather conditions, customer business cycles and the timing of renovation and new construction activity.

Patent and Intellectual Property Rights

Patent protection is important to our business. We hold a broad collection of intellectual property rights relating to certain aspects of our products and processes developed or perfected within AWI or obtained through acquisitions and licenses. This includes patents, trademarks, designs, copyrights, trade secrets and other forms of intellectual property rights in the U.S. and various foreign countries.

Patent protection extends for varying periods according to the date of patent filing or grant and the legal term of a patent in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends upon the type of patent, the scope of its coverage and the availability of legal remedies. Although we consider that, in the aggregate, our patents, trademarks, designs, copyrights, trade secrets and licenses constitute a valuable asset of material importance to our business, we do not believe we are materially dependent upon any single one of these intellectual property rights.

Certain of our trademarks, including without limitation, Armstrong, Armstrong®, 3form®, ACOUSTIBuilt®, Arktura®, BŌK Modern®, Calla®, Cirrus®, Cortega®, DESIGNFlex®, Dune™, Feltworks®, Infusions®, Kanopi™, Lyra®, MetalWorks™, Móz™, Optima®, ProjectWorks®, Soundscapes®, Sustain®, Tectum®, Templok®, Total Acoustics®, Turf®, Ultima®, WoodWorks® and Zahner®, are important to our business because of their significant brand name recognition. Registrations are generally for fixed, but renewable, terms.

In connection with the separation and distribution of our former flooring business into a separate publicly traded company, Armstrong Flooring, Inc. (“AFI”), in 2016, we entered into several agreements with AFI that, together with a plan of division, provided for the separation and allocation of assets between AWI and AFI. These agreements include a Trademark License Agreement and a Transition Trademark License Agreement. Pursuant to the Trademark License Agreement, AWI provided AFI with a perpetual, royalty-free license to use the “Armstrong” trade name and logo. Further, in 2022, as part of the AFI bankruptcy and with AWI consent, all rights, obligations and protections that existed as part of the arrangement with AFI were transferred to AHF Products in North America, Zhejiang GIMIG Tech Co., Ltd. in China, and to Braeside Mills Investments Pty Ltd in Australia and New Zealand. During 2024, AWI terminated the license with AHF Products and sold the flooring specific trademarks previously licensed to AHF Products. None of these transactions had or are expected to have any material impact on the integrity of the Armstrong trademark.

In connection with the sale of certain subsidiaries comprising our businesses and operations in Europe, the Middle East and Africa (including Russia) (“EMEA”) and the Pacific Rim, including the corresponding businesses and operations conducted by WAVE (collectively, the “Sale”), to Knauf International GmbH (“Knauf”) in 2019, we entered into a royalty-free intellectual property License Agreement with Knauf for its benefit (and, under sublicense, to the buyers of certain businesses divested by Knauf) under which they license certain patents, trademarks and know-how from us for use in certain licensed territories.

We review the carrying value of indefinite-lived trademarks at least annually for potential impairment. See the “Critical Accounting Estimates” section of Management’s Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K for further information.

Sustainability and Environmental Matters

As a leading building products manufacturer, we are committed to operating sustainably across all areas of our business. This commitment is reflected in our ongoing initiatives to design and develop sustainable ceiling and wall solutions. Our sustainability focus reflects our mission to make a positive difference in the lives of people where they live, work, learn, heal and play. Our approach to sustainability is designed to support our strategic priorities, align with stakeholder interests, and be visible and measurable.

Our sustainability program is organized around three program pillars: Healthy and Circular Products, Healthy Planet and Thriving People and Communities.

Our Healthy and Circular Products pillar broadly focuses on ensuring our products are free of chemicals of concern, reducing our products' water intensity and carbon footprint, improving the circularity of our products so they can be recycled, reused or repurposed, and continuing to invest in solutions that meet customer demand for building products that align with their sustainability goals. These efforts also include our mineral fiber ceilings recycling program, which aims to divert reclaimed ceiling tiles from landfills. We expect that there will be increased demand over time for products, systems and services that meet evolving regulatory and customer sustainability standards and preferences and decreased demand for products that generate significant greenhouse gas emissions. We also believe that our ability to continue to provide these products, systems and services to our customers, including through our Sustain® portfolio, is aligned with our growth strategy.

Our Healthy Planet pillar broadly focuses on reducing our greenhouse gas footprint, reducing or reclaiming water in our operations, and reducing waste in our operations. These efforts include achieving emissions reductions through operational efficiency and product design improvements and exploring renewable electricity options where we operate. Additionally, we are committed to complying with all environmental laws and regulations that are applicable to our operations.

Our Thriving People and Communities pillar broadly focuses on creating a safe working environment for our employees, increasing our engagement in the communities where we operate, evaluating our benefits and compensation structure for all levels of the organization, promoting and maintaining a diverse, inclusive, talented and thriving workforce, and encouraging and protecting human rights.

The adoption of environmentally responsible building codes and standards such as the Leadership in Energy and Environmental Design ("LEED") rating system established by the U.S. Green Building Council, has the potential to increase demand for products, systems and services that contribute to sustainable buildings. Many of our products meet the requirements for the award of LEED credits, and we are continuing to develop new products, systems and services to address market demand for products that enable construction of buildings that require fewer natural resources to build, operate and maintain. Our competitors also have developed and introduced products with an increased focus on sustainability.

In 2024, we published our fourth Sustainability Report which measures our progress towards achieving our 2030 sustainability goals and provides insights into our sustainability efforts. We expect to update our progress regularly. The report is available in the "Sustainability" section of our website, which is listed below. Information in the 2024 Sustainability Report or the Company's website is not incorporated herein by reference.

Human Capital

Workforce Demographics. As of December 31, 2024 and 2023, we had approximately 3,600 and 3,100 full time and part time employees, respectively. During 2024, our total voluntary and involuntary turnover rates were approximately 7% and 4%, respectively, for non-production employees and 13% and 8%, respectively, for production employees.

As of December 31, 2024, approximately 52% of our approximately 1,700 production employees in the U.S. were represented by labor unions. Collective bargaining agreements covering approximately 180 employees at three U.S. plants will expire during 2025. We believe that our relations with our employees are constructive and positive.

Employee Health and Safety. Safety is a core value at AWI and our culture is committed to making safety a personal core value for every employee. Our overall goal is to eliminate workplace injuries. We promote and foster an environment of empowerment and sharing throughout the company at all levels and in all locations. We engage our employees on safety with a focus on risk identification and elimination and through tracking various leading indicators. We track Occupational Safety and Health Administration ("OSHA") recordable injuries and lost time rates by location monthly. We establish safety targets annually, which are tracked and reported to leadership monthly and reviewed with our Board of Directors.

Compensation, Benefits and Wellness. Employee compensation is based on defined job descriptions and position grades that are evaluated against external market data that we believe is competitive and fair. We offer competitive health and wellness benefits to eligible employees and periodically conduct analyses of plan utilization to further tailor our employee benefits to meet their ongoing needs. In recent years we added parental leave and adoption benefits for all employees and launched a wellness program to promote physical, mental and financial well-being. In addition, we offer on-site wellness screenings at our manufacturing facilities in partnership with our medical provider. Finally, we offer mental well-being support and nutrition and financial wellness education to all employees.

Diversity and Inclusion. We value diversity and inclusion within our organization, as we believe it is important to our success. This commitment is reflected in the Thriving People and Communities Pillar of our Sustainability program, which is led by our Vice President of Talent Sustainability and Talent Acquisition. As part of our commitment to diversity and inclusion, through our merit-based selection process, we strive to hire qualified candidates from a talent pool reflective of the communities in which we have operations. In addition, we are committed to engaging in events and outreach and providing employee resources to our entire workforce that support diversity and inclusion.

Product Innovation

Product innovation activities are important and necessary in helping us improve our products' competitiveness. Principal product innovation functions include the development and improvement of products and manufacturing processes. We engage in research and development activities with a focus on market-driven product innovation to maintain our competitive position and enable growth, as well as innovation in our manufacturing processes to increase productivity.

Legal and Regulatory Proceedings

Regulatory activities of particular importance to our operations include proceedings under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), and state Superfund and similar type environmental laws governing existing or potential environmental contamination at two domestically owned locations allegedly resulting from past industrial activity. We are one of several potentially responsible parties in these matters and have agreed to jointly fund the required investigation, while preserving our defenses to the liability. We may also have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies.

Most of our facilities are affected by various federal, state and local environmental requirements relating to the discharge of materials or the protection of the environment. We make expenditures necessary for compliance with applicable environmental requirements at each of our operating facilities. We have not experienced a material adverse effect upon our capital expenditures or competitive position as a result of environmental control legislation and regulations.

From time to time, we are involved in various other lawsuits, claims, investigations and other legal matters that arise in the ordinary course of business, including matters involving our products, intellectual property, relationships with suppliers, relationships with distributors, relationships with competitors, employees and other matters. In connection with those matters, we may have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies. When applicable and appropriate, we will pursue coverage and recoveries under those policies but are unable to predict the outcome of those demands. While complete assurance cannot be given to the outcome of any proceedings relating to these matters, we do not believe that any current claims, individually or in the aggregate, will have a material adverse effect on our financial condition, liquidity or results of operations.

Liabilities for environmental matters that we consider probable and for which a reasonable estimate of the probable liability could be made were $4.6 million and $0.5 million as of December 31, 2024 and 2023, respectively. See Note 27 to the Consolidated Financial Statements and Risk Factors in Item 1A of this Form 10-K, for information regarding the possible effects that compliance with environmental laws and regulations may have on our businesses and operating results.

Website

We maintain a website at https://www.armstrongworldindustries.com. Information contained on our website is not incorporated into this document. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports and other information about us are available free of charge through this website. Documents filed with the SEC are available on our website as soon as reasonably practicable after the reports are electronically filed with the SEC. We also file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC at https://sec.gov. Reference in this Form 10-K to our website and the SEC's website is an inactive text reference only.

ITEM 1A. RISK FACTORS

Risks Related to Our Operations

Sales fluctuations and changes in our relationships with key customers could have a material adverse effect on our financial condition, liquidity or results of operations.

The loss, reduction, or fluctuation of sales to key customers, including independent distributors or national home center customers, or any adverse change in our business relationships with them, whether as a result of changing customer demands and expectations, reduced demand, supply chain constraints, competition, industry consolidation or otherwise, could have a material adverse effect on our financial condition, liquidity or results of operations.

If the availability of our manufacturing inputs or sourced products decreases, or the cost of those inputs or sourced products increases and we are unable to pass along increased costs resulting from supply chain or inflationary pressures, our financial condition, liquidity or results of operations could be materially and adversely affected.

The availability and cost of raw materials, packaging materials, energy and sourced products are critical to our operations and our results of operations. For example, we use substantial quantities of natural gas and some petroleum-based raw materials in our manufacturing operations. We source some materials from a limited number of suppliers, which, among other things, increases the risk of unavailability. Limited availability could require us to reformulate products or limit our production. Supply chain disruptions could decrease access to manufacturing inputs or sourced products or significantly increase the cost to purchase these items. Future input cost volatility could occur because of our suppliers' exposure to tariffs or geopolitical events. A decrease in availability or increases in costs of manufacturing inputs or sourced products, and any inability to pass along such costs through price increases, could have a material adverse effect on our financial condition, liquidity or results of operations.

The performance of our WAVE joint venture is important to our financial results. Changes in the demand for, or quality of, WAVE products, or in the operational or financial performance of the WAVE joint venture, could have a material adverse effect on our financial condition, liquidity or results of operations. Similarly, if there is a change with respect to our joint venture partner that adversely impacts its relationship with us, WAVE's performance could be materially and adversely impacted.

Our equity investment in our WAVE joint venture remains important to our financial results. WAVE's markets are highly competitive and changes in the demand for, or quality of, WAVE products, or in the operational or financial performance of the WAVE joint venture, could have a material adverse effect on its financial condition, liquidity or results of operations. Similarly, the availability and cost of raw materials, packaging materials, energy and sourced products, and the ability to pass along increased costs, are critical to WAVE's operations and its results of operations.

We believe the relationship with our partner, Worthington Enterprises, Inc., is an important element in the success of this joint venture. In December 2023, Worthington Enterprises, Inc. (formerly known as Worthington Industries, Inc.) separated from Worthington Steel, Inc. into a separate, independent, publicly traded company (the "Worthington Separation"). Worthington Enterprises, Inc.'s investment in WAVE was not included in the assets and business transferred to Worthington Steel, Inc. If the Worthington Separation or any other change with respect to our partner adversely impacts our relationship, WAVE's performance could be materially and adversely impacted. In addition, our partner may develop economic or business interests or goals that are different from or inconsistent with our interests or goals, which may impact our ability to influence or align WAVE's strategy and operations with our interests or goals.

We continuously pursue productivity initiatives and periodically engage in cost-saving initiatives. Execution of these initiatives may result in interruptions in production and/or may result in lower-than-expected savings in our operating cost structure or may not improve our operating results.

We seek ways to make our operations more efficient and effective. We may reduce, move, modify or expand our plants and operations, as well as our sourcing and supply chain arrangements, and invest in technology, as needed, to control costs and improve productivity. Such actions involve substantial planning, often require capital investments and may result in charges for fixed asset impairments or obsolescence and substantial severance costs. Our ability to achieve cost savings and other benefits within expected time frames is subject to many estimates and assumptions. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays resulting from equipment failures or other interruptions in production, or if other unforeseen events occur, our financial condition, liquidity or results of operations could be materially and adversely affected.

Increased labor costs, labor disputes, work stoppages or union organizing activity, as well as increased labor shortages, or an inability to attract and retain talented employees could delay or impede production and could have a material adverse effect on our financial condition, liquidity or results of operations.

We rely on our employees to manufacture and sell our products. Because most of our manufacturing employees are represented by unions and covered by collective bargaining or similar agreements, we often incur costs attributable to periodic renegotiation of those agreements, which may be difficult to project. Collective bargaining agreements covering approximately 180 employees at three U.S. plants will expire during 2025. We are also subject to the risk that strikes or other conflicts with organized personnel may arise or that we may become the subject of union organizing activity at our facilities that do not currently have union representation. Prolonged negotiations, conflicts or related activities could also lead to costly work stoppages, loss of productivity and reduced service levels to our customers.

Our success is also dependent upon attracting and retaining a qualified workforce. In many cases, we rely upon our employees' high degree of technical knowledge and industry experience. There can be no assurance that we will continue to attract and retain talented employees, particularly during times of increased labor costs or labor shortages. The impact from our inability to attract and retain a sufficient number of employees could have a material adverse effect on our financial condition, liquidity or results of operations.

We are subject to certain regulatory, financial and other risks related to climate change, climate transition, and other sustainability matters. Should our efforts to address these risks fail to align with new regulations or stakeholder expectations, fail to achieve the anticipated benefits, or result in unanticipated costs, our corporate reputation, financial condition, liquidity or results of operations could be materially and adversely impacted.

Evolving and/or conflicting government, customer and societal views related to climate change, climate transition, responsible sourcing and supply chain transparency, resource stewardship, diversity, human rights, social responsibility and other sustainability matters and our efforts to manage and report on them, as well as accomplish our sustainability goals, present numerous operational, regulatory, reputational, financial, legal, and other risks, any of which could have a material adverse impact.

In May 2024, we published our annual Sustainability Report, which includes certain 2030 sustainability goals and describes our progress towards meeting those goals. We may not achieve the anticipated benefits we expect from these goals, which may damage our reputation, or these efforts may not align with new regulations or expectations of stakeholders. Efforts to achieve these goals may result in higher or unforeseen costs. In addition, we may encounter challenges measuring our progress towards the achievement of our sustainability goals.

Further, concerns related to climate change have resulted in domestic and foreign legislative or regulatory actions as well as changing customer preferences and policies, such as environmentally responsible building codes and standards. New legislation and regulations in local, state and federal jurisdictions in the U.S. and in the foreign countries in which we operate could impose restrictions, caps, taxes, or other controls on emissions of greenhouse gases, which could have a material adverse effect on our operations and financial results. While we have a comprehensive sustainability strategy, including, greenhouse gas reduction targets, transparent disclosures related to our sustainability impacts and product innovation to respond to these evolving codes, standards and customer preferences, there is no certainty we will be successful in our approach.

Overall, climate change, its effects, the impacts of government regulation, and consumer, investor and business preferences are inherently difficult to predict and could have a material adverse impact our business by increasing our energy costs, result in substantial, additional capital expenditures and operating costs in the form of taxes, emissions allowances, carbon offsets, or required equipment upgrades or require that we modify our products or processes in a manner that increases our costs and/or reduces our profitability. Any of the foregoing factors could impair our operating efficiency and productivity and result in higher operating costs.

Risks Related to Our Strategy

We may not experience the anticipated benefits from our strategic initiatives, including investments in product innovation and digitalization.

We continue to evaluate and may pursue strategic initiatives involving the development or use of new or innovative products, solutions and tools, including those related to Templok® energy saving ceiling tiles, as well as the expansion of our ecommerce platform, Kanopi™, and our automated design service, ProjectWorks®. These initiatives are designed to grow revenue, improve profitability and increase shareholder value. Our results of operations and financial position could be materially and adversely affected if we are unable to successfully execute these initiatives or if we are unable to achieve the investment cases or realize expected competitive advantages from the initiatives in a timely and efficient manner.

We may pursue strategic transactions, including mergers, acquisitions, joint ventures, strategic alliances or other investments, which could create risks and present unforeseen integration obstacles or costs, any of which could have a material adverse effect on our financial condition, liquidity or results of operations.

We regularly evaluate potential mergers, acquisitions, joint ventures, strategic alliances or other investments that we believe could complement, enhance or expand our current businesses or product lines or that might otherwise offer us growth opportunities, particularly in our Architectural Specialties segment for which we have completed seven acquisitions since July 2020. Any such strategic transaction involves a number of risks, including potential disruption of our ongoing business and distraction of management, difficulty with integrating or separating personnel and business operations and infrastructure, increasing or decreasing the scope, geographic diversity and complexity of our operations and markets, and expanding into new ceiling and wall adjacencies and exterior metal architectural applications, offering products with new attributes and/or offering installation of products. Strategic transactions could involve payment by us of a substantial amount of cash, assumption of liabilities and indemnification obligations, subjecting us to new regulatory requirements, incurrence of a substantial amount of debt or issuance of a substantial amount of equity. Certain strategic opportunities may not result in the consummation of a transaction or may fail to realize the intended benefits and synergies. If we fail to identify, consummate and integrate our strategic transactions in a timely and cost-effective manner, our financial condition, liquidity or results of operations could be materially and adversely affected.

Risks Related to Financial Matters

We require a significant amount of liquidity to fund our operations, and our indebtedness may have a material adverse effect on our ability to operate and invest in our business, execute on our strategic initiatives, and return cash to shareholders.

Our level of indebtedness and degree of leverage could:

- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;
- make us more vulnerable to adverse changes in general economic, industry and competitive conditions and adverse changes in government regulation;
- place us at a competitive disadvantage compared to our competitors that are less leveraged and, therefore, more able to take advantage of opportunities that our leverage prevents us from pursuing;
- limit our ability to refinance existing indebtedness or borrow additional amounts for working capital, capital expenditures, acquisitions, debt service requirements, execution of our business strategy or other purposes;
- restrict our ability to pay dividends on or repurchase our capital stock; and
- make it more difficult for us to satisfy our obligations with respect to our indebtedness.

Additionally, the agreements that govern our indebtedness include covenants that impose significant operating and financial restrictions, including restrictions on our ability to engage in activities that may be in our best long-term interests. Under the terms of our senior secured credit facility, we are required to maintain specified leverage and interest coverage ratios. Our ability to meet these ratios could be affected by events beyond our control, and we cannot ensure that we will continue to meet them. A breach of any of the restrictive covenants or ratios would result in a default under the senior secured credit facility. If any such default occurs, the lenders under the senior secured credit facility may be able to elect to declare all outstanding borrowings under our facility, together with accrued interest and other fees, to be immediately due and payable, or enforce their security interest. The lenders may also have the right in these circumstances to terminate commitments to provide further borrowings.

Our liquidity needs vary throughout the year. If our business experiences materially negative, unforeseen events, we may be unable to generate sufficient cash flow from operations to fund our needs or maintain sufficient liquidity to operate and may seek to incur additional indebtedness, which could exacerbate the risks detailed above. In addition, to the extent that our indebtedness bears interest at floating rates, our sensitivity to interest rate fluctuations will increase. Further, we cannot guarantee financial institutions' capacity in the future to provide credit, or alternatively access to capital markets, which may limit our ability to obtain new debt financing or refinance existing debt obligations.

Any of the above factors could have a material adverse effect on our financial condition, liquidity or results of operations.

We cannot guarantee future cash dividend payments or future repurchases of our common stock pursuant to a share repurchase program.

Since December 2018, our Board of Directors has declared a quarterly dividend on our common stock. The payment of any future cash dividends to our shareholders is not guaranteed and will depend on decisions that will be made by our Board of Directors based upon our financial condition, results of operations, cash flows, business requirements and a determination that the declaration of cash dividends is in the best interest of our shareholders and is in compliance with all laws and agreements applicable to the payment of dividends.

In July 2016, our Board of Directors approved a share repurchase program authorizing us to repurchase up to $150.0 million of our outstanding shares of common stock (the “Program”). Since inception of the Program, we have been authorized to repurchase up to an aggregate of $1,700.0 million of our outstanding shares of common stock through December 31, 2026. Repurchases under the Program may be made through open market, block and privately negotiated transactions, including Rule 10b5-1 plans, at times and in amounts as management deems appropriate, subject to market and business conditions, regulatory requirements and other factors. The Program does not obligate us to repurchase any particular amount of common stock and may be suspended or discontinued at any time without notice. Furthermore, there can be no assurance that we will be able to repurchase our common stock, and we may discontinue plans to repurchase common stock at any time.

Negative tax consequences can have an unanticipated effect on our financial results.

We are subject to the tax laws of the various jurisdictions in which we operate. The tax laws are complex, and the manner in which they apply to our operations, results and tax planning strategies is sometimes open to interpretation. Our income tax expense (benefit) and reported net earnings may fluctuate significantly and may be materially different than forecasted or experienced in the past. Our financial condition, liquidity or results of operations could be materially and adversely affected by changes in effective tax rates, changes in our overall profitability, changes in tax legislation, the results of examinations of previously filed tax returns, and ongoing assessments of our tax exposures.

Our financial condition, liquidity or results of operations could also be materially and adversely affected by changes in the valuation of deferred tax assets and liabilities. We have substantial deferred tax assets related to state net operating losses (“NOLs”), which are available to offset future state taxable income. However, our ability to utilize the current carrying value of these deferred tax assets may be impacted by certain future events, such as changes in tax legislation and insufficient future taxable income prior to expiration of the NOLs.

Significant changes in factors and assumptions used to measure our defined benefit plan obligations, actual investment returns on pension assets and other factors could negatively impact our operating results and cash flows.

We maintain pension and postretirement plans in the U.S. The recognition of costs and liabilities associated with these plans for financial reporting purposes is affected by assumptions made by management and used by actuaries engaged by us to calculate the benefit obligations and the expenses recognized for these plans.

The inputs used in developing the required estimates are calculated using multiple assumptions and represent management’s best estimate of the future. The assumptions that have the most significant impact on reported results are the discount rate, the estimated long-term return on plan assets for the funded plans, retirement rates, and mortality rates and, for postretirement plans, the estimated inflation in health care costs. These assumptions are generally updated annually.

In the aggregate, our U.S. defined benefit pension plans were overfunded by $62.7 million as of December 31, 2024. Our unfunded postretirement plan liabilities were $39.4 million as of December 31, 2024. If our cash flows and capital resources are insufficient to fund our pension and postretirement plans obligations, we could be forced to reduce or delay investments and capital expenditures, seek additional capital, or refinance or obtain additional indebtedness.

As a result of our acquisition of Zahner, we contribute to a multi-employer defined benefit pension plan (“Multi-Employer Plan”) under the terms of collective bargaining agreements that cover its union-represented employees. Assets contributed to the Multi-Employer Plan may be used to provide benefits to employees of other participating employers. If a participating employer stops contributing to the Multi-Employer Plan, the unfunded obligations of the plan may be borne by the remaining participating employers. In the event we choose to stop participating in the Multi-Employer Plan, we may be required to pay a withdrawal liability based on the underfunded status of the plan. Because we believe the Multi-Employer Plan is adequately funded at this time, and we have no current intention of withdrawing from the Multi-Employer Plan, we have not recorded a liability associated with this plan on our Consolidated Balance Sheets.

Risks Related to Legal and Regulatory Matters

Potential regulatory actions, product and service claims, environmental claims and other litigation could be costly and have a material adverse effect on our financial condition, liquidity or results of operations. Insurance coverage may not be available or adequate in all circumstances.

In the ordinary course of business, we are subject to various claims and litigation. Any such claims, whether with or without merit, could be time-consuming and expensive to defend and could divert management's attention and resources. While we strive to ensure that our products and services comply with applicable government regulatory standards and internal requirements, and that our products and services perform effectively and safely, customers from time to time could claim that our products and services do not meet warranty or contractual requirements, and users could claim to be harmed by use or misuse of our products and services. These claims could give rise to breach of contract, warranty or recall claims, or claims for negligence, product liability, strict liability, personal injury or property damage. They could also result in negative publicity.

In addition, claims and investigations may arise related to patent infringement, distributor relationships, commercial contracts, antitrust or competition law requirements, employment matters, employee benefits issues, and other compliance and regulatory matters, including anti-corruption and anti-bribery matters. While we have processes and policies designed to mitigate these risks and to investigate and address such claims as they arise, we cannot predict or, in some cases, control the costs to defend or resolve such claims.

We currently maintain insurance against some, but not all, of these potential claims. In the future, we may not be able to maintain insurance at commercially acceptable premium levels. In addition, the levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. If any significant judgment or claim is not fully insured or indemnified against, it could have a material adverse effect on our financial condition, liquidity or results of operations.

We may be subject to liability under, and may make substantial future expenditures to comply with, environmental laws and regulations, which could have a material adverse effect on our financial condition, liquidity or results of operations.

We are actively involved in environmental investigation and remediation activities relating to two domestically owned locations allegedly resulting from past industrial activity, for which our ultimate liability may exceed the currently estimated and accrued amounts. See Note 27 to the Consolidated Financial Statements for further information related to our current environmental matters and the potential liabilities associated therewith. It is also possible that we could become subject to additional environmental matters and corresponding liabilities in the future.

The building materials industry has been subject to claims relating to raw materials such as silicates, polychlorinated biphenyl ("PCB"), polyvinyl chloride ("PVC"), formaldehyde, per- and polyfluoroalkyl substances ("PFAS"), fire-retardants and claims relating to other issues such as mold and toxic fumes, as well as claims for incidents of catastrophic loss, such as building fires. We have not received any significant claims involving our raw materials or our product performance; however, product liability insurance coverage may not be available at commercially acceptable premium levels or at all, or such coverage may not be adequate in all circumstances to cover claims that may arise in the future.

In addition, our operations are subject to various environmental, health, and safety laws and regulations. These laws and regulations not only govern our current operations and products but may also impose potential liability on us for our past operations and past operations at sites on which we operate. Our costs to comply with these laws and regulations may increase as these requirements become more stringent in the future.

Our intellectual property rights may be infringed, misappropriated, invalidated or otherwise circumvented, which could have a material adverse impact on our financial condition, liquidity or results of operations.

We rely on our proprietary intellectual property, including numerous patents, trademarks, designs, copyrights and trade secrets, as well as our licensed intellectual property to market, promote and sell our products. We monitor and protect against activities that might infringe, dilute, or otherwise harm our patents, trademarks, designs, copyrights, trade secrets and other intellectual property and rely on the laws of the U.S. and other countries. Despite our efforts, the steps we have taken to protect our intellectual property may be inadequate. Existing trade secret, patent, design, trademark and copyright laws offer only limited protection. Our patents could be invalidated or circumvented. In addition, others may develop substantially equivalent or superseding proprietary technology, or competitors may offer similar competing products that do not infringe on our intellectual property rights, thereby substantially reducing the value of our intellectual property rights. Litigation may be necessary to defend and enforce our intellectual property rights. Engaging in litigation may cause us to incur substantial costs and divert resources, which could harm our business regardless of the outcome. Despite our efforts to protect and maintain our intellectual property rights, both in the U.S. and abroad, we may be unsuccessful in some matters. In addition, the laws of some non-U.S. jurisdictions, particularly those of certain emerging markets, provide less protection for our proprietary rights than the laws of the U.S. and present greater risks of counterfeiting and other infringement. To the extent we cannot protect our intellectual property, unauthorized use and misuse of our intellectual property could harm our competitive position. All of the above could have a material adverse effect on our financial condition, liquidity or results of operations.

We are subject to risks associated with our operations in Canada and Latin America. Legislative, political, regulatory and economic volatility, as well as vulnerability to infrastructure and labor disruptions, could have a material adverse effect on our financial condition, liquidity or results of operations.

A portion of our net sales are generated in Canada and Latin America. While these sales are minor in comparison to our total consolidated net sales, they are subject to currency exchange fluctuations, trade regulations, import duties, logistics costs, delays and other related risks. Our Canadian and Latin American operations are also subject to various tax rates, tariffs, credit risks in emerging markets, political risks, uncertain legal systems, and loss of sales to local competitors following currency devaluations in countries where we import products for sale. In addition, a part of our growth strategy depends on our ability to expand our operations in Canada and Latin America, including emerging markets that have greater political and economic volatility and greater vulnerability to infrastructure and labor disruptions than established markets.

In addition, in countries outside of the U.S., particularly in those with developing economies, it may be common for others to engage in business practices prohibited by laws and regulations applicable to us, such as the Foreign Corrupt Practices Act or similar local anti-corruption or anti-bribery laws. These laws generally prohibit companies and their employees, contractors or agents from making improper payments to government officials for the purpose of obtaining or retaining business. Failure to comply with these laws, as well as U.S. and foreign export and trading laws, could subject us to civil and criminal penalties. As we continue to expand our business, we may have difficulty anticipating and effectively managing these and other risks that our operations may face, which may have a material adverse effect our business outside the U.S. and our financial condition, liquidity or results of operations.

Risks Related to General Economic and Other Factors

Unstable market and economic conditions could have a material adverse impact on our financial condition, liquidity or results of operations.

Our business is influenced by market and economic conditions, including inflation, deflation, interest rates, tariffs, availability and cost of capital, consumer spending rates, energy availability, the effects of government spending programs and the impacts of geopolitical events. Volatility in financial markets and softness or deterioration of national and global economic conditions could have a material adverse effect on our financial condition, liquidity or results of operations, including as follows:

- the financial stability of our customers or suppliers may be compromised, which could result in additional bad debts for us or non-performance by suppliers;
- consumers of our products may postpone spending in response to tighter credit, negative financial news and/or stagnation or further declines in income or asset values, which could have a material adverse impact on the demand for our products;
- the value of investments underlying our defined benefit pension plan may decline, which could result in significant cash contributions to the plan in order to meet obligations or regulatory requirements; and
- our asset impairment assessments and underlying valuation assumptions may change, which could result from changes to estimates of future sales and cash flows that may lead to substantial impairment charges.

Continued or sustained deterioration of economic conditions would likely exacerbate and prolong these adverse effects.

Our business is dependent on construction activity in North America. Downturns or delays in construction activity could have a material adverse effect on our financial condition, liquidity or results of operations.

Our business has greater sales opportunities when construction activity, including both new building construction and renovation of existing buildings, is strong and, conversely, has fewer opportunities when such activity declines. The cyclical nature of construction activity, including construction activity funded by the public sector, tends to be influenced by prevailing economic conditions, including the rate of growth in GDP, financing availability, prevailing interest rates, government spending patterns, business, investor and consumer confidence, inflation, availability of labor, adequately functioning supply chains and other factors beyond our control. Our revenue opportunities come from new construction as well as renovation of existing buildings. Most of our revenue comes from the following sectors of commercial construction – office, education, healthcare, transportation and retail. Commercial construction activity for these sectors can be influenced by the changing needs for spaces, including potential declines in demand for office space as a result of sustained remote or hybrid work models. Prolonged downturns or delays in construction activity could have a material adverse effect on our financial condition, liquidity or results of operations.

Our markets are highly competitive. Competition could reduce demand for our products or impact our profitability. Failure to compete effectively by meeting consumer preferences, developing and marketing innovative solutions, maintaining strong customer service and distribution relationships, and expanding our solutions capabilities and reach could have a material adverse effect on our financial condition, liquidity or results of operations.

Our customers consider product performance attributes, product styling, customer service and price when deciding whether to purchase our products. Failure to meet shifting consumer preferences in our highly competitive markets, whether for product performance attributes, such as acoustics, energy efficiency, sustainability, health attributes, or styling preferences, or our inability to develop and offer new competitive performance features could have a material adverse effect on our sales. Similarly, our ability to identify, protect and market new and innovative solutions is critical to our long-term growth strategy, namely, to sell into more spaces and sell more solutions in every space. If our competitors offer discounts on certain products or provide new or alternative offerings that the marketplace perceives as more cost-effective, it could have a material adverse effect on our price realization. Any of the above factors could have a material adverse impact on our financial condition, liquidity or results of operations.

Customer consolidation, and competitive, economic and other pressures facing our customers, and our potential failure to attract new customers in our markets, may negatively impact our net sales, operating margins and profitability.

A number of our customers, including distributors and contractors, have consolidated in recent years and consolidation could continue, further concentrating an increasing portion of our net sales within a smaller group of key customers. Further consolidation could impact margin growth and profitability as larger customers may realize certain operational and other benefits of scale. The economic and competitive landscape for our customers is constantly changing, and our customers' responses to those changes could impact our business. The demand for our products can also be impacted by the buying patterns of certain customers and how they manage their inventory levels. These factors could have a material adverse impact on our financial condition, liquidity or results of operations.

We rely on operating and information systems that may experience a failure, a compromise of security, or a violation of data privacy laws or regulations, which could interrupt or damage our operations and have a material adverse effect on our financial condition, liquidity or results of operations.

In the conduct of our business, we collect, use, transmit and store data on information systems, which are vulnerable to disruption and an increasing threat of continually evolving cybersecurity risks. These information systems may be disrupted or fail as a result of events that are wholly or partially beyond our control, including events such as power loss, software or hardware defects, hacking, computer viruses, malware, ransomware or other cyber-attacks. All of these risks are also applicable where we rely on outside vendors to provide services, which may operate in a cloud environment. We are dependent on third-party vendors to operate secure and reliable systems which may include data transfers over the internet. Any events which deny us use of vital operating or information systems may seriously disrupt our normal business operations.

We also compete through our use of information technology. We strive to provide customers with timely, accurate, easy-to-access information about product availability, orders and delivery status using state-of-the-art systems. While we have processes for short-term failures and disaster recovery capability, a prolonged disruption of system or other failures in the reliability of our systems may have a material adverse effect on our operating results.

We could also experience a disruption of service or a compromise of our information security due to technical system flaws, clerical, data input or record-keeping errors, migration to new systems, or tampering or manipulation of our systems by employees or unauthorized third parties. Information security risks also exist with respect to the use of portable electronic devices, such as laptops and smartphones, which are particularly vulnerable to loss and theft. Any security breach or compromise of our information systems could significantly damage our reputation, cause the disclosure of confidential customer, employee, supplier or company information, including our intellectual property, and result in significant losses, litigation, fines and costs. The security measures we have implemented to protect against unauthorized access to our information systems and data may not be sufficient to prevent breaches.

The regulatory environment related to information security, data collection and privacy is evolving, with new and constantly changing requirements applicable to our business, and compliance with those requirements could result in additional costs.

Additionally, our key partners, distributors or suppliers could experience a compromise of their information security due to technical system flaws, clerical, data input or record-keeping errors, or tampering or manipulation of their respective systems by employees or third parties, which may have an impact on our commercial sales, vendor, partner or other relationships.

We, along with third parties, may use data from our information systems and publicly available sources with artificial intelligence ("AI") technologies and tools. The use of AI may increase risks of data exposure, including unauthorized access, misuse, or unintentional disclosure of sensitive information. The evolving and broader use of AI tools and technologies may also impact the effectiveness of our cybersecurity, regulatory compliance and intellectual property protection programs.

Our business is dependent upon third-party vendors and suppliers whose failure to perform adequately could have a material adverse effect on our financial condition, liquidity or results of operations.

We source a significant portion of raw materials and sourced products from third parties, including international suppliers. Our ability to select and retain reliable vendors and suppliers who provide timely deliveries of quality raw materials and sourced products will impact our success in meeting customer demand for timely delivery of quality products.

The ability of third-party suppliers to timely deliver raw materials and sourced products may be affected by events beyond their control, such as inability of shippers to timely deliver merchandise due to work stoppages or slowdowns, demand volatility or port congestion, unavailability of shipping containers or other equipment, or significant weather and health conditions affecting manufacturers and/or shippers. Any adverse change in our relationships with our third-party suppliers, the financial condition of third-party suppliers, the ability of third-party suppliers to manufacture and deliver outsourced raw materials or sourced products on a timely basis could have a material adverse effect on our financial condition, liquidity or results of operations.

In addition, the financial condition of our vendors and suppliers may be adversely affected by general economic conditions, such as credit difficulties and the uncertain macroeconomic environment. Our international suppliers may be impacted by tariffs or other trade matters. Any inability of our vendors and suppliers to timely deliver quality raw materials and sourced products or any unanticipated change in supply, quality or pricing of products could have a material adverse effect on our financial condition, liquidity or results of operations.

The geographic concentration of our business could subject us to risks, including those associated with climate change, which may be greater than our competitors and could have a material adverse effect on our financial condition, liquidity or results of operations.

We primarily operate in the U.S., Canada and Latin America. Our concentrated operations in the Americas could subject us to a greater degree of risk relative to our global, diversified competitors. We are particularly vulnerable to adverse events (including acts of terrorism, natural disasters, weather conditions, labor market disruptions and government actions) and economic conditions in the U.S., Canada and Latin America. While our operations are primarily in the U.S., Canada and Latin America, we are exposed to downstream risks from global events. Adverse events or conditions in these geographic areas could have a material adverse effect on our financial condition, liquidity or results of operations.

Climate change and related extreme weather events in these geographic areas could impact:

- our manufacturing capability if one of our facilities is affected by such an event;
- demand from our customers through changes in construction activity in the markets in which we operate;
- availability or increased costs of manufacturing inputs or sourced products from our vendors and suppliers; and
- our broader supply chain through inability to ship and receive goods.

We may not be able to forecast the likelihood or severity of any of these impacts. Any of these could have a material adverse effect on our financial condition, liquidity or results of operations.

Public health epidemics or pandemics could have a material adverse effect on our financial condition, liquidity or results of operations.

Public health epidemics or pandemics may impact our employees, operations, customers, suppliers and financial results. The extent of the impact will depend on numerous evolving factors that we may not be able to accurately predict, including: the duration and scope of an epidemic or pandemic; government actions taken in response to an epidemic or pandemic, including required shutdowns; the availability, acceptance, distribution and effectiveness of vaccines; the impact on construction activity; supply chain disruptions; rising inflation; labor shortages; sustained remote or hybrid work models; our ability to manufacture and sell our products; and the ability of our customers to pay for our products. Any of these events could have a material adverse effect on our financial condition, liquidity or results of operations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. CYBERSECURITY

Our use of information systems for collecting, using, transmitting and storing data is a vital aspect of our business operations. Information systems are inherently vulnerable to a range of cybersecurity threats that could potentially have a material impact on our strategy, financial condition, liquidity or results of operations.

Cybersecurity Risk Management and Strategy. The Company actively maintains an enterprise risk management program. Management's role is to identify, mitigate, guide and review the efforts of our business units, consider whether the residual risks are acceptable, and approve plans to deal with serious risks. Cybersecurity is a key risk management category within our enterprise risk management program.

The Vice President and Chief Information Officer ("CIO"), who also serves as a member of the Company's enterprise risk council, works closely with key business leaders and functions to develop and enhance the Company's cybersecurity strategy. Our cybersecurity program is designed to safeguard against an evolving threat landscape through effective prevention, detection, response and recovery processes. Our cybersecurity risk management processes include frequent assessment of our top cyber risks and mitigations.

Our cybersecurity risk program is a comprehensive framework designed to safeguard our organization and stakeholders from evolving threats. Central to this approach is our commitment to threat and vulnerability management, where we proactively identify, prioritize, and address potential cybersecurity gaps to strengthen our overall security posture. We emphasize identity and access management by implementing access controls and robust authentication methods to protect user identities and secure information technology systems. Data protection and privacy is in place to ensure sensitive information is protected from exfiltration. Our cybersecurity defenses leverage systems and technologies, including firewalls, network access, endpoint protection, privileged access management, user behavior analytics, multi-factor authentication, intrusion detection systems and continuous monitoring. The purpose of these systems and technologies is to stay ahead of potential threats. To prepare for and respond to potential cybersecurity events, we conduct regular incident response exercises, ensuring our readiness and resilience. Additionally, we invest in employee training and awareness programs to promote a culture of security mindfulness and reduce risks associated with human error. Recognizing the importance of third-party relationships, we maintain a vendor risk management program that includes monitoring the cybersecurity practices of our vendors, and if applicable, performing user access reviews and evaluating System and Organization Controls reports at both inception and on an ongoing basis. Together, these efforts reflect our dedication to building a secure and compliant environment that protects our operations, data, and the trust of our stakeholders.

Our program incorporates an Incident Response Plan to guide the evaluation, response, and escalation of cybersecurity incidents. This plan is overseen by our CIO and executed by a cross-functional Cybersecurity Incident Response Team. The incident response plan establishes clear protocols for incident identification, impact assessment, containment and resolution, with defined escalation paths based on incident severity. Cybersecurity incidents above a defined threshold of criticality are evaluated for materiality to determine reporting and disclosure requirements. To enhance our response capabilities, we conduct periodic assessments, including third-party reviews, and simulate incidents through regular tabletop exercises.

Our cybersecurity program's effectiveness is periodically evaluated against established quantifiable goals and other external benchmarks, including the National Institute of Standards and Technology security framework. This evaluation is carried out through internal and external risk assessments and compliance audits. We regularly engage third parties to help conduct these evaluations, assessments and audits, advise us on the effectiveness of our cybersecurity processes and assist the Company in remediating any identified vulnerabilities.

We do not believe that risks from cybersecurity threats, individually or in the aggregate, including any previous cybersecurity incidents, have materially affected, or are reasonably likely to materially affect, our strategy, financial condition, liquidity or results of operations. For additional information on how cybersecurity risk may affect our business, refer to Item 1A. Risk Factors of this Form 10-K under the heading “We rely on operating and information systems that may experience a failure, a compromise of security, or a violation of data privacy laws or regulations, which could interrupt or damage our operations and have a material adverse effect on our financial condition, liquidity or results of operations.”

Governance. Our Board of Directors has responsibility for oversight of management’s cybersecurity risk program and receives regular updates from our CIO. These updates, provided on a semi-annual basis, cover a range of topics, including the performance of our cybersecurity program against established goals and external standards, insights into the evolving cybersecurity landscape, current events and recent cybersecurity threats, and progress in enhancing the Company’s cybersecurity posture. Pursuant to its charter, the Audit Committee of our Board of Directors is responsible for reviewing management’s cybersecurity incident reporting process, methodology and tools. In addition, the Audit Committee is responsible for reviewing management's materiality assessments of cybersecurity incidents identified as significant by management.

Our CIO holds an advanced degree in Information Technology with over 20 years of experience, including senior leadership roles in technology at various companies. The CIO oversees a cybersecurity team, comprised of internal and external subject matter experts who work collaboratively to achieve our cybersecurity objectives. In addition, our CIO leads the Information Security Steering Committee, a group comprised of key information technology employees and business leaders, including our Senior Vice President, Chief Financial Officer and Senior Vice President, General Counsel and Chief Compliance Officer. This committee meets regularly to review and discuss the Company's cybersecurity strategies and developments, ensuring a comprehensive approach to managing cybersecurity risk.

ITEM 2. PROPERTIES

We own a 100-acre, multi-building campus in Lancaster, Pennsylvania comprising the site of our corporate headquarters and most of our non-manufacturing operations.

As of December 31, 2024, we operated 20 manufacturing plants, including 18 plants located within the U.S. and two plants in Canada.

WAVE operates seven additional plants in the U.S. to produce suspension system (grid) products, which we use and sell in our ceiling systems.

Twelve of our plants are leased and the remaining eight are owned.

Operating Segment	Number of Plants	Location of Principal Facilities
Mineral Fiber	5	U.S. (Florida, Georgia, Ohio, Pennsylvania and West Virginia)
Architectural Specialties	15	U.S. (California (3), Illinois (2), Missouri (2), Ohio (3), North Carolina, Texas, Utah), and Canada (Quebec and Ontario)

Sales and administrative offices are leased and/or owned, and leased facilities are used to supplement our owned warehousing facilities.

Production capacity and the extent of utilization of our facilities are difficult to quantify with certainty. In any one facility, utilization of our capacity varies periodically depending upon demand for the product that is being manufactured. We believe our facilities are adequate and suitable to support the business. Additional incremental investments in plant facilities are made as appropriate to balance capacity with anticipated demand, improve quality and service, and reduce costs.

ITEM 3. LEGAL PROCEEDINGS

See the “Specific Material Events” subheading under “Environmental Matters” section of Note 27 to the Consolidated Financial Statements, which is incorporated herein by reference, for a description of our significant legal proceedings. We are party to various other lawsuits, claims, investigations and other legal matters that arise in the ordinary course of business, including matters involving our products, intellectual property, relationships with suppliers, relationships with distributors, other customers or end users, relationships with competitors, employees and other matters. We do not believe that any such current claims, individually or in the aggregate, will have a material adverse effect on our financial condition, liquidity or results of operations. However, regardless of outcome, litigation and related matters can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity, reputational harm and other factors.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

AWI's common shares trade on the New York Stock Exchange under the ticker symbol "AWI." As of February 19, 2025, there were 159 holders of record of AWI's common stock.

Dividends are payable when declared by our Board of Directors and in accordance with restrictions set forth in our debt agreements. In general, our debt agreements allow us to make "restricted payments," which include dividends and stock repurchases, subject to certain limitations and other restrictions and provided that we are in compliance with the financial and other covenants of our debt agreements and meet certain liquidity requirements after giving effect to the restricted payment. We declared dividends on a quarterly basis, totaling $1.148 per share in 2024. On February 19, 2025, our Board of Directors declared a dividend of $0.308 per common share outstanding. The dividend will be paid on March 20, 2025, to shareholders of record as of the close of business on March 6, 2025. For further discussion of the debt agreements, see the Financial Condition and Liquidity section of Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 and Risk Factors in Item 1A in this Form 10-K.

Issuer Purchases of Equity Securities

Period	**Total Number of Shares Purchased [(1)]**	**Average Price Paid per Share**	**Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs**	**Maximum Approximate Value of Shares that may yet be Purchased under the Plans or Programs**
October 1 – 31, 2024	112,929	$ 136.73	109,694	$ 661,795,002
November 1 – 30, 2024	56	$ 140.59	-	$ 661,795,002
December 1 – 31, 2024	-	$ -	-	$ 661,795,002
Total	112,985		109,694	

(1) Includes shares reacquired through the withholding of shares to pay employee tax obligations upon the exercise of options or vesting of restricted shares previously granted under our long-term incentive plans. For more information regarding securities authorized for issuance under our equity compensation plans, see Note 22 to the Consolidated Financial Statements included in this Form 10-K.

On July 29, 2016, our Board of Directors approved a share repurchase program authorizing us to repurchase up to $150.0 million of our outstanding shares of common stock (the "Program"). Since inception of the Program, we have been authorized to repurchase up to an aggregate of $1,700.0 million of our outstanding shares of common stock through December 31, 2026. We had $661.8 million remaining under the Board's repurchase authorization as of December 31, 2024.

Repurchases of our common stock under the Program may be made through open market, block and privately negotiated transactions, including Rule 10b5-1 plans, at such times and in such amounts as management deems appropriate, subject to market and business conditions, regulatory requirements and other factors. The Program does not obligate AWI to repurchase any particular amount of common stock and may be suspended or discontinued at any time without notice.

During 2024, we repurchased 0.5 million shares under the Program for a total cost of $55.0 million, excluding commissions and taxes, or an average price of $119.03 per share. Since inception through December 31, 2024, we have repurchased 14.6 million shares under the Program for a total cost of $1,038.2 million, excluding commissions and taxes, or an average price of $70.89 per share.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Armstrong World Industries, Inc. (“AWI”) is a Pennsylvania corporation incorporated in 1891.

This discussion should be read in conjunction with the financial statements, the accompanying notes, the cautionary note regarding forward-looking statements and risk factors included in this Form 10-K.

Overview

AWI is an Americas leader in the design, innovation and manufacture of interior and exterior architectural applications including ceilings, specialty walls and exterior metal solutions. Our products primarily include mineral fiber, fiberglass, metal, felt, wood, resin, wood fiber and glass-reinforced-gypsum. We also manufacture ceiling suspension system (grid) products through a joint venture with Worthington Enterprises, Inc. called Worthington Armstrong Venture (“WAVE”).

Acquisitions

In December 2024, we acquired all the issued and outstanding stock of A. Zahner Company (“Zahner”), based in Kansas City, Missouri. Zahner is a designer and manufacturer of exterior metal architectural solutions. The operations, assets and liabilities of Zahner are included in our Architectural Specialties segment.

In April 2024, we acquired all the issued and outstanding membership interests in 3form, LLC (“3form”), based in Salt Lake City, Utah from Hunter Douglas, Inc. 3form is a designer and manufacturer of architectural resin and glass products used for specialty walls, partitions and ceilings. The operations, assets and liabilities of 3form are included in our Architectural Specialties segment.

In January 2024, we entered into a strategic partnership and equity investment in Overcast Innovations LLC (“Overcast”) with McKinstry Essention, LLC whereby we contributed $5.5 million in exchange for a 19.5% ownership interest in Overcast, with future rights to increase our ownership interest. Overcast is a solutions company offering prefabricated ceiling cloud systems, modular grid platforms and engineering design services to reduce waste and inefficiencies in the built environment. Our investment and equity earnings in Overcast are included in our Unallocated Corporate segment.

In October 2023, we acquired a portion of the business and certain assets of Insolcorp, LLC (“Insolcorp”), based in Albemarle, North Carolina. Insolcorp develops, tests and manufactures energy saving products deployed in building and roofing installations. The acquired operations, assets and liabilities of Insolcorp are included in our Mineral Fiber segment.

In July 2023, we acquired all the issued and outstanding stock of BOK Modern, LLC (“BOK”), based in San Rafael, California. BOK is a designer of exterior metal architectural solutions. The operations, assets and liabilities of BOK are included in our Architectural Specialties segment.

In November 2022, we acquired the business of GC Products, Inc. (“GC Products”), based in Lincoln, California. GC Products is a designer and manufacturer of glass-reinforced-gypsum, glass-reinforced-cement, molded ceiling and specialty wall products. The operations, assets and liabilities of GC Products are included in our Architectural Specialties segment.

Manufacturing Plants

As of December 31, 2024, we operated 20 manufacturing plants, including 18 plants located within the U.S. and two plants in Canada.

WAVE operates seven additional plants in the U.S. to produce suspension system (grid) products, which we use and sell in our ceiling systems.

Reportable Segments

Our operating segments are as follows: Mineral Fiber, Architectural Specialties and Unallocated Corporate.

Mineral Fiber – produces suspended mineral fiber and fiberglass ceiling systems. Our mineral fiber products offer various performance attributes such as acoustical control, rated fire protection, and energy efficiency, along with other health and sustainability features and aesthetic appeal. Ceiling products are primarily sold to resale distributors, ceiling systems contractors and wholesalers, and retailers (including large home centers). The Mineral Fiber segment also includes the results of WAVE, which manufactures and sells suspension system (grid) products and ceiling component products that are invoiced by both AWI and WAVE. Segment results relating to WAVE consist primarily of equity earnings and reflect our 50% equity interest in the joint venture. Ceiling component products consist of ceiling perimeters and trim, in addition to grid products that support drywall ceiling systems. For some customers, WAVE sells its suspension system products to AWI for resale to customers. Mineral Fiber segment results reflect those sales transactions. The Mineral Fiber segment also includes all assets and liabilities not specifically allocated to our Architectural Specialties or Unallocated Corporate segment, including all property and related depreciation associated with our Lancaster, Pennsylvania headquarters. Operating results for the Mineral Fiber segment include a significant majority of allocated Corporate administrative expenses that represent a reasonable allocation of general services to support its operations.

Architectural Specialties – designs, produces and sources specialty ceilings, walls, and other interior and exterior architectural applications primarily for use in commercial settings. Products are available in numerous materials, such as metal, felt, wood, resin, wood fiber and glass-reinforced-gypsum in various colors, shapes and designs. These products offer a range of design options and performance attributes such as acoustical control, rated fire protection, light, aesthetic appeal, energy conservation and building performance. We sell standard, premium and customized products, a portion of which are sourced from third-party producers. Architectural Specialties products are sold primarily to resale distributors and direct customers, primarily ceiling systems contractors. This segment's revenues are primarily project driven, which can lead to more variability in sales patterns. Operating results for the Architectural Specialties segment include a portion of allocated Corporate administrative expenses that represent a reasonable allocation of general services to support its operations.

Unallocated Corporate – includes certain assets, liabilities, income and expenses that have not been allocated to our other business segments and consists of: cash and cash equivalents, our Overcast investment and related equity earnings/losses, the net funded status of our U.S. Retirement Income Plan ("RIP"), the estimated fair value of interest rate swap contracts, outstanding borrowings under our senior secured credit facility and income tax balances.

Factors Affecting Revenues

For information on our segments' 2024 net sales by geography and disaggregated expenses, see Note 3 to the Consolidated Financial Statements included in this Form 10-K. For information on our segments' 2024 net sales disaggregated by major customer groups, see Note 4 to the Consolidated Financial Statements included in this Form 10-K.

Markets. We compete in the building product markets of the Americas. We closely monitor publicly available macroeconomic data and trends that provide insight into commercial construction market activity, including, but not limited to, GDP, office vacancy rates, the Architecture Billings Index, new commercial construction starts, state and local government spending, corporate profits, and retail sales. The Company continues to monitor the impacts of tariffs and geopolitical events, including but not limited to, conflicts in Ukraine and the Middle East; none of which had a material direct impact on our financial condition, liquidity or results of operations during 2024 or 2023.

Several factors and trends within our markets affected our business performance during 2024 compared to 2023. During 2024, increased sales volumes contributed $89 million to the increase in net sales versus the prior year, due primarily to our December 2024 acquisition of 3form, Zahner and BOK, which collectively contributed $84 million and $11 million of net sales in 2024 and 2023, respectively. Net sales volumes also benefitted from growth in custom project revenues within our Architectural Specialties segment.

Average Unit Value. We periodically modify sales prices of our products due to changes in costs for raw materials and energy, market conditions and the competitive environment. Typically, realized price increases are less than announced price increases because of project pricing, competitive adjustments and changing market conditions. We also offer a wide assortment of products that are differentiated by style, design and performance attributes. Pricing and margins for products within the assortment vary. In addition, changes in the relative quantity of products purchased at different price points can impact year-to-year comparisons of net sales and operating income. Within our Mineral Fiber segment, we focus on improving sales dollars per unit sold, or average unit value ("AUV"), as a measure that accounts for the varying assortment of products and like-for-like pricing impacting our revenues.

Favorable AUV contributed approximately $62 million to our total consolidated net sales for the year ended December 31, 2024 compared to the same period in 2023. Our Architectural Specialties segment revenues are primarily generated by individual contracts that include a mix of products, both manufactured by us and sourced from third parties, that varies by project. As such, we do not track AUV performance for this segment but rather attribute all changes in net sales to volume, including gross to net sales adjustments.

During the first and third quarters of 2024, we implemented price increases on Mineral Fiber ceiling products. During the first and second quarters of 2024, WAVE implemented price increases on grid products. In the fourth quarter of 2024, we announced price increases on Mineral Fiber ceiling products and WAVE announced price increases on grid products that became effective in the first quarter of 2025. We may implement future pricing actions based on numerous factors, namely the rate and pace of inflation and its impact on our business.

Seasonality. Historically, our sales tend to be stronger in the second and third quarters of our fiscal year due to more favorable weather conditions, customer business cycles and the timing of renovation and new construction projects.

Factors Affecting Operating Costs

Operating Expenses. Our operating expenses are comprised of direct production costs (principally raw materials, labor, and energy), manufacturing overhead costs, freight, costs to purchase sourced products and selling, general and administrative ("SG&A") expenses.

Our largest raw material expenditures are primarily for fiberglass, perlite, recycled paper, and starch. Other raw materials include clays, felt, pigment, resin, wood and wood fiber. We manufacture substantially all of our mineral wool at one of our manufacturing facilities. We use aluminum and steel in the production of metal building products by us and by WAVE. Finally, natural gas and packaging materials also represent significant input costs. Fluctuations in the prices of these inputs impact our financial results. In 2024, lower energy and freight costs were partially offset by higher raw material costs, resulting in a $6 million benefit to operating income compared to 2023.

Acquisition-Related Expenses and Losses

In connection with our acquisitions of Zahner, 3form, Insolcorp, BOK and Arktura LLC ("Arktura") acquired in December 2020, we recorded certain acquisition-related expenses and losses to operating income for the years ended December 31, 2024, 2023, and 2022, summarized as follows (dollar amounts in millions):

	2024	2023	2022	Affected Line Item in the Consolidated Statements of Earnings and Comprehensive Income
Inventory	$ 0.3	$ -	$ -	Cost of goods sold
Acquisition costs	1.8	-	-	SG&A expenses
Deferred cash and restricted stock expenses	-	10.7	7.9	SG&A expenses
Loss related to change in fair value of contingent consideration	1.6	0.1	11.0	Loss related to change in fair value of contingent consideration
Net negative impact to operating income	$ 3.7	$ 10.8	$ 18.9	

The inventory amounts above reflect the post-acquisition expenses associated with recording inventory at fair value as part of purchase accounting for the 3form acquisition. Acquisition costs above reflect certain contingent third-party professional fees incurred due to the Zahner and 3form acquisitions. Expenses related to the deferred cash and restricted stock awards were for Arktura's former owners and employees that were recorded over their respective service periods, as such payments were subject to the awardees' continued employment with AWI. The change in fair value of contingent consideration is related to our BOK and Insolcorp acquisitions and was remeasured quarterly during each acquisition's respective earn-out periods. See Note 19 to the Consolidated Financial Statements for further information.

Depreciation and amortization of fixed and intangible assets acquired have been excluded from the table above. See Note 5 to the Consolidated Financial Statements for further information.

RESULTS OF OPERATIONS

The following discussion includes year-to-year comparisons between 2024 and 2023. Discussions of year-to-year comparisons between 2023 and 2022 that are not included in this Form 10-K can be found in Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2023. Please refer to Notes 3 and 6 to the Consolidated Financial Statements for a reconciliation of segment operating income to consolidated earnings from continuing operations before income taxes and additional financial information related to discontinued operations.

CONSOLIDATED RESULTS FROM CONTINUING OPERATIONS

(dollar amounts in millions)

	2024	2023	Change is Favorable
Total consolidated net sales	$ 1,445.7	$ 1,295.2	11.6%
Operating income	$ 374.3	$ 323.7	15.6%

Consolidated net sales for 2024 increased 11.6% due to higher sales volumes of $89 million and favorable AUV of $62 million.

Mineral Fiber net sales increased $54 million, while Architectural Specialties net sales increased $97 million. The increase in Mineral Fiber net sales was primarily driven by improved AUV, as a result of increased like-for-like pricing and favorable mix, partially offset by lower sales volumes. Architectural Specialties net sales improved primarily due to contributions from the acquisitions of Zahner, 3form and BOK, in addition to increased custom project net sales.

Cost of goods sold during 2024 was 59.8% of net sales, compared to 61.6% for 2023. The year-over-year decrease in cost of goods sold as a percentage of net sales was driven primarily by favorable AUV margin benefit, improved manufacturing productivity and lower input costs.

SG&A expenses in 2024 were $308.5 million, or 21.3% of net sales, compared to $262.5 million, or 20.3% of net sales, in 2023. The year-over-year increase in SG&A expenses was primarily driven by a $32 million increase related to the acquisitions of Zahner, 3form and BOK, an $8 million increase in selling expenses, primarily due to higher employee costs, a $7 million increase in incentive compensation and a $6 million decrease in company-owned officer life insurance gains related to deferred compensation plans. These increases were partially offset by a $9 million decrease in acquisition-related expenses.

In 2024, we recorded $1.6 million of remeasurement losses for changes in the fair value of contingent consideration related to the acquisitions of BOK and Insolcorp. In the same period in 2023, we recorded $0.1 million of remeasurement losses for changes in the fair value of contingent consideration related to the acquisition of BOK. See Note 19 to the Consolidated Financial Statements for further information.

Losses on sales of fixed assets, net were $0.6 million in 2024, which was comprised of a $5.2 million loss on sale for undeveloped land adjacent to our Corporate headquarters, partially offset by a $4.6 million gain on the sale of our idled Mineral Fiber plant in St. Helens, Oregon.

Equity earnings from unconsolidated subsidiaries were $103.4 million in 2024, compared to $89.3 million in 2023. In 2024, WAVE equity earnings were $104.3 million, while Overcast equity losses were $0.9 million. The increase in WAVE earnings was primarily driven by the benefits of favorable AUV, higher volumes and lower steel costs, partially offset by higher employee costs. See Note 11 to the Consolidated Financial Statements for further information.

Interest expense was $39.8 million in 2024 compared to $35.3 million in 2023. The increase in interest expense was primarily due to higher average effective interest rates, partially offset by lower average debt balances.

Other non-operating income, net was $12.6 million during 2024 compared to $9.9 million during 2023. Other non-operating income, net, is primarily comprised of the non-service cost components of pension and postretirement net periodic benefit costs and interest income. The increase in other non-operating income was primarily due to an increase in amortization of pension and postretirement credits.

Income tax expense was $82.2 million in 2024 compared to $74.5 million in 2023. The effective tax rate was 23.7% in 2024 compared to 25.0% in 2023. The effective tax rate for 2024 was lower compared to 2023 primarily due to the benefits recognized from a reduction in our valuation allowance for capital loss carryforwards, in addition to statute closures.

Total Other Comprehensive Loss (“OCL”) was $5.5 million in 2024 compared to $4.6 million in 2023. The change in OCL was primarily driven by changes in pension and postretirement adjustments and foreign currency translation adjustments, partially offset by lower interest rate swap derivative losses in 2024 compared to 2023. Pension and postretirement adjustments represent the actuarial gains and losses related to our defined benefit pension and postretirement plans. Foreign currency translation adjustments represent the change in the U.S. dollar value of assets and liabilities denominated in foreign currencies. Foreign currency translation adjustments during 2024 and 2023 were driven primarily by changes in the Canadian dollar. Derivative gain/loss represents the mark-to-market value adjustments of our derivative assets and liabilities, and the recognition of gains and losses previously deferred in accumulated OCI.

REPORTABLE SEGMENT RESULTS
Mineral Fiber
(dollar amounts in millions)

	2024	2023	Change is Favorable
Total segment net sales	$ 986.0	$ 932.4	5.7%
Operating income	$ 322.5	$ 285.7	12.9%

Mineral Fiber net sales increased $54 million due to $62 million of favorable AUV, partially offset by $8 million of lower sales volumes. The increase in AUV was driven by positive like-for-like pricing and favorable mix. The decrease in volumes for 2024 was driven primarily within our home center customer channel, most notably due to prior-year first quarter inventory level increases that did not repeat in the current-year period, partially offset by two additional shipping days in 2024 and the positive contribution from our growth initiatives compared to the prior-year period.

Mineral Fiber cost of goods sold during 2024 was $586 million, 59.5% of net sales, compared to $574 million, 61.6% for 2023. Gross profit increased $42 million, or 11.6%, compared to 2023. The year-over-year increase in gross profit was driven primarily by a $39 million benefit from favorable AUV benefit and an $8 million decrease in manufacturing costs due to improved manufacturing productivity and input costs, partially offset by a $5 million negative impact from lower sales volumes and a $3 million increase in depreciation and amortization expense.

Mineral Fiber SG&A expenses were $181 million, or 18.3% of net sales in 2024 compared to $162 million, or 17.4% of net sales for 2023. The year-over-year increase in SG&A expenses was primarily driven by a $6 million decrease in company-owned officer life insurance gains related to deferred compensation plans, a $5 million increase in incentive compensation, a $4 million increase in selling expense, partially due to higher employee costs, and a $2 million increase in depreciation and amortization expense.

Equity earnings from our WAVE joint venture were $104.3 million in 2024, compared to $89.3 million in 2023. The increase in WAVE earnings was primarily driven by the benefits of favorable AUV, higher volumes and lower steel costs, partially offset by higher employee costs.

Architectural Specialties
(dollar amounts in millions)

	2024	2023	Change is Favorable
Total segment net sales	$ 459.7	$ 362.8	26.7%
Operating income	$ 55.3	$ 40.9	35.2%

Architectural Specialties net sales increased $97 million, driven primarily by a $73 million increase from the acquisitions of Zahner, 3form and BOK, in addition to increased custom project net sales.

Architectural Specialties cost of goods sold during 2024 was $276 million, 60.1% of net sales, compared to $222 million, 61.3% for 2023. Gross profit increased $43 million, or 30.6%, compared to 2023. The year-over-year increase in gross profit was driven primarily by a $58 million benefit from increased sales, driven by the acquisitions of Zahner, 3form and BOK, in addition to the benefit from improved custom project margins and better operating leverage. These benefits were partially offset by an increase in manufacturing costs due to the acquisitions of Zahner, 3form and BOK, in addition to the impact of growth investments, primarily in the form of higher rent expense due to recent years' facilities expansions, and an increase in employee costs.

Architectural Specialties SG&A expenses were $127 million, or 27.6% of net sales in 2024 compared to $99 million, or 27.4% of net sales for 2023. The year-over-year increase in SG&A expenses was primarily driven by a $32 million increase related to the acquisitions of Zahner, 3form and BOK, as well as a $4 million increase in selling expenses, due to higher employee costs. These increases were partially offset by a $9 million decrease in acquisition-related costs.

Unallocated Corporate

Unallocated Corporate operating loss was $4 million in 2024 compared to $3 million in 2023. The increase in operating loss was primarily due to $0.9 million of Overcast equity losses in 2024.

FINANCIAL CONDITION AND LIQUIDITY

Cash Flow

Operating activities for 2024 provided $266.8 million of cash, compared to $233.5 million in 2023. The favorable change in cash from operating activities was driven by higher cash earnings and a favorable change in accounts payable and accrued expenses due to timing-related benefits, primarily from our Mineral Fiber segment, and the impact of higher incentive compensation accruals. These positive operating cash flow benefits were partially offset by an unfavorable change in accounts receivables, driven primarily by timing-related increase in receivables, primarily due to custom projects within our Architectural Specialties segment, and an increase in cash paid for income taxes.

Net cash used for investing activities was $79.3 million for 2024, compared to $10.4 million in 2023. The unfavorable change in cash used in investing activities in 2024 compared to 2023 was primarily due to $124.0 million of cash paid for the 3form and Zahner acquisitions, partially offset by proceeds received from the sales of our idled St. Helens manufacturing plant and undeveloped land adjacent to our corporate headquarters in 2024 and an increase in proceeds received from company-owned life insurance policies.

Net cash used for financing activities was $177.6 million in 2024, compared to $258.6 million in 2023. The favorable change in cash was primarily due to a decrease in repurchases of outstanding common stock and lower payments of acquisition-related contingent consideration.

Liquidity

Our liquidity needs for operations vary throughout the year. We retain lines of credit to facilitate our seasonal cash flow needs, since cash flow is historically lower during the first and fourth quarters of our fiscal year.

We have a $950.0 million variable rate senior credit facility, which is comprised of a $500.0 million revolving credit facility (with a $150.0 million sublimit for letters of credit) and a $450.0 million Term Loan A. As of December 31, 2024, the revolving credit facility and Term Loan A were priced at 1.375% over the Secured Overnight Financing Rate (“SOFR”), plus a 10 basis point adjustment. The revolving credit facility and Term Loan A mature in December 2027. We also have a $25.0 million bi-lateral letter of credit facility.

As of December 31, 2024, total borrowings outstanding under our senior credit facility were $427.5 million under Term Loan A and $100.0 million under the revolving credit facility.

The senior credit facility includes two financial covenants that require the ratio of consolidated earnings before interest, taxes, depreciation and amortization (“EBITDA”) to consolidated cash interest expense minus consolidated cash interest income to be greater than or equal to 3.0 to 1.0, and requires the ratio of consolidated funded indebtedness, minus AWI and domestic subsidiary unrestricted cash and cash equivalents up to $100 million, to EBITDA to be less than or equal to 3.75 to 1.0 (subject to certain exceptions for certain acquisitions). As of December 31, 2024, we were in compliance with all covenants of the senior credit facility.

We use interest rate swaps to minimize the fluctuations in earnings caused by interest rate volatility associated with our senior credit facility.

The Term Loan A is currently priced on a variable interest rate basis. The following tables summarize our interest rate swaps, including forward interest rate swaps (dollar amounts in millions):

Coverage Period		Notional Amount	Risk Coverage	Trade Date
March 2021 to March 2025	$	100.0	USD-SOFR	November 28, 2018
November 2023 to December 2025	$	50.0	USD-SOFR	October 23, 2023
March 2024 to June 2026	$	50.0	USD-SOFR	March 25, 2024
November 2023 to December 2026	$	50.0	USD-SOFR	October 10, 2023
March 2024 to June 2027	$	50.0	USD-SOFR	March 27, 2024
November 2023 to November 2027	$	50.0	USD-SOFR	September 29, 2023
June 2024 to June 2028	$	50.0	USD-SOFR	June 26, 2024

Under the terms of the interest rate swap with a November 28, 2018 trade date above, we pay a fixed rate monthly and receive a floating rate based on SOFR, inclusive of a 0% floor. Under the terms of all remaining interest rate swaps above, we pay a fixed rate monthly and receive a floating rate based on SOFR. These swaps are designated as cash flow hedges against changes in SOFR for a portion of our variable rate debt.

We use lines of credit and other commercial commitments to ensure that adequate funds are available to meet operating requirements. Letters of credit are currently arranged through our revolving credit facility and our bi-lateral facility. Letters of credit may be issued to third party suppliers, insurance companies and financial institutions and typically can only be drawn upon in the event of AWI’s failure to pay its obligations to the beneficiary. The following table presents details related to our letters of credit facilities (dollar amounts in millions):

	December 31, 2024					
Financing Arrangements		**Limit**		**Used**		**Available**
Bi-lateral facility	$	25.0	$	7.7	$	17.3
Revolving credit facility		150.0		-		150.0
Total	$	175.0	$	7.7	$	167.3

The table below reflects scheduled future payments of long-term debt, excluding $2.4 million of unamortized debt financing costs, and the related interest payments, which are projected based on market-based interest rate swap curves (dollar amounts in millions):

	2025	2026	2027	2028	2029	Thereafter	Total
Long-term debt	$ 22.5	$ 22.5	$ 482.5	$ -	$ -	$ -	$ 527.5
Scheduled interest payments	31.0	29.3	26.3	-	-	-	86.6

As of December 31, 2024, we had $79.3 million of cash and cash equivalents, $63.9 million in the U.S. and $15.4 million in various foreign jurisdictions, primarily Canada. As of December 31, 2024, we also had $400 million of borrowing capacity available under our revolving credit facility. We believe cash on hand and cash generated from operations, together with borrowing capacity under our credit facility, will be adequate to address our near-term liquidity needs based on current expectations of our business operations, capital expenditures and scheduled payment of debt obligations. In 2025, we expect to spend approximately $90 million to $100 million on capital expenditures and approximately $54 million on dividends.

In July 2016, our Board of Directors approved a share repurchase program authorizing us to repurchase up to $150.0 million of our outstanding shares of common stock (the “Program”). Since inception of the Program, we have been authorized to repurchase up to an aggregate of $1,700.0 million of our outstanding shares of common stock through December 31, 2026. We had $661.8 million remaining under the Board’s repurchase authorization as of December 31, 2024.

Repurchases of our common stock under the Program may be made through open market, block and privately negotiated transactions, including Rule 10b5-1 plans, at such times and in such amounts as management deems appropriate, subject to market and business conditions, regulatory requirements and other factors. The Program does not obligate AWI to repurchase any particular amount of common stock and may be suspended or discontinued at any time without notice.

CRITICAL ACCOUNTING ESTIMATES

In preparing our consolidated financial statements in accordance with U.S. generally accepted accounting principles (“GAAP”), we are required to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. We evaluate our estimates and assumptions on an on-going basis, using relevant internal and external information. We believe that our estimates and assumptions are reasonable; however, actual results may differ from what was estimated and could have a significant impact on the financial statements.

We have identified the following as our critical accounting estimates and have discussed these with our Audit Committee.

U.S. Pension Credit and Postretirement Benefit Costs – We maintain significant pension and postretirement plans in the U.S. Our defined benefit pension and postretirement benefit costs are developed from actuarial valuations. These valuations are calculated using a number of assumptions, which represent management’s best estimate of the future. The assumptions that have the most significant impact on reported results are the discount rate, the estimated long-term return on plan assets and the estimated inflation in health care costs. These assumptions are generally updated annually.

Management utilizes the Aon Hewitt AA only above median yield curve, which is a hypothetical AA yield curve comprised of a series of annualized individual discount rates, as the primary basis for determining discount rates. As of December 31, 2024 and 2023, we assumed discount rates of 5.68% and 5.01%, respectively, for our U.S. defined benefit pension plans. As of December 31, 2024 and 2023, we assumed discount rates of 5.61% and 4.96%, respectively, for our U.S. postretirement plan. The effects of the change in discount rate will be amortized into earnings as described below. Absent any other changes, a one-quarter percentage point increase or decrease in the discount rates for the U.S. pension and postretirement plans would impact 2025 non-operating income by $0.3 million.

We manage two U.S. defined benefit pension plans, our RIP, which is a qualified funded plan, and a nonqualified unfunded plan. For the RIP, the expected long-term return on plan assets represents a long-term view of the future estimated investment return on plan assets. This estimate is determined based on the target allocation of plan assets among asset classes and input from investment professionals on the expected performance of the asset classes over 10 to 30 years. Historical asset returns are monitored and considered when we develop our expected long-term return on plan assets. An incremental component is added for the expected return from active management based on historical information obtained from the plan’s investment consultants. These forecasted gross returns are reduced by estimated management fees and expenses. Over the 10-year period ended December 31, 2024, the historical annualized return was approximately 2.43% compared to an average expected return of 5.73%. The actual loss on plan assets incurred for 2024 was 0.55%, net of fees. The difference between the actual and expected rate of return on plan assets will be amortized into earnings as described below.

The expected long-term return on plan assets used in determining our 2024 U.S. pension cost was 6.00%. We have assumed a return on plan assets for 2025 of 6.00%. The 2025 expected return on assets was calculated in a manner consistent with 2024. Absent any other changes, a one-quarter percentage point increase or decrease in this assumption would impact 2025 non-operating income by $0.9 million.

Contributions to the unfunded pension plan were $2.5 million in 2024 and were made on a monthly basis to fund benefit payments. We estimate the 2025 contributions will be approximately $2.9 million. See Note 18 to the Consolidated Financial Statements for more information.

The estimated inflation in health care costs represents a 5 to 10-year view of the expected inflation in our postretirement health care costs. We separately estimate expected health care cost increases for pre-65 retirees and post-65 retirees due to the influence of Medicare coverage at age 65, as illustrated below:

	Assumptions		**Actual**	
	Post-65	**Pre-65**	**Post-65**	**Pre-65**
2023	7.8%	7.3%	19.9%	23.6%
2024	10.5%	7.8%	11.8%	12.0%
2025	12.0%	8.6%		

The difference between the actual and expected health care costs is amortized into earnings as described below. As of December 31, 2024, health care cost increases are estimated to decrease ratably until 2034, after which they are estimated to be constant at 4.50%. See Note 18 to the Consolidated Financial Statements for more information.

Actual results that differ from our various pension and postretirement plan estimates are captured as actuarial gains/losses. When certain thresholds are met, the gains and losses are amortized into future earnings over the remaining life expectancy of participants. Changes in assumptions could have significant effects on earnings in future years.

Total net actuarial losses related to our U.S. pension benefit plans decreased by $3.7 million in 2024 primarily due to changes in actuarial assumptions, including a 67-basis point increase in the discount rate, partially offset by the impact of demographic changes. The $3.7 million change in actuarial loss impacting our U.S. pension plans is reflected as a component of other comprehensive income in our Consolidated Statements of Earnings and Comprehensive Income along with actuarial gains and losses from our foreign pension plan and our postretirement benefit plans.

Income Taxes – Our effective tax rate is primarily determined based on our pre-tax income, statutory income tax rates in the jurisdictions in which we operate, and the tax impacts of items treated differently for tax purposes than for financial reporting purposes. Some of these differences are permanent, such as expenses that are not deductible in our tax returns, and some of these differences are temporary, reversing over time, such as depreciation expense. These temporary differences create deferred income tax assets and liabilities. Deferred income tax assets are also recorded for state net operating losses ("NOL") and capital loss carryforwards.

As of December 31, 2024, we have recorded valuation allowances totaling $36.3 million for various federal and state deferred tax assets. While we have considered future taxable income in assessing the need for the valuation allowances based on our best available projections, if these estimates and assumptions change in the future or if actual results differ from our projections, we may be required to adjust our valuation allowances accordingly. Such adjustments could be material to our Consolidated Financial Statements.

As further described in Note 16 to the Consolidated Financial Statements, our Consolidated Balance Sheet as of December 31, 2024, includes deferred income tax liabilities of $167.1 million, which is net of $106.8 million of deferred tax assets. We have established $36.3 million of valuation allowances consisting of $30.7 million for state deferred tax assets, primarily net operating loss carryforwards, and $5.6 million for federal and state capital loss carryforwards. Inherent in determining our effective tax rate are judgments regarding business plans and expectations about future operations. These judgments include the amount and geographic mix of future taxable income, limitations on usage of NOL carryforwards, the impact of ongoing or potential tax audits, and other future tax consequences.

As of December 31, 2024, and 2023, we had $622.9 million and $646.7 million, respectively, of gross state NOL carryforwards expiring between 2025 and 2043. We estimate we will need to generate future U.S. taxable income of approximately $168.8 million for state income tax purposes during the respective realization periods (ranging from 2025 to 2043) to be able to fully realize the gross state NOL carryforwards offset by related valuation allowances.

Our ability to utilize deferred tax assets may be impacted by certain future events, such as changes in tax legislation and insufficient future taxable income prior to expiration of certain deferred tax assets.

Impairments of Tangible Assets, Intangible Assets and Goodwill – Our indefinite-lived assets include goodwill and other intangibles, primarily trademarks and brand names. Those trademarks and brand names are integral to our corporate identity and are expected to contribute indefinitely to our corporate cash flows. Accordingly, they have been assigned an indefinite life. We conduct our annual impairment tests for these indefinite-lived intangible assets and goodwill during the fourth quarter. These assets undergo more frequent tests if an indication of possible impairment exists. We conduct impairment tests for tangible assets and definite-lived intangible assets when indicators of impairment exist for the asset group, such as operating losses and/or negative cash flows.

The principal assumptions used in our impairment tests for definite-lived intangible assets is operating profit adjusted for depreciation and amortization and, if required to estimate the fair value, the discount rate. The principal assumptions used in our impairment tests for indefinite-lived intangible assets include revenue growth rates, discount rate and royalty rate. The principal assumptions used in our impairment tests for goodwill include after-tax cash flows growth rates and discount rate. Revenue growth rates, after-tax cash flows growth rates and operating profit assumptions are derived from those used in our operating plan and strategic planning processes. The discount rate assumption is calculated based upon an estimated weighted average cost of capital which reflects the overall level of inherent risk and the rate of return a market participant would expect to achieve. The royalty rate assumption represents the estimated contribution of the intangible assets to the overall profits of the related businesses. Methodologies used for valuing our intangible assets did not change from prior periods.

In 2024, indefinite-lived intangibles and goodwill were tested for impairment based on the identified asset (for indefinite-lived intangibles) or on our identified reporting units (for goodwill). There were no impairment charges recorded in 2024, 2023 or 2022 related to intangible assets. We did not test tangible assets for impairment in 2024, 2023 or 2022 as no indicators of impairment existed.

The revenue and cash flow estimates used in applying our impairment tests are based on management’s analysis of information available at the time of the impairment test and represent a market participant view. Actual cash flows lower than the estimate could lead to significant future impairments. If subsequent testing indicates that fair values have declined, the carrying values would be reduced and our future statements of earnings would be affected.

We cannot predict the occurrence of certain events that might lead to material impairment charges in the future. Such events may include, but are not limited to, the impact of economic environments, particularly related to the commercial construction industry, material adverse changes in relationships with significant customers, or strategic decisions made in response to economic and competitive conditions. See Notes 3 and 13 to the Consolidated Financial Statements for further information.

Environmental Liabilities – We are actively involved in the investigation, closure and/or remediation of existing or potential environmental contamination under the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), and state Superfund and similar environmental laws at two domestically owned locations allegedly resulting from past industrial activity. In both cases, we are one of several potentially responsible parties and have agreed to jointly fund the required investigation, while preserving our defenses to the liability. We may also have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies.

We provide for environmental remediation costs and penalties when the responsibility to remediate is probable and the amount of associated costs is reasonably determinable. Accruals are estimates based on the judgment of management related to ongoing proceedings. Estimates of our future liability at the environmental sites are based on evaluations of currently available facts regarding each individual site. In determining the probability of contribution, we consider the solvency of other parties, the site activities of other parties, whether liability is being disputed, the terms of any existing agreements and experience with similar matters, and the effect of both our October 2006 Chapter 11 reorganization and separation with AFI upon the validity of the claim.

We evaluate the measurement of recorded liabilities each reporting period based on current facts and circumstances specific to each matter. The ultimate losses incurred upon final resolution may materially differ from the estimated liability recorded. Changes in estimates are recorded in earnings in the period in which such changes occur.

We are unable to predict the extent to which any recoveries from other parties or coverage under insurance policies might cover our final share of costs for these sites. Our final share of investigation and remediation costs may exceed any such recoveries, and such amounts net of insurance recoveries may be material. However, we do not expect the total future costs to have a material adverse effect on our liquidity or financial condition as the cash payments may be made over many years.

Business Combinations and Contingent Consideration – Acquired businesses are accounted for using the acquisition method of accounting, which requires that the purchase price be allocated to the assets acquired and liabilities assumed at their respective fair values. Any excess of the purchase price over the estimated fair values of the assets acquired and liabilities assumed is recorded as goodwill. The estimated fair value of contingent consideration is recorded as a liability on the balance sheet at the date of acquisition.

The purchase price allocation requires us to make significant estimates and assumptions, especially at the acquisition date, with respect to intangible assets and contingent consideration. Although we believe the assumptions and estimates we have made are reasonable, they are based in part on historical experience and information obtained from the management of the acquired companies.

We engage independent, third-party valuation specialists to assist in determining the fair values of acquired intangible assets and contingent consideration.

Both the BOK and Insolcorp acquisitions in 2023 include the potential for future contingent earn-out payments based on the financial or operational performance of the acquired companies. We estimated the fair value of these contingent consideration liabilities upon acquisition and are required to measure these liabilities at fair value each reporting period until the contingencies are resolved, with changes in the fair value after the acquisition date affecting earnings in the period of the estimated fair value change. See Notes 5 and 19 to the Consolidated Financial Statements for further information.

The principal assumptions used in valuing certain intangible assets include discount rates, royalty rates, future expected cash flows from sales attributed to the acquired company's developed technologies, trade names, trade secrets and customer relationships, as well as assumptions about the period of time such assets will continue to be used in the combined company's portfolio. The principal assumptions used in valuing contingent consideration include the probability of meeting the future revenue and EBITDA growth targets and discount rates.

These estimates are inherently uncertain and unpredictable, and if different estimates were used, the total consideration including the estimated fair value of the contingent consideration, could be allocated to the acquired assets and liabilities differently from the allocation that we have made. In addition, unanticipated events and circumstances may occur, which may affect the accuracy or validity of such estimates, and if such events occur, we may be required to record a charge against the value assigned to an acquired asset or an increase in the amounts recorded for assumed liabilities.

ACCOUNTING PRONOUNCEMENTS EFFECTIVE IN FUTURE PERIODS

See Note 2 to the Consolidated Financial Statements for further information.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk
Our primary exposure to market risk is from changes in interest rates that could impact our results of operations, cash flows and financial condition. We use interest rate derivatives to manage our exposures to interest rates. We use these derivative financial instruments as risk management tools and not for speculative trading purposes. In addition, our derivative financial instruments are entered into with a diversified group of major financial institutions in order to manage our exposure to potential nonperformance on such instruments.

Counterparty Risk
We only enter into derivative transactions with established financial institution counterparties having an investment-grade credit rating. We monitor counterparty credit ratings on a regular basis. All of our derivative transactions with counterparties are governed by master International Swap and Derivatives Association agreements (“ISDAs”) with netting arrangements. These agreements can limit our exposure in situations where we have gain and loss positions outstanding with a single counterparty. We do not post, nor do we receive, cash collateral with any counterparty for our derivative transactions. These ISDAs do not have any credit contingent features; however, a default under our bank credit facility would trigger a default under these agreements. Exposure to individual counterparties is controlled and we consider the risk of counterparty default to be negligible.

Interest Rate Sensitivity
We are subject to interest rate variability on our Term Loan A and revolving credit facility. A hypothetical increase of one-quarter percentage point in SOFR interest rates from December 31, 2024 levels would increase 2025 interest expense by approximately $0.5 million. We have active interest rate swaps outstanding, which effectively fix the interest rates for a portion of our debt. These interest rate swaps are included in this calculation.

As of December 31, 2024, we had interest rate swaps outstanding with notional amounts of $400 million. We use interest rate swaps to minimize the fluctuations in earnings caused by interest rate volatility. Under the terms of these swaps, we receive floating rate SOFR and pay a fixed rate over the hedged period. The following table summarizes our interest rate swaps as of December 31, 2024 (dollar amounts in millions):

Coverage Period		Notional Amount	Risk Coverage	Trade Date
March 2021 to March 2025	$	100.0	USD-SOFR	November 28, 2018
November 2023 to December 2025	$	50.0	USD-SOFR	October 23, 2023
March 2024 to June 2026	$	50.0	USD-SOFR	March 25, 2024
November 2023 to December 2026	$	50.0	USD-SOFR	October 10, 2023
March 2024 to June 2027	$	50.0	USD-SOFR	March 27, 2024
November 2023 to November 2027	$	50.0	USD-SOFR	September 29, 2023
June 2024 to June 2028	$	50.0	USD-SOFR	June 26, 2024

These swaps are designated as cash flow hedges against changes in SOFR for a portion of our variable rate debt. The net liability measured at fair value was $1.5 million as of December 31, 2024.

The table below provides information about our long-term debt obligations as of December 31, 2024, including payment requirements and related weighted-average interest rates by scheduled maturity dates. Weighted average variable rates are based on implied forward rates in the yield curve and are exclusive of our interest rate swaps.

Scheduled maturity date (dollar amounts in millions)	**2025**	**2026**	**2027**	**2028**	**2029**	**After 2029**	**Total**
Variable rate principal payments	$ 22.5	$ 22.5	$ 482.5	$ -	$ -	$ -	$ 527.5
Average interest rate	4.17%	4.11%	4.20%	-	-	-	4.20%

Variable rate principal payments reflected in the preceding table exclude $2.4 million of unamortized debt financing costs as of December 31, 2024.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

SUPPLEMENTARY DATA

Quarterly Financial Information for the Quarter Ended December 31, 2024 (Unaudited)

The following consolidated financial statements are filed as part of this Annual Report on Form 10-K:

Management’s Report on Internal Control over Financial Reporting.

Reports of Independent Registered Public Accounting Firm.

Consolidated Statements of Earnings and Comprehensive Income for the Years Ended December 31, 2024, 2023 and 2022.

Consolidated Balance Sheets as of December 31, 2024 and 2023.

Consolidated Statements of Shareholders’ Equity for the Years Ended December 31, 2024, 2023 and 2022.

Consolidated Statements of Cash Flows for the Years Ended December 31, 2024, 2023 and 2022.

Notes to Consolidated Financial Statements.

Schedule II for the Years Ended December 31, 2024, 2023 and 2022.

Fourth Quarter 2024 Compared to Fourth Quarter 2023

Consolidated fourth-quarter 2024 net sales of $367.7 million increased $55.4 million, or 17.7%, compared to the prior-year quarter. Mineral Fiber net sales increased 8.1% due to favorable AUV of $20 million, partially offset by a decrease in volumes of $2 million. Architectural Specialties net sales increased 40.8% primarily due to a $25 million increase from the acquisitions of Zahner, 3form and BOK, and partially due to improved custom project net sales.

For the fourth quarter of 2024, cost of goods sold was 60.9% of net sales, compared to 61.7% in the fourth quarter of 2023. The year-over-year decrease in cost of goods sold as a percent of net sales was driven primarily by favorable AUV margin benefit, improvements related to the acquisition of 3form, improved manufacturing productivity and lower input costs.

SG&A expenses in the fourth quarter of 2024 were $85.4 million, or 23.2% of net sales compared to $73.3 million, or 23.5% of net sales, in the fourth quarter of 2023. The increase in SG&A expenses was driven primarily by an $11 million increase due to the acquisitions of Zahner, 3form and BOK, a $5 million increase in selling expenses, primarily due to higher employee costs, and a $3 million decrease in company-owned life insurance gains related to deferred compensation plans. These impacts were partially offset by a $6 million decrease in acquisition-related expenses.

In the fourth quarter of 2024, we recorded $1.0 million of remeasurement losses for changes in the fair value of contingent consideration related to the acquisition of BOK and Insolcorp. In the same period in 2023, we recorded $0.1 million of remeasurement losses for changes in the fair value of contingent consideration related to the acquisition of BOK. See Note 19 to the Consolidated Financial Statements for further information.

In the fourth quarter of 2024 we recorded a $0.3 loss upon sale of undeveloped land adjacent to our Corporate headquarters.

Equity earnings from unconsolidated subsidiaries were $24.7 million in the fourth quarter of 2024, compared to $20.2 million in the fourth quarter of 2023. In the fourth quarter of 2024, WAVE equity earnings were $25.0 million, while Overcast equity losses were $0.3 million. The increase in WAVE earnings resulted primarily from favorable AUV, higher volumes and lower steel costs. See Note 11 to the Consolidated Financial Statements for further information.

As a result, operating income increased 23.5% to $81.9 million in the fourth quarter of 2024 compared to $66.3 million in the fourth quarter of 2023.

Interest expense in the fourth quarter of 2024 was $9.2 million compared to $8.6 million in the fourth quarter of 2023. The increase in interest expense was primarily due to higher average effective interest rates, partially offset by lower average debt balances.

Fourth-quarter income tax expense was $13.8 million in 2024 compared to $13.9 million in 2023. The effective tax rate was 18.2% for the fourth quarter of 2024 compared to 22.9% for the same period in 2023. The decrease in the effective tax rate was primarily due to a greater benefit recognized from a reduction in our valuation allowance for capital loss carryforwards as well as statute closures.

Basic and diluted earnings per share were $1.43 and $1.42, respectively, in the fourth quarter of 2024, compared to basic and diluted earnings per share of $1.06 in the fourth quarter of 2023.

Management’s Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external purposes in accordance with generally accepted accounting principles.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation and the criteria in the COSO framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2024.

KPMG LLP, an independent registered public accounting firm, audited our internal control over financial reporting as of December 31, 2024, as stated in their report included herein.

/s/ Victor D. Grizzle

Victor D. Grizzle
Director, President and Chief Executive Officer

/s/ Christopher P. Calzaretta

Christopher P. Calzaretta
Senior Vice President and Chief Financial Officer

/s/ James T. Burge

James T. Burge
Vice President and Corporate Controller

February 25, 2025

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Armstrong World Industries, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Armstrong World Industries, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2024 and 2023, the related consolidated statements of earnings and comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2024, and the related notes and financial statement schedule II (collectively, the consolidated financial statements), and our report dated February 25, 2025 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Philadelphia, Pennsylvania
February 25, 2025

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Armstrong World Industries, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Armstrong World Industries, Inc. and subsidiaries (the Company) as of December 31, 2024 and 2023, the related consolidated statements of earnings and comprehensive income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2024, and the related notes and financial statement schedule II (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2024, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 25, 2025 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Pension and postretirement benefit obligations

As discussed in Note 18 to the consolidated financial statements, the Company's pension projected benefit obligations and the fair value of plan assets for the U.S. plans were $319.2 million and $381.9 million, respectively, as of December 31, 2024, resulting in a funded status of $62.7 million. Additionally, the Company's U.S. accumulated postretirement benefit obligation was $38.8 million, which is an unfunded liability.

We identified the evaluation of the Company's measurement of the U.S. benefit obligations to be a critical audit matter. Subjective auditor judgment was required to evaluate the discount rates, as minor changes in the rates could have a significant impact on the benefit obligations. Additionally, the assessment of the discount rates required specialized actuarial skills and knowledge.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's benefit obligations process, including controls related to the actuarial determination of the discount rates used in the valuation of the benefit obligations. Additionally, we involved an actuarial professional with specialized skill and knowledge, who assisted in the evaluation of the Company’s discount rates by:

- assessing changes in the discount rates from the prior year against changes in published indices;
- assessing the discount rates based on the plan type, plan provisions and pattern of cash flows; and
- evaluating the selected yield curve, the consistency of the yield curve with the prior year, and the spot rates.

/s/ KPMG LLP

We have served as the Company’s auditor since 1929.

Philadelphia, Pennsylvania
February 25, 2025

Armstrong World Industries, Inc., and Subsidiaries
Consolidated Statements of Earnings and Comprehensive Income
(amounts in millions, except per share data)

	Years Ended December 31, 2024	2023	2022
Net sales	$ 1,445.7	$ 1,295.2	$ 1,233.1
Cost of goods sold	864.1	798.2	784.0
Gross profit	581.6	497.0	449.1
Selling, general and administrative expenses	308.5	262.5	237.0
Loss related to change in fair value of contingent consideration	1.6	0.1	11.0
Loss on sales of fixed assets, net	0.6	-	-
Equity (earnings) from unconsolidated affiliates, net	(103.4)	(89.3)	(77.6)
Operating income	374.3	323.7	278.7
Interest expense	39.8	35.3	27.1
Other non-operating (income), net	(12.6)	(9.9)	(6.0)
Earnings from continuing operations before income taxes	347.1	298.3	257.6
Income tax expense	82.2	74.5	57.7
Earnings from continuing operations	264.9	223.8	199.9
Earnings from discontinued businesses, net of tax (benefit) expense of $ -, $ - and ($ 3.0)	-	-	3.0
Net earnings from discontinued operations	-	-	3.0
Net earnings	$ 264.9	$ 223.8	$ 202.9
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustments	(3.2)	0.5	(1.8)
Derivative (loss) gain, net	(1.6)	(9.0)	18.6

Pension and postretirement adjustments	(0.7)	3.9	(7.3)
Total other comprehensive (loss) income	(5.5)	(4.6)	9.5
Total comprehensive income	$ 259.4	$ 219.2	$ 212.4
Earnings per share of common stock, continuing operations:			
Basic	$ 6.06	$ 5.00	$ 4.31
Diluted	$ 6.02	$ 4.99	$ 4.30
Earnings per share of common stock, discontinued operations:			
Basic	$ -	$ -	$ 0.07
Diluted	$ -	$ -	$ 0.07
Net earnings per share of common stock:			
Basic	$ 6.06	$ 5.00	$ 4.38
Diluted	$ 6.02	$ 4.99	$ 4.37
Average number of common shares outstanding:			
Basic	43.7	44.7	46.3
Diluted	44.0	44.8	46.4

See accompanying notes to consolidated financial statements beginning on page 44.

Armstrong World Industries, Inc., and Subsidiaries
Consolidated Balance Sheets
(amounts in millions, except share and per share data)

Assets	December 31, 2024	December 31, 2023
Current assets:		
Cash and cash equivalents	$ 79.3	$ 70.8
Accounts and notes receivable, net	134.4	111.0
Inventories, net	109.8	104.0
Income taxes receivable	3.9	0.8
Other current assets	21.5	26.4
Total current assets	348.9	313.0
Property, plant and equipment, net	598.8	566.4
Operating lease assets	36.6	26.6
Finance lease assets	34.6	25.2
Prepaid pension costs	88.3	84.6
Investment in unconsolidated affiliates	27.2	17.4
Goodwill	203.2	175.5
Intangible assets, net	455.0	412.4
Other non-current assets	50.1	51.3
Total assets	$ 1,842.7	$ 1,672.4
Liabilities and Shareholders' Equity		
Current liabilities:		
Current installments of long-term debt	$ 22.5	$ 22.5
Accounts payable and accrued expenses	215.3	159.9
Operating lease liabilities	8.1	6.8
Finance lease liabilities	3.8	3.0
Income taxes payable	-	2.3

Total current liabilities	249.7	194.5
Long-term debt, less current installments	502.6	564.3
Operating lease liabilities	29.7	20.4
Finance lease liabilities	33.2	23.4
Postretirement benefit liabilities	35.3	42.4
Pension benefit liabilities	24.6	26.9
Other long-term liabilities	28.4	26.8
Income taxes payable	15.0	15.0
Deferred income taxes	167.1	166.9
Total non-current liabilities	835.9	886.1
Shareholders' equity:		
Common stock, $ 0.01 par value per share, 200 million shares authorized, 63,176,007 shares issued and 43,561,649 shares outstanding as of December 31, 2024 and 63,054,340 shares issued and 43,902,061 shares outstanding as of December 31, 2023	0.6	0.6
Capital in excess of par value	604.0	591.7
Retained earnings	1,560.7	1,346.6
Treasury stock, at cost, 19,614,358 shares as of December 31, 2024 and 19,152,279 shares as of December 31, 2023	(1,298.0)	(1,242.4)
Accumulated other comprehensive (loss)	(110.2)	(104.7)
Total shareholders' equity	757.1	591.8
Total liabilities and shareholders' equity	$ 1,842.7	$ 1,672.4

See accompanying notes to consolidated financial statements beginning on page 44.

Armstrong World Industries, Inc., and Subsidiaries
Consolidated Statements of Shareholders' Equity
(amounts in millions, except share and per share data)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Retained Earnings	Treasury Stock Shares	Treasury Stock Amount	Accumulated Other Comprehensive (Loss)	Total
December 31, 2021	47,302,299	$ 0.6	$ 561.3	$ 1,011.4	15,472,856	$ (944.0)	$ (109.6)	$ 519.7
Stock issuance, net	159,628	-	-	-	2,037	-	-	-
Cash dividends - $ 0.947 per common share	-	-	-	(44.4)	-	-	-	(44.4)
Share-based employee compensation	-	-	12.3	-	-	-	-	12.3
Net earnings	-	-	-	202.9	-	-	-	202.9
Other comprehensive income	-	-	-	-	-	-	9.5	9.5
Acquisition of treasury stock	(1,889,742)	-	-	-	1,889,742	(165.0)	-	(165.0)
December 31, 2022	45,572,185	$ 0.6	$ 573.6	$ 1,169.9	17,364,635	$ (1,109.0)	$ (100.1)	$ 535.0
Stock issuance, net	115,701	-	0.1	-	1,819	(0.1)	-	-
Cash dividends - $ 1.042 per common share	-	-	-	(47.1)	-	-	-	(47.1)
Share-based employee compensation	-	-	18.0	-	-	-	-	18.0
Net earnings	-	-	-	223.8	-	-	-	223.8
Other comprehensive (loss)	-	-	-	-	-	-	(4.6)	(4.6)
Acquisition of treasury stock	(1,785,825)	-	-	-	1,785,825	(133.3)	-	(133.3)
December 31, 2023	43,902,061	$ 0.6	$ 591.7	$ 1,346.6	19,152,279	$ (1,242.4)	$ (104.7)	$ 591.8
Stock issuance, net	121,667	-	-	-	-	-	-	-
Cash dividends - $ 1.148 per common share	-	-	-	(50.8)	-	-	-	(50.8)
Share-based employee compensation	-	-	12.3	-	-	-	-	12.3

Net earnings	-	-	-	264.9	-	-	-	264.9
Other comprehensive (loss)	-	-	-	-	-	-	(5.5)	(5.5)
Acquisition of treasury stock	(462,079)	-	-	-	462,079	(55.6)	-	(55.6)
December 31, 2024	43,561,649	$ 0.6	$ 604.0	$ 1,560.7	19,614,358	$ (1,298.0)	$ (110.2)	$ 757.1

See accompanying notes to consolidated financial statements beginning on page 44.

Armstrong World Industries, Inc., and Subsidiaries
Consolidated Statements of Cash Flows
(amounts in millions)

	Years Ended December 31, 2024	2023	2022
Cash flows from operating activities:			
Net earnings	$ 264.9	$ 223.8	$ 202.9
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	103.2	89.2	83.7
Deferred income taxes	0.2	(0.8)	(1.6)
Share-based compensation	18.3	18.8	14.3
Equity earnings from unconsolidated affiliates, net	(103.4)	(89.3)	(77.6)
Loss on sales of fixed assets, net	0.6	-	-
Loss related to change in fair value of contingent consideration	1.6	0.1	11.0
Payments of contingent consideration in excess of acquisition date fair value	-	(5.0)	(1.9)
Write-off of debt refinancing fees	-	-	0.6
Other non-cash adjustments, net	(0.1)	(0.5)	0.3
Changes in operating assets and liabilities:			
Receivables	(24.6)	(1.6)	(12.4)
Inventories	1.9	6.1	(19.7)
Accounts payable and accrued expenses	27.3	8.0	(1.8)
Income taxes receivable and payable, net	(5.4)	3.2	(6.9)
Other assets and liabilities	(17.7)	(18.5)	(8.5)
Net cash provided by operating activities	266.8	233.5	182.4
Cash flows from investing activities:			
Purchases of property, plant and equipment	(82.8)	(83.8)	(74.8)
Return of investment from joint venture	97.8	96.9	104.5
Cash paid for acquisitions, net of cash acquired	(123.5)	(26.5)	(2.8)
Investment in unconsolidated affiliate	(5.5)	-	-

Proceeds from the sales of fixed assets	24.3	-	-
Proceeds from company-owned life insurance, net	10.4	3.0	1.3
Net cash (used for) provided by investing activities	(79.3)	(10.4)	28.2
Cash flows from financing activities:			
Proceeds from revolving credit facility	138.0	55.0	355.0
Payments of revolving credit facility	(178.0)	(120.0)	(315.0)
Proceeds from long-term debt	-	-	450.0
Payments of long-term debt	(22.5)	-	(468.7)
Financing costs	-	-	(3.1)
Payments for finance leases	(3.3)	(2.7)	(2.2)
Dividends paid	(50.6)	(46.9)	(44.2)
Payments from share-based compensation plans, net of tax	(4.9)	(1.8)	(2.0)
Payments of acquisition-related contingent consideration	-	(10.2)	(6.7)
Payments for treasury stock acquired	(55.0)	(132.0)	(165.0)
Payments of excise tax for treasury stock acquired, net	(1.3)	-	-
Net cash (used for) financing activities	(177.6)	(258.6)	(201.9)
Effect of exchange rate changes on cash and cash equivalents	(1.4)	0.3	(0.8)
Net increase (decrease) in cash and cash equivalents	8.5	(35.2)	7.9
Cash and cash equivalents at beginning of year	70.8	106.0	98.1
Cash and cash equivalents at end of year	$ 79.3	$ 70.8	$ 106.0
Supplemental Cash Flow Disclosures:			
Interest paid	$ 37.4	$ 33.9	$ 26.9
Income tax payments, net	87.6	72.1	63.2
Amounts in accounts payable for capital expenditures	4.9	2.4	2.8
Purchase of property, plant and equipment through vendor financing	1.1	-	-

See accompanying notes to consolidated financial statements beginning on page 44.

NOTE 1. BUSINESS

Armstrong World Industries, Inc. ("AWI") is a Pennsylvania corporation incorporated in 1891. When we refer to "AWI," the "Company," "we," "our" and "us" in these notes, we are referring to AWI and its subsidiaries.

Acquisitions and Investments in Unconsolidated Affiliates

In December 2024, we acquired all the issued and outstanding stock of A. Zahner Company ("Zahner"), based in Kansas City, Missouri. Zahner is a designer and manufacturer of exterior metal architectural solutions. The operations, assets and liabilities of Zahner are included in our Architectural Specialties segment.

In April 2024, we acquired all the issued and outstanding membership interests in 3form, LLC ("3form"), based in Salt Lake City, Utah, from Hunter Douglas, Inc. 3form is a designer and manufacturer of architectural resin and glass products used for specialty walls, partitions and ceilings. The operations, assets and liabilities of 3form are included in our Architectural Specialties segment.

In January 2024, we entered into a strategic partnership and equity investment in Overcast Innovations LLC ("Overcast") with McKinstry Essention, LLC whereby we contributed $

5.5
million in exchange for a

19.5
% ownership interest in Overcast, with future rights to increase our ownership interest. Overcast is a solutions company offering prefabricated ceiling cloud systems, modular grid platforms and engineering design services to reduce waste and inefficiencies in the built environment. Our investment and equity earnings in Overcast are included in our Unallocated Corporate segment.

In October 2023, we acquired a portion of the business and certain assets of Insolcorp, LLC ("Insolcorp"), based in Albemarle, North Carolina. Insolcorp develops, tests and manufactures energy saving products deployed in building and roofing installations. The acquired operations, assets and liabilities of Insolcorp are included in our Mineral Fiber segment.

In July 2023, we acquired all the issued and outstanding stock of BOK Modern, LLC ("BOK"), based in San Rafael, California. BOK is a designer of exterior metal architectural solutions. The operations, assets and liabilities of BOK are included in our Architectural Specialties segment.

In November 2022, we acquired the business of GC Products, Inc. ("GC Products"), based in Lincoln, California. GC Products is a designer and manufacturer of glass-reinforced-gypsum, glass-reinforced-cement, molded ceiling and specialty wall products. The operations, assets and liabilities of GC Products are included in our Architectural Specialties segment.

See Note 5 for additional details.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Consolidation Policy. The consolidated financial statements and accompanying data in this report include the accounts of AWI and its majority-owned subsidiaries. All significant intercompany transactions have been eliminated from the consolidated financial statements.

Use of Estimates. We prepare our financial statements in conformity with U.S. Generally Accepted Accounting Principles ("U.S. GAAP"), which requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets, liabilities, revenues and expenses. When preparing an estimate, management determines the amount based upon the consideration of relevant internal and external information. Actual results may differ from these estimates.

Reclassifications. Certain amounts in the prior year's Notes to Consolidated Financial Statements have been recast to conform to the 2024 presentation, most notably disaggregated expenditures for our operating segments. See the subheading, "Recently Adopted Accounting Standards" below and Note 3 for additional information.

Revenue Recognition. We recognize revenue upon transfer of control of our products to the customer, which typically occurs upon shipment. Our main performance obligation to our customers is the delivery of products in accordance with purchase orders. Each purchase order confirms the transaction price for the products purchased under the arrangement. Direct sales to building materials distributors, home centers, direct customers and retailers represent the majority of our sales. Our standard sales terms are Free On Board ("FOB") shipping point. We have some sales terms that are FOB destination. At the point of shipment, the customer is required to pay under normal sales terms. In most cases our normal payment terms are 45 days or less and our sales arrangements do not have any material financing components. Within our Architectural Specialties segment, the majority of revenues are customer project driven, which includes a minority of revenues derived from the sale of customer specified customized products that have no alternative use to us. Revenue for such product sales are recognized over time. Custom project customer arrangements produce contract assets or liabilities that are not material to our Consolidated Financial Statements. The manufacturing cycle for most custom products is typically short.

Incremental costs to fulfill our customer arrangements are expensed as incurred, as the amortization period is less than one year.

Our products are sold with normal and customary return provisions. We provide limited warranties for defects in materials or factory workmanship, sagging and warping, and certain other manufacturing defects. Warranties are not sold separately to customers. Our product warranties place certain requirements on the purchaser, including installation and maintenance in accordance with our written instructions. In addition to our warranty program, under certain limited circumstances, we will occasionally, at our sole discretion, provide a customer accommodation repair or replacement. Warranty repairs and replacements are most commonly made by professional installers employed by or affiliated with our independent distributors. Reimbursement for costs associated with warranty repairs are provided to our independent distributors through a credit against accounts receivable from the distributor to us. Sales returns and warranty claims have historically not been material and do not constitute separate performance obligations. We often offer incentive programs to our customers, primarily volume rebates and promotions. The majority of our rebates are designated as a percentage of annual customer purchases. We estimate the amount of rebates based on actual sales for the period and accrue for the projected incentive programs' costs. We record the costs of rebate accruals as a reduction to the transaction price.

See Note 4 to the Consolidated Financial Statements for additional information related to our revenues.

Shipping and Handling Costs. We account for product shipping and handling costs as fulfillment activities and present the associated costs in costs of goods sold in the period in which we sell our product.

Advertising Costs. We recognize advertising expenses as they are incurred. See Note 25 to the Consolidated Financial Statements for additional details.

Research and Development Costs. We expense research and development costs, or product innovation costs, as they are incurred. See Note 25 to the Consolidated Financial Statements for additional details.

Business Combinations. We account for acquisitions under the acquisition method and the results of acquired operations are included in the Consolidated Financial Statements from the acquisition date. Acquisition-related costs are expensed as incurred. We allocate total consideration to the assets acquired and liabilities assumed based on their estimated fair values, with the remaining unallocated amount recorded as goodwill. Our definite-lived intangible assets are amortized over each respective asset's estimated useful life on a straight-line basis and recorded as a component of operating income. The fair value of acquired intangible assets is estimated by applying discounted cash flow models based on significant inputs not observable in the market. Key assumptions are developed based on each acquirees' historical experience, future projections and comparable market data including future cash flows, long-term growth rates, implied royalty rates, attrition rates and discount rates.

Acquisition-related contingent consideration that is classified as a liability is measured at fair value at the acquisition date. Changes in the fair value of contingent consideration liabilities in reporting periods after the acquisition date are recorded within our Consolidated Statements of Earnings and Comprehensive Income. Acquisition-related contingent consideration paid is classified as cash flows from financing activities in our Consolidated Statements of Cash Flows, up to the acquisition date fair value. The portions of additional cash consideration paid in excess of the acquisition date fair value are classified as cash flows from operating activities in our Consolidated Statements of Cash Flows.

Pension and Postretirement Benefits. We have benefit plans that provide for pension, medical and life insurance benefits to certain eligible employees when they retire from active service. See Note 18 to the Consolidated Financial Statements for additional details.

Taxes. The provision for income taxes has been determined using the asset and liability approach of accounting for income taxes to reflect the expected future tax consequences of events recognized in the financial statements. Deferred income tax assets and liabilities are recognized by applying enacted tax rates to temporary differences that exist as of the balance sheet date, which result from differences in the timing of reported taxable income between tax and financial reporting.

We reduce the carrying amounts of deferred tax assets by a valuation allowance if, based on the available evidence, it is more likely than not that such assets will not be realized. The need to establish valuation allowances for deferred tax assets is assessed quarterly. In assessing the requirement for, and amount of, a valuation allowance in accordance with the more likely than not standard, we give appropriate consideration to all positive and negative evidence related to the realization of the deferred tax assets. This assessment considers, among other matters, the nature, frequency and severity of current and cumulative losses and forecasts of future profitability, the duration of statutory carryforward periods, and our experience with operating loss and tax credit carryforward expirations. A history of cumulative losses is a significant piece of negative evidence used in our assessment. If a history of cumulative losses is incurred for a tax jurisdiction, forecasts of future profitability are generally not used as positive evidence related to the realization of the deferred tax assets in the assessment.

We recognize the tax benefits of an uncertain tax position if those benefits are more likely than not to be sustained based on existing tax law. Additionally, we establish a reserve for tax positions that are more likely than not to be sustained based on existing tax law, but uncertain in the ultimate benefit to be sustained upon examination by the relevant taxing authorities. Unrecognized tax benefits are subsequently recognized at the time the more likely than not recognition threshold is met, the tax matter is effectively settled or the statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired, whichever is earliest.

Taxes collected from customers and remitted to governmental authorities are reported on a net basis.

See Note 16 to the Consolidated Financial Statements for additional details.

Earnings per Share. Basic earnings per share is computed by dividing the earnings attributable to common shares by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share reflects the potential dilution of securities that could share in the earnings and is calculated using the treasury stock method.

Cash and Cash Equivalents. Cash and cash equivalents include cash on hand and short-term investments that have maturities of three months or less when purchased.

Concentration of Credit. We principally sell products to customers in building products industries. We monitor the creditworthiness of our customers and generally do not require collateral. Revenues from two commercial distributors, Foundation Building Materials, Inc. and GMS, Inc., individually exceeded 10 % of our revenues in 2024, 2023 and 2022. Gross sales to these two customers totaled $ 735.6 million, $ 631.9 million and $ 547.8 million in 2024, 2023 and 2022, respectively, and were included within our Mineral Fiber and Architectural Specialties segments.

Receivables. We sell our products to select, pre-approved customers using customary trade terms that allow for payment in the future. Customer trade and miscellaneous receivables (which include supply related rebates and other), net of allowances for doubtful accounts, customer credits and warranties, are reported in accounts and notes receivable, net. Cash flows from the collection of receivables are classified as operating cash flows on the Consolidated Statements of Cash Flows.

We establish creditworthiness prior to extending credit. We estimate the recoverability of receivables each period. This estimate is based upon new information in the period, which can include the review of any available financial statements and forecasts, as well as discussions with legal counsel and the management of the debtor company. When events occur that impact the collectability of the receivable, all or a portion of the receivable is reserved. Account balances are charged off against the allowance when the potential for recovery is considered remote. We do not have any off-balance sheet credit exposure related to our customers.

Inventories. Inventories are valued at the lower of cost and net realizable value. See Note 8 to the Consolidated Financial Statements for additional details.

Property Plant and Equipment. Property plant and equipment is recorded at cost reduced by accumulated depreciation and amortization. Depreciation and amortization expense is recognized on a straight-line basis over the assets' estimated useful lives. Machinery and equipment includes manufacturing equipment (depreciated over 2 to 15 years), computer equipment (depreciated over 3 to 5 years) and office furniture and equipment (depreciated over 5 to 7 years). Within manufacturing equipment, assets that are subject to accelerated obsolescence or wear out quickly, such as dryer components, are generally depreciated over shorter periods while heavy production equipment, such as conveyors and production presses, are generally depreciated over longer periods. Buildings are depreciated over 15 to 30 years , depending on factors such as type of construction and use. Computer software is amortized over 3 to 7 years .

Property, plant and equipment is tested for impairment by asset group when indicators of impairment are present, such as operating losses and/or negative cash flows for each identified asset group. If an indication of impairment exists, we compare the carrying amount of the asset group to the estimated undiscounted future cash flows expected to be generated by the asset group. If the carrying value exceeds the undiscounted future cash flows, we determine the fair value of the asset group based on discounted future cash flows expected to be generated by the asset group, or based on management's estimated exit price assuming the assets could be sold in an orderly transaction between market participants, or estimated salvage value if no sale is assumed. If the fair value is less than the carrying value of the asset group, we record an impairment charge equal to the difference between the fair value and carrying value of the asset group. Impairments of assets related to our manufacturing operations are recorded in cost of goods sold. We did not test tangible assets for impairment in 2024, 2023 or 2022 as no indicators of impairment existed.

When assets are disposed of or retired, their costs and related depreciation or amortization are removed from the financial statements, and any resulting gains or losses are normally reflected in cost of goods sold or selling, general and administrative ("SG&A") expenses depending on the nature of the asset.

See Note 10 to the Consolidated Financial Statements for additional details.

Leases. We enter into operating and finance leases for certain manufacturing plants, warehouses, equipment and automobiles. Our leases have remaining lease terms of up to 13 years. Several leases include options for us to purchase leased items at fair value or renew for up to 10 years, or multiple 10-year renewal periods. Some of our leases include early termination options. We consider all of these options in determining the lease term used to establish our right-of-use ("ROU") assets and lease liabilities when it is reasonably certain that we will exercise that option. Our lease agreements do not contain any residual value guarantees or material restrictive covenants.

We have lease agreements with lease and non-lease components, which we have elected to combine to determine the ROU assets and lease liabilities. Short-term leases with an initial term of 12 months or less are not recorded on the balance sheet. We recognize lease expense for these leases on a straight-line basis over the lease term.

As most of our leases do not provide an implicit rate, we use our Incremental Borrowing Rate ("IBR") based on information that is available at the lease commencement date to compute the present value of lease payments. Relevant information used in determining the IBR includes the transactional currency of the lease and the lease term.

See Note 12 to the Consolidated Financial Statements for additional details.

Asset Retirement Obligations. We recognize the fair value of obligations associated with the retirement of tangible long-lived assets in the period in which they are incurred. Upon initial recognition of a liability, the discounted cost is capitalized as part of the related long-lived asset and depreciated over the corresponding asset's useful life. Over time, accretion of the liability is recognized as an operating expense to reflect the change in the liability's present value.

Investments in Unconsolidated Affiliates. We account for investments in entities over which we have significant influence but do not control using the equity method of accounting. Under the equity method, our initial investment is recorded at cost and subsequently adjusted to recognize our share of the investee's earnings or losses, which are included as a component of our net earnings. The carrying amount of the investment is also adjusted for dividends received from the investee, which are recorded as a reduction in the carrying amount of the investment, as well as contributions made, which are recorded as an increase in the carrying amount of the investment.

Investments in unconsolidated affiliates as of December 31, 2024 reflected the equity interest in our

50
% investment in our WAVE joint venture and our

19.5
% equity interest in Overcast. Both the WAVE joint venture and Overcast investment are reflected within our Consolidated Financial Statements using the equity method of accounting. WAVE is reflected as a component of our Mineral Fiber segment while Overcast is included as a component of our Unallocated Corporate segment.

We use the cumulative earnings approach to determine the appropriate classification of distributions from WAVE within our cash flow statement. For all years presented, cumulative distributions received in prior periods, less distributions that were returns of investment, exceeded our cumulative equity earnings from WAVE as adjusted for the amortization of basis differences. Accordingly, the distributions were reflected as returns of investment within cash flows from investing activities in our Consolidated Statements of Cash Flows for all years presented. Management regularly evaluates its investment in unconsolidated affiliates for impairment. Based on those evaluations, management concluded that its investments were not impaired in 2024, 2023 or 2022. See Note 11 to the Consolidated Financial Statements for additional details.

Goodwill and Intangible Assets. Our definite-lived intangible assets consist primarily of customer relationships (amortized over 2 to 20 years), developed technology (amortized over 10 to 20 years), acquired internally-developed software (amortized over 5 to 7 years), trademarks and brand names (amortized over 3 to 20 years), trade secrets (15 years) and non-compete agreements (amortized over 3 to 5 years). We review definite-lived intangible assets for impairment by asset group when indicators of impairment are present, such as operating losses and/or negative cash flows for the respective asset group. If an indication of impairment exists, we compare the carrying amount of the asset group to the estimated undiscounted future cash flows expected to be generated by the asset group. If the carrying value exceeds the undiscounted future cash flows, we determine the fair value of the asset group based on discounted future cash flows expected to be generated by the asset group or based on management's estimated exit price assuming the assets could be sold in an orderly transaction between market participants. If the fair value is less than the carrying value of the asset group, we record an impairment charge equal to the difference between the fair value and carrying value of the asset group. We did not test definite-lived intangible assets for impairment in 2024, 2023 or 2022 as no indicators of impairment existed.

Our indefinite-lived assets include goodwill, trademarks and brand names, with Armstrong representing our primary trademark. Trademarks and brand names are integral to our corporate identity and are expected to contribute indefinitely to our cash flows. Accordingly, they have been assigned an indefinite life. We conduct our annual impairment tests on these indefinite-lived intangible assets and goodwill during the fourth quarter. These assets undergo more frequent tests if an indication of possible impairment exists. When performing an impairment test for indefinite-lived intangible assets and goodwill, we compare the carrying amount of the asset (when testing indefinite-lived intangible assets) and reporting unit (when testing goodwill) to the estimated fair value. For indefinite-lived intangible assets, the estimated fair value is based on discounted future cash flows using the relief from royalty method. For goodwill, the estimated fair value is based on discounted future cash flows expected to be generated by the reporting unit. If the fair value is less than the carrying value of the asset/reporting unit, we record an impairment charge equal to the difference between the fair value and carrying value of the asset/reporting unit. We did not test indefinite-lived intangible assets for impairment during any interim periods during 2024, as no indicators of impairment existed. We completed our annual impairment test in the fourth quarter of 2024.

No

impairment charges were recorded in 2024, 2023 or 2022.

See Note 13 to the Consolidated Financial Statements for additional details.

Foreign Currency Transactions . Assets and liabilities of our subsidiaries operating outside the U.S. that are accounted in a functional currency other than U.S. dollars are translated using the period end exchange rate. Revenues and expenses are translated at exchange rates effective during each month. Foreign currency translation gains or losses are included as a component of accumulated other comprehensive (loss) income within shareholders' equity. Gains or losses on foreign currency transactions are recognized through earnings .

Financial Instruments and Derivatives. We use derivatives and other financial instruments to offset the effect of interest rate variability. Derivatives are recognized on the balance sheet at fair value. For derivatives that meet the criteria as designated cash flow hedges, the changes in the fair value of the derivative are recognized in other comprehensive (loss) income until the hedged item is recognized in operations. See Notes 19 and 20 to the Consolidated Financial Statements for further discussion.

Share-based Employee Compensation. We generally recognize share-based compensation expense on a straight-line basis over the vesting period for the entire award. Compensation expense for performance-based awards with non-market-based conditions are also recognized over the vesting period for the entire award, however, compensation expense may vary based on the expectations for actual performance relative to defined performance measures. We estimate forfeitures based on actual historical forfeitures. See Note 22 to the Consolidated Financial Statements for additional information.

Treasury Stock. Common shares repurchased by AWI are recorded on the settlement date at cost as treasury shares and result in a reduction of equity. We may reissue these treasury shares. When treasury shares are reissued, we determine the cost using the First-in, first-out cost method ("FIFO"). The difference between the cost of the treasury shares and reissuance price is included in additional paid-in capital or retained earnings.

Recently Adopted Accounted Standards

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2023-07, *"Improvements to Reportable Segment Disclosures,"* which modifies reportable segment disclosure requirements. This ASU expands annual and interim reportable segment disclosures, including: disclosure of the title and position of our chief operating decision maker ("CODM"), interim and annual disclosure of significant reportable segment expenses that are components of segment profit or loss information provided to the CODM, and interim disclosure of all annual reportable segment profit or loss and asset data currently only required to be disclosed annually. Effective in the fourth quarter of 2024, we adopted this standard which resulted in changes to our disclosures. See Note 3 to the Consolidated Financial Statements for additional details.

Recently Issued Accounting Standards

In December 2023, the FASB issued ASU 2023-09, *"Improvements to Income Tax Disclosures,"* which modifies the disclosure requirements for income taxes. This ASU requires disclosure of tabular statutory to effective rate reconciliation in both percentages and dollars, additional disaggregated rate reconciliation categories and disaggregation of both income taxes paid and income tax expense by jurisdiction. This guidance is effective for annual periods beginning after December 15, 2024. We expect this ASU to only impact our disclosures with no impact to our result of operations, cash flows and financial condition.

In November 2024, the FASB issued ASU 2024-03, "*Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosures*," which expands disclosure of significant costs and expenses. This ASU requires expanded disclosures of significant costs and expenditures within cost of goods sold and SG&A expenses, including amounts of inventory purchased, employee compensation, depreciation, amortization and selling expenses. This ASU also requires expanded qualitative disclosures, including a description of selling expenses and a description of non-disaggregated expenses. This guidance is effective for annual periods beginning after December 15, 2026 and interim periods within fiscal years beginning after December 15, 2027. Early adoption is permitted. We expect this ASU to only impact our disclosures with no impact to our result of operations, cash flows and financial condition.

NOTE 3. NATURE OF OPERATIONS

Our operating segments are as follows: Mineral Fiber, Architectural Specialties and Unallocated Corporate.

Mineral Fiber – produces suspended mineral fiber and fiberglass ceiling systems. Our mineral fiber products offer various performance attributes such as acoustical control, rated fire protection, and energy efficiency, along with other health and sustainability features and aesthetic appeal. Ceiling products are primarily sold to resale distributors, ceiling systems contractors and wholesalers, and retailers (including large home centers). The Mineral Fiber segment also includes the results of WAVE, which manufactures and sells suspension system (grid) products and ceiling component products that are invoiced by both AWI and WAVE. Segment results relating to WAVE consist primarily of equity earnings and reflect our

50

% equity interest in the joint venture. Ceiling component products consist of ceiling perimeters and trim, in addition to grid products that support drywall ceiling systems. For some customers, WAVE sells its suspension system products to AWI for resale to customers. Mineral Fiber segment results reflect those sales transactions. The Mineral Fiber segment also includes all assets and liabilities not specifically allocated to our Architectural Specialties or Unallocated Corporate segment, including all property and related depreciation associated with our Lancaster, Pennsylvania headquarters. Operating results for the Mineral Fiber segment include a significant majority of allocated Corporate administrative expenses that represent a reasonable allocation of general services to support its operations.

Architectural Specialties – designs, produces and sources specialty ceilings, walls, and other interior and exterior architectural applications primarily for use in commercial settings. Products are available in numerous materials, such as metal, felt, wood, resin, wood fiber and glass-reinforced-gypsum in various colors, shapes and designs. These products offer a range of design and performance attributes such as acoustical control, rated fire protection, light, aesthetic appeal, energy conservation and building performance. We sell standard, premium and customized products, a portion of which are sourced from third-party producers. Architectural Specialties products are sold primarily to resale distributors and direct customers, primarily ceiling systems contractors. This segment's revenues are primarily project driven, which can lead to more variability in sales patterns. Operating results for the Architectural Specialties segment include a portion of allocated Corporate administrative expenses that represent a reasonable allocation of general services to support its operations.

Unallocated Corporate – includes certain assets, liabilities, income and expenses that have not been allocated to our other business segments and consists of: cash and cash equivalents, our Overcast investment and related equity earnings/losses, the net funded status of our U.S. Retirement Income Plan ("RIP"), the estimated fair value of interest rate swap contracts, outstanding borrowings under our senior secured credit facility and income tax balances.

Our CODM is our President and Chief Executive Officer. Segment operating income (loss) is the measure of segment profit or loss reviewed by the CODM. The following tables are presented at the level of disaggregation regularly reviewed by the CODM to evaluate operating performance and allocate resources to segments.

(dollar amounts in millions, except share data)

For the year ended 2024	Mineral Fiber	Architectural Specialties	Unallocated Corporate	Total
Net sales to external customers	$ 986.0	$ 459.7	$ -	$ 1,445.7
Cost of goods sold	586.2	276.3	1.6	864.1
Gross profit (loss)	399.8	183.4	(1.6)	581.6
SG&A expenses	180.8	126.7	1.0	308.5
Loss related to change in fair value of contingent consideration	0.2	1.4	-	1.6
Loss on sales of fixed assets, net	0.6	-	-	0.6
Equity (earnings) loss from unconsolidated affiliates, net	(104.3)	-	0.9	(103.4)
Segment operating income (loss)	$ 322.5	$ 55.3	$ (3.5)	$ 374.3
Segment assets	$ 1,063.8	$ 602.2	$ 176.7	$ 1,842.7
Investment in unconsolidated affiliates	22.6	-	4.6	27.2
Depreciation and amortization	80.2	23.0	-	103.2
Purchases of property, plant and equipment	64.3	18.5	-	82.8

For the year ended 2023	Mineral Fiber	Architectural Specialties	Unallocated Corporate	Total
Net sales to external customers	$ 932.4	$ 362.8	$ -	$ 1,295.2
Cost of goods sold	574.1	222.4	1.7	798.2
Gross profit (loss)	358.3	140.4	(1.7)	497.0
SG&A expenses	161.9	99.4	1.2	262.5
Loss related to change in fair value of contingent consideration	-	0.1	-	0.1
Equity (earnings) from unconsolidated affiliates, net	(89.3)	-	-	(89.3)
Segment operating income (loss)	$ 285.7	$ 40.9	$ (2.9)	$ 323.7

Segment assets	$ 1,091.9	$ 421.1	$ 159.4	$ 1,672.4
Investment in unconsolidated affiliates	17.4	-	-	17.4
Depreciation and amortization	75.3	13.9	-	89.2
Purchases of property, plant and equipment	67.2	16.6	-	83.8

For the year ended 2022	Mineral Fiber	Architectural Specialties	Unallocated Corporate	Total
Net sales to external customers	$ 887.4	$ 345.7	$ -	$ 1,233.1
Cost of goods sold	559.4	222.3	2.3	784.0
Gross profit (loss)	328.0	123.4	(2.3)	449.1
SG&A expenses	144.7	90.7	1.6	237.0
Loss related to change in fair value of contingent consideration	-	11.0	-	11.0
Equity (earnings) from unconsolidated affiliates, net	(77.6)	-	-	(77.6)
Segment operating income (loss)	$ 260.9	$ 21.7	$ (3.9)	$ 278.7
Segment assets	$ 1,096.9	$ 387.5	$ 202.8	$ 1,687.2
Investment in unconsolidated affiliates	23.9	-	-	23.9
Depreciation and amortization	69.5	14.2	-	83.7
Purchases of property, plant and equipment	63.8	11.0	-	74.8

In 2024, we sold an idled Mineral Fiber plant in St. Helens, Oregon for total proceeds of $9.4 million, with a $4.6 million gain recorded upon sale. Also in 2024, we sold a parcel of undeveloped land adjacent to our corporate campus in Lancaster, Pennsylvania within our Mineral Fiber segment for total proceeds of $12.8 million. Upon classification to held for sale during the third quarter of 2024, we recognized an impairment loss of $4.9 million and during the fourth quarter of 2024 we recognized a $0.3 million loss upon sale. Finally, in 2024 we sold a building and related land of an Architectural Specialties design center in Chicago, Illinois for total proceeds of $2.1 million, with no gain or loss recorded upon sale. The impact of these transactions is recorded within loss on sales of fixed assets, net on our Consolidated Statements of Earnings and Comprehensive Income.

(dollar amounts in millions, except share data)

The sum of the segments' operating income (loss) equals the total consolidated operating income as reported on our Consolidated Statements of Earnings and Comprehensive Income. The following reconciles our total consolidated operating income to earnings (loss) from continuing operations before income taxes. These items are only measured and managed on a consolidated basis:

	2024	2023	2022
Total consolidated operating income	$ 374.3	$ 323.7	$ 278.7
Interest expense	39.8	35.3	27.1
Other non-operating (income), net	(12.6)	(9.9)	(6.0)
Earnings from continuing operations before income taxes	$ 347.1	$ 298.3	$ 257.6

Accounting policies of the segments are the same as those described in the summary of significant accounting policies.

The sales in the table below are allocated to geographic areas based on the location of our selling entities.

	2024	2023	2022
Geographic Areas			
Net sales			
Mineral Fiber:			
United States	$ 909.5	$ 854.2	$ 816.3
Canada	76.5	78.2	71.1
Total Mineral Fiber	986.0	932.4	887.4
Architectural Specialties:			
United States	448.8	349.3	322.1
Canada	10.9	13.5	23.6
Total Architectural Specialties	459.7	362.8	345.7
Total net sales	$ 1,445.7	$ 1,295.2	$ 1,233.1

Our product-based Mineral Fiber and Architectural Specialties segment net sales represent the product-based group offerings we sell to external customers.

	2024	2023
Property, plant and equipment, net as of December 31,		
Mineral Fiber:		
United States	$ 477.9	$ 494.9
Total Mineral Fiber	477.9	494.9
Architectural Specialties:		
United States	116.6	66.5
Canada	4.3	5.0

Total Architectural Specialties	120.9	71.5
Total property, plant and equipment, net	$ 598.8	$ 566.4

NOTE 4. REVENUE

Disaggregation of Revenues

Our Mineral Fiber and Architectural Specialties operating segments both manufacture and sell building products, predominately ceiling and wall systems (primarily mineral fiber, fiberglass, metal, felt, wood, resin, wood fiber and glass-reinforced-gypsum) throughout the Americas. We disaggregate revenue based on our product-based segments and major customer channels, as they represent the most appropriate depiction of how the nature, amount and timing of revenues and cash flows are affected by economic factors. Net sales by major customer channel are as follows:

Distributors – represents net sales to building materials distributors who re-sell our products to contractors, subcontractors' alliances, large architect and design firms, and major facility owners. Geographically, this category includes sales throughout the U.S., Canada, and Latin America.

(dollar amounts in millions, except share data)

Home centers – represents net sales to home centers, such as Lowe's Companies, Inc. and The Home Depot, Inc. This category includes sales primarily to U.S. customers.

Direct customers – represents net sales to contractors, subcontractors, and large architect and design firms. This category includes sales primarily to U.S. customers.

Other – represents net sales to independent retailers and certain national account customers, including wholesalers who re-sell our products to dealers who service builders, contractors, online customers, major facility owners, group purchasing organizations and maintenance, repair and operating entities and original product manufacturers. Geographically, this category includes sales throughout the U.S., Canada, and Latin America.

The following tables present net sales by major customer group within the Mineral Fiber and Architectural Specialties segments for the years ended December 31, 2024, 2023 and 2022:

Mineral Fiber	2024	2023	2022
Distributors	$ 716.9	$ 682.3	$ 654.1
Home centers	107.0	103.5	99.1
Direct customers	60.5	57.1	61.0
Other	101.6	89.5	73.2
Total	$ 986.0	$ 932.4	$ 887.4

Architectural Specialties	2024	2023	2022
Distributors	$ 224.9	$ 192.7	$ 174.4
Direct customers	214.6	159.7	168.0
Other	20.2	10.4	3.3
Total	$ 459.7	$ 362.8	$ 345.7

NOTE 5. ACQUISITIONS

2024 ACQUISITIONS

Zahner

In December 2024, we acquired the issued and outstanding shares of Zahner for $ 30.0 million, net of $ 16.0 million of cash acquired, subject to customary post-closing adjustments for working capital. The total fair value of cash and other tangible assets acquired, less liabilities assumed, was $ 16.3 million. The fair value of significant classes of non-cash tangible assets acquired and liabilities assumed included accounts receivable of $ 10.9 million, property, plant and equipment of $ 8.7 million, operating ROU assets and lease liabilities of $ 2.9 million, finance ROU assets and lease liabilities of $ 8.9

million and accounts payable and accrued liabilities of $

19.6
million. The total fair value of identifiable intangible assets acquired was $

23.5
million, resulting in $

6.2
million of goodwill. The following table summarizes the preliminary fair values of identifiable intangible assets acquired, and their estimated useful lives:

	Fair Value at Acquisition Date	Estimated Useful Life
Trademarks and brand names	$ 5.8	15 years
Developed technology	5.8	11 years
Trade secrets	5.3	15 years
Non-compete agreements	4.9	5 years
Customer relationships	1.2	9 years
Backlog	0.5	2 years
Total identifiable intangible assets	$ 23.5	

(dollar amounts in millions, except share data)

Goodwill from the Zahner acquisition relates to many factors, including the technical competencies and capabilities of the acquired workforce and our strategic intent to integrate and leverage those competencies and capabilities to advance and expand our portfolio of solutions and offerings. All of the acquired goodwill is deductible for tax purposes. Valuations for assets acquired and liabilities assumed are based on preliminary estimates that are subject to revisions and may result in adjustments to preliminary values as valuations are finalized.

3form

In April 2024, we acquired the issued and outstanding membership interests in 3form for $ 93.5 million, net of $ 0.5 million of cash acquired. The total fair value of cash and other tangible assets acquired, less liabilities assumed, was $ 34.5 million. The fair value of significant classes of non-cash tangible assets acquired and liabilities assumed included accounts receivable of $ 6.6 million, inventory of $ 7.9 million, property, plant and equipment of $ 35.0 million, operating ROU assets of $ 10.1 million, operating lease liabilities of $ 10.0 million and accounts payable and accrued liabilities of $ 16.3 million. The total fair value of identifiable intangible assets acquired was $ 37.6 million, resulting in $ 21.9 million of goodwill. The following table summarizes the fair values of identifiable intangible assets acquired, and their estimated useful lives:

	Fair Value at Acquisition Date	Estimated Useful Life
Trademarks and brand names	$ 11.6	15 years
Customer relationships	10.2	5 years
Developed technology	6.2	10 - 16 years
Non-compete agreements	5.1	5 years
Software	4.1	5 years
Backlog	0.4	1 year
Total identifiable intangible assets	$ 37.6	

Goodwill from the 3form acquisition relates to many factors, including the technical competencies and capabilities of the acquired workforce and our strategic intent to integrate and leverage those competencies and capabilities to advance and expand our portfolio of solutions and offerings. All of the acquired goodwill is deductible for tax purposes.

2024 Acquisitions: Proforma Financial Information

The following table summarizes aggregate unaudited as reported and pro forma information assuming the acquisitions of Zahner and 3form had occurred on January 1, 2022. The unaudited pro forma results include the depreciation and amortization associated with the acquired assets. The unaudited pro forma results do not include any expected benefits from the Zahner and 3form acquisitions. Accordingly, the unaudited pro forma results are not necessarily indicative of either future results of operations or results that might have been achieved had the acquisitions been consummated as of January 1, 2022.

	2024	2023	2022
Net sales, pro forma	$ 1,586.2	$ 1,425.2	$ 1,365.9
Net sales, as reported	1,445.7	1,295.2	1,233.1
Earnings from continuing operations before income taxes, pro forma	352.8	300.2	254.4
Earnings from continuing operations before income taxes, as reported	347.1	298.3	257.6

For the year ended December 31, 2024, net sales of $ 69.6 million and operating income of $ 3.0 million, including $ 6.5 million of depreciation and amortization, from Zahner and 3form were included in our Consolidated Statements of Operations and Comprehensive Income since the acquisition dates.

2023 ACQUISITIONS

Insolcorp

In October 2023, we acquired a portion of the business of Insolcorp for $

1.7
million of cash and additional contingent consideration payable upon the achievement of certain future performance obligations from 2024 through 2031. We, with the assistance of an independent, third-party valuation specialist, determined the estimated fair value of the contingent consideration of $

0.7
million at the acquisition date, resulting in a purchase price of $

2.4
million. The total fair value of tangible assets acquired less liabilities assumed was $

0.1
million. The total fair value of identifiable intangible assets acquired was $

2.1
million, resulting in $

0.2
million of goodwill. Acquired intangible assets were comprised of in-process research and development of $

1.7
million and amortizable trademarks of $

0.4
million. All acquired intangible assets are being amortized on a straight-line basis over a life of 20 years. All of the acquired goodwill is deductible for tax purposes. See Note 19 to the Consolidated Financial Statements for further information regarding the acquisition-related contingent consideration liability for Insolcorp.

BOK

In July 2023, we acquired all of the issued and outstanding stock of BOK for $

13.8
million and additional contingent consideration payable upon the achievement of certain future performance obligations in 2024 and 2025 not to exceed $

3.3
million. We, with the assistance of an independent, third-party valuation specialist, utilized a Monte Carlo simulation to determine the estimated fair value of the contingent consideration of $

0.8
million at the acquisition date, resulting in a purchase price of $

14.6
million. The total fair value of tangible assets acquired less liabilities assumed was $

1.4
million. The total fair value of identifiable intangible assets acquired was $

5.4
million, resulting in $

7.8
million of goodwill. Acquired intangible assets were comprised of amortizable patents of $

1.9
million, amortizable trademarks of $

1.8
million, amortizable customer relationships of $

1.4
million, and non-compete agreements of $

0.3
million, that are being amortized on a straight-line basis over a weighted-average life of 18 , 15 , 2 and 3 years, respectively. All of the acquired goodwill is deductible for tax purposes. See Note 19 to the Consolidated Financial Statements for further information regarding the acquisition-related contingent consideration liability for BOK.

Software-Related Intellectual Property

In May 2023, we acquired a co-ownership interest in certain software-related intellectual property for $

11.0
million, of which $

10.0
million was paid in the second quarter of 2023 and an additional $

1.0
million was paid in the fourth quarter of 2023. As a result of this transaction, the total fair value of identifiable intangible assets acquired was $

6.5
million of software and $

4.5
million of developed technology, which are being amortized over a weighted-average life of 5 and 17 years, respectively.

2022 ACQUISITION

GC Products

In November 2022, we acquired the business of GC Products for $

2.8
million of cash. The total fair value of tangible assets acquired, less liabilities assumed, was $

0.3
million. The total fair value of intangible assets acquired was $

1.8
million, resulting in goodwill of $

0.7
million. Identified intangible assets consist primarily of amortizable developed technology of $

0.7
million, amortizable customer relationships of $

0.6
million, and a non-compete agreement of $

0.2
million, which are being amortized over a weighted-average life of 20 , 6 and 3 years, respectively. All of the acquired goodwill is deductible for tax purposes.

NOTE 6. DISCONTINUED OPERATIONS

EMEA AND PACIFIC RIM BUSINESSES

In 2019, we completed the sale of certain subsidiaries comprising our businesses and operations in Europe, the Middle East and Africa (including Russia) ("EMEA") and the Pacific Rim, including the corresponding businesses and operations conducted by WAVE (collectively, the "Sale"), to Knauf International GmbH ("Knauf"). In 2022, we recorded a $

2.0
million tax benefit related to federal tax statute of limitation closures.

(dollar amounts in millions, except share data)

ARMSTRONG FLOORING, INC. (“AFI”)

In 2016, we completed our separation of AFI by transferring the assets and liabilities related primarily to our Resilient and Wood Flooring segments to AFI and then distributing the common stock of AFI to our shareholders at a ratio of one share of AFI common stock for every two shares of AWI common stock. In 2022, we recorded a $

1.0
million tax benefit related to federal tax statute of limitation closures.

Summarized Financial Information of Discontinued Operations

The following tables detail the businesses and line items that comprise discontinued operations on the Consolidated Statements of Earnings and Comprehensive Income.

	EMEA and Pacific Rim Businesses	AFI	Total
2022			
Earnings from discontinued businesses before income tax	$ -	$ -	$ -
Income tax benefit	(2.0)	(1.0)	(3.0)
Net earnings from discontinued operations, net of tax	$ 2.0	$ 1.0	$ 3.0
Net earnings from discontinued operations	$ 2.0	$ 1.0	$ 3.0

NOTE 7. ACCOUNTS AND NOTES RECEIVABLE

	December 31, 2024	December 31, 2023
Customer receivables	$ 133.0	$ 102.1
Miscellaneous receivables	4.9	11.8
Less allowance for warranties, discounts and losses	(3.5)	(2.9)
Accounts and notes receivable, net	$ 134.4	$ 111.0

We sell our products to select, pre-approved customers whose businesses are affected by changes in economic and market conditions. We consider these factors and the financial condition of each customer when establishing our allowance for losses from doubtful accounts.

NOTE 8. INVENTORIES

	December 31, 2024	December 31, 2023
Finished goods	$ 60.4	$ 55.1
Goods in process	7.4	5.1
Raw materials and supplies	68.5	66.7
Less LIFO reserves	(26.5)	(22.9)
Total inventories, net	$ 109.8	$ 104.0

Approximately

60

% and

62
% of our total inventory in 2024 and 2023, respectively, were valued on a Last-in, first-out (“LIFO”) basis.

The distinction between the use of different methods of inventory valuation is primarily based on type of inventory, legal entities and/or geographical locations. The following table summarizes the amount of inventory that is not accounted for under the LIFO method.

	December 31, 2024	December 31, 2023
U.S. locations	$ 41.8	$ 35.3
Canada locations	2.6	4.0
Total	$ 44.4	$ 39.3

Our U.S. locations generally use the weighted average cost method of inventory valuation and primarily represent certain finished goods sourced from third party suppliers and certain entities within our Architectural Specialties segment, most notably recent acquisitions, that also use the weighted average cost method given the nature of the inventory.

(dollar amounts in millions, except share data)

Our Canadian locations use the FIFO method of inventory valuation, or other methods which closely approximate the FIFO method, primarily because the LIFO method is not permitted for local tax reporting purposes. In these situations, a conversion to LIFO would be highly complex and involve excessive cost and effort to achieve under local tax reporting requirements.

NOTE 9. OTHER CURRENT ASSETS

	December 31, 2024	December 31, 2023
Prepaid expenses	$ 19.8	$ 15.9
Assets held for sale	-	6.7
Fair value of derivative assets	0.3	1.1
Other	1.4	2.7
Total other current assets	$ 21.5	$ 26.4

As of December 31, 2023, assets held for sale included the land and property, plant and equipment of our idled Mineral Fiber plant in St. Helens, Oregon and the building and related land of an Architectural Specialties design center in Chicago, Illinois, both of which were sold in 2024.

NOTE 10. PROPERTY, PLANT AND EQUIPMENT

	December 31, 2024	December 31, 2023
Land	$ 21.2	$ 31.0
Buildings	294.7	273.3
Machinery and equipment	805.6	713.5
Computer software	86.7	85.1
Construction in progress	50.0	61.7
Less accumulated depreciation and amortization	(659.4)	(598.2)
Net property, plant and equipment	$ 598.8	$ 566.4

NOTE 11. INVESTMENTS IN UNCONSOLIDATED AFFILIATES

The following table presents equity (earnings) loss from our unconsolidated affiliates:

	2024	2023	2022
WAVE	$ (104.3)	$ (89.3)	$ (77.6)
Overcast	0.9	-	-
Equity (earnings) from unconsolidated affiliates, net	$ (103.4)	$ (89.3)	$ (77.6)

As of December 31, 2024 and 2023, our investment in our WAVE joint venture was $

22.6
million and $

17.4
million, respectively. As of December 31, 2024 our investment in Overcast was $

4.6
million.

The following table presents combined condensed financial data for our unconsolidated affiliates:

	December 31, 2024	December 31, 2023
Current assets	$ 111.5	$ 88.9
Non-current assets	98.9	87.2
Current liabilities	33.6	33.0
Non-current liabilities	376.6	363.9

	2024	2023	2022
Net sales	$ 492.7	$ 449.0	$ 458.2
Gross profit	296.9	263.2	231.1
Net earnings	211.1	187.2	163.7

(dollar amounts in millions, except share data)

Information reflected in the preceding table reflects combined financial data for WAVE and Overcast as of and for the year ended December 31, 2024 and financial data for WAVE as of December 31, 2023 and for the years ended 2023 and 2022.

Distributions from WAVE in 2024, 2023 and 2022, were $ 97.8 million, $ 96.9 million, and $ 104.5 million, respectively. We did not receive any distributions from Overcast in 2024.

In certain markets, we sell WAVE products directly to customers pursuant to specific terms of sale. In those circumstances, we record the sales and associated costs within our consolidated financial statements. The total sales associated with these transactions were $ 49.1 million, $ 47.2 million and $ 47.3 million for the years ended 2024, 2023 and 2022, respectively.

Our recorded investment in WAVE was higher than our 50 % share of the carrying values reported in WAVE's consolidated financial statements by $ 123.6 million as of December 31, 2024 and $ 127.9 million as of December 31, 2023. These differences are due to our adoption of fresh-start reporting upon emergence from Chapter 11 in October 2006, while WAVE's consolidated financial statements do not reflect fresh-start reporting. The differences are composed of the following fair value adjustments to assets:

	December 31, 2024	December 31, 2023
Property, plant and equipment	$ 0.4	$ 0.4
Other intangibles	92.8	97.1
Goodwill	30.4	30.4
Total	$ 123.6	$ 127.9

Other intangibles include customer relationships and trademarks. Customer relationships are amortized over 20 years and trademarks have an indefinite life.

See Note 26 to the Consolidated Financial Statements for additional information.

NOTE 12. LEASES

The following table presents our lease costs:

	2024	2023	2022
Operating lease cost	$ 10.0	$ 8.5	$ 7.0
Finance lease cost:			
Amortization of leased assets	$ 4.2	$ 3.1	$ 2.4
Interest on lease liabilities	1.4	0.9	0.6
Total finance lease cost	$ 5.6	$ 4.0	$ 3.0

Short-term lease expense and variable lease cost were not material for the years ended December 31, 2024, 2023 and 2022 and are excluded from the table above.

As of December 31, 2024, we did not have any material leases that have not yet commenced.

(dollar amounts in millions, except share data)

The following table presents supplemental cash flow information related to our leases:

	2024	2023	2022
Cash paid for amounts included in the measurement of lease liabilities			
Operating cash flows from operating leases	$ 9.6	$ 8.0	$ 6.8
Operating cash flows from finance leases	1.3	0.8	0.6
Financing cash flows from finance leases	3.3	2.7	2.2
ROU assets obtained in exchange for lease liabilities			
Operating leases [(1)]	$ 19.0	$ 15.8	$ 3.9
Finance leases [(2)]	13.6	12.3	-

(1) During 2024, increases in ROU assets included $ 13.0 million from the acquisitions of 3form and Zahner and a $ 4.7 million increase from modifications that did not involve obtaining a new ROU asset. During 2023, increases in ROU assets included a decrease of $ 1.0 million due to a change in lease classification upon modification and an increase of $ 0.6 million resulting from modifications that did not involve obtaining a new ROU asset. During 2022, increases in ROU assets included $ 1.0 million resulting from modifications that did not involve obtaining a new ROU asset. Modifications for all years presented resulted primarily from changes in the terms of existing leases.

(2) During 2024, increases in ROU assets included $ 8.9 million from the acquisition of Zahner and a $ 1.1 million decrease from modifications that did not involve obtaining a new ROU asset. During 2023, increases in ROU assets included $ 8.6 million due to a change in lease classification upon modification for an existing manufacturing facility within our Architectural Specialties segment that had a modified expected lease term of 13 years, in addition to an increase of $ 3.7 million for a lease modification that did not involve obtaining a new ROU asset.

The following table presents the weighted average assumptions used to compute our ROU assets and lease liabilities:

	December 31, 2024	December 31, 2023
Weighted average remaining lease term (in years)		
Operating leases	5.7	4.8
Finance leases	11.4	9.5
Weighted average discount rate		
Operating leases	5.6 %	5.7 %
Finance leases	5.1 %	4.7 %

Undiscounted future minimum lease payments as of December 31, 2024, by year and in the aggregate, having non-cancelable lease terms in excess of one year are as follows:

	Operating Leases	Finance Leases
Maturity of lease liabilities		
2025	$ 10.0	$ 5.6
2026	8.7	6.1
2027	7.9	5.2
2028	6.0	3.6
2029	2.7	2.8
Thereafter	9.2	28.0
Total lease payments	44.5	51.3
Less interest	(6.7)	(14.3)
Present value of lease liabilities	$ 37.8	$ 37.0

(dollar amounts in millions, except share data)

NOTE 13. GOODWILL AND INTANGIBLE ASSETS

The following table details amounts related to our goodwill and intangible assets as of December 31, 2024 and 2023:

		December 31, 2024		December 31, 2023	
	Estimated Useful Life	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Amortizing intangible assets					
Customer relationships	2 - 20 years	$ 194.7	$ 163.9	$ 183.6	$ 152.1
Developed technology	10 - 20 years	114.8	85.9	101.4	84.4
Software	5 - 7 years	19.7	7.8	15.6	4.6
Trademarks and brand names	3 - 20 years	23.6	4.3	6.2	3.4
Non-compete agreements	3 - 5 years	15.9	5.6	6.1	3.8
Trade secrets	15 years	5.3	-	-	-
Other	Various	3.7	0.5	2.8	0.2
Total		$ 377.7	$ 268.0	$ 315.7	$ 248.5
Non-amortizing intangible assets					
Trademarks and brand names	Indefinite	345.3		345.2	
Total intangible assets		$ 723.0		$ 660.9	
Goodwill	Indefinite	$ 203.2		$ 175.5	

The increase in goodwill as of December 31, 2024 compared to December 31, 2023 resulted from the acquisitions of 3form and Zahner, partially offset by foreign exchange movements.

	2024	2023	2022
Amortization expense	$ 19.9	$ 15.3	$ 16.3

The expected annual amortization expense for the years 2025 through 2029 are as follows:

2025	$ 24.0
2026	19.8
2027	12.8
2028	10.6
2029	6.5

NOTE 14. OTHER NON-CURRENT ASSETS

	December 31, 2024	December 31, 2023
Cash surrender value of company-owned life insurance policies	$ 37.6	$ 40.3
Investment in employee deferred compensation plans	11.0	8.3
Fair value of derivative assets	-	1.8
Other	1.5	0.9
Total other non-current assets	$ 50.1	$ 51.3

NOTE 15. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

	December 31, 2024	December 31, 2023
Payables, trade and other	$ 132.4	$ 91.0
Employment costs	42.4	33.6
Current portion of pension and postretirement liabilities	7.2	8.0
Acquisition-related contingent consideration	1.5	-
Other	31.8	27.3
Total accounts payable and accrued expenses	$ 215.3	$ 159.9

NOTE 16. INCOME TAXES

The tax effects of principal temporary differences between the carrying amounts of assets and liabilities and their tax basis are summarized below. Management believes it is more likely than not that the results of future operations will generate sufficient taxable income in the appropriate jurisdiction to realize deferred tax assets, net of valuation allowances. In arriving at this conclusion, we considered the profit before tax generated for the years 2022 through 2024, future reversals of existing taxable temporary differences, and projections of future profit before tax.

We reduce the carrying amounts of deferred tax assets by a valuation allowance if, based on the available evidence, it is more likely than not that such assets will not be realized. The need to establish valuation allowances for deferred tax assets is assessed quarterly. In assessing the requirement for, and amount of, a valuation allowance in accordance with the more likely than not standard for all periods, we consider all positive and negative evidence related to the realization of the deferred tax assets. This assessment considers, among other matters, the nature, frequency and severity of current and cumulative losses and forecasts of future profitability, the duration of statutory carryforward periods, and our experience with operating loss and tax credit carryforward expirations. A history of cumulative losses is a significant piece of negative evidence used in our assessment. If a history of cumulative losses is incurred for a tax jurisdiction, forecasts of future profitability are not used as positive evidence related to the realization of the deferred tax assets in the assessment.

As of December 31, 2024 and 2023, we had $

622.9
million and $

646.7
million, respectively, of gross state net operating loss (“NOL”) carryforwards expiring between 2025 and 2043 . As of December 31, 2024 and 2023, we had capital loss carryforwards of $

5.6

million that expire between 2025 and 2036.

As of December 31, 2024 and 2023, we had valuation allowances of $

36.3
million and $

49.1
million, respectively. As of December 31, 2024, our valuation allowance consisted of $

27.8
million for state deferred tax assets related to net operating loss carryforwards, $

5.6
million for federal and state deferred tax assets related to capital loss carryforwards and $

2.9
million for state deferred tax assets related to state tax credits.

We estimate we will need to generate future taxable income of approximately $

168.8
million for state income tax purposes during the respective realization periods (ranging from 2025 to 2043) to be able to fully realize the net deferred income tax assets discussed above. We estimate we will need to generate capital gain income of $

22.6
million to fully realize our federal capital loss carryforwards before they expire between 2025 and 2026 . We estimate we will need to generate capital gain income of $

168.1
million to fully realize our state capital loss carryforwards before they expire between 2025 and 2036 . Our ability to utilize deferred tax assets may be impacted by certain future events, such as changes in tax legislation or insufficient future taxable income prior to expiration of certain deferred tax assets.

(dollar amounts in millions, except share data)

	December 31, 2024	December 31, 2023
Deferred income tax assets (liabilities)		
Net operating losses	$ 30.0	$ 32.2
Postretirement benefits	11.0	13.1
Pension benefit liabilities	7.3	8.1
Deferred compensation	4.5	6.8
State tax credit carryforwards	3.7	4.4
Capital loss carryforwards	5.6	18.8
Capitalized research expenses	20.5	15.3
Lease liabilities	14.3	9.5
Other	9.9	9.0
Total deferred income tax assets	106.8	117.2
Valuation allowances	(36.3)	(49.1)
Net deferred income tax assets	70.5	68.1
Intangibles	(83.9)	(84.7)
Partnerships and investments	(23.7)	(25.4)
Accumulated depreciation	(87.1)	(87.3)
Prepaid pension costs	(22.5)	(21.6)
Inventories	(3.6)	(4.4)
Lease assets	(15.1)	(9.9)
Other	(1.7)	(1.7)
Total deferred income tax liabilities	(237.6)	(235.0)
Net deferred income tax liabilities	$ (167.1)	$ (166.9)

	2024	2023	2022
Details of taxes			
Earnings from continuing operations before income taxes			
Domestic	$ 342.0	$ 291.9	$ 251.7
Foreign	5.1	6.4	5.9
Total	$ 347.1	$ 298.3	$ 257.6
Income tax expense (benefit):			
Current:			
Federal	$ 64.0	$ 59.8	$ 46.3
Foreign	1.2	1.7	1.3
State	16.3	13.9	11.3
Total current	81.5	75.4	58.9
Deferred:			
Federal	(0.9)	(3.2)	(1.9)
Foreign	(0.1)	(0.2)	(0.2)
State	1.7	2.5	0.9
Total deferred	0.7	(0.9)	(1.2)
Total income tax expense	$ 82.2	$ 74.5	$ 57.7

(dollar amounts in millions, except share data)

The unremitted earnings of our foreign subsidiaries are not permanently reinvested. Accordingly, as of December 31, 2024 and 2023, we have recorded deferred income taxes for foreign withholding taxes of $ 0.9 million on approximately $ 18.2 million and $ 17.5 million of net undistributed earnings of foreign subsidiaries, respectively.

	2024	2023	2022
Reconciliation to U.S. statutory tax rate			
Continuing operations tax expense at statutory rate	$ 72.9	$ 62.6	$ 54.1
State income tax expense, net of federal impact	15.5	13.7	11.0
Expiration of deferred income tax assets	9.3	0.2	0.7
(Decrease) increase in valuation allowances on deferred income tax assets	(12.1)	0.3	(1.7)
Statute closures	(2.7)	(0.6)	(5.1)
Excess tax benefits on share-based compensation	(1.0)	(0.1)	(0.5)
U.S. permanent differences	(0.3)	(2.6)	(0.8)
Other	0.6	1.0	-
Tax expense at effective rate	$ 82.2	$ 74.5	$ 57.7

We recognize the tax benefits of an uncertain tax position only if those benefits are more likely than not to be sustained based on existing tax law. Additionally, we establish a reserve for tax positions that are more likely than not to be sustained based on existing tax law, but for which we are uncertain in the ultimate benefit to be sustained upon examination by the relevant taxing authorities. Unrecognized tax benefits are subsequently recognized at the time the more likely than not recognition threshold is met, the tax matter is effectively settled or the statute of limitations for the relevant taxing authority to examine and challenge the tax position has expired, whichever is earlier.

We had $ 24.5 million of Unrecognized Tax Benefits ("UTB") as of December 31, 2024, $ 11.6 million ($ 10.5 million, net of federal benefit) of this amount, if recognized in future periods, would impact the reported effective tax rate.

It is reasonably possible that certain UTB's may increase or decrease within the next twelve months due to tax examination changes, settlement activities, expirations of statute of limitations, or the impact on recognition and measurement considerations related to the results of published tax cases or other similar activities. Over the next twelve months we estimate that UTB's may decrease by $ 0.8 million related to state statutes expiring.

We account for all interest and penalties on uncertain income tax positions as income tax expense. We have $ 2.8 million and $ 2.3 million of interest and penalties accrued in non-current income tax payable in the Consolidated Balance Sheets as of December 31, 2024 and 2023, respectively.

We had the following activity for UTB's for the years ended December 31, 2024, 2023 and 2022:

	2024	2023	2022
Unrecognized tax benefits balance as of January 1,	$ 26.9	$ 27.3	$ 35.6
Gross change for current-year positions	0.5	0.4	0.4
Increase for prior period positions	0.2	0.2	0.2
Decrease for prior period positions	(0.2)	(0.5)	(1.4)
Decrease due to statute expirations	(2.9)	(0.5)	(7.5)
Unrecognized tax benefits balance as of December 31,	$ 24.5	$ 26.9	$ 27.3

We file income tax returns in the U.S. and various states and international jurisdictions. In the normal course of business, we are subject to examination by taxing authorities in Canada and the U.S. Generally, we have open tax years subject to tax audit on average of between three years and six years . The statute of limitations is no longer open for U.S. federal returns before 2021, with the exception of our 2018 and 2019 returns, whose statutes of limitations have been extended to November 30, 2025 due to ongoing audits. With few exceptions, the statute of limitations is no longer open for state or non-U.S. income tax examinations for years before 2020. Excluding the statute of limitation extensions for our 2018 and 2019 U.S. federal income tax returns, we have not significantly extended any open statutes of limitation for any major jurisdiction and have reviewed and accrued for, where necessary, tax liabilities for open periods.

(dollar amounts in millions, except share data)

	2024	2023	2022
Other taxes			
Payroll taxes	$ 23.9	$ 20.8	$ 18.3
Property, franchise and capital stock taxes	4.8	5.4	4.5

NOTE 17. DEBT

	December 31, 2024	December 31, 2023
Revolving credit facility (due 2027)	$ 100.0	$ 140.0
Term loan A (due 2027)	427.5	450.0
Principal debt outstanding	527.5	590.0
Unamortized debt financing costs	(2.4)	(3.2)
Long-term debt	525.1	586.8
Less current installments of long-term debt	22.5	22.5
Long-term debt, less current installments	$ 502.6	$ 564.3

We have a $950.0 million variable rate senior secured credit facility, which is comprised of a $500.0 million revolving credit facility (with a $150.0 million sublimit for letters of credit) and a $450.0 million Term Loan A. The revolving credit facility and Term Loan A are currently priced at 1.375% over the Secured Overnight Financing Rate ("SOFR"), plus a 10 basis point adjustment. We also have a $25.0 million bi-lateral letter of credit facility. The revolving credit facility and Term Loan A mature in December 2027.

On December 7, 2022, we amended and restated our senior secured credit facility, extending the maturity of both the revolving credit facility and Term Loan A from September 2024 to December 2027. In connection with the refinancing, we paid $3.1 million of bank, legal and other fees, of which $3.0 million were capitalized. These fees are reflected as a component of long-term debt and amortized into interest expense over the lives of the underlying debt. Additionally, during the fourth quarter of 2022, we wrote off $0.6 million of unamortized debt financing costs, included as a component of interest expense, related to our previous credit facility.

The senior secured credit facility includes two financial covenants that require the ratio of consolidated earnings before interest, taxes, depreciation and amortization ("EBITDA") to consolidated cash interest expense minus cash consolidated interest income to be greater than or equal to 3.0 to 1.0 and requires the ratio of consolidated funded indebtedness, minus AWI and domestic subsidiary unrestricted cash and cash equivalents up to $

100
million, to consolidated EBITDA to be less than or equal to

3.75
to 1.0 (subject to certain exceptions for certain acquisitions). As of December 31, 2024, we were in compliance with all covenants of the senior secured credit facility.

Our debt agreements include other restrictions, including restrictions pertaining to the incurrence of additional debt, the redemption, repurchase or retirement of our capital stock, payment of dividends, and certain financial transactions as it relates to specified assets. We currently believe that default under these covenants is unlikely.

Scheduled payments of long-term debt:

2025	$	22.5
2026		22.5
2027		482.5

We use lines of credit and other commercial commitments in order to ensure that adequate funds are available to meet operating requirements. Letters of credit are currently arranged through our revolving credit facility and our bi-lateral facility. Letters of credit may be issued to third party suppliers, insurance companies and financial institutions and typically can only be drawn upon in the event of AWI's failure to pay its obligations to the beneficiary. The following table presents details related to our letters of credit facilities:

		December 31, 2024	
Financing Arrangements	**Limit**	**Used**	**Available**
Bi-lateral facility	$ 25.0	$ 7.7	$ 17.3
Revolving credit facility	150.0	-	150.0
Total	$ 175.0	$ 7.7	$ 167.3

(dollar amounts in millions, except share data)

Other Commitments

In the ordinary course of business, and primarily due to our December 2024 acquisition of Zahner, we provided corporate guarantees and obtained surety bonds in support of underlying contractual commitments to our customers. As of December 31, 2024, $21.9 million of surety bonds is outstanding associated with custom manufacturing projects that were issued by reputable surety providers. In the event of our non-performance, we may be required to reimburse surety providers to cover qualifying financial loss up to the bond amounts. We believe the risk of financial loss associated with our outstanding guarantees and surety bonds is remote and as such, have recorded no liability associated with such commitments on our Consolidated Balance Sheets.

NOTE 18. PENSION AND OTHER BENEFIT PROGRAMS

DEFINED CONTRIBUTION BENEFIT PLANS

We sponsor several defined contribution plans, which cover substantially all U.S. and non-U.S. employees. Eligible employees may defer a portion of their pre-tax covered compensation on an annual basis. We match employee contributions up to pre-defined percentages. Employee contributions are 100% vested. Employer contributions are vested based on pre-defined requirements. Costs for defined contribution benefit plans were $12.7 million in 2024, $10.4 million in 2023 and $8.4 million in 2022.

DEFINED BENEFIT PENSION PLANS

Benefits from defined benefit pension plans are based primarily on an employee's compensation and years of service. We fund our pension plans when appropriate.

Our U.S. defined benefit pension plans include a qualified, funded RIP and a Retirement Benefit Equity Plan (“RBEP”), which is a nonqualified, unfunded plan designed to provide pension benefits in excess of the limits defined under Sections 415 and 401(a)(17) of the Internal Revenue Code.

We have a defined benefit pension plan in Germany which remains from previously discontinued entities. This plan uses assumptions which are consistent with, but not identical to, those of the U.S. plans. The accumulated benefit obligation for the non-U.S. defined benefit pension plan was $2.1 million and $2.0 million as of December 31, 2024 and 2023, respectively.

As a result of our acquisition of Zahner, we are required to make regular contributions to a multi-employer defined benefit pension plan (“Multi-Employer Plan”) under the terms of collective bargaining agreements that cover union-represented employees and that expire during 2025. Assets contributed to the Multi-Employer Plan may be used to provide benefits to employees of other participating employers. If a participating employer stops contributing to the Multi-Employer Plan, the unfunded obligations of the plan may be borne by the remaining participating employers. In the event we choose to stop participating in the Multi-Employer Plan, we may be required to pay a withdrawal liability based on the underfunded status of the plan. Because we believe the Multi-Employer Plan is adequately funded at this time, and we have no current intention of withdrawing from the Multi-Employer Plan, we have not recorded a liability associated with this plan on our Consolidated Balance Sheets. Our contributions to the Multi-Employer Plan for the year ended December 31, 2024 were $0.2 million.

The following tables summarize the balance sheet impact of our U.S. defined benefit pension plans, as well as the related benefit obligations, assets, funded status and rate assumptions. We use a December 31 measurement date for all our defined benefit pension plans.

	2024	2023
Change in benefit obligations:		
Benefit obligations as of beginning of period	$ 356.5	$ 337.1
Service cost	2.5	2.6
Interest cost	16.9	16.9
Actuarial (gain) loss	(25.1)	13.7
Benefits paid	(31.6)	(13.8)

Benefit obligations as of end of period	$ 319.2	$ 356.5

(dollar amounts in millions, except share data)

	2024	2023
Change in plan assets:		
Fair value of plan assets as of beginning of period	$ 413.4	$ 391.7
Actual return on plan assets	(2.4)	32.7
Employer contributions	2.5	2.8
Benefits paid	(31.6)	(13.8)
Fair value of plan assets as of end of period	$ 381.9	$ 413.4
Funded status	$ 62.7	$ 56.9

	2024	2023
Weighted-average assumptions used to determine benefit obligations at end of period:		
Discount rate	5.68 %	5.01 %
Rate of compensation increase	3.33 %	3.33 %
Weighted-average assumptions used to determine net periodic benefit cost for the period:		
Discount rate	5.01 %	5.21 %
Expected return on plan assets	6.00 %	6.50 %
Rate of compensation increase	3.33 %	3.33 %

Basis of Rate-of-Return Assumption

Long-term asset class return assumptions for the RIP are determined based on input from investment professionals on the expected performance of the asset classes over 10 to 30 years . The forecasts were averaged to derive consensus passive return forecasts for each asset class. Incremental components were added for the expected return from active management and asset class rebalancing based on historical information obtained from investment consultants. These forecasted gross returns were reduced by estimated management fees and expenses, yielding a long-term return forecast of 6.00 % and 6.50 % for the years ended December 31, 2024 and 2023, respectively.

The accumulated benefit obligation for the U.S. defined benefit pension plans was $ 318.1 million and $ 355.2 million as of December 31, 2024 and 2023, respectively. In 2024, the largest contributor to the net actuarial gain affecting the benefit obligations for the defined benefit pension plans was an increase in discount rate, partially offset by changes in census data. In 2023, the largest contributor to the net actuarial loss affecting the benefit obligations for the defined benefit pension plans was a decrease in discount rate and changes in census data.

	2024	2023
U.S. pension plans with benefit obligations in excess of assets		
RBEP Projected benefit obligation, December 31	$ 25.6	$ 27.7
RBEP Accumulated benefit obligation, December 31	25.6	27.7

The components of the pension cost for the U.S. defined benefit pension plans are as follows:

	2024	2023	2022
Service cost of benefits earned during the period	$ 2.5	$ 2.6	$ 3.7
Interest cost on projected benefit obligation	16.9	16.9	10.5
Expected return on plan assets	(24.3)	(25.0)	(18.4)
Amortization of net actuarial loss	5.2	5.4	4.2
Net periodic pension cost (credit)	$ 0.3	$ (0.1)	$ -

For 2024, 2023 and 2022, actuarial gains and losses were amortized over the remaining life expectancy of plan participants, which was approximately 24 years for 2024, 26 years for 2023 and 26 years for 2022 for our U.S. defined benefit pension plans.

Investment Policies

U.S. Pension Plans

The RIP's primary investment objective is to maintain the funded status of the plan such that the likelihood we will be required to make significant contributions to the plan is limited. This objective is expected to be achieved by (a) investing a substantial portion of the plan assets in high quality corporate bonds whose duration is at least equal to that of the plan's liabilities, (b) investing in publicly traded equities in order to increase the ratio of plan assets to liabilities over time, (c) limiting investment return volatility by diversifying among additional asset classes with differing expected rates of return and return correlations, and/or (d) using derivatives to either implement investment positions efficiently or to hedge risk but not to create investment leverage.

(dollar amounts in millions, except share data)

Each asset class utilized by the RIP has defined asset allocation targets and allowable ranges. The table below shows the asset allocation targets and the December 31, 2024 and 2023 positions for each asset class:

Asset Class	Target Weight at December 31, 2024	Position as of December 31, 2024	2023
Long duration bonds	90.0 %	90.0 %	90.0 %
Equities, real estate and private equity	10.0 %	10.0 %	10.0 %

Pension plan assets are required to be reported and disclosed at fair value. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Three levels of inputs may be used to measure fair value:

Level 1 - Quoted prices in active markets for identical assets or liabilities.

Level 2 - Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The asset's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

The following table sets forth by level within the fair value hierarchy a summary of the RIP plan assets measured at fair value on a recurring basis:

Description	Value as of December 31, 2024 Level 1	Level 2	Level 3	Total
Collective trust funds - bonds	$ -	$ 342.3	$ -	$ 342.3
Collective trust funds - equities	-	32.0	-	32.0
Cash, other short-term investments and payables, net	(0.5)	4.7	-	4.2
Net assets measured at fair value	$ (0.5)	$ 379.0	$ -	$ 378.5
Investments measured at net asset value as a practical expedient				3.4
Net assets				$ 381.9

Description	Value as of December 31, 2023 Level 1	Level 2	Level 3	Total
Collective trust funds - bonds	$ -	$ 371.5	$ -	$ 371.5
Collective trust funds - equities	-	34.3	-	34.3
Cash, other short-term investments and payables, net	(0.3)	3.8	-	3.5
Net assets measured at fair value	$ (0.3)	$ 409.6	$ -	$ 409.3
Investments measured at net asset value as a practical expedient				4.1

Net assets	$	413.4

The RIP has investments in alternative investment funds as of December 31, 2024 and 2023 which are reported at fair value. These investments that are measured at fair value using the net asset value ("NAV") per share (or its equivalent) practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in the tables above are intended to permit reconciliation of the fair value hierarchy to the total fair value of plan assets. We have concluded that the NAV reported by the underlying fund approximates the fair value of the investment. These investments are redeemable at NAV under agreements with the underlying funds. However, it is possible that these redemption rights may be restricted or eliminated by the funds in the future in accordance with the underlying fund agreements. Due to the nature of the investments held by the funds, changes in market conditions and the economic environment may significantly impact the NAV of the funds and, consequently, the fair value of the U.S. defined benefit pension plan asset's interest in the funds. Furthermore, changes to the liquidity provisions of the funds may significantly impact the fair value of the U.S. defined benefit pension plan asset's interest in the funds. As of December 31, 2024, there were no restrictions on redemption of these investments.

(dollar amounts in millions, except share data)

The following table sets forth a summary of the RIP's investments measured at NAV:

	Value as of December 31, 2024			
Description	**Fair Value**	**Unfunded Commitments**	**Redemption Frequency**	**Redemption Notice Period**
Real estate	$ 3.4	$ 2.2	Quarterly	60 days

	Value as of December 31, 2023			
Description	**Fair Value**	**Unfunded Commitments**	**Redemption Frequency**	**Redemption Notice Period**
Real estate	$ 4.1	$ 2.2	Quarterly	60 days

Following is a description of the valuation methodologies used for assets measured at fair value and at NAV.

Collective trust funds – bonds: Consists primarily of collective trust funds, in addition to registered investment funds and common trust funds, which invest in fixed income securities tailored to institutional investors. There are no readily available market quotations for registered investment company funds. The fair value of collective trust funds, registered investment funds and common trust funds have been classified as Level 2 assets above based on the determination that the funds have quoted prices in non-active markets. The funds are priced on a daily basis by their trustee and therefore have a readily determinable fair value; however, the number of trades occurring is not sufficient for the market to be considered active. Investments in pooled funds traded in a non-active market were valued at bid price and classified as Level 2 assets above.

Collective trust funds – equities: Represents collective trust funds holding equity investments, fixed income securities, commodity futures contracts, cash and other short-term securities. The fair value of collective trust funds have been classified as Level 2 assets above based on the determination that the funds have quoted prices in non-active markets. The funds are priced on a daily basis by their trustee and therefore have a readily determinable fair value; however, the number of trades occurring is not sufficient for the market to be considered active.

Cash, other short-term investments and payables: Consists primarily of cash and cash equivalents, and plan receivables/payables. The carrying amounts of cash and cash equivalents and receivables/payables approximate fair value due to the short-term nature of these instruments. Other payables and receivables consist primarily of accrued fees and receivables related to liquidated investment positions for which proceeds had not been received as of December 31.

Real estate: Consists of both open-end and closed-end real estate funds. There are no readily available market quotations for these real estate funds. These investments were measured at fair value using the NAV practical expedient.

(dollar amounts in millions, except share data)

DEFINED BENEFIT RETIREE HEALTH AND LIFE INSURANCE PLANS

We fund postretirement benefits on a pay-as-you-go basis, with the retiree paying a portion of the cost for health care benefits by means of deductibles and contributions.

The following tables summarize the balance sheet impact of our postretirement benefit pension plans, as well as the related benefit obligations, funded status and rate assumptions. We use a December 31 measurement date for all our defined benefit postretirement benefit plans.

	2024	2023
Change in benefit obligations:		
Benefit obligation as of beginning of period	$ 47.6	$ 61.9
Interest cost	2.2	2.9
Plan participants' contributions	1.5	1.7
Actuarial gain	(5.0)	(11.6)
Benefits paid	(6.9)	(7.3)
Benefit obligations as of end of period	$ 39.4	$ 47.6

	2024	2023
Change in plan assets:		
Fair value of plan assets as of beginning of period	$ -	$ -
Employer contributions	5.4	5.6
Plan participants' contributions	1.5	1.7
Benefits paid	(6.9)	(7.3)
Fair value of plan assets as of end of period	$ -	$ -
Funded status	$ (39.4)	$ (47.6)

	2024	2023
Weighted-average discount rate used to determine benefit obligations at end of period	5.59 %	4.96 %
Weighted-average discount rate used to determine net periodic benefit cost for the period	4.96 %	5.13 %

In 2024, the largest contributor to the actuarial gains affecting the benefit obligation for the postretirement plans was an update to the per capita claims assumption and an increase in the discount rate, partially offset by updated healthcare cost trend rates. In 2023, the largest contributor to the actuarial gains affecting the benefit obligation for the postretirement plans was an update to the per capita claims assumption and updated healthcare cost trend rates, partially offset by a decrease in discount rate.

The components of postretirement benefit (credit) are as follows:

	2024	2023	2022
Interest cost on accumulated postretirement benefit obligation	$ 2.2	$ 2.9	$ 1.5

Amortization of prior service (credit)	(0.2)	(0.3)	(0.3)
Amortization of net actuarial gain	(8.6)	(5.9)	(2.8)
Net periodic postretirement benefit (credit)	$ (6.6)	$ (3.3)	$ (1.6)

For measurement purposes, an average rate of annual increase in the per capita cost of covered health care benefits of 7.8% for pre-65 retirees and 10.5% for post-65 retirees was assumed for 2024, decreasing ratably to an ultimate rate of 4.5% in 2034.

Amounts recognized in assets (liabilities) on the consolidated balance sheets at year end consist of:

	U.S. Pension Plans		Non-U.S. Pension Plan		Retiree Health and Life Insurance Benefits	
	2024	2023	2024	2023	2024	2023
Prepaid pension costs	$ 88.3	$ 84.6	$ -	$ -	$ -	$ -
Accounts payable and accrued expenses	(2.9)	(2.7)	(0.2)	(0.1)	(4.1)	(5.2)
Postretirement benefit liabilities	-	-	-	-	(35.3)	(42.4)
Pension benefit liabilities	(22.7)	(25.0)	(1.9)	(1.9)	-	-
Net amount recognized	$ 62.7	$ 56.9	$ (2.1)	$ (2.0)	$ (39.4)	$ (47.6)

(dollar amounts in millions, except share data)

Pre-tax amounts recognized in accumulated other comprehensive (loss) income at year end consist of:

	U.S. Pension Plans		Retiree Health and Life Insurance Benefits	
	2024	2023	2024	2023
Net actuarial (loss) gain	$ (168.7)	$ (172.4)	$ 25.4	$ 28.9
Prior service credit	-	-	0.7	0.9
Accumulated other comprehensive (loss) income	$ (168.7)	$ (172.4)	$ 26.1	$ 29.8

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid over the next ten years for our U.S. plans:

	U.S. Pension Benefits (1)	Retiree Health and Life Insurance Benefits, Net
2025	$ 20.8	$ 4.1
2026	21.5	4.1
2027	22.3	4.0
2028	23.2	3.7
2029	23.6	3.6
2030 - 2034	122.5	14.9

(1) We were not required and did not make contributions to the RIP during 2024, 2023 or 2022 as, based on guidelines established by the Pension Benefit Guaranty Corporation, the RIP had sufficient assets to fund its distribution obligations. Benefit payments to RIP participants have been made directly from the RIP while benefit payments under the RBEP are funded by the Company.

NOTE 19. FINANCIAL INSTRUMENTS AND CONTINGENT CONSIDERATION

We do not hold or issue financial instruments for trading purposes. The estimated fair values of our financial instruments and contingent consideration are as follows:

	December 31, 2024		December 31, 2023	
	Carrying amount	Estimated fair value	Carrying amount	Estimated fair value
Liabilities, net				
Total long-term debt, including current portion	$ (525.1)	$ (525.1)	$ (586.8)	$ (586.8)
Interest rate swap contracts	(1.5)	(1.5)	(0.4)	(0.4)
Acquisition-related contingent consideration	(3.2)	(3.2)	(1.6)	(1.6)

The carrying amounts of cash and cash equivalents, receivables and accounts payable approximate fair value because of the short-term maturity of these instruments. The fair value estimates of long-term debt are based on data for our Term Loan A debt provided by a major financial institution. The fair value estimates for interest rate swap contracts are estimated with the assistance of an independent, third-party valuation expert and verified by obtaining quotes from major financial institutions. We engaged an independent, third-party valuation specialist to determine the fair value estimates for acquisition-related contingent consideration payable based on performance, which were measured primarily using a Monte Carlo simulation. As of December 31, 2024, $ 1.5 million of acquisition-related contingent consideration liabilities payable, related to the final achievement of certain financial and performance milestones through December 31, 2024 for the BOK acquisition, was classified as accounts payable and accrued expenses on our Consolidated Balance Sheet and was equal to fair value as milestone achievements were known. As of December 31, 2024 and 2023, acquisition-related contingent consideration liabilities of $ 1.7 and $

1.6
million, respectively, related to future financial and performance milestones for the BOK and Insolcorp acquisitions and were classified as long-term liabilities on our Consolidated Balance Sheets.

(dollar amounts in millions, except share data)

The fair value measurement of assets and liabilities measured at fair value on a recurring basis and reported on the Consolidated Balance Sheets is summarized below:

	December 31, 2024 Fair value based on		December 31, 2023 Fair value based on	
	Other observable inputs Level 2	Other unobservable inputs Level 3	Other observable inputs Level 2	Other unobservable inputs Level 3
Liabilities, net:				
Interest rate swap contracts	$ (1.5)	$ -	$ (0.4)	$ -
Acquisition-related contingent consideration	-	(1.7)	-	(1.6)

Acquisition-related contingent consideration of $1.7 million and $1.6 million as of December 31, 2024 and 2023, respectively, was measured with the use of significant unobservable inputs, which included financial projections over the earn-out period, the volatility of the underlying financial metrics and estimated discount rates. All changes in the contingent consideration liability subsequent to the initial acquisition-date measurements were recorded as a component of operating income on our Consolidated Statements of Earnings and Comprehensive Income.

The following table summarizes the weighted-average of the significant unobservable inputs as of December 31, 2024:

	BOK	Insolcorp
Unobservable input		
Volatility	25.5 %	23.4 %
Discount rates	4.2 %	4.3 %

The changes in fair value of the acquisition-related contingent consideration liabilities for the years ended December 31, 2024, 2023 and 2022 were as follows:

	Fair Value of Contingent Consideration
Balance as of December 31, 2021	$ 12.8
Cash consideration paid	(8.6)
Loss related to change in fair value of contingent consideration	11.0
Balance as of December 31, 2022	$ 15.2
Cash consideration paid	(15.2)
Acquisition date fair value of BOK contingent consideration	0.8
Acquisition date fair value of Insolcorp contingent consideration	0.7
Loss related to change in fair value of contingent consideration	0.1
Balance as of December 31, 2023	$ 1.6

Loss related to change in fair value of contingent consideration	1.6
Balance as of December 31, 2024	$ 3.2

As of December 31, 2024 and 2023, the acquisition-related contingent consideration liabilities represented the additional cash consideration payable related to our acquisition of BOK and Insolcorp that will be paid upon the achievement of certain financial and performance milestones.

During 2024, the change in fair value was due to changes in BOK actual and projected results over the earn out period and changes in Insolcorp projected results over the earn out period. During 2023, the change in fair value was due to changes in Monte Carlo simulation inputs for BOK. During 2022, the change in fair value was due to changes in actual and projected results over the earn out period for TURF Design, Inc. (“Turf”), acquired in July 2020.

During 2023, we paid $ 15.2 million of additional cash consideration for the acquisition of Turf, which represented the final achievement of certain financial and performance milestones through December 31, 2022. During 2022, we paid $ 8.6 million of additional cash consideration for the acquisitions of Moz Design, Inc. (“Moz”), acquired in October 2020, and Turf, which represented the final achievement of certain financial and performance milestones through December 31, 2021.

(dollar amounts in millions, except share data)

NOTE 20. DERIVATIVE FINANCIAL INSTRUMENTS

We are exposed to market risk from changes in foreign exchange rates, interest rates and commodity prices that could impact our results of operations, cash flows and financial condition. We use interest rate derivatives to manage our exposures to interest rates. At inception, interest rate swap derivatives that we designate as hedging instruments are formally documented as a hedge of a forecasted transaction or cash flow hedge. We also formally assess, both at inception and at least quarterly thereafter, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in the cash flows of the hedged item. If it is determined that a derivative ceases to be a highly effective hedge, or if the anticipated transaction is no longer probable of occurring, we discontinue hedge accounting, and any future mark-to-market adjustments are recognized in earnings. We use derivative financial instruments as risk management tools and not for speculative trading purposes.

Counterparty Risk

We only enter into derivative transactions with established financial institution counterparties having an investment-grade credit rating. We monitor counterparty credit ratings on a regular basis. All of our derivative transactions with counterparties are governed by master International Swap and Derivatives Association agreements (“ISDAs”) with netting arrangements. These agreements can limit our exposure in situations where we have gain and loss positions outstanding with a single counterparty. We do not post, nor do we receive cash collateral with any counterparty for our derivative transactions. These ISDAs do not have any credit contingent features; however, a default under our bank credit facility would trigger a default under these agreements. Exposure to individual counterparties is controlled and we consider the risk of counterparty default to be negligible.

Interest Rate Risk

We use interest rate swaps to minimize the fluctuations in earnings caused by interest rate volatility. In March 2023, we amended our interest rate swaps outstanding in accordance with ASU 2020-04, “Facilitation of the Effects of Reference Rate Reform on Financial Reporting,” changing our hedged interest rate from the discontinued London Interbank Offered Rate, or LIBOR, to SOFR.

These swaps are designated as cash flow hedges against changes in the SOFR for a portion of our variable rate debt. The following table summarizes our interest rate swaps as of December 31, 2024:

Coverage Period	Notional Amount		Risk Coverage	Trade Date
March 2021 to March 2025	$	100.0	USD-SOFR	November 28, 2018
November 2023 to December 2025	$	50.0	USD-SOFR	October 23, 2023
March 2024 to June 2026	$	50.0	USD-SOFR	March 25, 2024
November 2023 to December 2026	$	50.0	USD-SOFR	October 10, 2023
March 2024 to June 2027	$	50.0	USD-SOFR	March 27, 2024
November 2023 to November 2027	$	50.0	USD-SOFR	September 29, 2023
June 2024 to June 2028	$	50.0	USD-SOFR	June 26, 2024

Under the terms of the interest rate swap with a November 28, 2018 trade date above, we pay a fixed rate monthly and receive a floating rate based on SOFR, inclusive of a

0
% floor. Under the terms of all remaining interest rate swaps above, we pay a fixed rate monthly and receive a floating rate based on SOFR.

(dollar amounts in millions, except share data)

Financial Statement Impacts

The following tables detail amounts related to our derivatives as of December 31, 2024 and 2023. We did not have any derivative assets or liabilities not designated as hedging instruments as of December 31, 2024 or 2023. The derivative asset and liability amounts below are shown gross and have not been netted.

	Derivative Assets			Derivative Liabilities		
		Fair Value			Fair Value	
	Balance Sheet Location	December 31, 2024	December 31, 2023	Balance Sheet Location	December 31, 2024	December 31, 2023
Interest rate swap contracts	Other current assets	$ 0.3	$ 1.1	Accounts payable and accrued expenses	$ 0.3	$ 0.1
Interest rate swap contracts	Other non-current assets	-	1.8	Other long-term liabilities	1.5	3.2

	Amount of Gain (Loss) Recognized in AOCI			Location of Gain (Loss) Reclassified from AOCI into Net Earnings	Gain Reclassified from AOCI into Net Earnings		
	2024	2023	2022		2024	2023	2022
Derivatives in cash flow hedging relationships							
Interest rate swap contracts	$ 3.3	$ (0.6)	$ 26.9	Interest expense	$ 5.5	$ 11.5	$ 2.0

As of December 31, 2024, the amount of existing losses in AOCI expected to be recognized in earnings over the next twelve months was $ 0.4 million.

NOTE 21. OTHER LONG-TERM LIABILITIES

	December 31, 2024	December 31, 2023
Long-term deferred compensation arrangements	$ 12.9	$ 12.3
Fair value of derivative liabilities	1.5	3.2
Long-term environmental liabilities	4.2	0.5
Environmental insurance recoveries received in excess of cumulative expenses incurred	-	2.6
Acquisition-related contingent consideration	1.7	1.6
Other	8.1	6.6
Total other long-term liabilities	$ 28.4	$ 26.8

NOTE 22. SHARE-BASED COMPENSATION PLANS

The 2022 Equity and Cash Incentive Plan ("2022 ECIP") authorizes us to issue stock options, stock appreciation rights, restricted stock awards, performance-based awards and cash awards to officers and key employees. The 2022 ECIP authorizes us to issue up to 2,651,472 shares of common stock, and expires on June 15, 2032 , after which time no further awards may be made. As of December 31, 2024, 2,427,008 shares were available for future grants under the 2022 ECIP, which includes anticipated future adjustments to shares for performance-based awards that have been previously granted.

The 2016 Directors Stock Unit Plan ("2016 Director's Plan") authorizes us to issue stock units to non-employee directors and expires on July 8, 2026. The 2016 Director's Plan authorizes us to issue up to 250,000 shares of common stock, which includes all shares that have been issued under the 2016 Director's Plan. As of December 31, 2024, 125,310 shares were available for future grants under the 2016 Director's Plan.

The 2020 Inducement Award Plan (“2020 Inducement Plan”) authorizes us to issue stock options, stock appreciation rights, restricted stock awards and stock units to key employees and expires on December 14, 2030 , after which time no further awards may be made. The 2020 Inducement Plan authorizes us to issue up to 19,000 shares of common stock. As of December 31, 2024, 8,903 shares were available for future grants under the 2020 Inducement Plan. As of December 31, 2024 and 2023 there were no shares outstanding under the 2020 Inducement Plan.

(dollar amounts in millions, except share data)

The following table presents stock option activity for the year ended December 31, 2024:

	Number of shares (thousands)	Weighted-average exercise price
Option shares outstanding, December 31, 2023	6.2	$ 48.86
Option shares exercised	(6.2)	$ 48.86
Option shares outstanding, December 31, 2024	-	$ -
Option shares exercisable, vested and expected to vest, December 31, 2024	-	$ -

The following table presents information related to stock option exercises:

	2024	2023	2022
Total intrinsic value of stock options exercised	$ 0.3	$ 1.3	$ 1.3
Cash proceeds received from stock options exercised	1.4	0.2	1.8
Tax deduction realized from stock options exercised	0.1	0.3	0.1

The fair value of option grants was estimated on the date of grant using the Black-Scholes option pricing model. There have been no option grants since 2014.

In 2024 w e also granted non-vested stock awards in the form of Restricted Stock Units ("RSUs") and Performance Stock Units ("PSUs"). A summary of the 2024 activity related to the RSUs and PSUs is as follows:

	Non-Vested Stock Awards			
	RSUs		PSUs	
	Number of shares (thousands)	Weighted-average fair value at grant date	Number of shares (thousands)	Weighted-average fair value at grant date
December 31, 2023	205.4	$ 75.56	308.5	$ 98.44
Granted	68.8	124.10	65.7	140.44
Performance adjustments	-	-	(0.2)	(102.16)
Vested	(33.7)	(82.29)	(103.9)	(104.75)
Forfeited	(8.7)	(89.80)	(9.1)	(100.83)
December 31, 2024	231.8	$ 88.46	261.0	$ 108.09

RSUs entitle the recipient to a specified number of shares of AWI's common stock provided the prescribed service period is fulfilled. PSUs entitle the recipient to a specified number of shares of AWI's common stock provided the prescribed service period is fulfilled and the defined financial targets are achieved at the end of the performance period. Upon vesting, final adjustments based upon financial achievements are reflected as performance adjustments in the table above. RSUs and PSUs generally have vesting periods of three years at the grant date. RSUs and PSUs earn dividends during the vesting period that are subject to forfeiture if the awards do not vest.

RSUs and PSUs with non-market based performance conditions are measured at fair value based on the closing price of our stock on the date of grant. In 2024 and 2023, we granted 31,118 and 48,073 PSUs, respectively, with market-based performance conditions that are valued through the use of a Monte Carlo simulation. The weighted average assumptions for PSUs measured at fair value through the use of a Monte Carlo simulation are presented in the table below.

	2024	2023
Weighted-average grant date fair value of market-based PSUs granted (dollars per award)	$ 164.22	$ 121.69
Assumptions		
Risk-free rate of return	4.4 %	4.5 %
Expected volatility	27.7 %	38.7 %
Expected term (in years)	3.1	3.1
Expected dividend yield	0.0 %	0.0 %

The risk-free rate of return was determined based on the implied yield available on zero coupon U.S. Treasury bills at the time of grant with a remaining term equal to the expected term of the PSUs. The expected volatility was based on historical volatility of our stock price commensurate with the expected term of the PSUs. The expected term represented the performance period for the underlying award. The expected dividend yield was assumed to be zero under the assumption that dividends distributed during the performance period are reinvested in AWI's common stock.

(dollar amounts in millions, except share data)

As of December 31, 2024 and 2023, there were 31,472 and 53,938 RSUs, respectively, outstanding under the 2016 Directors Stock Unit Plan not reflected in the non-vested stock awards table above. In 2024 and 2023, we granted 7,041 and 13,086 RSUs, respectively, to non-employee directors. These awards generally have a vesting period of one year , and as of December 31, 2024 and 2023, 24,431 and 40,852 shares, respectively, were vested but not yet delivered. The awards are generally payable upon vesting or the director's deferral election. These awards earn dividends during the vesting period that are subject to forfeiture if the underlying award does not vest.

We recognize share-based compensation expense on a straight-line basis over the vesting period. Share-based compensation cost was $ 18.3 million ($ 13.7 million net of tax benefit) in 2024, $ 18.8 million ($ 14.1 million net of tax benefit) in 2023, and $ 14.3 million ($ 10.8 million net of tax benefit) in 2022.

As of December 31, 2024, there was $ 23.1 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements which is expected to be recognized over a weighted-average period of 1.8 years.

NOTE 23. EMPLOYEE COSTS

	2024	2023	2022
Wages, salaries and incentive compensation	$ 320.2	$ 282.1	$ 259.7
Payroll taxes	23.9	20.8	18.3
Defined contribution and defined benefit pension plan expense, net	13.1	10.4	8.5
Insurance and other benefit costs	37.0	32.5	29.9
Share-based compensation	18.3	18.8	14.3
Total	$ 412.5	$ 364.6	$ 330.7

NOTE 24. SHAREHOLDERS' EQUITY

Common Stock Repurchase Plan

On July 29, 2016, our Board of Directors approved a share repurchase program authorizing us to repurchase up to $ 150.0 million of our outstanding shares of common stock (the "Program"). Since inception of the Program, we have been authorized to repurchase up to an aggregate of $

1,700.0
million of our outstanding shares of common stock through December 31, 2026 . We had $

661.8
million remaining under the Board’s repurchase authorization as of December 31, 2024.

Repurchases of our common stock under the Program may be made through open market, block and privately negotiated transactions, including Rule 10b5-1 plans, at such times and in such amounts as management deems appropriate, subject to market and business conditions, regulatory requirements and other factors. The Program does not obligate AWI to repurchase any particular amount of common stock and may be suspended or discontinued at any time without notice.

During 2024, we repurchased

0.5
million shares under the Program for a total cost of $

55.0
million, excluding commissions and taxes, or an average price of $

119.03
per share. Since inception, we have repurchased

14.6
million shares under the Program for a total cost of $

1,038.2
million, excluding commissions and taxes, or an average price of $

70.89
per share.

Dividends

In February, April and July 2024, our Board of Directors declared $

0.28

per share quarterly dividends, which were paid to shareholders in March, May and August 2024. In October 2024, our Board of Directors declared a $

0.308
per share quarterly dividend, which was paid to shareholders in November 2024. On February 19, 2025, our Board of Directors declared a $

0.308
per share quarterly dividend to be paid in March 2025.

(dollar amounts in millions, except share data)

Accumulated Other Comprehensive (Loss)

The balance of each component of accumulated other comprehensive (loss), net of tax is presented in the table below.

	December 31, 2024	December 31, 2023
Foreign currency translation adjustments	$ (2.2)	$ 1.0
Derivative (loss) gain, net	(1.1)	0.5
Pension and postretirement adjustments	(106.9)	(106.2)
Accumulated other comprehensive (loss)	$ (110.2)	$ (104.7)

The amounts and related tax effects allocated to each component of other comprehensive income (loss) for 2024, 2023, and 2022 are presented in the tables below.

	Pre-tax Amount	Tax (Expense) Benefit	After-tax Amount
2024			
Foreign currency translation adjustments	$ (3.9)	$ 0.7	$ (3.2)
Derivative (loss), net	(2.2)	0.6	(1.6)
Pension and postretirement adjustments	(0.7)	-	(0.7)
Total other comprehensive (loss)	$ (6.8)	$ 1.3	$ (5.5)

	Pre-tax Amount	Tax (Expense) Benefit	After-tax Amount
2023			
Foreign currency translation adjustments	$ 0.5	$ -	$ 0.5
Derivative (loss), net	(12.1)	3.1	(9.0)
Pension and postretirement adjustments	5.2	(1.3)	3.9
Total other comprehensive (loss)	$ (6.4)	$ 1.8	$ (4.6)

	Pre-tax Amount	Tax Benefit (Expense)	After-tax Amount
2022			
Foreign currency translation adjustments	$ (1.8)	$ -	$ (1.8)
Derivative gain, net	$ 24.9	$ (6.3)	$ 18.6
Pension and postretirement adjustments	(9.6)	2.3	(7.3)
Total other comprehensive income	$ 13.5	$ (4.0)	$ 9.5

(dollar amounts in millions, except share data)

The following table summarizes the activity, by component, related to the change in AOCI for December 31, 2024 and 2023:

	Foreign Currency Translation Adjustments	Derivative (Loss) Gain [(1)]	Pension and Postretirement Adjustments [(1)]	Total Accumulated Other Comprehensive (Loss) Income [(1)]
Balance, December 31, 2022	$ 0.5	$ 9.5	$ (110.1)	$ (100.1)
Other comprehensive income (loss) before reclassifications, net of tax (expense) benefit of $ -, $ 0.2, ($ 1.5) and ($ 1.3)	0.5	(0.4)	4.5	4.6
Amounts reclassified from accumulated other comprehensive (loss)	-	(8.6)	(0.6)	(9.2)
Net current period other comprehensive income (loss)	0.5	(9.0)	3.9	(4.6)
Balance, December 31, 2023	1.0	0.5	(106.2)	(104.7)
Other comprehensive (loss) income before reclassifications, net of tax benefit (expense) of $ 0.7, ($ 0.8), ($ 0.8) and ($ 0.9)	(3.2)	2.5	2.1	1.4
Amounts reclassified from accumulated other comprehensive (loss)	-	(4.1)	(2.8)	(6.9)
Net current period other comprehensive (loss)	(3.2)	(1.6)	(0.7)	(5.5)
Balance, December 31, 2024	$ (2.2)	$ (1.1)	$ (106.9)	$ (110.2)

(1) Amounts are net of tax and include our 50 % share of AOCI components from our WAVE joint venture.

The amounts reclassified from AOCI, and the affected line item of the Consolidated Statements of Earnings and Comprehensive Income, are presented in the table below.

	Amounts Reclassified from Accumulated Other Comprehensive (Loss) 2024	2023	Affected Line Item in the Consolidated Statements of Earnings and Comprehensive Income
Derivative Adjustments:			
Interest rate swap contracts, before tax	$ (5.5)	$ (11.5)	Interest expense

Tax impact	1.4	2.9	Income tax expense
Total (income), net of tax	(4.1)	(8.6)	
Pension and Postretirement Adjustments:			
Prior service credit amortization	(0.2)	(0.3)	Other non-operating (income), net
Amortization of net actuarial (gain)	(3.4)	(0.5)	Other non-operating (income), net
Total (income), before tax	(3.6)	(0.8)	
Tax impact	0.8	0.2	Income tax expense
Total (income), net of tax	(2.8)	(0.6)	
Total reclassifications for the period	$ (6.9)	$ (9.2)	

NOTE 25. SUPPLEMENTAL FINANCIAL INFORMATION

	2024	2023	2022
Selected operating expense			
Maintenance and repair costs	$ 52.4	$ 48.3	$ 42.7
Product innovation costs	15.7	14.5	14.9
Advertising costs	9.1	8.9	9.2
Other non-operating (income), net			
Interest income	$ (3.8)	$ (3.5)	$ (0.5)
Pension and postretirement (credits)	(8.7)	(5.9)	(5.3)
Other	(0.1)	(0.5)	(0.2)
Total	$ (12.6)	$ (9.9)	$ (6.0)

NOTE 26. RELATED PARTIES

For some customers, we purchase grid products from WAVE for resale to customers. The total amount of these purchases was $

34.4
million in 2024, $

32.6
million in 2023 and $

34.5
million in 2022. We also provide certain selling, promotional and administrative processing services to WAVE for which we receive reimbursement. Those services amounted to $

26.5
million in 2024, $

27.8
million in 2023, and $

29.1
million in 2022. The net amount due to WAVE from us for all of our relationships was $

3.8
million as of December 31, 2024 and $

1.9
million as of December 31, 2023. See Note 11 to the Consolidated Financial Statements for additional information.

NOTE 27. LITIGATION AND RELATED MATTERS

ENVIRONMENTAL MATTERS
Environmental Compliance
Our manufacturing and research facilities are affected by various federal, state and local requirements relating to the discharge of materials and the protection of the environment. We make expenditures necessary for compliance with applicable environmental requirements at each of our operating facilities. While these expenditures are not typically material, the applicable regulatory requirements continually change and, as a result, we cannot predict with certainty the amount, nature or timing of future expenditures associated with environmental compliance.

Environmental Sites
Summary
We are actively involved in the investigation and remediation of existing or potential environmental contamination under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") and state Superfund and similar environmental laws at two domestically owned locations allegedly resulting from past industrial activity.

In each location, we are one of multiple potentially responsible parties and have agreed to jointly fund the required investigation and remediation, while preserving our defenses to the liability. We may also have rights of contribution or reimbursement from other parties or coverage under applicable insurance policies. We have pursued coverage and recoveries under those applicable insurance policies with respect to certain of the sites, including the Macon, Georgia site and the Elizabeth City, North Carolina site, each of which is summarized below. Other than disclosed below, we are unable to predict the outcome of these matters or the timing of any future recoveries, whether through settlement or otherwise. We are also unable to predict the extent to which any recoveries might cover our final share of investigation and remediation costs for these sites. Our final share of investigation and remediation costs may exceed any such recoveries, and such amounts net of insurance recoveries may be material.

Between 2017 and 2021, we entered into settlement agreements totaling $

53.0
million with certain legacy insurance carriers to resolve ongoing litigation and recover fees and costs previously incurred by us in connection with certain environmental sites. These settlements were recorded as reductions to cost of goods sold and SG&A expenses, reflecting the same income statement categories where environmental expenditures were historically recorded. From 2020 through the third quarter of 2024, cumulative insurance recoveries exceeded cumulative expenses to date related to the respective environmental sites and the excess was recorded within long-term liabilities on our Consolidated Balance Sheets. Excess recoveries are released to offset additional reserves for potential liabilities incurred on the respective environmental sites. As of December 31, 2023 insurance recoveries in excess of cumulative expenses were $

2.6
million. The excess recoveries will be released to offset any future expenses, including additional reserves for potential liabilities, incurred on the respective environmental sites. We may enter into additional settlement agreements in the future, which may or may not be material, with other legacy insurers to obtain reimbursement or contribution for environmental site expenses.

Estimates of our future liability at the environmental sites are based on evaluations of currently available facts regarding each individual site. We consider factors such as our activities associated with the site, existing technology, presently enacted laws and regulations and prior company experience in remediating contaminated sites. Although current law imposes joint and several liability on all parties at Superfund sites, our contribution to the remediation of these sites is expected to be limited by the number of other companies potentially liable for site remediation. As a result, our estimated liability reflects only our expected share. In determining the probability of contribution, we consider the solvency of other parties, the site activities of other parties, whether liability is being disputed, the terms of any existing agreements and experience with similar matters, and the effect of our October 2006 Chapter 11 reorganization and separation with AFI upon the validity of the claim, if any.

Specific Material Events

Macon, GA

The U.S. Environmental Protection Agency (the “EPA”) has listed two landfills located on a portion of our facility in Macon, Georgia, along with the former Macon Naval Ordnance Plant landfill adjacent to our property, portions of Rocky Creek, and certain tributaries leading to Rocky Creek (collectively, the “Macon Site”) as a Superfund site on the National Priorities List due to the presence of contaminants, most notably polychlorinated biphenyls (“PCBs”).

In September 2010, we entered into an Administrative Order on Consent for a Removal Action (the “Removal Action”) with the EPA to investigate PCB contamination in one of the landfills on our property, the Wastewater Treatment Plant Landfill (“Operable Unit 1”). After completing an investigation of Operable Unit 1 and submitting our final Engineering Evaluation/Cost Analysis, the EPA issued an Action Memorandum in July 2013 selecting our recommended remedy for the Removal Action. The Operable Unit 1 response action is complete and the final report was submitted to the EPA in October 2016. The EPA approved the final report in November 2016, and a Post-Removal Control Plan was submitted to the EPA in March 2017. AWI has been conducting operation and maintenance activities of the completed remedy since 2017 consistent with the approved Post-Removal Control Plan.

In September 2015, AWI and other Potential Responsible Parties (“PRPs”) received a Special Notice Letter from the EPA under CERCLA inviting AWI and the PRPs to enter into the negotiation of a Remedial Investigation and Feasibility Study (“RI/FS”) with respect to the remainder of the Superfund site, which included the other landfill on our property, as well as areas on and adjacent to our property and Rocky Creek (“Operable Unit 2”). We and the other PRPs entered into a settlement agreement with the EPA effective September 2018, in response to the Special Notice Letter to conduct the RI/FS. The PRPs submitted an RI/FS work plan, which was approved by the EPA in September 2019. Investigative work on this portion of the site commenced in December 2019.

In June 2021, the PRPs submitted a Site Characterization Summary Report (“SCSR”) for Operable Unit 2 to the EPA. The purpose of the SCSR was to demonstrate that the available data for Operable Unit 2 was adequate for the risk assessment and for the development of remedial action objectives. In the second half of 2022, the EPA and the PRPs agreed to separate all non-groundwater aspects of the site; the groundwater investigation is ongoing. In August 2022, the PRPs submitted a Human Health Baseline Risk Assessment to the EPA, and in December 2022, the PRPs submitted a final Baseline Ecological Risk Assessment for all non-groundwater aspects of Operable Unit 2 to the EPA. Both risk assessments served as exhibits to the Remedial Investigation Report (“RIR”), which the EPA approved in July 2023.

Based on findings in the RIR, the PRPs developed a draft Feasibility Study (“FS”) to identify and evaluate potential remedial alternatives for all non-groundwater elements of Operable Unit 2. The draft FS was submitted to the EPA in August 2023. The EPA and the State of Georgia provided comments in October 2023 and a revised FS was submitted in November 2023. The EPA conditionally approved the FS in April 2024 and issued a Proposed Remedial Action Plan (“Proposed Plan”) for the non-groundwater elements at the site in May 2024. The EPA held a public meeting in May 2024 to explain the Proposed Plan and start the thirty-day period for public comment, which closed on June 30, 2024. The EPA’s Proposed Plan included a total cost estimate for the non-groundwater elements at the site of approximately $8 million. In August 2024, the EPA signed the Record of Decision, selecting the remedy outlined in the Proposed Plan. The portion of these remediation costs that AWI will bear for all non-groundwater elements of Operable Unit 2 will not be known until the PRPs resolve the final allocation of costs.

It is probable that we will incur field investigation, engineering and oversight costs associated with designing and implementing the remedy for all non-groundwater elements of Operable Unit 2 and for completing an RI/FS for all groundwater elements of Operable Unit 2 (now designated “Operable Unit 3” by the EPA). We may also ultimately incur costs in remediating contamination discovered during the RI/FS for Operable Unit 3 and we are unable to reasonably estimate our final share of the total costs associated with the investigation work or any resulting remediation therefrom, although such amounts may be material to any one quarter's or year's results of operations in the future. We do not expect the total future costs to have a material adverse effect on our liquidity or financial condition as the cash payments may be made over many years.

Elizabeth City, NC

This site is a former cabinet manufacturing facility that from 1977 until 1996 was operated by Triangle Pacific Corporation, which became Armstrong Wood Products, Inc. (“AWP”), and is now known as AHF Products, LLC. The site was formerly owned by the U.S. Navy (“Navy”) and Westinghouse, which was purchased by Paramount Global (“Paramount”) (then known as CBS Corporation). We assumed ownership of the site when we acquired the stock of AWP in 1998. Prior to our acquisition, the North Carolina Department of Environment and Natural Resources listed the site as a hazardous waste site. In 1997, AWP entered into a cost sharing agreement with Westinghouse whereby the parties agreed to share equally in costs associated with investigation and potential remediation. In 2000, AWP and Paramount entered into an Administrative Order on Consent to conduct an RI/FS with the EPA for the site. In 2007, we and Paramount entered into an agreement with the Navy whereby the Navy agreed to pay one third of defined past and future investigative costs up to a certain amount, which has now been exhausted. The EPA approved an RI/FS work plan for the site in August 2011. In January 2014, we submitted draft RI and Risk Assessment reports and conducted supplemental investigative work based upon agency comments to those reports. In connection with the separation of Armstrong Flooring, Inc. in 2016, we agreed to retain any legacy environmental liabilities associated with the AWP site. The EPA published an Interim Action Proposed Plan for the site in April 2018 seeking public comment until June 2018. The EPA evaluated comments, including ours, and has published its Interim Record Of Decision ("IROD") selecting an interim cleanup approach. In September 2018, AWI and Paramount received a Special Notice Letter from the EPA under CERCLA inviting AWI and Paramount to enter into the negotiation of a settlement agreement to conduct or finance the response action at the site. In response to the September 2018 Special Notice Letter, we and Paramount submitted a good faith offer to the EPA in May 2019. In June 2021, we entered into a negotiated Partial Consent Decree and Site Participation Agreement with the EPA, Paramount and the U.S. on behalf of the Navy for the remedial design and remedial action for the interim remedy. Because the U.S. does not conduct work as a PRP at Superfund sites, similar to the 2007 agreement, the U.S. agreed to pay its share of the estimated costs of performing the work. The Partial Consent Decree was entered by the U.S. District Court for the Eastern District of North Carolina in January 2022. A Remedial Design Work Plan ("RDWP") for the site was submitted to the EPA in June 2022, and AWI and Paramount responded on November 2022 to comments received from the EPA in September 2022. The EPA approved the revised RDWP in February 2023 and in June 2023, the parties submitted a Pre-Design Investigation Work Plan. The EPA provided comments on the Pre-Design Investigation Work Plan in November 2023 and the revised document was submitted to the EPA in December 2023. In March 2024, the EPA issued a conditional approval of the Pre-Design Investigation Work Plan, subject to the Company and Paramount addressing the EPA comments on a component of the Work Plan within 60 days. In May 2024 and August 2024, AWI and Paramount submitted revisions to the Pre-Design Investigation Work Plan to address additional comments received from the EPA. In December 2024, the EPA approved the Pre-Design Investigation Work Plan and related Quality Assurance Project Plan, allowing for the start of the Pre-Design Investigation, which will likely commence in March 2025. The current estimate of future liability at this site includes only our estimated share of the costs of implementing the interim remedial action under the IROD. We are unable to reasonably estimate our final share of the total costs associated with the interim or final remediation at the site, although such amounts may be material to any one quarter's or one year's results of operations in the future. We do not expect the total future costs to have a material adverse effect on our liquidity or financial condition as the cash payments may be made over many years.

Summary of Financial Position

Total liabilities of $

4.6
million and $

0.5
million as of December 31, 2024 and 2023, respectively, were recorded for environmental matters that we consider probable and for which a reasonable estimate of the probable liability could be made. As of December 31, 2024 and 2023, $

4.2
million and $

0.5
million, respectively, of environmental liabilities were reflected within other long-term liabilities on the Consolidated Balance Sheets. As of December 31, 2024, $

0.4
million of environmental liabilities were reflected within accounts payable and accrued expenses on the Consolidated Balance Sheets. During 2024, 2023 and 2022, we recorded $

4.5
million, $

0.5
million, and $

1.3
million, respectively, of additional reserves for potential environmental liabilities. As noted above, expenses associated with the additional reserves recorded in 2023 and 2022 were offset through the release of a portion of the balance of insurance recoveries in excess of cumulative expenses. During 2024, we recorded $

4.5
million of additional reserves for potential environmental liabilities, of which, $

2.6
million was offset through a release of our remaining environmental insurance recoveries in excess of cumulative expenses, and $

1.9
million was recorded as a component of SG&A expenses on our Consolidated Statements of Earnings and Comprehensive Income. Where existing data is sufficient to estimate the liability, that estimate has been used; where only a range of probable liabilities is available and no amount within that range is more likely than any other, the lower end of the range has been used. As assessments and remediation activities progress at each site, these liabilities are reviewed to reflect new information as it becomes available and adjusted to reflect amounts actually incurred and paid. These liabilities are undiscounted.

The estimated environmental liabilities above do not take into account any claims for additional recoveries from insurance or third parties. It is our policy to record insurance recoveries as assets in the Consolidated Balance Sheets when realizable. We incur costs to pursue environmental insurance recoveries, which are expensed as incurred.

Actual costs to be incurred at identified sites may vary from our estimates. Based on our knowledge of the identified sites, it is not possible to reasonably estimate future costs in excess of amounts already recognized.

OTHER CLAIMS

From time to time, we are involved in other various lawsuits, claims, investigations and other legal matters that arise in the ordinary course of business, including matters involving our products, intellectual property, relationships with suppliers, relationships with distributors, other customers or end users, relationships with competitors, employees and other matters. In connection with those matters, we may have rights of indemnity, contribution or reimbursement from other parties or coverage under applicable insurance policies. When applicable and appropriate, we will seek indemnity, contribution or reimbursement from other parties and pursue coverage and recoveries under those policies but are unable to predict the outcome of those demands. While complete assurance cannot be given to the outcome of any proceedings relating to these matters, we do not believe that any current claims, individually or in the aggregate, will have a material adverse effect on our financial condition, liquidity or results of operations.

NOTE 28. EARNINGS PER SHARE

The following table is a reconciliation of earnings to earnings attributable to common shares used in our basic and diluted Earnings (Loss) Per Share ("EPS") calculations for the years ended December 31, 2024, 2023 and 2022. EPS components may not add due to rounding.

	2024	2023	2022
Earnings from continuing operations	$ 264.9	$ 223.8	$ 199.9
(Earnings) allocated to participating vested share awards	-	(0.1)	(0.3)
Earnings from continuing operations attributable to common shares	$ 264.9	$ 223.7	$ 199.6

The following table is a reconciliation of basic shares outstanding to diluted shares outstanding for the years ended December 31, 2024, 2023 and 2022 (shares in millions):

	2024	2023	2022
Basic shares outstanding	43.7	44.7	46.3
Dilutive effect of common stock equivalents	0.3	0.1	0.1
Diluted shares outstanding	44.0	44.8	46.4

Anti-dilutive stock awards excluded from the computation of dilutive EPS for 2024, 2023 and 2022 were 9,052, 46,846 and 19,134, respectively.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Our management, with the participation of our chief executive officer and our chief financial officer, performed an evaluation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 (“Exchange Act”)) as of December 31, 2024. Our chief executive officer and our chief financial officer have concluded that our disclosure controls and procedures were effective insofar as they are designed to provide reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported, within the time periods specified in the Commission’s rules and forms, and (ii) accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. We believe that a controls system, no matter how well designed and operated, cannot provide absolute assurance that the objectives of the controls system are met, and no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected.

There have been no material changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2024 that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Management’s Report on Internal Control over Financial Reporting and the Report of Independent Registered Public Accounting Firm are incorporated by reference to Item 8 to this Annual Report on Form 10-K.

ITEM 9B. OTHER INFORMATION

Trading Arrangements of Directors and Executive Officers

During the three months ended December 31, 2024, no director or officer of the Company adopted or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," as each term is defined in item 408(a) of Regulation S-K.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information regarding individuals who serve as our executive officers required by Item 10 is incorporated by reference to the section entitled “Executive Officers” in the Company’s proxy statement for its 2025 annual meeting of shareholders to be filed no later than April 30, 2025.

Code of Ethics

We have adopted a Code of Business Conduct that applies to all employees, executives and directors, specifically including our Chief Executive Officer, our Chief Financial Officer and our Controller. We have also adopted a Code of Ethics for Financial Professionals (together with the Code of Business Conduct, the “Codes of Ethics”) that applies to all professionals in our finance and accounting functions worldwide, including our Chief Financial Officer and our Controller.

The Codes of Ethics are intended to deter wrongdoing and to promote:

- honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- full, fair, accurate, timely and understandable public disclosures;
- compliance with applicable governmental laws, rules and regulations;
- the prompt internal reporting of violations of the Codes of Ethics; and
- accountability for compliance with the Codes of Ethics.

The Codes of Ethics are available at https://investors.armstrongworldindustries.com/governance/governance-documents/default.aspx and in print free of charge. Any waiver of the Company’s Code of Business Conduct, particularly its conflicts-of-interest provisions, which may be proposed to apply to any director or executive officer, must be reviewed in advance by the Nominating, Governance and Social Responsibility Committee of the Board of Directors, which would be responsible for making a recommendation to the Board of Directors for approval or disapproval. The Board of Directors’ decision on any such matter would be disclosed publicly in compliance with applicable legal standards and the rules of the New York Stock Exchange. We intend to satisfy these requirements by making disclosures concerning such matters available on the “Investor Relations” page of our website. There were no waivers or exemptions from the Code of Business Conduct in 2024 applicable to any director or executive officer.

Other information required by Item 10 is incorporated by reference to the sections entitled “Election of Directors,” “Corporate Governance,” and “Security Ownership of Certain Beneficial Owners, Management and Directors” in the Company’s proxy statement for its 2025 annual meeting of shareholders to be filed no later than April 30, 2025.

Insider Trading Policy

We have adopted an insider trading policy (the “Insider Trading Policy”) governing the purchase, sale, and/or other dispositions of Company securities by our employees, officers, directors, consultants, agents, contractors, temporary workers, and the Company itself. We believe the Insider Trading Policy is reasonably designed to promote compliance with relevant insider trading laws, rules and regulations, and any listing standards applicable to us. A copy of the Insider Trading Policy is filed with this Annual Report on Form 10-K as Exhibit 19.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated by reference to the sections entitled “Compensation Discussion and Analysis,” “Compensation Committee Report,” “2024 Summary Compensation Table,” “Grants of Plan-Based Awards,” “Outstanding Equity Awards at Fiscal Year-End,” “Options Exercised and Stock Vested,” “Nonqualified Deferred Compensation,” “Potential Payments Upon Termination or Change in Control,” “Board’s Role in Risk Management Oversight,” “Compensation Committee Interlocks and Insider Participation” and “Compensation of Directors” in the Company’s proxy statement for its 2025 annual meeting of shareholders to be filed no later than April 30, 2025.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Item 12 is incorporated by reference to the sections entitled “Security Ownership of Certain Beneficial Owners, Management and Directors" and “Securities Authorized for Issuance Under Equity Compensation Plans” in the Company’s proxy statement for its 2025 annual meeting of shareholders to be filed no later than April 30, 2025.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated by reference to the sections entitled “Review of Related Person Transactions” and “Director Independence” in the Company’s proxy statement for its 2025 annual meeting of shareholders to be filed no later than April 30, 2025.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by Item 14 is incorporated by reference to the sections entitled “Fees Paid to Independent Registered Public Accounting Firm” in the Company’s proxy statement for its 2025 annual meeting of shareholders to be filed no later than April 30, 2025.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Listing of Documents

1. The financial statements and schedule of Armstrong World Industries, Inc. filed as a part of this 2024 Annual Report on Form 10-K is listed in the "Index to Financial Statements and Schedules" on Page 34.

2. The financial statements required to be filed pursuant to Item 15 of Form 10-K are:

Worthington Armstrong Venture consolidated financial statements for the years ended December 31, 2024, 2023, and 2022 (filed herewith as Exhibit 99.1).

3. The following exhibits are filed as part of this 2024 Annual Report on Form 10-K:

Exhibit No.	Description
3.1	Amended and Restated Articles of Incorporation of Armstrong World Industries, Inc. are incorporated by reference from the Quarterly Report on Form 10-Q filed on May 1, 2017, wherein it appeared as Exhibit 3.1.
3.2	Amended and Restated Bylaws of Armstrong World Industries, Inc., are incorporated by reference from the Current Report on Form 8-K filed on July 30, 2024, wherein it appeared as Exhibit 3.1.
4.1	Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934.†
10.1	Second Amended and Restated Credit Agreement, dated as of December 7, 2022, by and among Armstrong World Industries, Inc., as Borrower, certain subsidiaries of Armstrong World Industries, Inc. identified therein, as the Guarantors, Bank of America, N.A., as the administrative agent, the collateral agent, a letter of credit issuer and the swing line lender, Citizens Bank, N.A., Manufacturers & Traders Trust Company, PNC Bank, National Association, TD Bank, N.A. and Truist Bank, as co-syndication agents, JPMorgan Chase Bank, N.A., The Bank of Nova Scotia, and First National Bank of Pennsylvania, as co-documentation agents, BofA Securities, Inc., Citizens Bank, N.A., Manufacturers & Traders Trust Company, PNC Capital Markets, LLC, TD Bank, N.A., and Truist Securities, Inc., as joint lead arrangers and joint bookrunners and the other lenders and letter of credit issuers party thereto is incorporated by reference from the Current Report on Form 8-K filed on December 12, 2022, wherein it appeared as Exhibit 10.1.
10.2	Amended and Restated Joint Venture Agreement, dated February 22, 2016 between Armstrong Ventures, Inc. and Worthington Ventures, Inc., is incorporated by reference from the Annual Report on Form 10-K filed on February 22, 2016, wherein it appeared as Exhibit 10.12.
10.3	Trademark License Agreement, dated as of April 1, 2016, by and between Armstrong World Industries, Inc., AWI Licensing LLC and Armstrong Flooring, Inc. and subsequently partially transferred to AHF Products in North America, to Zhejiang GIMIG Tech Co., Ltd. in China and to Braeside Mills Investments Pty Ltd in Australia/New Zealand, is incorporated by reference from the Current Report on Form 8-K filed on April 4, 2016, wherein it appeared as Exhibit 10.4.
10.4	Share Purchase Agreement, dated November 17, 2017, by and between Armstrong World Industries, Inc. and Knauf International GmbH is incorporated by reference from the Current Report on Form 8-K filed on November 20, 2017, wherein it appeared as Exhibit 2.1.
10.5	Deed of Amendment to the Share Purchase Agreement dated as of July 18, 2018, by and between Armstrong World Industries, Inc. and Knauf International GmbH is incorporated by reference from the Current Report on Form 8-K filed on July 19, 2018, wherein it appeared as Exhibit 2.1.
10.6	2011 Long-Term Incentive Plan, effective as of June 24, 2011, is incorporated by reference to Armstrong World Industries, Inc.'s Definitive Proxy Statement on Schedule 14A for the Armstrong World Industries, Inc. 2011 Annual Meeting of Shareholders held on June 24, 2011 filed on April 28, 2011, wherein it appeared as Exhibit A.*
10.7	Form of 2011 Long-Term Incentive Plan Terms and Conditions, as amended for 2014 (Grant of Nonqualified Stock Options – U.S.), is incorporated by reference from the Quarterly Report on Form 10-Q filed on April 28, 2014, wherein it appeared as Exhibit 10.1.*
10.8	Armstrong World Industries, Inc. 2016 Long-Term Incentive Plan, effective as of July 8, 2016 and amended and restated effective February 20, 2019, is incorporated by reference from the Annual Report on Form 10-K filed on February 25, 2019, wherein it appeared as Exhibit 10.42.*

10.9	Form of Long-Term Performance-Based Restricted Stock Unit Grant for 2019 and later years under the 2016 Long-Term Incentive Plan is incorporated by reference from the Annual Report on Form 10-K, filed on February 23, 2021, wherein it appeared as Exhibit 10.25.*‡
10.10	Form of Long-Term Time-Based Restricted Stock Unit Grant for 2022 under the 2016 Long-Term Incentive Plan is incorporated by reference from the Annual Report on Form 10-K, filed on February 22, 2022, wherein it appeared as Exhibit 10.18.*
10.11	Armstrong World Industries, Inc. 2020 Inducement Award Plan, is incorporated by reference from the Registration Statement on Form S-8 filed on December 15, 2020, wherein it appeared as Exhibit 4.4.*
10.12	Nonqualified Deferred Compensation Plan effective January 2005, as amended July 23, 2010 and January 1, 2014.*†
10.13	Armstrong World Industries, Inc. Equity and Cash Incentive Plan effective as of June 16, 2022, in incorporated by reference to Armstrong World Industries, Inc.'s Definitive Proxy Statement on Schedule 14A for the Armstrong World Industries, Inc. 2022 Annual Meeting of Shareholders held on June 16, 2022 filed on April 27, 2022, wherein it appeared as Annex B.*
10.14	Form of Long-Term Performance-Based Restricted Stock Unit Grant for 2022 under the 2022 Equity and Cash Incentive Plan, is incorporated by reference from the Annual Report on Form 10-K filed on February 21, 2023, wherein it appeared as Exhibit 10.17.*
10.15	Form of Long-Term Time-Based Restricted Stock Unit Grant for 2022 under the 2022 Equity and Cash Incentive Plan, is incorporated by reference from the Annual Report on Form 10-K filed on February 21, 2023, wherein it appeared as Exhibit 10.18.*
10.16	Form of Long-Term Performance-Based Restricted Stock Unit Grant for 2023 and 2024 under the 2022 Equity and Cash Incentive Plan.*†
10.17	Form of Long-Term Time- Based Restricted Stock Unit Grant for 2023 and 2024 under the 2022 Equity and Cash Incentive Plan.*†
10.18	Form of 2023 Long-Term Time-Based Restricted Stock Unit Grant—Tier 1 (CEO) under the Armstrong World Industries, Inc. Equity and Cash Incentive Plan is incorporated by reference from the Current Report on Form 8-K filed on May 2, 2023, wherein it appeared as Exhibit 10.1.*
10.19	Retirement Benefit Equity Plan, effective January 1, 2005, as amended October 29, 2007 and December 8, 2008, is incorporated by reference from the Annual Report on Form 10-K, filed on February 26, 2009, wherein it appeared as Exhibit 10.2.*
10.20	2008 Directors Stock Unit Plan, as amended December 8, 2008, August 5, 2010 and April 29, 2011 is incorporated by reference to the Current Report on Form 8-K filed on June 13, 2011, wherein it appeared as Exhibit 99.2.*
10.21	Form of 2011, 2012, 2013, 2014 and 2015 Award under the 2008 Directors Stock Unit Plan, as amended, is incorporated by reference from the Annual Report on Form 10-K filed on February 27, 2012, wherein it appeared as Exhibit 10.40.*
10.22	Armstrong World Industries, Inc. 2016 Directors Stock Unit Plan, is incorporated by reference from the Current Report on Form 8-K filed on July 11, 2016, wherein it appeared as Exhibit 10.1.*
10.23	Form of Stock Unit Grant Agreement under the Armstrong World Industries, Inc. 2016 Directors Stock Unit Plan, is incorporated by reference from the Current Report on Form 8-K filed on July 11, 2016, wherein it appeared as Exhibit 10.3.*
10.24	Offer Letter to Victor D. Grizzle dated January 4, 2011, is incorporated by reference from the Current Report on Form 8-K filed on January 10, 2011, wherein it appeared as Exhibit 99.2.*
10.25	Offer Letter to Mark A. Hershey dated November 14, 2021 is incorporated by reference from the Annual Report on Form 10-K, filed on February 22, 2022, wherein it appeared as Exhibit 10.28.*
10.26	Offer Letter to Austin So dated January 6, 2022 is incorporated by reference from the Annual Report on Form 10-K, filed on February 22, 2022, wherein it appeared as Exhibit 10.29.*
10.27	Offer Letter to Christopher Calzaretta dated June 9, 2022, is incorporated by reference from the Annual Report on Form 10-K filed on February 21, 2023, wherein it appeared as Exhibit 10.28.*
10.28	Offer Letter to Monica Maheshwari dated January 20, 2023, in incorporated by reference from the Annual Report on Form 10-K filed on February 20, 2024 wherein it appeared as Exhibit 10.30.*

10.29	Form of Indemnification Agreement for Officers and Directors of Armstrong World Industries, Inc. is incorporated by reference from the Report on Form 8-K filed on July 27, 2021, wherein it appeared as Exhibit 10.1.*
10.30	Form of Amended and Restated Severance Agreement with Certain Officers, approved for use on October 26, 2016 is incorporated by reference from the Report on Form 8-K filed on October 31, 2016, wherein it appeared as Exhibit 10.1.*
10.31	Release Agreement with Monica Maheshwari dated February 20, 2024.* †
10.32	Offer Letter to Dawn Kirchner-King date March 22, 2024.*†
10.33	Offer Letter to Jill Crager Dated November 14, 2021.*†
14	The Armstrong Code of Business Conduct.†
19	Trading in Company Securities By Employees, Officers and Directors.*†
21	Armstrong World Industries, Inc.'s Subsidiaries.†
23.1	Consent of Independent Registered Public Accounting Firm.†
23.2	Consent of Independent Auditors.†
31.1	Certification of Chief Executive Officer required by Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act.†
31.2	Certification of Chief Financial Officer required by Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act.†
32.1	Certification of Chief Executive Officer required by Rule 13a and 18 U.S.C. Section 1350.††
32.2	Certification of Chief Financial Officer required by Rule 13a and 18 U.S.C. Section 1350.††
97	Armstrong World Industries, Inc. Incentive Compensation Recoupment Policy is incorporated by reference from the Annual Report on Form 10-K, filed on February 20, 2024, wherein it appeared as Exhibit 97.*
99.1	Worthington Armstrong Venture consolidated financial statements as of December 31, 2024 and 2023 and for the years ended December 31, 2024, 2023 and 2022.†
101	Inline Interactive Data Files**
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2024 has been formatted in Inline XBRL.

* Management Contract or Compensatory Plan.

† Filed herewith.

†† Furnished herewith.

‡ Portions of this exhibit have been omitted as permitted by applicable regulations.

** XBRL – Information is furnished and not filed or a part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, is deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and otherwise is not subject to liability under these sections.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ARMSTRONG WORLD INDUSTRIES, INC.
(Registrant)

By: /s/ Victor D. Grizzle
Director, President and Chief Executive Officer

Date: February 25, 2025

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Victor D. Grizzle Victor D. Grizzle	Director, President and Chief Executive Officer (Principal Executive Officer)	February 25, 2025
/s/ Christopher P. Calzaretta Christopher P. Calzaretta	Senior Vice President and Chief Financial Officer (Principal Financial Officer)	February 25, 2025
/s/ James T. Burge James T. Burge	Vice President and Controller (Principal Accounting Officer)	February 25, 2025
/s/ Richard D. Holder Richard D. Holder	Director	February 25, 2025
/s/ Barbara L. Loughran Barbara L. Loughran	Director	February 25, 2025
/s/ William H. Osborne William H. Osborne	Director	February 25, 2025
/s/ Wayne R. Shurts Wayne R. Shurts	Director	February 25, 2025
/s/ Roy W. Templin Roy W. Templin	Director	February 25, 2025
/s/ Cherryl T. Thomas Cherryl T. Thomas	Director	February 25, 2025

SCHEDULE II

Armstrong World Industries, Inc., and Subsidiaries
Valuation and Qualifying Reserves
(amounts in millions)

	Balance at beginning of year	Additions charged to earnings	Deductions	Balance at end of year
2022				
Provision for bad debts	$ 1.0	$ 0.1	$ (0.7)	$ 0.4
Provision for discounts	1.7	24.4	(24.0)	2.1
Provision for warranties	0.8	5.6	(5.7)	0.7
Provision for inventory obsolescence	0.2	0.2	(0.1)	0.3
2023				
Provision for bad debts	$ 0.4	$ 0.4	$ (0.4)	$ 0.4
Provision for discounts	2.1	26.4	(26.4)	2.1
Provision for warranties	0.7	5.4	(5.7)	0.4
Provision for inventory obsolescence	0.3	-	(0.3)	-
2024				
Provision for bad debts	$ 0.4	$ 1.8	$ (1.4)	$ 0.8
Provision for discounts	2.1	28.7	(28.8)	2.0
Provision for warranties	0.4	5.8	(5.5)	0.7
Provision for inventory obsolescence	-	0.7	(0.4)	0.3

Exhibit No. 4.1

**DESCRIPTION OF SECURITIES REGISTERED UNDER
SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

The following is a summary description of the common shares, par value $0.01 per share ("common stock") of Armstrong World Industries, Inc., a Pennsylvania corporation (the "Company", "we", "us" or "our"), which is the only class of securities of the Company registered under Section 12 of the Securities Exchange Act of 1934, as amended. This summary description is based on the provisions of the Business Corporation Law of 1988 of the Commonwealth of Pennsylvania (the "PBCL") applicable to the Company and the Company's amended and restated articles of incorporation ("Articles") and amended and restated bylaws ("Bylaws"). It is not meant to be a complete description of the common stock and is qualified in its entirety by reference to the Articles and Bylaws, which are incorporated by reference herein and filed as exhibits to the Company's Annual Report on Form 10-K of which this exhibit forms a part, and to applicable provisions of the PBCL.

Authorized Capital Stock

Our authorized capital stock under our Articles consists of:

- 200,000,000 common shares, par value $0.01 per share; and
- 15,000,000 preferred shares, without par value, which may be issued in series as provided in the Articles.

Description of Common Stock

Holders of our common stock are entitled to one vote per share on all matters (including the election of directors) on which any of our shareholders are entitled to vote.

Subject to applicable law and any preference rights of holders of any preferred shares that we may issue in the future, the holders of our common shares are entitled to receive dividends, if any, when and as declared from time to time by our board of directors, or Board, out of assets legally available therefor. In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to share ratably in all assets remaining after the payment of liabilities, subject to the rights of any holders of preferred shares that we may have issued prior to such distribution.

The holders of common stock have no preemptive, subscription, redemption or conversion rights. There are no sinking fund provisions applicable to our common stock.

Our common stock is listed on the NYSE under the symbol "AWI."

Equiniti Trust Company, LLC is the transfer agent for our common stock.

Anti-Takeover Effects of Certain Provisions of Our Articles, Bylaws and the PBCL

The following is a summary of certain provisions of the PBCL and our Articles and Bylaws that may be deemed to have an anti-takeover effect and may delay, deter or prevent a tender offer or takeover attempt that a shareholder might consider to be in its best interest, including those attempts that might result in a premium over the market price for the shares.

Preferred Shares

The Board has the authority, without action by our shareholders, to issue preferred shares and to fix voting powers for each class or series of preferred shares, and to provide, among other things, that any class or series may be subject to redemption, entitled to receive dividends, entitled to rights upon dissolution or convertible into, or exchangeable for, shares of any other class or classes of capital stock. The rights with respect to a series or class of preferred shares may be greater than the rights attached to our common stock. It is not possible to state the actual effect of the issuance of any of our preferred shares on the rights of holders of our common stock until our Board determines the specific rights attached to such preferred shares. The effect of issuing preferred shares could include one or more of the following:

- restricting dividends in respect of our common stock;
- diluting the voting power of our common stock or providing that holders of preferred shares have the right to vote on matters as a class;
- impairing the liquidation rights of our common stock; or
- delaying or preventing a change of control of us.

Authorized but Unissued Shares

Shares of our authorized but unissued common stock will be available for future issuance without approval by our shareholders. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of our authorized but unissued common stock could render more difficult or discourage an attempt to obtain control over us by means of a proxy contest, tender offer, merger or otherwise.

Pennsylvania Anti-Takeover Statutes

We are organized under Pennsylvania law. In general, a corporation organized under Pennsylvania law is subject to various “anti-takeover” provisions of the PBCL unless the corporation’s articles of incorporation or, in certain cases, bylaws explicitly provide that these provisions shall not apply to the corporation, or another statutory exception applies. These “anti-takeover” provisions may delay or prevent a transaction that would cause a change in our control, and they seek to discourage certain fundamental changes, control transactions, business combinations and control-share acquisitions as well as to protect registered corporations from being exposed to and paying “greenmail.”

Our Articles explicitly provide that Subchapters 25D, 25E, 25F, 25G and 25H of the PBCL, the “anti-takeover” statutes, will not apply to us, except as may be required by law.

Other Provisions of Our Articles and Bylaws

Pursuant to our Articles and Bylaws, special meetings of shareholders may only be called by shareholders holding at least 20% of the votes that all shareholders are entitled to cast. Holders of preferred shares may only be permitted to call a meeting of shareholders if so provided in the terms of such series of preferred shares. In addition, our Bylaws establish advance notice procedures with respect to shareholder proposals and the nomination of candidates for election of directors, other than nominations made by, or at the direction of, our Board. These requirements may impede shareholders’ ability to call special meetings, bring matters before a meeting of shareholders or make nominations for directors at a meeting of shareholders.

Our Articles and Bylaws do not provide for cumulative voting in the election of directors. Because cumulative voting might otherwise permit an insurgent to gain Board representation even though it only owns a minority interest, the inability of our shareholders to vote cumulatively may impede or delay attempts to change control of us.

Our Articles and Bylaws include provisions eliminating the personal liability of our directors and provisions indemnifying our directors and officers, in each case to the fullest extent permitted by Pennsylvania law. The limitation of liability and indemnification provisions in our Articles and Bylaws may discourage shareholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though a derivative action, if successful, might otherwise benefit us and our shareholders. In addition, the value of investments in our securities may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Our Articles may be amended, altered or repealed as provided by the PBCL with the exception that certain provisions regarding (i) the number, terms of office and removal of directors, (ii) special meetings of shareholders, and (iii) shareholder action by written consent and may only be amended, modified or repealed by affirmative vote or written consent of the holders of at least 80% of our outstanding common shares.

Our Bylaws may be amended, modified or repealed by either a (i) a majority vote of holders of the outstanding shares entitled to vote on the matter or (ii) majority vote of the total number of directors on the Board, except as otherwise provided by the PBCL, the Articles or as is otherwise qualified in the Bylaws.

Exhibit No. 10.12

Plan Document Amended as of January 1, 2014

ARMSTRONG NONQUALIFIED DEFERRED COMPENSATION PLAN

The Armstrong Nonqualified Deferred Compensation Plan (the "Plan") was established by the Retirement Committee of Armstrong World Industries, Inc. effective January 1, 2005. The Plan was most recently amended and restated effective January 1, 2014.

The Plan is a nonqualified deferred compensation plan for a select group of management or highly compensated employees and nonemployee directors. The Plan is intended to meet the requirements of Section 409A of the Internal Revenue Code of 1986, as amended, to achieve deferral of taxation until deferred amounts are distributed in accordance with the terms of the Plan.

1. DEFINITIONS

1.1"Account" shall mean an account established on the books of the Company for the purpose of recording amounts credited on behalf of a Participant and any income, expenses, gains or losses included thereon.

1.2 "Administrator" shall mean the Retirement Committee of the Company.

1.3"Beneficiary" means the person or persons, trust or other entity designated in writing by a Participant to receive payments under the Plan upon the death of a Participant.

1.4 "Board" means the Board of Directors of the Company.

1.5"Bonus" means any discretionary performance-based cash bonuses paid for services with the Company, including any bonus payments under the WAVE Executive Bonus Plan.

1.6"Change in Control" means the first to occur of any of the following events: (i) a Change in Ownership of the Corporation, (ii) a Change in Effective Control of the Corporation or (iii) a Change in the Ownership of a Substantial Portion of the Assets of the Corporation.

(a) A "Change in Ownership" of the Corporation occurs on the date that any one person, or more than one person acting as a group acquires ownership of stock of the Corporation that, together with stock held by such person or group, constitutes more than 50 percent of the total fair market value or total voting power of the stock of the Corporation.

(b) A "Change in Effective Control" of the Corporation occurs on the date that either:

(i) Any one person, or more than one person acting as a group, acquires (or has acquired during the 12 month period ending on the date of the most recent acquisition by such person or persons) ownership of stock of the Corporation possessing 35 percent or more of the total voting power of the stock of the Corporation; or

(ii) a majority of members of the Corporation's board of directors is replaced during any 12 month period by directors whose appointment or election is not endorsed by a majority of the members of the Corporation's board of directors prior to the date of the appointment or election.

(c) A "Change in the Ownership of a Substantial Portion of the Assets of the Corporation" occurs on the date that any one person, or more than one person acting as a group, acquires (or has acquired during the 12 month period ending on the date of the most recent acquisition by such person or persons) assets from the Corporation that have a total gross fair market value equal to or more than 40 percent of the total gross fair market value of all of the assets of the Corporation immediately prior to such acquisition or acquisitions. For this purpose, gross fair market value means the value of the assets being disposed of, determined without regard to any liabilities associated with such assets. There is no Change in Control event under this Section 1.6(c) when there is a transfer to an entity that is controlled by the shareholders of the transferring corporation immediately after the transfer.

The determination of whether a Change in Control event has occurred will be made in accordance with the requirements of Code Section 409A and the guidance issued thereunder. The foregoing definition of Change in Control shall exclude the occurrence of the date(s) on which (i) the Chapter 11 Plan of Reorganization of the Company shall become effective and (ii) the creation by the Company of the Asbestos Personal Injury Trust.

1.7"Code" means the Internal Revenue Code of 1986, as amended from time to time.

1.8"Corporation" shall mean Armstrong Holdings, Inc. or any successor by merger, purchase or otherwise.

1.9"Company" shall mean Armstrong World Industries, Inc. and any other subsidiary corporation controlled by the Corporation that that adopts this Plan with the permission of the Administrator.

1.10 "Compensation" shall mean:

(a) for an employee Participant, Compensation shall include:

(i) for purposes of deferral of Compensation under Section 3, a Participant's annual base salary and any actual bonus payable under the Participant's employing Company's annual bonus plan (including the WAVE Executive Bonus Plan) received by the employee for services with such Company and,

(ii) for purposes of determining the Restoration Matching Credits under Section 4.1, in addition to the amounts under Section 1.10(a)(i) above, amounts allocated, if any, to a Participant's account under the Bonus Replacement Retirement Plan of Armstrong World Industries, Inc.

(b) for a nonemployee director Participant, Compensation shall include payments to the director of regularly scheduled cash compensation.

1.11"Director Deferrals" means the deferrals elected by the Participant pursuant to Section 3.3.

1.12"Director Deferral Account" means the Account with is maintained with respect to the Director Deferral credits of the Participant and any hypothetical earnings or losses thereon.

1.13 "Effective Date" means January 1, 2005.

1.14"Excess Compensation" means the Participant's Compensation for the Plan Year in excess of 12.5 times the Code Section 402(g) limit in effect for such Plan Year

1.15"Investment Funds" shall mean the investment alternatives made available by the Administrator from time to time under the Plan.

1.16"Participant" shall be each nonemployee director and employee who has been selected for participation by the Administrator, who satisfies all conditions of eligibility.

1.17"Plan" means the Armstrong Nonqualified Deferred Compensation Plan, the Plan set forth herein, as amended from time to time.

1.18"Plan Year" means a 12-consecutive month period commencing January 1st and ending on the following December 31st.

1.19"Qualified Plan" means the Savings and Investment Plan of Armstrong World Industries, Inc. and any successor plan thereto.

1.20"Restoration Bonus Deferrals" means the deferrals elected by the Participant pursuant to Section 3.2.

1.21"Restoration Deferral Account" means the Account which is maintained with respect to the Restoration Salary Deferrals and Restoration Bonus Deferrals of the Participant and any hypothetical earnings or losses thereon.

1.22"Restoration Matching Credits" means the credits allocated to the Participant pursuant to Section 4.1.

1.23"Restoration Matching Account" means the Account which is maintained with respect to the Restoration Matching Credits of the Participant and any hypothetical earnings or losses thereon.

1.24"Restoration Salary Deferrals" means the deferrals elected by the Participant pursuant to Section 3.1.

1.25"Retirement Supplement Credits" means the credits allocated to the Participant pursuant to Section 4.2.

1.26"Retirement Supplement Account" means the Account which is maintained with respect to the Retirement Supplement Credits of the Participant and any hypothetical earnings or losses thereon.

1.27"Termination" means a Participant's "separation from service" as defined under Treas. Reg. § 1.409A-1(h).

1.28"Unforeseeable Emergency" means a severe financial hardship to the Participant resulting from an illness or accident of the Participant, the Participant's spouse, or a dependent (as defined in Code Section 152(a)) of the Participant, loss of the Participant's property due to casualty, or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Participant.

1.29"Valuation Date" means any day on which the New York Stock Exchange or any successor to its business is open for trading.

2. ELIGIBILITY AND PARTICIPATION

2.1Eligibility for Participation: Participation in the Plan is limited to those individuals who have been selected for participation by the Administrator. No individual shall be eligible for selection unless he/she meets one or more of the following criteria:

(a) To be eligible to make Restoration Salary Deferrals or Restoration Bonus Deferrals for a Plan Year:

(i) the individual must be a management employee in a position Grade 15 or higher as of the September 1st prior to the Plan Year or, for the Plan Year in which an individual is first hired by or transferred to a Company, the individual must be hired or transferred to a position that is Grade 15 or higher (individuals previously employed by a participating Company who are promoted to a position Grade 15 or higher must be in the eligible position as of the September 1 prior to the Plan Year to participate for that Plan Year), and

(ii) the individual must earn Compensation for the Plan Year in excess of 12.5 times the Code Section 402(g) limit in effect for such Plan Year.

(b) To be eligible to make Director Deferrals for a Plan Year, the individual must be a nonemployee director of the Corporation as of the December 1st prior to the Plan Year and be authorized to participate in the Plan by the Nominating and Governance Committee of the board of the Corporation.

(c) To be eligible to receive Restoration Matching Credits, the employee Participants must make a Restoration Salary Deferral election or a Restoration Bonus Deferral election for the Plan Year and must not be actively accruing any benefit under the Retirement Income Plan for Employees of Armstrong World Industries, Inc.

(d) To be eligible to receive Retirement Supplement Credits, the individual must be a management employee in a position Grade 15 or higher as of his or her crediting date and have been designated to receive Retirement Supplement Credits by the Administrator.

2.2Commencement of Participation: Each Participant shall be provided an opportunity to designate irrevocably, prior to each Plan Year (or, in the Participant's first year of eligibility, within 30 days following the date the Participant became eligible), his or her elections pursuant to Article 3. Any such designation must be made in the manner authorized by the Administrator and must be accompanied by, as applicable:

(a) an irrevocable authorization for the Company to make regular deductions to cover the amount of such deferrals elected pursuant to Section 3.1 or Section 3.3;

(b) an irrevocable authorization to defer receipt of a percentage of future Bonus amounts for any year as elected under Section 3.2;

(c) an investment election with respect to each of the Participant's Accounts as provided under Section 5.3;

(d) a designation of Beneficiary; and

(e) a designation as to the form and timing of the distribution of each of the Participant's Accounts as provided under Sections 6.1 and 6.2.

Each Participant’s deferral elections effective on or after January 1, 2014 pursuant to this Section 2.2 shall be automatically renewed for each subsequent Plan Year unless the Participant makes a new deferral election prior to the beginning of the Plan Year, pursuant to this Section 2.2.

2.3Cessation of Participation: A Participant shall cease to be an active Participant on the earliest of:

(a) the date on which the Plan terminates, or

(b) the date on which he or she ceases to be eligible to participate in the Plan under Section 2.1.

A former active Participant will be deemed a Participant for all purposes except with respect to the right to make deferrals, as long as he or she maintains a Participant Account.

3. DEFERRAL OF COMPENSATION

3.1Restoration Salary Deferrals: Each Participant eligible to make Restoration Salary Deferrals may authorize the Company by which he or she is employed, in the manner described in Section 2.2, to have Restoration Salary Deferrals made on his or her behalf. Such election shall apply to the Participant’s Excess Compensation attributable to services performed in the Plan Year subsequent to the year of the election (or the year of an automatic renewal of an election, as applicable, pursuant to Section 2.2). Such Restoration Salary Deferrals shall be a stated percentage of the Participant’s Excess Compensation, up to 25 percent as designated by the Participant. A Participant’s election to make a Restoration Salary Deferral or the automatic renewal of such election shall be irrevocable as of the beginning of the applicable Plan Year. A Participant’s election to make a Restoration Salary Deferral shall continue in effect for each subsequent Plan Year unless otherwise elected by the Participant pursuant to Section 2.2.

3.2Restoration Bonus Deferrals: Notwithstanding deferrals made under Section 3.1, by December 31 of each year or such earlier date as the Administrator may determine, each Participant eligible to make Restoration Bonus Deferrals may authorize the Company by which he or she is employed, in the manner described in Section 2.2, to defer a percentage of his or her Bonus that is Excess Compensation that would otherwise be payable for services performed in the twelve-month period beginning on the January 1 immediately following such December 31. Such Restoration Bonus Deferrals shall be a stated percentage of the Participant’s Excess Compensation, up to 25 percent as designated by the Participant. A Participant’s election to defer a Bonus shall continue in effect for each subsequent Plan Year unless otherwise elected by the Participant pursuant to Section 2.2.

3.3Director Deferrals: Each Participant eligible to make Director Deferrals may authorize the Company, in the manner described in Section 2.2, to have Director Deferrals made on his or her behalf. Such election shall apply to the Participant’s Compensation attributable to services performed in the Plan Year subsequent to the election. Such Director Deferrals shall be a stated whole percentage of the Participant’s Compensation, up to 100 percent as designated by the Participant. A Participant’s election to make a Director Deferral shall continue in effect for each subsequent Plan Year unless otherwise elected by the Participant pursuant to Section 2.2.

3.4First Year of Eligibility: In the case of the first year in which a Participant becomes eligible to participate in the Plan, such Participant's election with respect to Sections 3.1 or 3.3 may be made with respect to services to be performed subsequent to the election within 30 days following the date the Participant becomes eligible to participate in the Plan.

4. EMPLOYER CONTRIBUTIONS

4.1Restoration Matching Credits: For each pay period that the employee Participant makes Restoration Salary Deferrals and/or Restoration Bonus Deferrals, the Company shall make Restoration Matching Credits on behalf of each Participant eligible for Restoration Matching Credits in an amount equal to 100% of the first 4% and 50% of the next 4% of the Participant's Restoration Salary Deferrals and Restoration Bonus Deferrals for such pay period. Such Restoration Matching Credits shall be fully vested at the same time as the Participant's matching contributions under the Qualified Plan.

4.2Retirement Supplement Credits: The Company shall make Retirement Supplement Credits to the Retirement Supplement Account in the manner and at such time as determined by the Administrator. Retirement Supplement Credits shall be fully vested at the same time as the Participant's matching contributions under the Qualified Plan.

5. INVESTMENT OF CONTRIBUTION

5.1Establishment of Accounts: The Company shall establish Accounts for each Participant, but only to the extent the Participant has amounts to be allocated to such Account:

(a) a Restoration Deferral Account to which shall be credited the Participant's Restoration Salary Deferrals and Restoration Bonus Deferrals and any deemed earnings and losses credited thereto;

(b) a Director Deferral Account to which shall be credited the Participant's Director Deferrals and any deemed earnings and losses credited thereto.

(c) a Restoration Matching Account to which shall be credited the Participant's Restoration Matching Credits and any deemed earnings and losses credited thereto.

(d) a Retirement Supplement Account to which shall be credited the Participant's Retirement Supplement Credits and any deemed earnings and losses credited thereto.

Each Participant shall receive periodic statements (no less frequently than quarterly) reflecting the balances in his or her Participant Accounts.

5.2Obligation of the Company: Individual benefits under the Plan are payable as they become due solely from the general assets of the Company. To the extent a Participant, or any person, acquires a right to receive payments under this Plan, such right shall be no greater than the right of any general creditor of the Company. Neither this Plan, nor any action taken pursuant to the terms of this Plan, shall be considered to create a fiduciary relationship between the Company and the Participant, or any other persons, or to require the establishment of a trust in which the assets are beyond the claims of any general creditor of the Company.

5.3Establishment of Investment Funds: The Administrator will establish multiple deemed Investment Funds which will be maintained for the purpose of determining the investment return to be credited to each Participant's Accounts. The Administrator may change the number, identity or composition of the Investment Funds from time to time, Each Participant will indicate the Investment Funds based on which amounts allocated in accordance with Articles 3 and 4 are to be adjusted. Each Participant's Accounts will be increased or decreased by the net amount of investment earnings or losses that it would have achieved had it actually been invested in the deemed investments. The Company is not required to purchase or hold any of the deemed investments. Investment Fund elections must be made in a minimum of 1% increments and in such manner as the Administrator will specify. A Participant may make separate Investment Fund elections with respect to each Account (as applicable) set forth in Section 5.1. A Participant may change his or her Investment Fund election periodically in the manner provided by the Administrator. Any such change shall become effective as soon as administratively practicable following the date the Administrator receives notice of such change in the form prescribed by the Administrator.

5.4Crediting Investment Results: No less frequently than as of each Valuation Date, each Participant Account will be increased or decreased to reflect investment results. Each Participant Account will be credited with the investment return of the Investment Funds in which the Participant elected to be deemed to participate. The credited investment return is intended to reflect the actual performance of the Investment Funds net of any applicable investment management fees or administrative expenses determined by the Administrator. Notwithstanding the above, the amount of any payment of Plan benefits pursuant to Article 6 or upon Plan termination shall be determined as of the Valuation Date preceding the date of payment.

6. PAYMENT AND AMOUNT OF BENEFITS

6.1 Form of Distribution:

(a) Each Participant shall elect the form and timing of the distribution with respect to each of his or her Participant Accounts in the manner authorized by the Administrator. The Participant's election shall indicate the form of distribution of the amounts credited to each of the Participant's:

(1)Restoration Deferral Account and Restoration Matching Account (a single election with respect to these accounts);

(2)Director Deferral Account; and

(3)Retirement Supplement Account.

(b) The Participant's election shall indicate that a payment shall be made in a lump sum or substantially equal monthly installments. If the Participant elects a monthly installment distribution, the amount of each installment shall be determined by multiplying the Participant's remaining Account balance by a fraction, the numerator of which is one (1) and the denominator of which is the number of months remaining in the installment period.

(c) If the Participant fails to timely make an election with respect to the form of distribution of his or her Account(s) as provided in this Section 6.1, the Participant's Account(s) shall be distributed in a lump sum.

6.2Time of Distribution: Each Participant shall elect the timing of the distribution with respect to his or her Participant Account in the manner authorized by the Administrator. A Participant shall make a separate election as to the timing of payment with respect to each

Account grouping specified in Section 6.1(a) above. The Participant's election(s) shall indicate that payment shall be made (in the case of a lump sum election) or shall commence (in the case of an installment election):

(a) within 45 days following the Participant's Termination; provided, however, if the Participant is a key employee (as defined in Code Section 416(i) without regard to paragraph (5) thereof) and the stock of the Company or the Corporation is publicly traded on an established securities market, distributions shall not commence before the date which is 6 months following the date of Termination (or, if earlier, the death of the Participant); or

(b) in a specific month and year, but in no event (1) later than the first of the month following the Participant's 70th birthday, or (2) earlier than the Participant's Termination. If a Participant elects his or her distribution to be made or commenced in accordance with this paragraph (b), and such date falls before the Participant's Termination, the distribution shall be made within 45 days following the Participant's Termination.

If the Participant fails to timely make an election with respect to the timing of distribution of his or her Account(s) as provided in this Section 6.2, the Participant's Account(s) shall be distributed or commence distribution on or within 45 days following the Participant's Termination.

6.3Change in Control Election: Notwithstanding the elections made in accordance with Sections 6.1 and 6.2 above, a Participant may elect that in the event of a Change in Control, a election shall be superseded and that, in the event of the Participant's Termination within 12 months following the Change in Control, the Account balance shall be paid in a lump sum. If so elected, such lump sum payment shall be made within 45 days following the Participant's Termination; provided, however, if the Participant is a key employee (as defined in Code Section 416(i) without regard to paragraph (5) thereof) and the stock of the Company or the Corporation is publicly traded on an established securities market, distributions shall not commence before the date which is 6 months following the date of Termination (or, if earlier, the death of the Participant).

6.4Change in Form or Time of Distribution: A Participant may change his or her form and timing election applicable to the distribution of an Account under Sections 6.1, 6.2 and 6.3, provided that such request for change (i) does not take effect until at least twelve (12) months after the date on which it is made, (ii) with respect to payments made at a specified time or pursuant to a fixed schedule, is made at least twelve (12) months prior to the date on which such distribution would otherwise have been made or commenced and (iii) with respect to elections under Section 6.1 and 6.2, the first payment with respect to such new election is deferred for a period of not less than five (5) years beyond the date such distribution would otherwise have been made.

6.5Distribution after Death: If a Participant dies prior to receiving the entire amounts credited to his or her Participant Accounts, the remaining amounts shall be paid to the

Participant's Beneficiary designated by the Participant at the time and in the form as previously elected by the Participant under Section 6.1, 6.2 and 6.3 *(i.e,* there are no special distribution elections for distribution upon death). In the case of an election for amounts to be paid as of Termination, the Participant's death shall be considered a Termination.

6.6De Minimis Distributions: Notwithstanding the provisions of Sections 6.1, 6.2, 6.3, 6.4 and 6.5 with respect to the form of distribution, if, as of the Participant's Termination or death and prior to the commencement of installment payments, the value of amounts in all of the Participant's Accounts (determined as of the Valuation Date immediately preceding such date) is less than $10,000, the entire balance in the Participant's Accounts shall be distributed to the Participant (or if the Participant is deceased, the Participant's Beneficiary) as a lump sum payment.

6.7Distribution Due to Unforeseeable Emergency: Distributions hereunder may commence if the Administrator determines, based upon uniform, established standards consistent with Treas. Reg. § 1.409A-3(i)(3), that the Participant has incurred an Unforeseeable Emergency. The amount distributed under this Section 6.7 shall not exceed the amount necessary to satisfy such emergency plus amounts necessary to pay taxes reasonably anticipated as a result of the distribution, after taking into account the extent to which such hardship is or maybe relieved through reimbursement or compensation by insurance or otherwise or by liquidation of the Participant's assets (to the extent the liquidation of such assets would not itself cause severe financial hardship.) Distributions under this Section 6.7 shall be distributed from either the Participant's Restoration Deferral Account or Director Deferral Account, as appropriate, under Section 5.1. Distributions under this Section 6.7 from a Participant's Restoration Deferral Account shall first be debited from the Participant's Restoration Salary Deferrals and then from the Participant's Restoration Bonus Deferrals, and any deemed earnings and losses credited thereto. No distribution under this Section 6.7 shall be made from the Participant's Restoration Matching Account under Section 5.1. Amounts distributed pursuant to this Section 6.7 shall be debited prorata from each Investment Fund maintained for the respective Account at the time of distribution under Section 5.3.

6.8Termination for Willful, Deliberate or Gross Misconduct: In the event that a Participant (i) is discharged for willful, deliberate, or gross misconduct as determined by the Board or a duly constituted committee thereof; or (ii) if following the Participant's Termination and, within a period of three years thereafter, the Participant engages in any business or enters into any employment which the Board or a duly constituted committee thereof determines to be either directly or indirectly competitive with the business of the Company or substantially injurious to the Company's financial interest (the occurrence of an event described in (i) or (ii) shall be referred to as "Injurious Conduct"), all amounts attributable to the Restoration Matching Account and Retirement Supplement Account shall be forfeited. Further, the Board or a duly constituted committee thereof, in its discretion, may require the Participant who has engaged in Injurious Conduct to return any amounts attributable to the Restoration Matching Account and Retirement Supplement Account previously received by the Participant, provided the right to require repayment under this Section 6.8 must be exercised within ninety (90) days after the Board (or committee, as the case may be) first learns of the Injurious Conduct, but in no event later than twenty-four (24) months after the Participant's Termination. A Participant may request the Board or a duly constituted committee thereof, in writing, to determine whether any proposed business or employment activity would constitute Injurious Conduct. Such a request shall fully describe the proposed activity and the Board's (or the committee's, as the case may be) determination shall be limited to the specific activity so described.

7. FINANCING

No Participant shall have any right or interest in any such policy or the proceeds thereof or in any other specific fund or asset the Corporation or the Company as a result of the Plan. The rights of Participants to benefit payments hereunder shall be no greater than those of a general creditor.

8. AMENDMENT OR TERMINATION

8.1Plan Amendment: The Plan may be amended or otherwise modified by the Administrator, in whole or in part, provided that no amendment or modification shall divest any Participant of any amount previously credited to his or her Participant Accounts under Article 3 and 4 or of the amount and method of crediting earnings to such Participant Accounts under Article 5 of the Plan as of the date of such amendment.

8.2Termination of the Plan: The Administrator reserves the right to terminate the Plan at any time in whole or in part. In the event of any such termination, the Company shall pay a benefit to the Participant or the Beneficiary of any deceased Participant, in lieu of other benefits hereunder, equal to the value of the Participant's Accounts in the form and at the benefit commencement date elected by the Participant pursuant to Article 6 of the Plan. Earnings shall continue to be allocated under Article 5 of the Plan after the termination of the Plan until the Participant's benefits have been paid in full notwithstanding the termination of the Plan.

9. ADMINISTRATION

9.1Administration: Responsibility for establishing the requirements for participation and for administration of the Plan shall be vested in the Administrator, which shall have the full and exclusive discretionary authority to interpret the Plan, to determine all benefits and to resolve all questions arising from the administration, interpretation, and application of their provisions, either by general rules or by particular decisions, including determinations as to whether a claimant is eligible for benefits, the amount, form and timing of benefits, and any other matter (including any question of fact) raised by a claimant or identified by the Administrator. The Administrator may delegate administrative tasks as necessary to persons who are not Administrator members. All decisions of the Administrator shall be conclusive and binding upon all affected persons.

9.2Plan Expenses: The expenses of administering the Plan shall be borne by the Corporation and the Company. No employee shall receive any remuneration for service in such capacity. However, expenses of the Administrator or its members paid or incurred in connection with administering the Plan shall be reimbursed by the Corporation and the Company.

9.3Liability: The Corporation and the Company shall indemnify and hold harmless the members of the Administrator against any and all claims, loss, damage, expense or liability arising from any action or failure to act with respect to this Plan, except in the case of gross negligence or willful misconduct.

10. CLAIMS PROCEDURE

10.1Claim: Any person claiming a benefit, requesting an interpretation or ruling under the Plan, or requesting information under the Plan shall present the request in writing to the Administrator which shall respond in writing as soon as practicable.

10.2Denial of Claim: If the claim or request is denied, the written notice of denial shall state:

(a) The reasons for denial, with specific reference to the Plan provisions on which the denial is based.

(b) A description of any additional material or information required and an explanation of why it is necessary.

(c) An explanation of the Plan's claim review procedure.

10.3Review of Claim: Any person whose claim or request is denied or who has not received a response within thirty (30) days may request review by notice given in writing to the Administrator. The claim or request shall be reviewed by the Administrator who may, but shall not be required to, grant the claimant a hearing. On review, the claimant may have representation, examine pertinent documents, and submit issues and comments in writing.

10.4Final Decision: The decision on review shall normally be made within sixty (60) days. If an extension of time is required for a hearing or other special circumstances, the claimant shall be notified and the time limit shall be one hundred twenty (120) days. The decision shall be in writing and shall state the reasons and the relevant Plan provisions. All decisions on review shall be final and bind all parties concerned.

10.5Attorney's Fees and Expenses: In the event a Participant's claim for benefits under this Plan is denied and the Participant successfully appeals the denial of such claim under the foregoing procedures, the Corporation or the Company shall pay or reimburse the legal fees and expenses directly incurred by the Participant in connection with his appeal subject to a maximum payment or reimbursement of one-third of the balance of the Participant's Accounts. Any such legal fees and expenses shall be paid to, or on behalf of, the Participant no later than thirty (30) days following the Participant's written request for the payment of such legal fees and expenses, provided the Participant supplies the Administrator with evidence of the fees and expenses incurred by the Participant that the Administrator, in its sole discretion, determines is sufficient.

10.6Interest on Delayed Payments: Further, in the event a Participant's claim for benefits under this Plan is denied and the Participant successfully appeals the denial of such claim under the foregoing procedures, the Corporation or the Company shall pay to the Participant interest on the portion of the Participant's benefits that were not otherwise paid when due because of the initial denial of the claim. For purposes of the preceding sentence, interest shall accrue at an annual rate equal to the prime rate as quoted in the Wall Street Journal as of the date the benefits would otherwise have been paid if the claim had not initially been denied, plus five percent (5%), and shall be adjusted as necessary to reflect any partial payment or payments of the amounts owed to the Participant.

11. 11. MISCELLANEOUS

11.1Non-Alienation of Benefits: No amount payable under the Plan shall be subject to assignment, transfer, sale, pledge, encumbrance, alienation or charge by a Participant or the Beneficiary of a Participant except as may be required by law.

11.2Limitation of Rights: Neither the establishment of this Plan, nor any modification thereof, nor the creation of an Account, nor the payment of any benefits shall be construed as giving

(a) any Participant, Beneficiary, or any other person whomsoever, any legal or equitable right against the Company or the Corporation unless such right shall be specifically provided for in the Plan or conferred by affirmative action of the Administrator in accordance with the terms and provisions of the Plan; or

(b) any Participant, or other person whomsoever, the right to be retained in the service of the Company or the Corporation, and all Participants and other employees shall remain subject to termination to the same extent as if the Plan had never been adopted.

11.3Participant's Rights Unsecured: The right of any Participant or Beneficiary to receive payment under the provisions of the Plan shall be as an unsecured claim against the Company, as the case may be, and no provisions contained in the Plan shall be construed to give any Participant or Beneficiary at any time a security interest in the Participant's Accounts or any asset of the Company or the Corporation. The liabilities of the Company or the Corporation to any Participant or Beneficiary pursuant to the Plan shall be those of a debtor pursuant to such contractual obligations as are created by the Plan. Accounts, if any, which may be set aside by the Company or the Corporation for accounting purposes shall not in any way be held in trust for, or be subject to the claims of, a Participant or Beneficiary.

11.4Incapacity: In the event that the Administrator shall find that a Participant or other person entitled to benefits hereunder is unable to care for his or her affairs because of illness or accident, the Administrator may direct that any benefit payment due him or her, unless claim shall have been made therefor by a duly appointed legal representative, be paid to the Participant's spouse, child, parent or other blood relative, or to a person with whom he or she resides, and any such payment so made shall be a complete discharge of the liabilities of the Corporation, any employing Company and the Plan therefor.

11.5Withholding: There shall be deducted from all payments under this Plan the amount of any taxes required to be withheld by any Federal, state or local government. The Participants and their Beneficiaries, distributees, and personal representatives will bear any and all Federal, foreign, state, local or other income or other taxes imposed on amounts paid under this Plan.

11.6Severability: Should any provision of the Plan or any regulations adopted thereunder be deemed or held to be unlawful or invalid for any reason, such fact shall not adversely affect the other provisions or regulations unless such invalidity shall render impossible or impractical the functioning of the Plan and, in such case, the appropriate parties shall adopt a new provision or regulation to take the place of the one held illegal or invalid.

11.7Controlling Law: The Plan shall be governed by the laws of the Commonwealth of Pennsylvania except to the extent preempted by ERISA and any other law of the United States.

SIGNATURE

IN WITNESS WHEREOF, the Retirement Committee of the Company has executed this Plan on the day of _________________, 2013.

____
Thomas B. Mangas, Sr. VP & CFO

____
Ellen R. Romano, Sr. VP, Human Resources

____
Anabel I. Pichler, VP, Comp & Benefits

____
Mark A. Hershey, Sr. VP, General Counsel

____
David S. Cookson, Sr. VP, ABP Americas

Exhibit No. 10.16

Certain information has been excluded from this exhibit because it is not material and would likely cause competitive harm to the company if publicly disclosed. Redacted information is indicated by brackets.

Consolidated Form of Long-Term Performance-Based Restricted Stock Unit Grant

Company Confidential

ARMSTRONG WORLD INDUSTRIES
2500 Columbia Ave., P.O. Box 3001
Lancaster, PA 17604
717. 397.0611

First Name **Middle Name Last Name**

I am pleased to inform you that the Company's Management Development and Compensation Committee granted you the following:

Date of Grant:	[Grant Date]
Performance Units ("Target Award"):	[Number of Shares Granted]
Performance Period ("Performance Period"):	[Performance Period]

This award recognizes the importance of your role in achieving the Company's long-term strategy and is subject to the terms of the Equity and Cash Incentive Plan ("Plan") and the award agreement (the Plan, this grant letter, the Performance Goals attached as Exhibit A, the Terms and Conditions attached as Exhibit B (including Attachment 1), and your acceptance (if any) together constitute the "Award Agreement").

The Performance Units will be earned by achieving a Performance Goal based on Cumulative Free Cash Flow, subject to your continued employment through the end of the Performance Period. The Committee has established the Performance Goal set forth on Exhibit A, which allows you to earn up to [·]% of the Target Award, if you remain continuously employed by the Employer through the end of the Performance Period.

To the extent the Performance Goal is achieved and you satisfy the employment requirements, a number of shares of Company Stock equal to the Performance Units that are earned and vested will be distributed to you following the conclusion of the Performance Period in accordance with the payment terms set forth in the Terms and Conditions. The Company will withhold shares to satisfy your tax obligations unless you provide a payment to cover the tax withholding obligation. You have no ownership or voting rights relative to the Performance Units.

If the Company makes cash dividend payments during the Performance Period, the value of the dividends on shares attributable to the Performance Units will accrue as dividend equivalents in a non-interest bearing bookkeeping account. You will receive a cash payment equal to the accrued dividend equivalents at the end of the Performance Period, adjusted for the number of Performance Units that become earned and vested.

Employment Events

The following chart is a summary of the provisions which apply to this award in connection with termination of employment. The following is only a summary, and in the event of termination of employment, the award will be governed by the Terms and Conditions.

Event	Provisions
▪ Voluntary Resignation ▪ Termination for Cause	All Performance Units and accrued dividend equivalents are forfeited.

	If termination occurs after 10 months following the Date of Grant, then to the extent that the Performance Goal is achieved for the Performance Period, Performance Units and accrued dividend equivalents are earned and vested pro-rata, based on the period of employment; otherwise the Performance Units and accrued dividend equivalents are forfeited.
▪ “55 / 5” Rule Termination (55 years of age or older with 5 years of service)	
▪ Involuntary Termination Without Cause	To the extent that the Performance Goal is achieved for the Performance Period, Performance Units and accrued dividend equivalents are earned and vested pro-rata, based on the period of employment.
▪ Death	
▪ Long-Term Disability	
After a Change in Control:	Upon a Change in Control Performance Units and accrued dividend equivalents are earned as described in Exhibit A and will vest as described in Exhibit B.
▪ Involuntary Termination Without Cause	
▪ Death	
▪ Long-Term Disability	

In the event of any inconsistency between the foregoing summary and the Terms and Conditions or the Plan, the Terms and Conditions or the Plan, as applicable, will govern. Capitalized terms used but not defined in this grant letter will have the meanings set forth in the Plan or the Terms and Conditions, as applicable. As described in the Terms and Conditions, if and to the extent that the terms of this Award Agreement conflict with the terms of a severance agreement or employment agreement between you and the Company, the terms of this Award Agreement shall supersede the terms of the severance agreement or employment agreement.

Please note that the Terms and Conditions contain restrictive covenants pertaining to confidentiality, non-competition and non-solicitation. You should read these sections carefully before deciding whether to accept the Performance Units. You have the right to consult with counsel prior to accepting the Performance Units. If you decide not to accept the Performance Units, you will not be subject to the restrictive covenants set forth in the Terms and Conditions, but you will forfeit the Performance Units. You will continue to be subject to any restrictive covenants set forth in the Plan with respect to prior equity grants and any other agreements between you and the Company. There will be no other consequences as a result of your decision not to accept the Performance Units.

Please contact Cindy Gegg (717-396-2570) if you have questions.

By my signature below as a duly authorized officer of the Company, the Company has caused this Award Agreement to be executed, effective as of the Date of Grant listed above and subject to your electronic signature indicating your acceptance.

Sincerely,

[Name]
[Title]

The information contained in this letter is confidential and any discussion, distribution or use of this information is prohibited.

Performance Goal

Mineral Fiber Volume: Total square feet of Mineral Fiber products sold, as determined by the Committee.

For purposes of the Mineral Fiber Volume calculation:

- "CAGR" means compound annual growth rate
- "Mineral Fiber" means suspended mineral fiber and soft fiber ceiling tile products, excluding ceiling grid produced by Worthington Armstrong Venture ("WAVE").

Mineral Fiber Volume		
Mineral Fiber Volume (Million Sq. Ft. in [Year])	CAGR (against [Year] Mineral Fiber Volume)	Payout
Below [·]%	Less than [·]%	0%
[·]%	[·]%	[·]%
[·]%	[·]%	[·]%
[·]%	[·]%	[·]%
[·]%	[·]%	[·]%
[·]%	[·]%	[·]%

Mineral Fiber Volume is measured based on the Mineral Fiber Volume growth during the Performance Period, as calculated by Mineral Fiber Volume for calendar year [Year] as compared to Mineral Fiber Volume for calendar year [Year]. The performance levels set forth above are with respect to Mineral Fiber Volume for calendar year [Year]. Threshold level performance must be achieved in order to earn any Performance Units for the Performance Goal. If actual performance is between performance levels, the number of Performance Units earned with respect to the Performance Goal will be interpolated on a straight line basis for pro-rata achievement for performance at or between performance levels. If the Performance Goal would produce fractional units, the number of Performance Units earned shall be rounded up to the nearest whole unit, but not in excess of an aggregate of [·]% of the Target Award.

Change in Control:

If a Change in Control occurs prior to the end of the Performance Period, the number of Performance Units earned with respect to the Mineral Fiber Volume Performance Goal will be the greater of (i) the Target Award or (ii) the number of Performance Units earned with respect to the Mineral Fiber Volume Performance Goal as calculated by the actual Mineral Fiber Volume for the immediately preceding 12 month period of the Performance Period (or an annualized volume calculation, if such period is less than 12 months) prior to the date of the Change in Control based on the CAGR achievement rate implied as of such date, as determined by the Committee before the Change in Control in its sole discretion. The Committee reserves discretion to provide for accelerated vesting of the earned Performance Units at a higher performance level pursuant to Section 14(b) of the Plan.

EXHIBIT A
Performance Goal

Cumulative Free Cash Flow: Cumulative Free Cash Flow is defined as cash flow from operations, minus (i) cash payments to purchase property, plant and equipment (Cap Ex), plus (ii) the return of investment from the Worthington Armstrong Venture (WAVE), as determined by the Committee.

Cumulative Free Cash Flow Performance Scale				
Cumulative Free Cash Flow ($)		Performance Level		Payout
Below [·]%		Below [·]% of Target Performance		0%
[·]%		[·]% of Target Performance		[·]%
[·]%		Target Performance		[·]%
[·]%		[·]% of Target Performance		[·]%
[·]%		[·]% of Target Performance		[·]%
[·]%		[·]% of Target Performance or greater		[·]%

Cumulative Free Cash Flow is measured based on the Cumulative Free Cash Flow during the Performance Period. Threshold level performance must be achieved in order to earn any Performance Units for the Performance Goal. If actual performance is between performance levels, the number of Performance Units earned with respect to the Performance Goal will be interpolated on a straight line basis for pro-rata achievement for performance at or between performance levels. If the Performance Goal would produce fractional units, the number of Performance Units earned shall be rounded up to the nearest whole unit, but not in excess of an aggregate of [·]% of the Target Award.

Change in Control:

If a Change in Control occurs prior to the end of the Performance Period, the number of Performance Units earned with respect to the Cumulative Free Cash Flow Performance Goal will be the greater of (i) the Target Award or (ii) the number of Performance Units earned with respect to the Cumulative Free Cash Flow Performance Goal based on actual Cumulative Free Cash Flow through the date of the Change in Control relative to the [Year], [Year] and [Year] portions of the total Cumulative Free Cash Flow target, as determined by the Committee before the Change in Control in its sole discretion. Cumulative Free Cash Flow through the date of the Change in Control shall be compared to the annual and quarterly targets for the period through the date of the Change in Control.

The Committee reserves discretion to provide for accelerated vesting of the earned Performance Units at a higher performance level pursuant to Section 14(b) of the Plan.

EXHIBIT A
Performance Goal

Absolute Total Shareholder Return: Absolute Total Shareholder Return (“Absolute TSR”) tracks the appreciation in share price of the Company Stock, including dividends, and is annualized for the Performance Period, as determined by the Committee. Specifically, Absolute TSR is calculated based on the following formula:

$$\left(\frac{\text{Ending Share Price + Aggregate Dividends}}{\text{Starting Share Price}}\right)^{(1/3)} - 1$$

For purposes of the Absolute TSR calculation:

- “Ending Share Price” means the volume weighted average closing price of the Company Stock for the highest consecutive 30 trading days in the 60 trading day period beginning with and immediately following January [·], [Year].
- “Aggregate Dividends” means a cumulative number of shares of Company Stock assuming same day reinvestment in Company Stock on the ex-dividend date of the dividends paid on a share of Company Stock during the Performance Period.
- “Starting Share Price” means the volume weighted average closing price of the Company Stock for the highest consecutive 30 trading days in the 60 trading day period beginning with and immediately following January [·], [Year].

Absolute TSR		
Performance Level		Payout
Below [·]%		0%
[·]%		[·]%
[·]%		[·]%
[·]%		[·]%
[·]%		[·]%
[·]%		[·]%
[·]%		[·]%

Threshold level performance must be achieved in order to earn any Performance Units for the Performance Goal. If actual performance is between performance levels, the number of Performance Units earned with respect to the Performance Goal will be interpolated on a straight line basis for pro-rata achievement for performance at or between performance levels. If the Performance Goal would produce fractional units, the number of Performance Units earned shall be rounded up to the nearest whole unit, but not in excess of an aggregate of [·]% of the Target Award.

Change in Control:

If a Change in Control occurs prior to the end of the Performance Period or prior to the end of the 60 trading day period following the end of the Performance Period, the number of Performance Units earned with respect to the Absolute TSR Performance Goal will be the greater of (i) the Target Award or (ii) the number of Performance Units earned with respect to the Absolute TSR Performance Goal based on Absolute TSR through the date of the Change in Control, calculated by using the per-share sales price in the Change in Control as the Ending Share Price and as if the Change in Control date were the end of the Performance Period, as determined by the Committee before the Change in Control in its sole discretion.

The Committee reserves discretion to provide for accelerated vesting of the earned Performance Units at a higher performance level pursuant to Section 14(b) of the Plan.

EXHIBIT B

ARMSTRONG WORLD INDUSTRIES, INC.

EQUITY AND CASH INCENTIVE PLAN

PERFORMANCE RESTRICTED STOCK UNIT GRANT
TERMS AND CONDITIONS

1. Grant.

a. Subject to the terms set forth below, Armstrong World Industries, Inc. (the "Company") has granted to the designated employee (the "Grantee") three target awards (the "Target Award") of performance-based restricted stock units (the "Performance Units") as specified in the [Year] Performance Restricted Stock Unit Grant Letters to which these Grant Conditions relate (the "Grant Letters"). The "Date of Grant" is [Grant Date]. The Performance Units are Stock Units with respect to common stock of the Company ("Company Stock").

b. The Performance Units shall be earned, vested and payable if and to the extent that the Cumulative Free Cash Flow, Absolute TSR, and Mineral Fiber Volume performance goals set forth in the Grant Letters (the "Performance Goals"), employment conditions and other terms of these Grant Conditions are met. The "Performance Period" for which the attainment of the Performance Goals will be measured is the period beginning January 1, [Year] and ending December 31, [Year].

c. These Terms and Conditions (the "Grant Conditions") are part of the Grant Letters. This grant is made under the Armstrong World Industries, Inc. Equity and Cash Incentive Plan (the "Plan"). Any capitalized terms not defined herein shall have the meanings set forth in the Plan.

2. Performance Goals; Vesting.

a. The Grantee shall earn and vest in a number of Performance Units based on the attainment of the Performance Goals for the Performance Period, provided that the Grantee continues to be employed by the Company or its subsidiaries or affiliates (collectively the "Employer") through December 31, [Year] (the "Vesting Date"). The Performance Units shall be earned based on attainment of the Performance Goals and shall vest based on the Grantee's continued employment through the Vesting Date, or as otherwise provided below.

b. After the end of the Performance Period, the Management Development and Compensation Committee (the "Committee") will determine whether and to what extent the Performance Goals have been met and the amount earned with respect to the Performance Units. The Grantee can earn up to [·]% of the Target Award based on attainment of the Performance Goals, as set forth in the Grant Letters. Earned and vested Performance Units shall be payable as described in Section 6.

c. If a Change in Control occurs, the amount earned with respect to the Performance Units shall be determined as of the date of the Change in Control as described in the Grant Letters. The earned Performance Units shall continue to vest based on the Grantee's continued employment through the Vesting Date, except as otherwise provided herein. Earned and vested Performance Units shall be payable as described in Section 6. Notwithstanding the foregoing, if the Performance Units are not assumed by, or replaced by substantially identical grants by, the successor company in the Change in Control, the earned Performance Units shall vest as of the date of the Change in Control, and such earned and vested Performance Units shall be paid as of the date of the Change in Control if the Change in Control is a 409A CIC (as defined below) and if permitted by the plan termination provisions of the regulations under section 409A of the Code. If payment at the date of the Change in Control is not permitted under section 409A, the earned and vested Performance Units shall be payable as described in Section 6.

d. Except as described below, no Performance Units shall be earned prior to the Committee's determination of achievement of the Performance Goals, and to the extent that the Performance Goals are not attained, the Performance Units shall be immediately forfeited and shall cease to be outstanding as of the date of the Committee's determination.

3. Termination of Employment.

a. *General Rule*. Except as described below, if the Grantee ceases to be employed by the Employer prior to the Vesting Date, the Performance Units shall be forfeited as of the termination date and shall cease to be outstanding.

b. *"55/5" Rule Termination*. If, after ten months following the Date of Grant but prior to the Vesting Date, the Grantee ceases to be employed by the Employer on account of a "55 / 5" Rule Termination (as defined below), the Grantee shall earn and vest in a pro-rated portion of the outstanding Performance Units based on the extent to which the Performance Goals are achieved for the Performance Period. In the event of a Change in Control, the amount achieved for the Performance Period shall be determined as of the Change in Control date as described in the Grant Letters. The pro-rated portion shall be determined by multiplying the number of Performance Units earned based on attainment of the Performance Goals by a fraction, the numerator of which is the number of months that elapsed during the period beginning on January 1, [Year] through the Grantee's termination date, and the denominator of which is 36. A partial month after the month of grant shall count as a full month for purposes of this calculation. The pro-rated earned Performance Units shall be paid as described in Section 6.

c. *Involuntary Termination before a Change in Control*. If, before a Change in Control and after ten months following the Date of Grant but prior to the Vesting Date, the Grantee ceases to be employed by the Employer on account of Involuntary Termination (as defined below), the Grantee shall earn and vest in a pro-rated portion of the outstanding Performance Units based on the extent to which the Performance Goals are achieved for the Performance Period. In the event of a subsequent Change in Control, the amount achieved for the Performance Period shall be determined as of the Change in Control date as described in the GrantLetters. The pro-rated portion shall be determined by multiplying the number of Performance Units earned based on attainment of the Performance Goals by a fraction, the numerator of which is the number of months that elapsed during the period beginning on January 1, [Year] through the Grantee's termination date, and the denominator of which is 36. A partial month after the month of grant shall count as a full month for purposes of this calculation. The pro-rated earned Performance Units shall be paid as described in Section 6.

d. *Death or Long-Term Disability Before a Change in Control*. If, before a Change in Control, the Grantee ceases to be employed by the Employer prior to the Vesting Date on account of death or Long-Term Disability (as defined below), the Grantee shall earn and vest in a pro-rated portion of the outstanding Performance Units based on the extent to which the Performance Goals are achieved for the Performance Period. In the event of a subsequent Change in Control, the amount achieved for the Performance Period shall be determined as of the Change in Control date as described in the GrantLetters. The pro-rated portion shall be determined by multiplying the number of Performance Units earned based on attainment of the Performance Goals by a fraction, the numerator of which is the number of months that elapsed during the period beginning on January 1, [Year] through the Grantee's termination date and the denominator of which is 36. A partial month after the month of grant shall count as a full month for purposes of this calculation. The pro-rated earned Performance Units shall be paid as described in Section 6.

e. *Involuntary Termination, Death and Disability on or after a Change in Control.* If the Grantee's employment terminates on account of Involuntary Termination, death or Long-Term Disability on or after a Change in Control and prior to the Vesting Date, the Grantee shall vest in the Performance Units earned as of the Change in Control date as described in the Grant Letters. If the Grantee has a Severance Agreement with the Company ("Severance Agreement"), on and after a Change in Control, the term "Involuntary Termination" shall have the meaning given a termination by the Company without Cause in the Severance Agreement, and shall include without limitation a termination for Good Reason as defined in the Severance Agreement. **The Grantee agrees that, subject to the immediately preceding sentence, if and to the extent that these Grant Conditions conflict with the terms of the Severance Agreement or any employment agreement between the Company and the Grantee, these Grant Conditions shall supersede the provisions of the Severance Agreement and employment agreement applicable to vesting of performance units on and after a Change in Control, notwithstanding anything in the Severance Agreement or employment agreement to the contrary.**

f. *Coordination of Provisions*. If the Grantee terminates employment in a termination that is both a "'55 / 5'Rule Termination" and an Involuntary Termination, the termination shall be treated as an Involuntary Termination for purposes of the GrantCondition and Grant Letters.

4. Definitions. For purposes of these Grant Conditions and the Grant Letters:

a. "'55 / 5'Rule Termination" shall mean the Grantee's termination of employment other than for Cause after the Grantee has attained age 55 and has completed at least five years of service with the Employer.

b. "Injurious Conduct" shall have the meaning ascribed to the term on Attachment 1, the terms of which are incorporated herein.

c. "Involuntary Termination" shall mean the Employer's termination of the Grantee's employment other than for Cause.

d. "Long-Term Disability" shall mean the Grantee is receiving long-term disability benefits under the Employer's long-term disability plan.

e. "Restricted Business" shall have the meaning ascribed to the term on Attachment 1, the terms of which are incorporated herein.

5. Restrictive Covenants; Forfeiture.

a. As consideration for the Performance Units, the Grantee agrees to be bound by the restrictive covenants set forth on Attachment 1. The Committee may determine that the Performance Units shall be forfeited or reduced if the Grantee engages in Injurious Conduct.

b. The Grantee has the right to consult with the Grantee's own counsel before accepting the Performance Units and agreeing to be bound by the restrictive covenants.

c. If the Committee determines that the Grantee has engaged in Injurious Conduct, the Committee may, in its discretion, require the Grantee to return to the Company any Company Stock or cash received in settlement of Performance Units. If the Company Stock acquired in settlement of Performance Units has been disposed of by the Grantee, then the Company may require the Grantee to pay to the Company the economic value of the Company Stock as of the date of disposition.

d. The Committee shall exercise the right of forfeiture and recoupment provided to the Company in this Section 5 within 180 days after the Company's discovery of the Injurious Conduct activities giving rise to the Company's right of forfeiture or recoupment.

e. The Grantee may make a request to the Committee in writing for a determination regarding whether any proposed business or activity would constitute Injurious Conduct. Such request shall fully describe the proposed business or activity. The Committee shall respond to the Grantee in writing and the Committee's determination shall be limited to the specific business or activity so described.

f. This Award Agreement consists of a series of separate restrictive covenants, all of which shall survive and be enforceable in law and/or equity after the Grantee's termination of the Grantee's employment with the Employer. The Grantee understands that in the event of a violation of any provision of this Section 5, the Company shall have the right to seek injunctive relief, in addition to any other existing rights provided in this Award Agreement or by operation of law, without the requirement of posting bond. The remedies provided in this Section 5 shall be in addition to any legal or equitable remedies existing at law or provided for in any other agreement between the Grantee and the Company or any of its subsidiaries or affiliates, and shall not be construed as a limitation upon, or as an alternative or in lieu of, any such remedies. If any provisions of this Section 5 and Attachment 1 shall be determined by a court of competent jurisdiction to be unenforceable in part by reason of it being too great a period of time, covering too great a geographical area, or too broad in scope, it shall be in full force and effect as to that period of time, geographical area, or scope determined to be reasonable by the court.

g. By accepting the Performance Units, the Grantee acknowledges that the Grantee has carefully read and considered the provisions of this Section 5 and Attachment 1, and agrees that the restrictions set forth herein are fair and reasonable, are supported by fair and reasonable consideration independent from the continuation of employment, and are reasonably required to protect the legitimate business interests of the Company and its subsidiaries and affiliates.

h. The Grantee has received at least 14 calendar days (excluding holidays, and provided that such period includes at least 10 business days) of notice of the post-termination non-competition restrictions before those restrictions are to be effective.

i. In the event of a breach by the Grantee of any restrictive covenant set forth on Attachment 1, the running of the period of restriction shall automatically be tolled and suspended for the amount of time the breach continues, and shall automatically commence when the breach is remedied so that the Company and its subsidiaries and affiliates shall receive the benefit of the Grantee's compliance with the terms and conditions of this Section 5.

6. Payment.

a. Except as provided below, after the end of the Performance Period, if the Committee certifies that the Performance Goals and other conditions to payment of the Performance Units have been met, the Company shall issue shares of Company Stock to the Grantee equal to the number of earned and vested Performance Units, subject to applicable tax withholding and subject to compliance with section 409A of the Code and as described in Section 20(h) of the Plan. Payment of earned and vested Performance Units shall be made in [Year] as soon as practicable after the Committee certifies the extent to which the Performance Goals and other conditions to payment of the Performance Units have been met, but not later than [Date], except as provided below. All unpaid Performance Units shall be forfeited in the event of termination for Cause.

b. If the Grantee's employment terminates for any reason other than Cause upon or within two years after a Change in Control that meets the requirements of a 409A CIC, the Grantee's Performance Units that are unpaid earned and vested (if any) shall be paid within 60 days after the termination date, subject to compliance with section 409A of the Code, if applicable, and as described in Section 20(h) of the Plan. The Company shall issue shares of Company Stock to the Grantee equal to the number of the earned and vested Performance Units, subject to applicable tax withholding. If a Change in Control does not meet the requirements of a 409A CIC, the Grantee's earned and vested Performance Units (if any) shall be paid on the date described in subsection (a).

c. Any fractional shares will be rounded up to the nearest whole share, but not exceeding [·]% of the Target Award.

7. Dividend Equivalents. Dividend Equivalents shall accrue with respect to Performance Units and shall be payable subject to the same Performance Goals, vesting terms and other conditions as the Performance Units to which they relate. Dividend Equivalents shall be credited on the Performance Units when dividends are declared on shares of Company Stock from the Date of Grant until the payment date for the vested Performance Units. The Company will keep records of Dividend Equivalents in a non-interest bearing bookkeeping account for the Grantee. No interest will be credited to any such account. Vested Dividend Equivalents shall be paid in cash at the same time and subject to the same terms as the underlying vested Performance Units. If and to the extent that the underlying Performance Units are forfeited, all related Dividend Equivalents shall also be forfeited.

8. Delivery of Shares. The Company's obligation to deliver shares upon the vesting of the Performance Units shall be subject to applicable laws, rules and regulations and also to such approvals by governmental agencies as may be deemed appropriate to comply with relevant securities laws and regulations.

9. No Shareholder Rights. No shares of Company Stock shall be issued to the Grantee on the Date of Grant, and the Grantee shall not be, nor have any of the rights or privileges of, a shareholder of the Company with respect to any Performance Units.

10. No Right to Continued Employment. The grant of Performance Units shall not confer upon the Grantee any right to continued employment with the Employer or interfere with the right of the Employer to terminate the Grantee's employment at any time.

11. Incorporation of Plan by Reference. The Grant Lettersand these Grant Conditions are made pursuant to the terms of the Plan, the terms of which are incorporated herein by reference, and shall in all respects be interpreted in accordance therewith. The decisions of the Committee shall be conclusive upon any question arising hereunder. The Grantee's receipt of the Performance Units constitutes the Grantee's acknowledgment that all decisions and determinations of the Committee with respect to the Plan, the Grant Letters, these Grant Conditions, and the Performance Units shall be final and binding on the Grantee and any other person claiming an interest in the Performance Units.

12. Withholding Taxes. The Employer shall have the right to deduct from all payments made hereunder and from other compensation an amount equal to the federal (including FICA), state, local and foreign taxes required by law to be withheld with respect to the Performance Units. The Employer will withhold shares of Company Stock payable hereunder to satisfy the tax withholding obligation on amounts payable in shares, unless the Grantee provides a payment to the Employer to cover such taxes, in accordance with procedures established by the Committee. The share withholding amount shall be determined in accordance with the procedures approved by the Committee.

13. Company Policies. In addition to the recoupment authority under Section 5 above, all amounts payable under the Grant Letters and these Grant Conditions shall be subject to any applicable clawback or recoupment policies, share trading policies and other policies that may be implemented by the Company's Board of Directors from time to time.

14. Assignment. The Grant Lettersand these Grant Conditions shall bind and inure to the benefit of the successors and assignees of the Company. The Grantee may not sell, assign, transfer, pledge or otherwise dispose of the Performance Units, except to a successor grantee in the event of the Grantee's death.

15. Section 409A. The Grant Lettersand these Grant Conditions are intended to comply with section 409A of the Code or an exemption, consistent with Section 20(h) of the Plan, including the six-month delay for specified employees in accordance with the requirements of section 409A of the Code, if applicable. In furtherance of the foregoing, if the Performance Units or related Dividend Equivalents constitute "nonqualified deferred compensation" within the meaning of section 409A of the Code, vested Performance Units and related Dividend Equivalents shall be settled on the earliest date that would be permitted under section 409A of the Code without incurring penalty or accelerated taxes thereunder.

16. Successors. The provisions of the Grant Letters and these Grant Conditions shall extend to any business that becomes a successor to the Company or its subsidiaries or affiliates on account of a merger, consolidation, sale of assets, spinoff or similar transaction with respect to any business of the Company or its subsidiaries or affiliates with which the Grantee is employed, and if this grant continues in effect after such corporate event, references to the "Company or its subsidiaries or affiliates" or the "Employer" in the Grant Letters and these Grant Conditions shall include the successor business and its affiliates, as appropriate. In that event, the Company may make such modifications to the Grant Lettersand these Grant Conditions as it deems appropriate to reflect the corporate event.

17. GoverningLaw. The validity, construction, interpretation and effect of the Grant Letters and these Grant Conditions shall be governed by, and determined in accordance with, the applicable laws of the Commonwealth of Pennsylvania, excluding any conflicts or choice of law rule or principle.

* * *

Attachment 1
Definitions

For purposes of the Grant Letter and Grant Conditions, the following terms have the meanings ascribed to them on this Attachment 1:

a) "Injurious Conduct" shall mean the activities described in subsections (i) through (v) below (including any modifications of subsections (iii) and (iv) for residents of California, Colorado and other applicable jurisdictions as set forth below):

a. The Committee determines that forfeiture or reduction is appropriate on account of an accounting restatement of the Company's financial statements that is required as a result of material non-compliance with financial reporting requirement under U.S. securities laws and generally accepted accounting principles;

b. The Grantee commits any of the following, as determined by the Committee, in its sole discretion: (A) felony or a crime involving moral turpitude; (B) fraud, dishonesty, misrepresentation, theft, or misappropriation of funds with respect to the Employer; (C) violation of the Code of Conduct or employment policies of the Employer, as in effect from time to time; (D) breach of any written noncompetition, confidentiality or nonsolicitation covenant of the Grantee with respect to the Employer; or (E) gross negligence or willful, deliberate or gross misconduct in the performance of the Grantee's duties with the Employer, in each case above in this Section (a)(ii), that results in significant financial or reputational harm to the Company;

c. During the Grantee's employment or service with the Employer and for a period of one (1) year thereafter, the Grantee engages in any Restricted Business or enters into any employment relationship with a Restricted Business;

d. During the Grantee's employment or service with the Employer, and for a period of two (2) years thereafter:

i. The Grantee solicits any person who was a customer of the Employer with respect to any Restricted Business, or solicits potential customers of the Employer who are or were identified through leads developed during the course of the Grantee's employment or service with the Employer with respect to any Restricted Business, or otherwise divert or attempt to divert any existing business of the Employer; or

ii. The Grantee, directly for the Grantee or for any third party, solicits, induces, recruits or causes another person in the employment of the Employer to terminate such employee's employment with the Employer; or

e. During the Grantee's employment or service with the Employer or thereafter, the Grantee breaches any written confidentiality, non-solicitation or non-competition covenant with the Employer.

Notwithstanding the foregoing, if the Grantee is employed or provides services in Colorado, subsections (iii) and (iv)(A) above shall be limited to actions taken by the Grantee through the use of Company trade secrets and/or confidential information.

Notwithstanding the foregoing, if the Grantee is employed or provides services in California, or in another jurisdiction where the provisions of subsections (iii) and (iv)(A) above are otherwise prohibited by law, the following provisions shall apply instead of subsections (iii) and (iv)(A) above:

iii. During the Grantee's employment or service with the Employer, the Grantee engages in any Restricted Business or enters into any employment relationship with a Restricted Business; or

iv. During the Grantee's employment or service with the Employer, and for a period of two (2) years thereafter:

A. The Grantee, directly or indirectly, solicits or attempts to solicit any business from any of customers of the Employer for the purposes of providing products or services that are competitive with those provided by the Employer where such solicitation and/or attempt at solicitation is done by the Grantee through the use of Company trade secrets and/or confidential information.

b) "Restricted Business" shall mean any business or employment relationship which the Committee in its sole discretion determines to be either directly or indirectly (A) competitive with any aspect of the business of the Employer with respect to which the Grantee had responsibility for, or access to, confidential information within 12 months before the Grantee's termination of employment or service with the Employer or (B) substantially injurious to the Employer's business interests, in each case in any geographic area in which the Employer conducts business with respect to which the Grantee had responsibility for, or access to, confidential information within 12 months before the Grantee's termination of employment or service with the Employer.

Exhibit No. 10.17

Long-Term Time-Based Restricted Stock Unit Grant

Participant Name (First, Middle & Last)

I am pleased to inform you that the Company's Management Development and Compensation Committee granted you the following:

Date of Grant:	[Grant Date]
Time-Based Restricted Stock Units:	[Number of Shares Granted]

This grant is subject to the terms of the Equity and Cash Incentive Plan ("Plan"), and the award agreement (the Plan, this grant letter, the Terms and Conditions attached as Exhibit A (including Attachment 1), and your acceptance (if any) together constitute the "Award Agreement").

Vesting

The Restricted Stock Units will vest in accordance with the following schedule if you remain employed by the Employer through the applicable vesting date, except as described below. One share of the Company's common stock will be distributed to you for each Restricted Stock Unit that vests, within 60 days following the applicable vesting date.

Vesting Date	Time-Based Units Vesting
Three years from Date of Grant	100.00%

Taxes

The Company will use share tax withholding to satisfy the minimum tax withholding obligations unless you provide a payment to cover the taxes.

Employment Events

The following chart is a summary of the provisions which apply to this award in connection with your termination of employment. The following is only a summary, and in the event of termination of employment, the award will be governed by the Terms and Conditions.

Event	**Provisions**
▪ Voluntary Resignation	Forfeit all unvested Restricted Stock Units and accrued dividends

Event	**Provisions**
▪ Termination for Cause	Forfeit all unpaid (vested or unvested) Restricted Stock Units and accrued dividends

	If termination occurs after 10 months following the Date of Grant, Restricted Stock Units and accrued dividends vest pro-rata based on the period of employment; otherwise, unvested Restricted Stock Units and accrued dividends are forfeited
▪ ”55 / 5” Rule Termination (55 years of age or older with 5 years of service)	
▪ Involuntary Termination	Restricted Stock Units and accrued dividends vest pro-rata based on the period of employment
▪ Death	

- Long-Term Disability

Restricted Stock Units and accrued dividends vest in full upon termination of employment

- Involuntary Termination upon or within two years following a Change of Control

Each Restricted Stock Unit granted is credited to an account maintained for you. You have no ownership or voting rights relative to these Restricted Stock Units. If the Company makes cash dividend payments before the Restricted Stock Units are vested, the value of the dividends will accrue in a non-interest bearing bookkeeping account. You will receive a cash payment for the accrued dividend equivalents based on vesting and payment of the Restricted Stock Units.

In the event of any inconsistency between the foregoing summary and the Terms and Conditions or the Plan, the Terms and Conditions or the Plan, as applicable will govern. Capitalized terms used but not defined in this grant letter will have the meanings set forth in the Plan or the Terms and Conditions, as applicable.

Please note that the Terms and Conditions contain restrictive covenants pertaining to confidentiality, non-competition and non-solicitation. You should read these sections carefully before deciding whether to accept the Restricted Stock Units. You have the right to consult with counsel prior to accepting the Restricted Stock Units. If you decide not to accept the Restricted Stock Units, you will not be subject to the restrictive covenants set forth in the Terms and Conditions, but you will forfeit the Restricted Stock Units. You will continue to be subject to any restrictive covenants set forth in the Plan with respect to prior equity grants and any other agreements between you and the Company. There will be no other consequences as a result of your decision not to accept the Restricted Stock Units.

Please contact Cindy Gegg (717-396-2570) if you have questions.

By my signature below as a duly authorized officer of the Company, the Company has caused this Award Agreement to be executed, effective as of the Date of Grant listed above and subject to your electronic signature indicating your acceptance.

Sincerely,

Victor D. Grizzle
Chief Executive Officer

The information contained in this letter is confidential and any discussion, distribution or use of this information is prohibited

EXHIBIT A

ARMSTRONG WORLD INDUSTRIES, INC.
EQUITY AND CASH INCENTIVE PLAN

TIME-BASED RESTRICTED STOCK UNIT GRANT
TERMS AND CONDITIONS

1.Grant.

(a)Subject to the terms set forth below, Armstrong World Industries, Inc. (the “Company”) has granted to the designated employee (the “Grantee”) an award of time-based restricted stock units (the “Time-Based Units”) as specified in the Long-Term Time-Based Restricted Stock Unit Grant Letter to which these Grant Conditions relate (the “Grant Letter”). The “Date of Grant” is ***Grant Date***. The Time-Based Units are Stock Units with respect to common stock of the Company (“Company Stock”).

(b)The Time-Based Units shall be vested and payable in accordance with the schedule set forth below, if and to the extent the terms of the Grant Letter and these Grant Conditions are met.

(c)These Terms and Conditions (the “Grant Conditions”) are part of the Grant Letter. This grant is made under the Armstrong World Industries, Inc. Equity and Cash Incentive Plan (the “Plan”). Any terms not defined herein shall have the meanings set forth in the Plan.

2.Vesting.

(a)Except as provided in Sections 3 and 4 below, the Time-Based Units shall vest on the following date, if the Grantee continues to be employed by the Company or its subsidiaries or affiliates (collectively, the “Employer”) on the applicable date below:

Vesting Date	Time-Based Units Vesting
Three years from Date of Grant (the “Vesting Date”)	100.00%

3.Termination of Employment.

(a)Except as described below, if the Grantee ceases to be employed by the Employer for any reason prior to the Vesting Date, the unvested Time-Based Units shall be forfeited as of the termination date and shall cease to be outstanding.

(b)Subject to Section 4 below, if, prior to the Vesting Date, the Grantee ceases to be employed by the Employer (x) on account of death or Long-Term Disability (as defined below), or (y) after ten months following the Date of Grant, on account of “55 / 5” Rule Termination (as defined below) or Involuntary Termination (as defined below) (each, a “Qualifying Termination”), the Grantee shall vest in the number of Time-Based Units that would have vested on the Vesting Date had the Grantee been employed by the Employer on the Vesting Date multiplied by a fraction, the numerator of which is the number of calendar months that elapsed from the Date of Grant through the Qualifying Termination date, and the denominator of which is 36, rounded up to the nearest whole unit.

(c)For purposes of the calculations in Section 3(b), the number of calendar months during the period from the Date of Grant through the Qualifying Termination date will be calculated as the number of calendar months in the period starting with (i) the first calendar month following the month in which the Date of Grant occurs through (ii) the calendar month in which the Qualifying Termination date occurs, with such final calendar month counting as a full month. The pro-rated Time-Based Units shall be paid within 60 days after the Grantee's termination date, as described in Section 7. The unvested Time-Based Units, if any, shall be forfeited as of the termination date and shall cease to be outstanding.

(d)If the Grantee ceases to be employed by the Employer on account of Cause, any unpaid Time-Based Units (vested or unvested) shall be forfeited as of the termination date and shall cease to be outstanding.

4.Change in Control Involuntary Termination. Subject to Section 14 of the Plan, and notwithstanding Section 3 above, if the Grantee has an Involuntary Termination upon or within two years after a Change in Control, and prior to the Vesting Date, the Grantee's outstanding Time-Based Units shall become fully vested and shall be paid within 60 days after such Involuntary Termination, as described in Section 7.

5.Definitions. For purposes of these Grant Conditions and the Grant Letter:

(a)"'55 / 5' Rule Termination" shall mean the Grantee's termination of employment other than for Cause after the Grantee has attained age 55 and has completed five years of service with the Employer.

(b)"Injurious Conduct" shall have the meaning ascribed to the term on Attachment 1, the terms of which are incorporated herein.

(c)"Involuntary Termination" shall mean the Employer's termination of the Grantee's employment other than for Cause.

(d)"Long-Term Disability" shall mean the Grantee is receiving long-term disability benefits under the Employer's long-term disability plan.

(e)"Restricted Business" shall have the meaning ascribed to the term on Attachment 1, the terms of which are incorporated herein.

6.Restrictive Covenants; Forfeiture.

(a)As consideration for the Time-Based Units, the Grantee agrees to be bound by the restrictive covenants set forth on Attachment 1. The Grantee agrees that the grant of Performance Units under the terms and conditions set forth herein constitutes "mutually agreed upon consideration" within the meaning of the Massachusetts Noncompetition Agreement Act. The

Committee may determine that the Time-Based Units shall be forfeited or reduced if the Grantee engages in Injurious Conduct.

(b)The Grantee has the right to consult with the Grantee's own counsel before accepting the Time-Based Units and agreeing to be bound by the restrictive covenants.

(c)If the Committee determines that the Grantee has engaged in Injurious Conduct, the Committee may, in its discretion, require the Grantee to return to the Company any Company Stock or cash received in settlement of Time-Based Units. If the Company Stock acquired in settlement of Time-Based Units has been disposed of by the Grantee, then the Company may require the Grantee to pay to the Company the economic value of the Company Stock as of the date of disposition.

(d)The Committee shall exercise the right of forfeiture and recoupment provided to the Company in this Section 6 within 180 days after the Company's discovery of the Injurious Conduct activities giving rise to the Company's right of forfeiture or recoupment.

(e)The Grantee may make a request to the Committee in writing for a determination regarding whether any proposed business or activity would constitute Injurious Conduct. Such request shall fully describe the proposed business or activity. The Committee shall respond to the Grantee in writing and the Committee's determination shall be limited to the specific business or activity so described.

(f)This Award Agreement consists of a series of separate restrictive covenants, all of which shall survive and be enforceable in law and/or equity after the Grantee's termination of the Grantee's employment with the Employer. The Grantee understands that in the event of a violation of any provision of this Section 6, the Company shall have the right to seek injunctive relief, in addition to any other existing rights provided in this Award Agreement or by operation of law, without the requirement of posting bond. The remedies provided in this Section 6 shall be in addition to any legal or equitable remedies existing at law or provided for in any other agreement between the Grantee and the Company or any of its subsidiaries or affiliates, and shall not be construed as a limitation upon, or as an alternative or in lieu of, any such remedies. If any provisions of this Section 6 and Attachment 1 shall be determined by a court of competent jurisdiction to be unenforceable in part by reason of it being too great a period of time, covering too great a geographical area, or too broad in scope, it shall be in full force and effect as to that period of time, geographical area, or scope determined to be reasonable by the court.

(g)By accepting the Time-Based Units, the Grantee acknowledges that the Grantee has carefully read and considered the provisions of this Section 6 and Attachment 1, and agrees that the restrictions set forth herein are fair and reasonable, are supported by fair and reasonable consideration independent from the continuation of employment, and are reasonably required to protect the legitimate business interests of the Company and its subsidiaries and affiliates.

(h)The Grantee has received at least 14 calendar days (excluding holidays, and provided that such period includes at least 10 business days) of notice of the post-termination non-competition restrictions before those restrictions are to be effective.

(i)In the event of a breach by the Grantee of any restrictive covenant set forth on Attachment 1, the running of the period of restriction shall automatically be tolled and suspended for the amount of time the breach continues, and shall automatically commence when the breach is remedied so that the Company and its subsidiaries and affiliates shall receive the benefit of the Grantee's compliance with the terms and conditions of this Section 6.

7.Payment. When Time-Based Units vest, shares of Company Stock equal to the number of vested Time-Based Units shall be issued to the Grantee within 60 days after the applicable vesting date, subject to applicable tax withholding and subject to any six-month delay required under section 409A of the Internal Revenue Code, if applicable, and as described in Section 20(h) of the Plan. Any fractional shares will be rounded up to the nearest whole share. Notwithstanding any provision of the Plan, the Grant Letter, or these Grant Conditions to the contrary, the Time-Based Units shall be settled in shares of Company Stock only.

8.Dividend Equivalents. Dividend Equivalents shall accrue with respect to Time-Based Units and shall be payable subject to the same vesting terms and other conditions as the Time-Based Units to which they relate. Dividend Equivalents shall be credited on the Time-Based Units when dividends are declared on shares of Company Stock from the Date of Grant until the payment date for the vested Time-Based Units. The Company will keep records of Dividend Equivalents in a non-interest bearing bookkeeping account for the Grantee. No interest will be credited to any such account. Vested Dividend Equivalents shall be paid in cash at the same time and subject to the same terms as the underlying vested Time-Based Units. If and to the extent that the underlying Time-Based Units are forfeited, all related Dividend Equivalents shall also be forfeited.

9.Delivery of Shares. The Company's obligation to deliver shares upon the vesting of the Time-Based Units shall be subject to applicable laws, rules and regulations and also to such approvals by governmental agencies as may be deemed appropriate to comply with relevant securities laws and regulations.

10.No Shareholder Rights. No shares of Company Stock shall be issued to the Grantee on the Date of Grant, and the Grantee shall not be, nor have any of the rights or privileges of, a shareholder of the Company with respect to any Time-Based Units.

11.No Right to Continued Employment. The grant of Time-Based Units shall not confer upon the Grantee any right to continued employment with the Employer or interfere with the right of the Employer to terminate the Grantee's employment at any time.

12.Incorporation of Plan by Reference. The Grant Letter and these Grant Conditions are made pursuant to the terms of the Plan, the terms of which are incorporated herein by reference, and shall in all respects be interpreted in accordance therewith, including, but not limited to, the forfeiture provisions set forth in Section 13 of the Plan. The decisions of the Management Development and Compensation Committee (the "Committee") shall be conclusive upon any question arising hereunder. The Grantee's receipt of the Time-Based Units constitutes the Grantee's acknowledgment that all decisions and determinations of the Committee with respect to the Plan, the Grant Letter, these Grant Conditions, and the Time-Based Units shall be final and binding on the Grantee and any other person claiming an interest in the Time-Based Units.

13.Withholding Taxes. The Employer shall have the right to deduct from all payments made hereunder and from other compensation an amount equal to the federal (including FICA), state, local and foreign taxes required by law to be withheld with respect to the Time-Based Units. The Employer will withhold shares of Company Stock payable hereunder to satisfy the tax withholding obligation on amounts payable in shares, unless the Grantee provides a payment to the Employer to cover such taxes, in accordance with procedures established by the Committee. The share withholding amount shall be determined in accordance with the procedures approved by the Committee.

14.Company Policies. In addition to recoupment authority under Section 6 above, all amounts payable under the Grant Letter and these Grant Conditions shall be subject to any applicable claw back or recoupment policies, share trading policies and other policies that may be implemented by the Company's Board of Directors from time to time. If the Grantee is subject to the Company's stock ownership policy, the Grantee must hold a portion of the net after-tax shares received upon payment of the Time-Based Units until the applicable stock ownership guidelines are met, in accordance with the Company's stock ownership policy.

15.Assignment. The Grant Letter and these Grant Conditions shall bind and inure to the benefit of the successors and assignees of the Company. The Grantee may not sell, assign, transfer, pledge or otherwise dispose of the Time-Based Units, except to a successor grantee in the event of the Grantee's death.

16.Section 409A. The Grant Letter and these Grant Conditions are intended to comply with section 409A of the Code or an exemption, consistent with Section 20(h) of the Plan, including the six-month delay for specified employees in accordance with the requirements of section 409A of the Code, if applicable. In furtherance of the foregoing, if the Time-Based Units or related Dividend Equivalents constitute "nonqualified deferred compensation" within the meaning of section 409A of the Code, vested Time-Based Units and related Dividend Equivalents shall be settled on the earliest date that would be permitted under section 409A of the Code without incurring penalty or accelerated taxes thereunder.

17.Successors. The provisions of the Grant Letter and these Grant Conditions shall extend to any business that becomes a successor to the Company or its subsidiaries or affiliates on account of a merger, consolidation, sale of assets, spinoff or similar transaction with respect to any business of the Company or its subsidiaries or affiliates with which the Grantee is employed, and if this grant continues in effect after such corporate event, references to the "Company or its subsidiaries or affiliates" or the "Employer" in the Grant Letter and these Grant Conditions shall include the successor business and its affiliates, as appropriate. In that event, the Company may make such modifications to the Grant Letter and these Grant Conditions as it deems appropriate to reflect the corporate event.

18.Governing Law. The validity, construction, interpretation and effect of the Grant Letter and these Grant Conditions shall be governed by, and determined in accordance with, the applicable laws of the Commonwealth of Pennsylvania, excluding any conflicts or choice of law rule or principle. Notwithstanding the foregoing, if the Grantee is employed in the: (a) State of California, the validity, construction, interpretation and effect of Section 5 (Restrictive Covenants; Forfeiture) and Attachment 1 of these Grant Conditions shall be governed by, and determined in accordance with, the applicable laws of the State of California, and adjudicated in the State of California; (b) State of Colorado, the validity, construction, interpretation and effect of Section 5 (Restrictive Covenants; Forfeiture) and Attachment 1 of these Grant Conditions shall be governed by, and determined in accordance with, the applicable laws of the State of Colorado, and adjudicated in the State of Colorado; (c) Commonwealth of Massachusetts, the validity, construction, interpretation and effect of the non-competition provisions in Attachment 1 of these Grant Conditions shall be governed by, and determined in accordance with, the applicable laws of the Commonwealth of Massachusetts, and adjudicated in the state and federal courts of Suffolk County, Massachusetts; and (d) State of Washington, the validity, construction, interpretation and effect of Section 5 (Restrictive Covenants; Forfeiture) and Attachment 1 of these Grant Conditions shall be governed by, and determined in accordance with, the applicable laws of the State of Washington, and adjudicated in the State of Washington.

* * *

Attachment 1
Definitions

For purposes of the Grant Letter and Grant Conditions, the following terms have the meanings ascribed to them on this Attachment 1:

a) “Injurious Conduct” shall mean the activities described in subsections (i) through (v) below (including any modifications of subsections (iii) and (iv) for residents of California, Colorado and other applicable jurisdictions as set forth below):

i. The Committee determines that forfeiture or reduction is appropriate on account of an accounting restatement of the Company’s financial statements that is required as a result of material non-compliance with financial reporting requirement under U.S. securities laws and generally accepted accounting principles;

ii. The Grantee commits any of the following, as determined by the Committee, in its sole discretion: (A) felony or a crime involving moral turpitude; (B) fraud, dishonesty, misrepresentation, theft, or misappropriation of funds with respect to the Employer; (C) violation of the Code of Conduct or employment policies of the Employer, as in effect from time to time; (D) breach of any written noncompetition, confidentiality or non-solicitation covenant of the Grantee with respect to the Employer; or (E) gross negligence or willful, deliberate or gross misconduct in the performance of the Grantee’s duties with the Employer, in each case above in this Section (a)(ii), that results in significant financial or reputational harm to the Company;

iii. During the Grantee’s employment or service with the Employer and for a period of one (1) year thereafter, the Grantee engages in any Restricted Business or enters into any employment relationship with a Restricted Business;

iv. During the Grantee’s employment or service with the Employer, and for a period of two (2) years thereafter:

A. The Grantee solicits any person who was a customer of the Employer with respect to any Restricted Business, or solicits potential customers of the Employer who are or were identified through leads developed during the course of the Grantee’s employment or service with the Employer with respect to any Restricted Business, or otherwise divert or attempt to divert any existing business of the Employer; or

B. The Grantee, directly for the Grantee or for any third party, solicits, induces, recruits or causes another person in the employment of the Employer to terminate such employee’s employment with the Employer; or

v. During the Grantee’s employment or service with the Employer or thereafter, the Grantee breaches any written confidentiality, non-solicitation or non-competition covenant with the Employer.

Notwithstanding the foregoing, if the Grantee is employed or provides services in Colorado, subsections (iii) and (iv)(A) above shall be limited to actions taken by the Grantee through the use of Company trade secrets and/or confidential information.

Notwithstanding the foregoing, if the Grantee is employed or provides services in California, or in another jurisdiction where the provisions of subsections (iii) and (iv)(A) above are otherwise prohibited by law, the following provisions shall apply instead of subsections (iii) and (iv)(A) above:

iii. During the Grantee’s employment or service with the Employer, the Grantee engages in any Restricted Business or enters into any employment relationship with a Restricted Business; or

iv. During the Grantee’s employment or service with the Employer, and for a period of two (2) years thereafter:

A. The Grantee, directly or indirectly, solicits or attempts to solicit any business from any of customers of the Employer for the purposes of providing products or services that are competitive with those provided by the Employer where such solicitation and/or attempt at solicitation is done by the Grantee through the use of Company trade secrets and/or confidential information.

Notwithstanding the foregoing, if the Grantee is employed in the State of Washington, the confidentiality covenant in subsection (v) above is not intended to nor shall be interpreted to restrict or otherwise interfere with the Grantee’s right to discuss or report illegal acts of discrimination, harassment, retaliation, wage and hour violations, sexual assault, or other conduct recognized as being against public policy under RCW 49.44.211.

b) “Restricted Business” shall mean any business or employment relationship which the Committee in its sole discretion determines to be either directly or indirectly (A) competitive with any aspect of the business of the Employer with respect to which the Grantee had responsibility for, or access to, confidential information within 12 months before the Grantee’s termination of employment or service with the Employer or (B) substantially injurious to the Employer’s business interests, in each case in any geographic area in which the Employer conducts business with respect to which the Grantee had responsibility for, or access to, confidential information within 12 months before the Grantee’s termination of employment or service with the Employer.

EXHIBIT 1

SECOND RELEASE AGREEMENT

THIS SECOND RELEASE AGREEMENT (the “Second Release”) is made as of this 20th day of February, 2024, by and between Monica M. Maheshwari (“Executive”) and Armstrong World Industries, Inc. (the “Company”).

1. FOR AND IN CONSIDERATION of the payments and benefits provided in the Severance Agreement between Executive and the Company dated as of March 1, 2023 (the “Severance Agreement”), Executive, for herself, her successors and assigns, executors and administrators, now and forever hereby irrevocably and unconditionally releases and discharges the Company, together with all of its past and present parents, subsidiaries, and affiliates, together with each of their officers, directors, stockholders, partners, employees, agents, representatives and attorneys, and each of their subsidiaries, affiliates, estates, predecessors, successors, and assigns (hereinafter collectively referred to as the “Releasees”) from any and all rights, claims, charges, actions, causes of action, complaints, sums of money, suits, debts, covenants, contracts, agreements, promises, obligations, damages, demands or liabilities of every kind whatsoever, in law or in equity, whether known or unknown, suspected or unsuspected, which Executive or Executive’s executors, administrators, successors or assigns ever had, now has or may hereafter claim to have by reason of any matter, cause or thing whatsoever; arising from the beginning of time up to the date of the Second Release: (i) relating in any way to Executive’s employment relationship with the Company or any of the Releasees, or the termination of Executive’s employment relationship with the Company or any of the Releasees; (ii) arising under or relating to the Severance Agreement; (iii) arising under any federal, local or state statute or regulation, including, without limitation, the Age Discrimination in Employment Act of 1967, as amended by the Older Workers Benefit Protection Act; Title VII of the Civil Rights Act of 1964, as amended; the Civil Rights Acts of 1866 and 991; 42 U.S.C. §1981; Section 503 of the Rehabilitation Act of 1973; the Fair Labor Standards Act (including the Equal Pay Act); the Genetic Information Non-Discrimination Act; the Immigration Reform and Control Act; the National Labor Relations Act; the Americans with Disabilities Act as amended; the Family and Medical Leave Act; the Worker Adjustment and Retraining Notification Act; the Employee Retirement Income Security Act of 1974, as amended, and/or all applicable state laws against discrimination, each as amended; (iv) relating to wrongful employment termination or breach of contract; or (v) arising under or relating to any policy, agreement, understanding or promise, written or oral, formal or informal, between the Company and any of the Releasees and Executive; provided, however, that notwithstanding the foregoing, nothing contained in the Second Release shall in any way diminish or impair: (i) the Executive’s ability to enforce the provisions of Section 6.1 of the Severance

Agreement, (ii) any direct or indirect holdings of equity in Armstrong World Industries, Inc. or any vested awards (or awards which may vest) which Executive has under any equity, equity-based, stock option or similar plan, agreement or program, which equity and awards shall be subject to all the terms and conditions of such documents; (iii) any claims for accrued and vested benefits under any of the Company's employee retirement and welfare benefit plans; and (iv) any rights or claims Executive may have that cannot be waived under applicable law, including and subject to the terms set forth in Section 9.6 of the Severance Agreement (collectively, the "Excluded Claims"). Executive further acknowledges and agrees that, except with respect to Excluded Claims, the Company and the Releasees have fully satisfied any and all obligations whatsoever owed to Executive arising out of Executive's employment with the Company or any of the Releasees, and that no further payments or benefits are owed to Executive by the Company or any of the Releasees.

2. Executive understands and agrees that, except for the Excluded Claims, Executive has knowingly relinquished, waived and forever released any and all rights to any personal recovery in any action or proceeding that may be commenced on Executive's behalf arising out of the aforesaid employment relationship or the termination thereof, including, without limitation, claims for back pay, front pay, liquidated damages, compensatory damages, general damages, special damages, punitive damages, exemplary damages, costs, expenses and attorneys' fees.

3. Executive acknowledges and agrees that Executive has been advised to consult with an attorney of Executive's choosing prior to signing the Second Release. Executive acknowledges and agrees that Executive has reviewed the Second Release with an attorney of Executive's choice. Executive also agrees that Executive has entered into the Second Release knowingly and voluntarily. Executive further acknowledges and agrees that Executive has had at least twenty-one (21) calendar days to consider the Second Release, provided that Executive may not sign the Second Release prior to February 29, 2024. In addition, once Executive has signed the Second Release, Executive shall have seven (7) additional days from the date of execution to revoke Executive's consent and may do so only by writing to: Armstrong World Industries, Inc., P.O. Box 3001, Lancaster, Pennsylvania 17604, Attention: General Counsel. The Second Release shall not be effective until the eighth (8th) day after Executive shall have executed the Second Release and returned it to the Company, assuming that Executive had not revoked Executive's consent to the Second Release prior to such date. No payments shall be due under Section 6 of the Severance Agreement unless this Second Release has become effective, and no such amounts shall be paid until the times set forth therein.

4. It is understood and agreed by Executive that the payments and benefits provided to Executive are not to be construed as an admission of any liability whatsoever on the part of the Company or any of the other Releasees, by whom liability is expressly denied.

5. The Second Release is executed by Executive voluntarily and is not based upon any representations or statements of any kind made by the Company or any of the other Releasees as to the merits, legal liabilities or value of Executive’s claims. Executive further acknowledges that Executive has had a full and reasonable opportunity to consider the Second Release and that Executive has not been pressured or in any way coerced into executing the Second Release.

6. The exclusive venue for any disputes arising hereunder shall be the state or federal courts located in the Commonwealth of Pennsylvania, and each of the parties hereto irrevocably waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of the venue of any such proceeding brought in such a court and any claim that any such proceeding brought in such a court has been brought in an inconvenient forum. Each of the parties hereto also agrees that any final and unappealable judgment against a party hereto in connection with any action, suit or other proceeding may be enforced in any court of competent jurisdiction, either within or outside of the United States. A certified or exemplified copy of such award or judgment shall be conclusive evidence of the fact and amount of such award or judgment.

7. The Second Release and the rights and obligations of the parties hereto shall be governed and construed in accordance with the laws of the Commonwealth of Pennsylvania If any provision hereof is unenforceable or is held to be unenforceable, such provision shall be fully severable, and this document and its terms shall be construed and enforced as if such unenforceable provision had never comprised a part hereof, the remaining provisions hereof shall remain in full force and effect, and the court construing the provisions shall add as a part hereof a provision as similar in terms and effect to such unenforceable provision as may be enforceable, in lieu of the unenforceable provision.

8. The Second Release shall inure to the benefit of and be binding upon the Company and its successors and assigns.

IN WITNESS WHEREOF, Executive and the Company have executed the Second Release as of the date and year first written above.

ARMSTRONG WORLD INDUSTRIES, INC.

By: /s/ Austin K. So
Name: Austin K. So
Title: General Counsel

/s/ Monica M. Maheshwari
Monica M. Maheshwari

Exhibit No. 10.32

Armstrong World Industries, Inc. 2500 Columbia Ave.
Lancaster, PA 17604

March 22, 2024

Personal & Confidential

Dawn Kirchner King

Dear Dawn,

On behalf of Armstrong World Industries, Inc. (“AWI”), I am pleased to confirm our offer of employment to you for the position of SVP Chief Human Resources Officer. This position is based in Lancaster, PA, reporting to me.

Your anticipated start date is April 22, 2024.

Compensation Terms

You will earn a semi-monthly gross base salary of $15,000.00 which, if annualized, would be
$360,000, paid on the fifteenth and the last day of each month.

You are eligible to participate in our Annual Incentive Plan with a target incentive of 55%. This incentive is based on your actual base salary earnings, prorated for your actual service time in your first calendar year of employment. Your incentive payment will be based on performance measures approved by the Management Development and Compensation Committee and may be subject to adjustments based on your individual performance. You must be an active employee with AWI on the day of incentive distribution, which is typically paid out in March following the plan year.

You will be eligible for long-term incentive (LTI) plan participation which is typically made in the form of stock-based grants, targeted to have a value of 100% of your annualized base salary. You will be considered for participation at the time of the next grant in 2025.

Additionally, we are pleased to offer you a one-time special grant of time-based restricted stock units with an award value of $150,000. The restricted stock units will carry a vesting schedule of 33% after 1 year, 33% after 2 years and 34% after 3 years.

We are also offering you a one-time sign-on bonus in the gross amount of $50,000, which will be paid in your normal pay cycle after your first 30 days of employment. Should you voluntarily terminate or are terminated for Cause within twelve months of your first day of employment, you agree to repay this sign-on bonus.

Benefits

AWI offers competitive benefit plans. Please refer to your New Hire Benefits information that is provided as part of your offer. You can direct any questions to Kelly Strunk, VP Total Rewards at 717-719-0133.

- Your prior service will be credited for vesting purposes for the 401(k) Company match.
- AWI has established a nonqualified deferred compensation plan that allows highly compensated executives to defer base salary and bonus compensation above a specified pay limit ($287,500 for 2024) and receive the same match as that provided under the qualified 401(k) plan. The company match is fully vested after you have completed 3 years of service.
- You are eligible for the company-paid Executive Long-Term Disability Insurance Program. Your disability benefit is 60% of the sum of base salary and the average bonus paid over the past two years. For this calendar year, we will use your annualized base salary to determine your disability benefit. Coverage for eligible compensation in excess of $300,000 will be subject to proof of insurability.
- The company will reimburse you up to $4,500 for personal financial planning and income tax preparation services you incur in 2024 and annually thereafter. Reimbursement for these services would be taxable income to you.
- As a senior executive, you are eligible for a company-paid annual physical and will be able to select the medical institution or facility for the physical. AWI will provide full reimbursement.

Individual Separation Agreement

You will be eligible to receive an individual separation agreement, subject to Board approval. AWI will provide a severance payment equal to one and half times the sum of base salary and target bonus in the event of an involuntary termination without Cause as defined below.

In the event of a change in control (CIC) as defined in the agreement, the agreement will extend for two years from the date of the CIC event. Severance benefits will equate to two times the sum of base salary and target bonus. Health, disability, and life insurance benefits would continue in accordance with the terms of each plan until the earlier of two years following your termination of employment, or until eligible for benefits from a new employer.

All severance benefits are conditioned upon your execution of an AWI approved release of your existing rights and claims against AWI in a form provide by AWI and compliance with restrictive covenants.

Paid Time Off
AWI observes a total of eleven holidays. Depending on your actual work location, one of these is considered a personal holiday that can be used for paid time off in addition to your vacation. You must be employed by June 30 to be eligible for the personal holiday in your first year.

You will qualify for five (5) weeks of vacation, pro-rated for that portion of time that you're employed in this calendar year. We are crediting you with 25 years of service for future vacation eligibility.

Vacation Buy Program: Employees hired before October 1 are eligible to purchase up to five days of vacation in the first calendar year (i.e., from hire date to December 31). Discuss your vacation purchase plans with your manager prior to completing the form. Employees hired on or after October 1 are not eligible but are eligible beginning January 1 of the next calendar year.

Summary of Terms

Your total targeted cash on an annual basis will be $558,000 with upside opportunity. Your total direct compensation at target will be $918,000 on an annual basis.

Offer Contingencies

This offer of employment is contingent upon the following conditions. You must pass or complete all of the following in order to be employed by AWI.

1. **Passing the Background Verifications and Drug Tests**.

   You must successfully complete a drug screening test and the background checks. Within 24 hours of accepting this offer, our background checking vendor, First Advantage, will contact you via your email account, with instructions for authorizing a background check and your drug test. Any sample provided in connection with your pre-employment drug screening that is identified as 'tampered with' or otherwise does not meet the requirements of the drug testing facility will result in the offer of employment being withdrawn and will not be retested.

   Please note that you must satisfy the drug test requirement prior to your first day of employment. We require that within 72 hours of accepting this offer, you visit the drug collection site designated by our vendor, First Advantage.

2. **Definition of Cause**

   "Cause" means (1) conviction of a felony or a crime involving moral turpitude; (2) fraud, dishonesty, misrepresentation, theft or misappropriation of funds with respect to the Company; (3) violation of the Company’s Code of Conduct or employment policies, as in effect from time to time; (4) breach of any written noncompetition, confidentiality or non-solicitation covenant with respect to the Company; or (5) gross misconduct in the performance of your duties with the Company.

3. **Providing Proof of Your Right to Work in the United States**.

You will be required to show proof of your right to work in the United States of America within three days of your start date. Examples of suitable documentation are a current United States passport, a state issued driver's license or I.D. card with a photograph and an original social security card, a state-issued driver's license or I.D. card with a photograph and a birth certificate issued by the state, county, or other municipality.

4. **Agreement to the AWI Terms and Conditions**.

This offer requires that you agree to the "Armstrong World Industries Inc., Statement of US Employment Terms and Conditions" found at the end of this letter. In accepting this offer, you agree that you have relied only on the terms defined in this offer and linked documents.

Please acknowledge your acceptance of this offer no later than March 29, 2024, by completing the Acceptance Confirmation section found below and returning the signed letter to Kelly Strunk at klstrunk@armstrongceilings.com. The official record of this offer letter will be filed with Talent Acquisition.

I am pleased to confirm this employment offer to you. I look forward to the opportunity of working with you at Armstrong World Industries. Should you have any questions, please do not hesitate to give me a call.

Sincerely,

/s/ Victor D. Grizzle

Victor D. Grizzle
President and Chief Executive Officer 717-396-4650
vdgrizzle@armstrongceilings.com

Armstrong World Industries Inc., Statement of US Employment Terms and Conditions

Please understand that your employment at Armstrong World Industries Inc., will be subject to the following terms and conditions. Failure to follow these terms and conditions may result in disqualification from further consideration for employment, withdrawal of an offer of employment or termination of your employment with AWI.

1. Offer Contingencies

- **Drug/Background Screens**. Your employment is contingent upon your successful completion of a substance/drug test screening, and all background checks. A confirmed positive drug screening test will exclude you from further consideration for employment. You also understand and authorize AWI and any of its agents, employees, or contractors to investigate all of the information you provide in connection with your interest in employment with AWI. You also agree to waive and release any claims that may result from the use, disclosure or release of any information related to this

investigation, and you understand that an unfavorable result of the background investigation may result in the withdrawal of this employment offer. You also agree and understand that all information provided in connection with your interest in employment with AWI will be stored electronically in the United States.
• **Employment Eligibility**. You will be required to verify that you are authorized to work in the United States.
• **Conflict of Interest and Confidentiality**. Armstrong World Industries Inc. does not wish to receive any documents or any other confidential information concerning any business, technical or other information that you received as a result of any former employment.
• **Existing Employment Agreements**. You agree that you are not bound under any agreement which prohibits you from being employed by Armstrong World Industries Inc., or any of its subsidiaries. You understand that in the event such an agreement exists, Armstrong World Industries Inc., has the right to end your employment or challenge any such agreement in its sole discretion.
• **Intellectual Property**. You will need to sign the Armstrong World Industries Inc., Intellectual Property and Confidential Information Agreement during your orientation.

2. Work Schedules. Although management will make efforts to accommodate individual preferences, the company may at times require overtime, shift work, changes in work schedules and facility transfers.

3. Direct Deposit. Direct deposit to employees' bank accounts is our preferred payment method. AWI Benefit Services will mail **New Hire Informational Packet** to you**,** which includes an **Authorization Agreement for Direct Deposit**. Please mail this form and a voided blank check from your bank to AWI Payroll Services. AWI Payroll Services can also assist you in obtaining a bank account for direct deposit purposes.

4. Employment "At Will". You understand and agree that your employment with Armstrong World Industries Inc., is "at will" meaning that either you or AWI may terminate your employment and compensation with or without cause, with or without notice, at any time. You also acknowledge and agree that no AWI policy, handbook, manual, publication, procedure, or rule is intended to create a contract of employment nor intended to modify your "at will" relationship with AWI. No manager, supervisor, or other representative of AWI has any authority to modify this relationship or to make any agreements to the contrary other than the President/CEO of AWI. No such agreements shall be valid unless they are in writing and signed by one of these officers of AWI. This is the entire understanding and agreement regarding your employment relationship with AWI and the right of AWI or you to terminate the relationship with or without good cause, and this understanding takes the place of all prior agreements, representations, and understandings regarding your employment at AWI.

5. Falsification. Honesty and integrity are core values at AWI. You certify that all the information and statements made by you at any time in connection with your interest in employment at AWI are true and complete, and that AWI will rely upon the information you provide. You understand and agree that if you submit false information or omit information, you will no longer be considered a candidate for employment with our company or, if employed at AWI, you will be subject to the termination of your employment.

Exhibit No. 10.33

November 14, 2021

Personal & Confidential

Jill Crager

Dear Jill,

Congratulations. I am pleased to confirm the compensation details of your assignment to Senior Vice President Sales Operations of Armstrong World Industries (AWI) effective January 1, 2022.

Compensation Terms:

Effective January 1, 2022, you will earn a semi-monthly gross base salary of $12,500, or $300,000 annualized (increased from current base salary of $255,850), subject to withholding of all applicable taxes. Future salary adjustments will be based on your performance and subject to our salary policy.

You will continue to participate in the company's Annual Incentive Plan. Your incentive target will be 50% of your actual annual base salary earnings (increased from current level of 40%). You must be an active employee on the payment date to receive payment, typically the beginning of March following the plan year. The Annual Incentive Plan, including plan targets, achievement and payout factors and plan terms and conditions, is reviewed annually and subject to the approval of the Compensation Committee of our Board of Directors. Future metrics, targets and program specifics may change based on this review.

You will continue to participate in the long-term incentive plan (LTIP). Your target award is 70% of your annualized base salary (increased from current level of 40%). The 2022 program includes Performance-Vested Restricted Stock Units (PSU), which cliff vest after three years and are tied to performance metrics for the performance period. More information on the 2022 program and specifically your award will be provided at the time of the grant. All awards made under the LTIP are subject to the terms and conditions of the plan under which grants are made, as well as your award letter. The long-term incentive program, including plan targets, achievement and payout factors and award terms and conditions, is reviewed annually and subject to the approval of the Compensation Committee of our Board of Directors. Future metrics, targets and program specifics may change based on this review.

The above offer equates to $660,000 per year of target total direct compensation an increase of total direct compensation of 43%.

As one of the company's senior executives in 2022, you are eligible for expense reimbursement up to $3,500 per year for personal financial planning and income tax preparation services. Reimbursement for these services would be taxable income to you.

Also, as a senior executive in 2022, you are eligible for a company-paid annual physical and will be able to select the medical institution or facility for the physical.

In addition, you are eligible to participate in the standard Armstrong health and welfare benefit plans as may be offered and maintained by the company from time to time, and subject to company policies, procedures and applicable laws. Our health and welfare benefits programs and accompanying terms and conditions are reviewed regularly and subject to change based on those reviews.

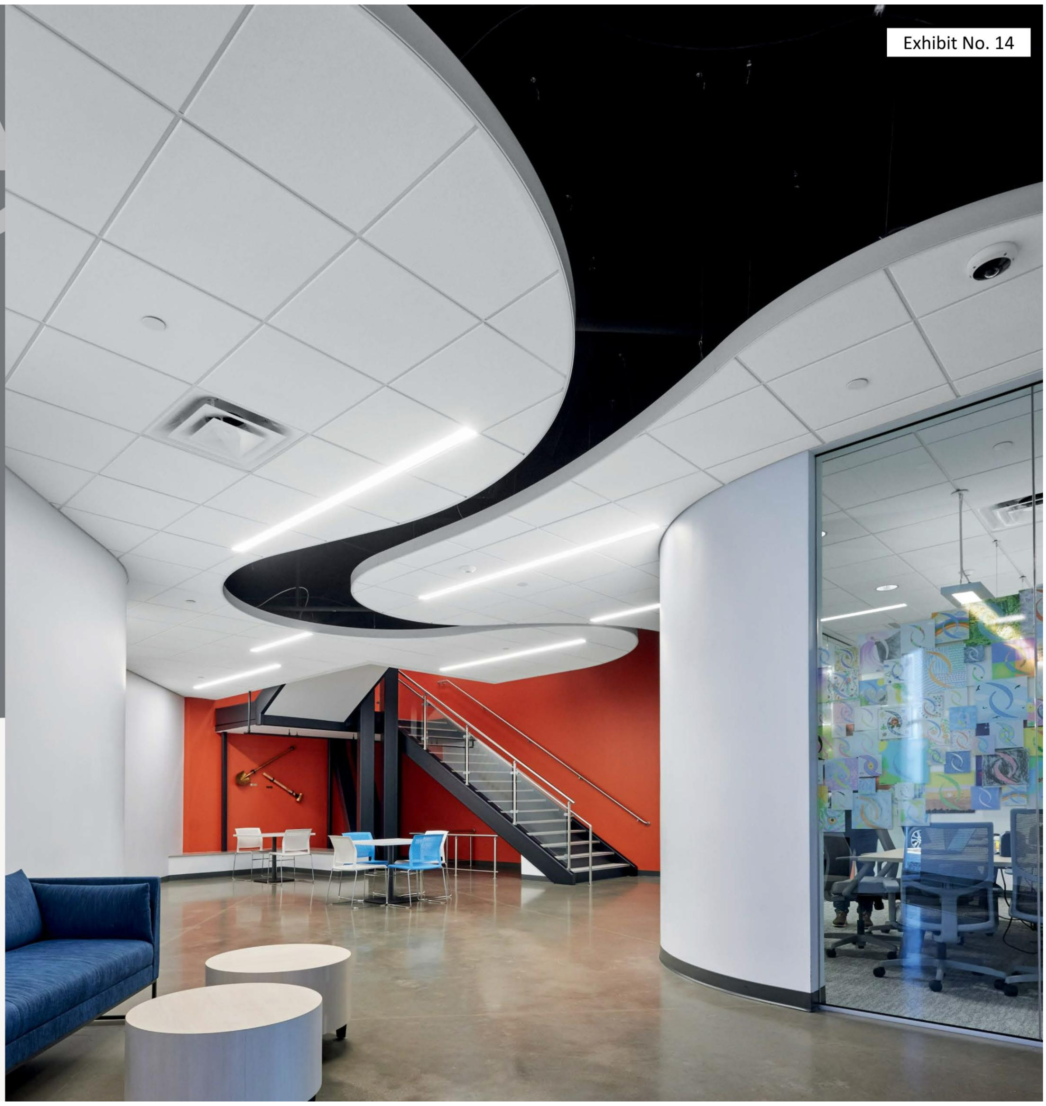
Congratulations and my best wishes for success in your new position.

Sincerely,
/s/ Victor D. Grizzle

Victor D. Grizzle
Chief Executive Officer and President
Armstrong World Industries, Inc.

Exhibit No. 14

Code of Business Conduct



Armstrong®
World Industries

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CEO Message

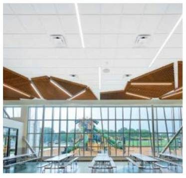
Two of the most remarkable characteristics of Armstrong World Industries are its longevity and its reputation. We have truly stood the test of time well. For more than 160 years, this company has made and sold countless iterations of products for homes, businesses, even governments, and throughout, we've made a commitment to deliver the most innovative, quality products to the marketplace and stand behind them. That has made us a trusted and valued partner to every one of our constituents, employees to customers to shareholders.

As we continue on our exciting course of innovation and growth, we must also continue our tradition of unparalleled ethics and integrity in everything we do, everywhere we operate. Each of us has that responsibility, and this Code of Business Conduct is our tool to guide us, and protect us, as we navigate business relationships and opportunities both internally and externally. Please read this Code carefully and refer to it often.

As always, thank you for your hard work and commitment.

Thank you.

Vic Grizzle
AWI CEO



Our Vision

We envision a world where people can be healthy, happy, productive, and safe in any built environment.

Our Mission

We seek to transform how people create and experience spaces. Through this transformation, we will make a sustainable, positive difference in the spaces people live, work, learn, heal, and play.

Our Operating Principles

- To respect the dignity and inherent rights of the individual in all dealings with people
- To maintain high moral and ethical standards and to reflect honesty, integrity, reliability and forthrightness in all relationships
- To reflect the tenets of good taste and common courtesy in all attitudes, words and deeds
- To serve fairly and in proper balance the interests of all groups associated with the business— customers, stockholders, employees, suppliers, community neighbors, government and the general public
- Our values are our operating principles that were established in 1960

Our Responsibility to Ourselves

Each of us has a personal investment in the way we do business at Armstrong. We are all committed to our success and take responsibility for our actions. As leaders, we follow not only the letter, but the spirit of the law in every decision we make. We make these decisions consistent with our operating principles. And we never hesitate to raise issues or concerns.

Compliance with Laws

Integrity means that we maintain high ethical standards. We each understand—and comply with—the laws and policies that apply to our jobs. But ethical behavior goes beyond compliance. We take responsibility for our actions and demonstrate character in behavior, decisions and communications.

Responsibility of Employees

No written policy or code on its own can guarantee compliance with the law or ethical behavior. Our responsibility begins but doesn't end with following laws and company policies.

We:

- Act with integrity
- Follow the law and company policies
- Communicate with candor
- Respect the dignity of others
- Seek guidance and ask questions when we are unsure about what to do
- Raise issues and concerns
- Cooperate with investigations

Making Ethical Decisions

Doing the right thing is not always easy. When facing difficult decisions, we ask ourselves:

- Is it legal and ethical?
- Is it consistent with our Code and company policies?
- Is it consistent with our operating principles?
- Would it reflect well on Armstrong?
- Would I feel comfortable explaining it to my family and friends?
- Would I be comfortable if it appeared on television or the Internet?

Additional Responsibilities of Managers

At Armstrong, we can all act as leaders, but those who supervise others have a heightened obligation to exemplify our operating principles.

Armstrong managers:

- Model appropriate conduct at all times
- Create an environment that encourages ethical behavior and open communication
- Teach and empower our teams by ensuring that they have the knowledge, training and resources necessary to follow the law and the Code
- Prevent problems and report issues promptly

The Code in Action

I'm a manager, and one of my team members is repeatedly complaining about something that he thinks is a violation of the Code, but I don't see the problem.

How can I stop this?

As managers, we take all concerns seriously. We never look to "stop" employee issues or concerns, no matter what form they take. All concerns about violations of the Code or the law should be dealt with promptly according to our standard procedures to ensure that the issue is investigated and resolved properly. See our Guidelines for Handling Reports of Violations to the Code of Business Conduct.

Speaking Up

We speak up, to improve Armstrong for all of us, without fear of retaliation if we know of or suspect improper conduct.

Asking Questions & Raising Concerns

Through direct and honest communication, we can resolve issues before they turn into serious problems. This is why we ask for advice when we're unsure about the proper course of action, and why we speak up immediately if we see something that violates— or could possibly violate— the law, the Code or our ethical standards.

Resources for Getting Help or Raising a Concern

- Your supervisor
- Human Resources
- Company legal counsel
- Internal Audit
- Office of Compliance

The Ethics Line

Toll-free calling in the U.S. and Canada:
877.481.8913

EthicsPoint Online:

- armstrong.ethicspoint.com
- How to make a report— by phone or online
- How to make a report for Latin America locations
- How to follow up on a report
- FAQ's

The Ethics Line and EthicsPoint are available 24 hours a day, 7 days a week.

- You can raise issues anonymously if you wish, in accordance with local legal obligations
- Reports are handled confidentially

Confidentiality

We treat all reports of potential violations confidentially, to the extent possible consistent with adequate investigation or legal obligations. It's always preferable that we identify ourselves when reporting concerns, as this will help in investigating any potential violations, but the Armstrong Ethics Line is an option for making an anonymous report (in accordance with local legal obligations).

No Retaliation

We are comfortable raising questions and concerns. We do not tolerate any retaliation, harassment or other adverse action against anyone who raises a concern, reports a violation or participates in an investigation in good faith. No matter what our position within the company, if we see or are aware of instances of retaliation—however subtle—we report them.

Reporting Our Own Mistakes

While we do our best to follow the rules, there may be times when we err. Having the strength to report our own mistakes voluntarily and promptly exemplifies Armstrong's operating principles. An unintentional error made in good faith that's voluntarily and promptly reported will be viewed more favorably than a problem that is hidden and surfaces later, and a prompt report may help avoid more serious problems. In all cases, reporting of our own violations will be considered in any possible disciplinary action.

Where to Learn More

See our Reporting Concerns or Compliance Issues Policy or talk to your manager, Human Resources, company legal counsel or the Office of Compliance for questions or additional information.

The Code in Action

A coworker is the subject of an investigation for violating the Code. My manager asked me if I was aware of his misconduct. I was, but I didn't report it. I just didn't want to get anyone in trouble, and I still don't.

What should I do?

Tell your manager the truth. At Armstrong, we are always honest and forthcoming in any investigation of alleged misconduct. It's never too late to speak up when violations of the law or the Code are concerned.

Our Responsibility to Each Other

At Armstrong, we treat each other with respect and dignity and celebrate the diversity of our workforce. We all do our part to ensure that every Armstrong workplace is safe and productive, free from discrimination, harassment, violence, drugs and alcohol. We recognize our responsibility to speak up when we see something wrong.

Equal Employment Opportunity

The Armstrong workplace is a diverse and inclusive environment open to different opinions and ideas. We are committed to compliant and fair employment practices and providing a work environment free from discrimination, wherever we do business.

What we do:

- Know and comply with applicable employment laws and related company policies
- Treat each other with respect and courtesy
- Make employment-related decisions on the basis of objective criteria related to job performance
- Provide reasonable accommodation for individuals' disabilities and religious beliefs
- Report instances of improper treatment or discrimination
- Thoroughly investigate and take corrective action where necessary

What we don't do:

- Make any employment decision on the basis of race, ethnicity, color, religion, sex, national origin, age, disability, pregnancy, veteran status, military service, genetic information, citizenship status, perental status, marital status, sexual orientation, gender identity or any other reason prohibited by law
- Retaliate against anyone who reports discrimination or participates in an investigation of these reports

The Code in Action

I'm considering an applicant for a job in which she'd be working directly with customers, but I'm afraid that our customers will be uncomfortable with her physical disability.

Is this a legitimate reason not to hire her?

No. To deny an applicant or employee a job based on the reaction of others to disability, race or other protected classification is unlawful discrimination. If the applicant is the best qualified person for the job, we should hire her. At Armstrong, we appreciate what makes each of us different. Our customers expect nothing less.

Harassment

Armstrong is committed to maintaining a work environment free from all forms of harassment and unlawful discrimination

Sexual harassment is one type of employment discrimination, but harassment may involve a person's race, age, disability or any other protected characteristic. Harassment can include bullying, name calling and slurs, nonverbal conduct such as staring and leering, as well as unwanted touching.

Treating each other with respect and dignity means avoiding unprofessional or inappropriate conduct that can make others uncomfortable. Remember, a private, straightforward conversation can often put an end to this kind of conduct. If this is not an option—or if the conduct persists—contact a manager, Human Resources representative, or Compliance.

What we do:

- Show respect for others
- Act courteously toward each other
- Apologize if we mistakenly act in a way that offends a colleague, and avoid the problem in the future
- Speak up to report instances of harassment or suspected harassment without fear of retaliation
- Thoroughly investigate and take corrective action when necessary

What we don't do:

- Harass anyone
- Make unwanted sexual advances or requests for sexual favors or engage in any other unwanted verbal or physical conduct of a sexual nature
- Display or transmit offensive material in any form or tell offensive jokes
- Behave in a way that creates an intimidating work environment for anyone
- Offer employment benefits in exchange for sexual or other favors.

We show our respect for each other by speaking up when a coworker's conduct makes us uncomfortable.

The Code in Action

I can tell my colleague is upset by other women on our team who tell jokes of a sexual nature. I'm not bothered by them.

Should I just wait for her to say something?

Sexual harassment can be directed toward a person of the same or opposite sex. If it's clear to you that these jokes are offensive to your coworker, step up and encourage her to speak with these women to let them know their humor isn't welcome. If she's reluctant, inform a manager about the situation.

Workplace Safety

We all share the responsibility to make safety and health a daily priority. Everywhere we do business, we are committed to eliminating hazards from the workplace, including threats or acts of violence.

What we do:

- Know and comply with applicable occupational safety and health laws and related company policies
- Report any adverse health or unsafe conditions, hazards, broken equipment or machinery, accidents and workplace injuries
- Thoroughly investigate and take corrective action when a potentially unsafe or hazardous situation is brought to our attention

What we don't do:

- Take unnecessary risks on the job
- Ignore a situation that could cause harm to another person
- Make threats of violence or engage in acts of violence in the workplace or at a company-related function

We always think "safety first," which means pointing out any situation that puts anyone at risk.

The Code in Action

My coworker recently went through a tough divorce, and it has affected him on the job. He seems depressed, withdrawn and has a short temper. His manager gave him a bad review last month, which really upset him.

I don't want to betray his confidence, but should I be worried these are signs of potential workplace violence?

You've spotted some signs of a person under stress which may or may not lead to workplace violence. Either way, your coworker would benefit from getting help. Urge your coworker to talk to his manager, the Employee Assistance Program (if available) or Human Resources about his issues. If he won't do so, speak to the manager about what you have observed at work.

Don't discuss the situation with other employees. It's unfair to your coworker and might make the situation worse. It's important not to overreact but to find an appropriate level of help.

Drugs & Alcohol

Our health and safety demands that each of us report to work free from any substance, including alcohol, that could prevent us from doing our jobs properly or create a dangerous condition. It is up to us to make sure that we are at our best every day.

The company reserves the right to send an employee to medical personnel to assess their condition to perform work, as permitted by applicable law.

What we do:

- Take action if we see a coworker who may be under the influence of alcohol or drugs while at work
- Use good judgment and exercise moderation when alcohol is served at company events

What we don't do:

- Come to work under the influence of drugs or alcohol
- Use, possess or sell drugs, controlled substances or drug paraphernalia on company property or while conducting company business

Where to Learn More

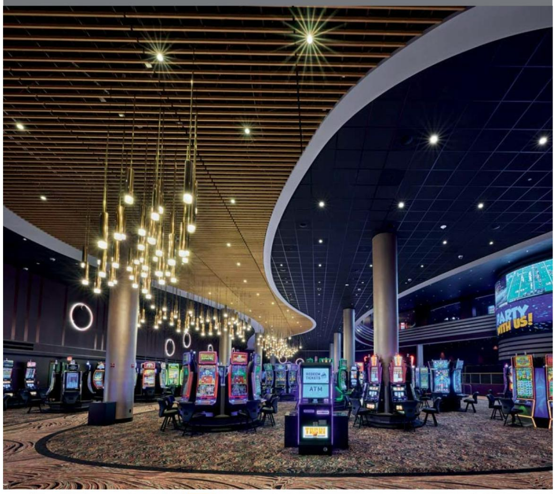
See our Equal Employment Opportunity Policy, Anti-Harassment Policy, Workplace Violence Policy or Drug and Alcohol Policy, or talk to your manager, Human Resources or the Office of Compliance for questions or additional information.

The Code in Action

I work in a plant as a production employee, and I'm currently taking medication that may cause certain side effects, such as drowsiness.

Do I need to tell my supervisor that I'm taking this medication and the possible side effects?

Yes. Employees who for medical reasons are using prescription or nonprescription drugs that may impair alertness or judgment, and therefore could jeopardize their safety and that of their colleagues, should inform their supervisor upon reporting to work.



Our Responsibility to the Company

Our decisions at Armstrong reflect our operating principles. We communicate with candor and act with integrity. We protect the company assets that we share. In all interactions—whether inside or outside of the company—we maintain high ethical standards. This is the way we will continue to succeed.

Accurate Accounts & Records

To do business the right way at Armstrong, our business records must be accurate, both for internal decision making and for the benefit of shareholders, investors, regulators and others who rely on them. Business records include not only our financial accounts, but any other document or file that anyone else might rely on, such as expense reports, time sheets and medical claim forms. These records include information in any medium, including hard copies, electronic records and e-mails. Accurate record keeping protects our reputation and helps us meet our financial and legal obligations.

What we do:

- Maintain all company records and reports in accordance with the law and generally accepted accounting principles
- Record all financial transactions accurately and in the proper account, department and accounting period
- Ensure that all transactions and commitments conform to the law and our system of internal controls
- Ensure that all reports to regulatory authorities are accurate, timely and understandable

What we don't do:

- Falsify any document
- Record or report false or misleading transactions.

We don't take shortcuts in preparing financial documents to meet a deadline.

The Code in Action

A coworker told me that he reported inflated sales numbers this month to meet his target but didn't believe it was a problem because he's confident he will make it up next month. This doesn't seem right to me, but I don't want to say anything because we have to work together.

What should I do?

By reporting inaccurate sales figures, your coworker has undermined the integrity of our financial records and could be creating serious reputational and legal risk. It doesn't matter that he may be able to balance the numbers next month; all records must be accurate. This is a serious matter that you should report. Refer to the Speaking Up section of the Code for information on reporting a suspected violation.

Records Management

Proper management of our records preserves the vital flow of information within Armstrong while minimizing risk from outdated information. Whether paper or electronic, all Armstrong records are maintained, stored and disposed of in accordance with our Corporate Records Management Policy.
Our business depends on it.

What we do:

- Understand and follow the rules of our Corporate Records Management Policy
- Regularly attend to records management and disposal
- Abide by all notices calling for the retention of documents.

What we don't do:

- Dispose of or store business records in a manner inconsistent with our Corporate Records Management Policy
- Keep records longer than dictated by the relevant Record Retention Schedule, unless otherwise notified

We all participate in our company-wide annual Records Clean-up Day, when each workgroup clears all records that are no longer required.

The Code in Action

I want to do my part to help the environment, so I keep e-mail messages in my inbox for an extended period rather than printing them out.

Is this a problem?

Yes. Storing records electronically to save paper is commendable, but your e-mail inbox is not the place to store Armstrong records. Read and respond to e-mails, then store relevant business information in the appropriate record storage area designated by your workgroup. Then delete unnecessary e-mails. Maintain documents in accordance with our Corporate Records Management Policy.

Company Assets & Information

Armstrong assets— including information— only exist to enable our business. We take care of these assets, safeguard Armstrong information and communicate responsibly. When we protect Armstrong, we protect ourselves.

Use of Company Assets

Armstrong assets belong to us for the operation of our business. Whatever our position at Armstrong, our assets are there to empower us in working on behalf of Armstrong.

What we do:

- Protect Armstrong assets from theft, abuse or unauthorized use
- Use Armstrong property, vehicles, equipment and supplies for business purposes only
- Secure company-issued laptops, smartphones, tablets and other electronic devices from theft
- Secure physical documents and media containing confidential information
- Promptly report any instances of loss, misuse or theft
- Demonstrate judgment in our use of communication systems

What we don't do:

- Use Armstrong computers or electronic communication systems for illegal activity, gambling, pornography or other inappropriate activity
- Use or take company assets for personal gain or advantage, or for the advantage of friends or family members
- Attempt to alter or circumvent security controls on Armstrong information systems

The Code in Action

My wife has asked me to do some online research while I'm at work.

Am I allowed to use company computers for this?

Occasional, incidental personal use of Armstrong equipment like a company computer is generally fine if it doesn't interfere with you doing your job. However, it wouldn't be appropriate to spend hours surfing the Internet if it's not work related. Check with your manager if you have questions about personal use of company equipment.

Proprietary Information & Intellectual Property

After our people, business information is Armstrong's most important asset. It is the lifeblood of our business. In the same way, our copyrights, trademarks and patents reflect the investment we have made over the years and are vital to our success. Disclosure of our proprietary or confidential information to anyone outside the company, except as required for legitimate business purposes, or misuse of our intellectual property could harm Armstrong's business and reputation.

What we do:

- Protect company information in whatever form
- Access only the information we need for our jobs
- Share only the information necessary for each assignment or contract, even within the company
- Use intellectual property in accordance with all applicable laws and company policies
- Understand and apply the Armstrong information classifications to your data; Highly Confidential, Confidential, Internal, Public and Attorney-Client Privilege

What we don't do:

- Disclose proprietary information to anyone, including those inside the company, unless they have a business reason to know
- Disclose proprietary information to those outside the company for business purposes without a confidentiality agreement in place
- Handle Armstrong information assets in a careless or insecure manner
- Post Armstrong proprietary information on the Internet or Social Media
- Input non-public information into public Artificial Intelligence (AI) tools.

The Code in Action

How do I know if something is a company trade secret or is otherwise proprietary information?

You should assume that everything you learn about the company and its business in your capacity as an employee is a company trade secret, proprietary or otherwise confidential, and you should treat it as such, unless it is obviously a matter of general public knowledge.

A friend who works in another department asked me about a new composite material I'm involved in patenting for Armstrong. I'm very excited about it, and since he works for the company, I'm sure he'll keep quiet. Can I give him the details?

No. Information such as the details about a new product is considered proprietary. Even within the company, this information should only be shared on a "need to know" basis.

Employee Information

At Armstrong, we respect each other's privacy. Employee information is confidential, and access to personnel records is limited to those who have a clear business need for the information.

What we do:

- Protect the personal information of others and handle it in accordance with our privacy policies and applicable privacy laws

What we don't do:

- Disclose the personal information of other employees to anyone who does not have a legitimate business need to know

The Code in Action

In today's increasingly litigious and highly competitive workplace, confidentiality is important for a host of reasons.

Failure to properly secure and protect confidential employee and business information can cause serious reputational damage to the company.

In the wrong hands, confidential information can be misused to commit illegal activity (e.g., fraud or discrimination), which can in turn result in costly lawsuits for the employer. The disclosure of sensitive employee information can lead to a loss of employee trust, confidence and loyalty. This will almost always result in a loss of productivity.

Insider Trading

Insider trading is illegal. It distorts the market and damages trust. We never use or disclose material, nonpublic information for the purpose of trading in stocks or other securities, whether our own or those of another company. Material, nonpublic information is information about any company that has not been made available to the general public— in, for instance, a news release or securities filing— that might affect a reasonable person's decision to buy, sell or hold securities in that company. Examples include financial results, significant management changes, new product launches and anticipated mergers, acquisitions or divestitures. Company legal counsel can answer questions on whether information is material and nonpublic.

What we do:

- Protect material nonpublic information from unauthorized disclosure
- Consult company policy if we have any questions about buying or selling Armstrong securities, or those of any company we do business with

What we don't do:

- Use inside information for our personal advantage
- Disclose or "tip" this information to others so they can buy or sell Armstrong securities, or those of our business partners

The Code in Action

A vendor told me in confidence that her company was going to acquire another small business. I know this will increase the value of their stock. I also know I can't trade on this information, but can my husband?

No. You may not indirectly do something that you can't do directly. Providing this information to your husband so he could trade also would be insider trading and is illegal.

I'm able to get an early start on my day by returning calls during my train ride to work. Is this a problem?

You must be careful not to discuss nonpublic company information in places such as trains, taxis, elevators or restaurants or at conferences or trade shows. When it's necessary to conduct a phone call in a public place, be mindful of your surroundings.

Conflicts of Interest

We have an obligation, when conducting company business, to always act in the best interest of the company. This means that our personal interests should not interfere, or appear to interfere, with our ability to do what's best for Armstrong. Even the appearance of a conflict of interest can hurt Armstrong's business and reputation.

Potential conflicts of interest include:

- Working for, or receiving compensation from, an Armstrong customer, supplier or competitor
- Engaging a supplier owned or managed by a relative
- Having a personal financial interest in a company transaction
- Accepting a gift from a contractor in violation of company policy
- Missing work because of a second job

Conflicts of interest can take many forms. It's not possible to list every situation that may raise the possibility of a conflict, so we use our judgment to avoid these situations.

What we do:

- Review our personal and business situations and ask whether they might appear to someone else to affect our ability to act in the best interest of Armstrong
- Disclose and seek approval for any potential conflict of interest situation
- Follow all Armstrong policies regarding disclosure and approval of conflicts of interest

What we don't do:

- Allow our personal interests to interfere with those of Armstrong when conducting company business

If we have any doubt whether a situation might create a conflict of interest, we disclose the facts to our manager and seek written approval, using the approved Disclosure Form.

Relatives & Friends

We do not allow our personal and family relationships to interfere with our business decisions or our work environment. These relationships can raise potential conflict of interest questions, in which others might think that we are favoring our friends and relatives above the interests of the company.

What we do:

- Disclose any situation in which we may be conducting business on behalf of the company with a contractor, supplier or other party that a relative or close friend has a financial interest in or is an officer or employee of
- Disclose any personal or family relationship that might create the appearance of a conflict of interest

What we don't do:

- Allow any personal or family relationship to influence a decision to engage a supplier or any other Armstrong transaction

The Code in Action

My sister works for one of our suppliers but has no dealings with Armstrong. I work in procurement but have not had any contact with my sister's company. I have now been asked to manage the account.

What should I do?

Disclose the relationship to your manager. Now that you've been asked to deal with your sister's company, there's at least the appearance that your relationship could affect the decisions you make regarding her company. Your manager likely will have you work on a different account.

Investments & Business Relationships

We are careful to avoid any financial or other relationship that might influence, or appear to influence, our decisions when conducting business on Armstrong's behalf.

What we do:

- Ensure that our own investments and business relationships allow us to act in the best interests of Armstrong
- Disclose any investments or business relationships that might appear to create a conflict of interest

What we don't do:

- Work for, or have a significant financial interest in, any organization that does business, or seeks to do business, with Armstrong without prior approval
- Work for a competitor of Armstrong
- Accept gratuities, discounts, loans or special treatment from vendors or business partners
- Give preferential treatment or unfair advantage to vendors or business partners

The Code in Action

One of our customers asked me to do some consulting for them during my spare time. It wouldn't interfere with my job at Armstrong, as I'd be working on the weekend and at home with my own computer.

Am I allowed to take this job?

In limited circumstances, you may be permitted to work for a third party that does business with Armstrong, if the work is not connected with Armstrong. You first must disclose the facts to your manager and obtain written approval.

Gifts, Meals & Entertainment

At Armstrong, our high moral and ethical standards act as the foundation for our business relationships. We depend on these relationships to move us forward. When giving gifts, meals or entertainment to promote relationships, we always follow company standards. We do not accept gifts or business courtesies except under limited circumstances.

What we do:

- Follow company policies concerning gifts and business courtesies
- Make sure real business is discussed during any business entertainment
- Accurately account for all gifts, meals and entertainment in expense records

What we don't do:

- Give gifts, discounts or favors to anyone in exchange for preferential treatment or any other personal or business advantage
- Give any gift or provide entertainment that could embarrass us if it were made public
- Ask anyone for a gift or other business courtesy
- Give or accept gifts of cash

The Code in Action

A vendor that I used to work very closely with has offered to host me at his company's three-day celebration in Cancun to commemorate their 50th year of doing business. I no longer deal with this vendor on a day-to-day basis, but I'm still not sure if I can accept his generous offer.

The answer is no. Even well-intentioned gifts or entertainment from vendors can present a conflict of interest or the appearance of a conflict. Any gift, favor or courtesy that could affect, or appear to affect, your ability to make a fair and objective business decision is unacceptable. This kind of elaborate entertainment can create such an appearance. If you're unsure whether or not you can accept a gift from a vendor, talk to your manager or the Office of Compliance.

Second Jobs

Armstrong's success depends on each of us doing our best, each and every day. Some of us hold second jobs, but we never allow these activities to interfere with our work or affect our judgment at Armstrong. This is true of volunteer positions as well.

Corporate Opportunities

Working together, we make Armstrong what it is. We share in the excitement of moving ahead. We act with integrity when we discover opportunities that could help advance Armstrong.

What we do:

- Bring any discoveries or opportunities related to Armstrong's business to the company's attention

What we don't do:

- Take for ourselves opportunities that are discovered through the use of company property or information or our position
- Use company property or information or our position for improper personal gain

Where to Learn More

See our Records Management Policy; Acceptable Use of Information Resources Policy; Social Media Policy; Disclosure Policy; Information Sensitivity Policy; Trading in Company Securities by Employees, Officers and Directors Policy; Conflicts of Interest Policy; Anti-Corruption and Gifts Policy; and Mobile Phone & Device Policy or talk to your manager, Human Resources, Internal Audit or the Office of Compliance for questions or additional information.

In any potential conflict of interest situation, we ask ourselves:

- Could my personal interests interfere with those of the company?
- Would it appear that way to others, either outside or inside the company?
- Am I upholding Armstrong's operating principles?
- Am I making the kind of decisions a leader would make?

The Code in Action

I've been volunteering with a local food bank that lists Armstrong as a donor, and they offered me a part-time position. Can I take the job, as long as it doesn't cut into my working hours?

Probably. We encourage charitable and civic work, but even if your work at the food bank doesn't interfere with your job responsibilities, because the nonprofit receives financial support from Armstrong, you should ask your manager before you accept the position. Depending on the circumstances, accepting the job may require written approval.

Our Responsibility to Our Customers

At Armstrong, we have built our reputation on providing innovative products and interior solutions of uncompromising quality. All over the world, our customers know that they can expect the best from us. Whether we develop, manufacture, purchase, market or sell Armstrong's products, or deal directly with our customers or consumers, our actions reinforce the buyer's faith in Armstrong.

Product Stewardship & Quality

We serve the needs of our customers through our dedication to product stewardship and quality. We comply with global laws and regulations and, in some cases, set Armstrong standards that are even more strict than the law. Our concern for product stewardship extends from product design and manufacture to our products' use in homes and commercial buildings. We seek to develop quality products that deliver lasting value.

What we do:

- Comply with the highest standards for product stewardship, durability, maintenance and appearance
- Ensure that all company products—whether manufactured by Armstrong or a third party—are approved through our Product Safety Design Review process
- Take ownership for the success of our business by reporting any issue or concern immediately

What we don't do:

- Bypass quality controls or take shortcuts in our testing specifications and procedures
- Compromise the quality of our products for any reason

We always make product safety and quality our top priorities when considering:

- The raw materials we use;
- Product design;
- Our manufacturing processes;
- Installation safety;
- Product performance once installed;
- Use of recycled materials and recyclability?

The Code in Action

"I am a new employee in the New Product Development group. I am responsible for launching new products.

What do I need to do to make sure my product meets applicable regulations?

Contact the Corporate Manager for Product Stewardship and read the Product Stewardship Policy. This policy and the Product Safety Design Review Process will help to ensure that your product meets all internal and external requirements prior to launch.

Sales & Marketing

We speak and act in an open, honest and straightforward manner. This is reflected in our fair and accurate advertising and marketing. Our customers have faith in our products and how we portray them. We have to continue to earn that faith every day.

What we do:

- Market our products honestly
- Make sure our product claims can be substantiated
- Treat both our customers and our competitors courteously
- Comply with all advertising and labeling practices laws

What we don't do:

- Misrepresent our products' features or qualities
- Engage in misleading or deceptive sales or marketing practices
- Make false claims about our competitors or their products
- Take unfair advantage of anyone

Where to Learn More

Talk to your manager, the head of your Business Unit, the Legal Department, Human Resources or the Office of Compliance for questions or additional information.

The Code in Action

I'm on a deadline to get advertising copy into a small online publication. My approach is exciting; I'm going in a new direction, and I'm pretty sure about my product claims.

As it's not a major media outlet, can I cut through some red tape in confirming the claims?

No. All advertising claims must be substantiated in advance of their publication or broadcast, whether it's in print, online or through any another media. Fair and accurate advertising is important to comply with the law, and it's something our customers count on.

Our Responsibility to the Marketplace

Armstrong is not afraid to compete aggressively, but we always do so ethically and in compliance with the law. Every day, our actions help to make us a global leader and a respected market participant.

Competition & Fair Dealing

We each have a stake in how we succeed. We are guided by our operating principles and are always fair in our business dealings. We never take advantage of anyone through deception, misrepresentation or any other form of unfair dealing.

Our actions comply with antitrust and related laws designed to promote fair competition in the marketplace. Even the appearance of improper agreements with competitors can harm our reputation and risk legal action. We keep in mind that any communication with a competitor, no matter how harmless it may seem at the time, may later be subject to scrutiny.

What we do:

- Treat our business partners fairly and in accordance with the law and our contracts
- Conduct all relations with competitors, including social activities, as if they were completely in public view
- Document all meetings or discussions with competitors for Legal Department review
- Consult the Legal Department prior to signing or terminating any agreements with customers, suppliers, distributors or retailers, as well as arrangements that result in price differences among competing customers

What we don't do:

- Discuss or reach agreement with competitors about any aspect of pricing, territories, markets or customers
- Discuss our business with competitors

Whatever the setting, we avoid any discussionwithcompetitorsthatmayinvolve:

- Pricing;
- Terms and conditions of sales;
- Allocation of customers or territories; or
- Any other subject affecting competition.

The Code in Action

After a trade association meeting, I was having coffee with some old friends who work for a competitor. They told me in confidence that their company was launching a new product line and joked that we should think about reducing our prices.

I didn't respond and changed the subject. Was there a better way to handle this?

It's risky having even informal gatherings with competitors. This particular discussion certainly could be seen as violating fair competition laws, and it's not enough to stay silent. If you see or hear this sort of behavior, strongly object and make sure that your objection is recognized. If the conversation continues, leave. Immediately let the Legal Department know what occurred.

Improper Payments

All Armstrong business relationships are based on trust and transparency. We never offer or accept any form of payment intended to improperly influence a business decision.

A bribe occurs when someone gives or promises another person something of value to obtain favorable treatment. For example, if a developer gives cash or other consideration to a company employee to get the employee to complete the developer's work ahead of other customers, that's a bribe. A kickback is similar but usually occurs after the fact. For example, if a supplier pays an employee a percentage of the supplier's sales to the company in return for the employee's assistance in steering business to the supplier, that is a kickback. Bribes and kickbacks of any kind are against company policy and usually are illegal.

What we do:

- Follow company policies related to giving and receiving gifts and entertainment
- Record all payments and receipts completely and accuratel

What we don't do:

- Offer or accept bribes or kickbacks
- Use personal funds to pay for anything company funds can't be used for
- Use an agent or other third party to make improper payments

The Code in Action

I have a friend who works for a company that wanted to supply certain materials to Armstrong. I put him in touch with someone in Armstrong Procurement, and Armstrong ultimately awarded a contract to my friend's company. My friend has just sent me a check as a "referral fee" for introducing him to Procurement.

Can I keep the money?

No. At a minimum, accepting such a check would violate our No Gifts Policy, and the payment may constitute an illegal kickback. Contact the Legal Department to determine the best way to return the check, and so the company can decide how to handle the matter with the supplier.

Intellectual Property of Others

At Armstrong, we safeguard others' intellectual property as we do our own.

What we do:

- Respect the trademarks, copyrights and patents of others
- Follow all applicable laws concerning use of copyrighted materials

What we don't do:

- Make unauthorized copies of books, articles, drawings, computer software or other copyrighted materials
- Infringe the patented technology of others

The Code in Action

A customer forwarded an e-mail that had an attachment titled "Confidential." I thought it was intended for me, so I opened it, but I discovered that it contained information about a competitor's bid for a project.

I didn't violate company policy in receiving this document, so can I use it to our advantage?

No. Even though you didn't obtain this confidential information improperly, you shouldn't use it. Immediately contact the Legal Department and let them know about the situation.

Competitive Intelligence

We are committed to pursuing innovative ideas that will move us forward. While we may develop strategies based on information about our competitors and their products, we always obtain and make use of this competitive intelligence legally and ethically. We treat competitors' proprietary information as we would want them to treat ours.

What we do:

- Gather and use competitive intelligence from public sources such as published articles, annual reports, public records, the Internet and governmental filings
- Respect requests for confidentiality from our business partners

What we don't do:

- Misrepresent ourselves or use illicit means—such as wiretapping or a listening device—to secure information
- Seek proprietary information about other companies from job applicants or Armstrong employees who previously worked elsewhere
- Accept, share or use any competitive intelligence that may have been gathered improperly

We understand and comply with the antitrust controls that regulate competition in countries where we do business.

Privacy

We respect the privacy of others and are committed to keeping personal data private, whether it belongs to customers, suppliers or others with whom we have a business relationship. Personal data can include an individual's address, age, race, religion, political affiliation, sexual orientation, identification or financial account numbers, medical information and a range of other information that individual's may not wish to share publicly.

What we do:

- Follow all applicable privacy laws and company privacy policies
- Collect, use and process personal data only for legitimate business purposes
- Protect the privacy and security of information entrusted to us

What we don't do:

- Release personal information of others to anyone— even within the company— who does not have a clear business need to know and authorization to receive the information

We always handle personal data responsibly and in accordance with company policies, our contractual obligations and applicable laws.

Where to Learn More

Consult our Anti-Corruption and Gifts Policy or your manager, Human Resources, the Legal Department or the Office of Compliance for questions or additional information.

Our Responsibility to Governments

Armstrong's operating principles guide our actions wherever we do business, anywhere in the world. But we also pay strict attention to the global and local laws that affect us. We comply with the legal requirements of each country in which we conduct business.

Trade Compliance

Armstrong is subject to trade laws that govern its ability to sell products or conduct business with certain countries and individuals. We abide by all trade controls and embargoes applicable to our business, many of which restrict the import or export of certain materials and information as well as interaction with countries and persons believed to be involved with terrorism or narcotics trafficking.

What we do:

- Conduct our business activities in accordance with all applicable international trade laws and regulations that govern the sale, purchase, import, export, re-export, transfer or shipment of goods, products, materials, services and technology ("Items"), in the countries where we do business ("International Trade Laws")
- Follow U.S. antiboycott laws that prohibit Armstrong, anywhere in the world, from participating in international boycotts not sanctioned by the U.S. government
- Report to the Legal Department any request to engage in prohibited boycotting activity

What we don't do:

- Conduct business with countries or parties prohibited by U.S. or other applicable country embargoes or import or export prohibited goods or information
- Cooperate with any requests from customers, suppliers or others to participate in a boycott against other persons, companies or countries or to furnish information about our relationships with any boycotted country or person
- Export special materials, such as dangerous chemicals, without proper clearance

Where to Learn More

See our International Trade Law Policy or talk to your manager, Human Resources, the Legal Department or the Office of Compliance for questions or additional information.

We comply with all trade controls and embargoes applicable to our business. When conducting business globally, we contact the Legal Department with any questions concerning trade controls.

The Code in Action

I'm investigating new international markets.

How can I find out where I am and am not permitted to do business?

Contact the Legal Department for information on countries and persons affected by U.S. or other relevant country embargoes.

Bribery & Corruption

Our company policies concerning bribery and corruption incorporate the legal requirements of many different countries, but the way we do business is always rooted in our operating principles. We win on the merits of our products and our people, never through bribery or the corruption of government officials. Bribery is against the law everywhere in the world.

What we do:

- Contact the Legal Department before offering or providing any gift or entertainment, or anything else of value, to a government official
- Maintain accurate, reasonably detailed books and records of all global transactions
- Carefully select our business partners and agents
- Immediately report any indication of improper payments, gifts or entertainment

What we don't do:

- Provide anything of value to a government official in an attempt to influence a decision, which includes, for example, payments to award a contract to the company, to obtain a license or better tax or customs treatment or to avoid enforcement of laws
- Make improper payments through a distributor, agent, dealer or any other third party

Where to Learn More

Consult our Anti-Corruption and Gifts Policy or your manager, Human Resources, the Legal Department or the Office of Compliance for questions or additional information.

The Code in Action

I know that bribery is technically against the law, but I'm working in a country where they tell me it's part of doing business. A consultant we hired asked for additional money so he could buy a gift for an employee at a local government agency to help secure a license we need for the business.

If it's not cash, not given to an "official" and not directly from me or the company, is this gift permitted?

No. A bribe can be anything of value, including gifts, entertainment, offers of jobs or even contributions to a government official's favorite charity, and a government official can be any employee or representative of a government.

We also never use a third party, such as a subcontractor, consultant or agent, to do anything we can't do ourselves. It also doesn't matter that bribery may be common in a given locale. Acting with integrity means maintaining the highest ethical standards and complying with the law.

Our Responsibility to Our Communities

At Armstrong, we have a commitment to the success of our communities. We are conscientious citizens, we maintain a constructive, open dialogue with others and we exemplify our operating principles when weighing the interests of those around us.

Environmental Stewardship

We promote sustainable business success by helping to ensure a healthy workforce and a healthy earth. Our long history of environmental stewardship includes careful selection and use of energy and raw materials, an active commitment to health and safety and vigilance throughout the life cycle of our products to reduce risks to the earth's natural resources. We owe this to ourselves and to all the communities where we work and live.

Carelessness in environmental matters, including violations of environmental laws, can have serious consequences for us and for those we touch. Penalties for violations of pollution, waste and other environmental laws are severe, including large fines, clean-up costs and possibly imprisonment. More importantly, the effect on communities from pollution and environmental accidents can be devastating. We must not let that happen.

What we do:

- Adhere to all applicable environmental laws and company environmental policies
- Follow strictly the requirements of all environmental permits
- Immediately report all spills or improper releases in accordance with the procedures at our facilities

What we don't do:

- Bypass any environmental control or monitoring device
- Provide false information on any environmental monitoring or sampling report or in any submission to the government

We recognize the importance of protecting the environment and using resources responsibly. We are committed to good environmental stewardship in our dealings with customers, employees, the government and our community.

The Code in Action

I suspect that one of my coworkers may have falsified environmental monitoring data to avoid slowing down production.

What should I do?

Report the matter immediately to your manager, or your manager's supervisor, or you can contact the Environmental, Health and Safety Department, the Legal Department or the Office of Compliance.

Even if your suspicions are incorrect, we must err on the side of caution. Concerns about timely production are, of course, important to our business, but they are never more important than our environmental, health and safety obligations.

Community Involvement

At Armstrong, we believe we have a special responsibility and role to play in helping our communities thrive. We balance business goals with our commitment to community. We want every community where our employees live and work to be a better place because we are there. Our charitable contributions reflect our commitment to the places and people we serve.

What we do:

- Support projects and organizations that make a positive contribution to our communities
- Carefully examine any requests to the company for charitable donations

What we don't do:

- Pressure others to contribute to charitable organizations
- Donate company funds, or make a contribution in the company's name, without proper approval
- Act as an Armstrong representative at any community event without proper approval

Political Activities

We welcome the opinions and ideas of all people. We each have the right to participate in the political process and engage in political activities, but we always make it clear that our views and actions are our own, and not those of Armstrong. The rules governing corporate political contributions vary widely between countries. Wherever we do business, we comply with local campaign finance and election laws.

What we do:

- Comply with all applicable laws when engaging in lobbying activities and making political contributions for the company
- Make personal political contributions or participate in civic or political activities on our own time

What we don't do:

- Contribute Armstrong funds, time or other resources to support any political candidate or political party without approval by the Legal Department

The Code in Action

I'm extremely upset about the statements of a candidate for local political office; if elected, her actions would make it very difficult for us to do business here. I'm going to write a letter to our newspaper.

May I use Armstrong letterhead to make it look more official?

No.

While you're entitled to your beliefs, you must never give the impression that your personal views are those of the company. This is particularly true of our interactions with the news media. Armstrong letterhead—or e-mail addresses—should never be used to voice our personal opinions. Nor should we refer to our position within the company in a public forum such as a newspaper unless specifically authorized to do so.

Media

We are a public-facing company with a visible brand, so anything that affects our business may result in media interest. Our customers and stockholders deserve complete, clear, consistent and accurate communications. To ensure this, all requests for information from the general media go through Armstrong's Corporate Communications Department. Only the Corporate Communications Department, the Investor Relations Department or others authorized by the Chief Financial Officer may publicly release material corporate information or respond to inquiries about corporate or earnings-related news.

What we do:

- Respond to media inquiries by politely saying "I'm not able to help you, and I encourage you to call our corporate media line, 866.321.6677"
- Notify Corporate Communications if a member of the media contacts you about the company
- Assure that if the media insists on being by or near the property they are in a safe location

What we don't do:

- Answer the reporter's questions, even if they seem simple and straightforward
- Say "no comment" in response to a question
- Respond to claims that a reporter has obtained permission to interview you from your supervisor. Assure him or her that you will have the right contact respond to him or her shortly
- Antagonize the reporter

The Code in Action

If a reporter contacts you after normal business hours, be sure to request a name, clarify correct spelling, phone number(s) and email and publication or station they represent, and share that information with your plant manager who can forward it to Corporate Communications.

If a reporter is asking to come on to the property, explain they must gain prior permission from Corporate Communications and share the media line number, 866.321.6677.

Social Media

Whatever the format, social media are now as much a part of our business lives as our personal lives. At Armstrong, we remember that everything we say and do reinforces the faith others have in us—even as we find creative new ways to reach our customers and our communities. Social Media include:

- Social networking sites (e.g., Facebook, LinkedIn, Twitter, TicToc)
- Video and photo sharing Web sites (e.g., YouTube)
- Microblogging sites (e.g., Twitter)
- Blogs (e.g., corporate blogs, personal blogs, media-hosted blogs)
- Forums and discussion boards (e.g., Yahoo! Groups, Google Groups)
- Collaborative publishing (e.g., Wikipedia, Google Docs)

What we do:

- Comply with all company policies in our actions in the social media world
- Distinguish clearly between authorized business communications and personal communications
- Ensure that our time and effort spent with social media do not interfere with our work commitments.

What we don't do:

- Disclose proprietary company information without authorization
- Speak as an Armstrong representative without authorization
- Create the impression that personal opinions are those of Armstrong
- Respond to any comments or questions raised on social networks regarding Armstrong, its employees, products, plans or customers
- Post professional recommendations for past or present Armstrong employees, vendors or customers

Where to Learn More

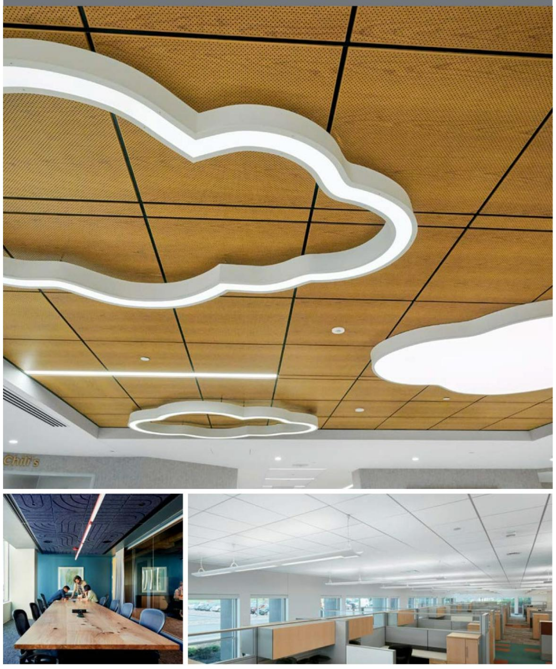
See our Social Media Policy, Acceptable Use of Information Resources Policy, Disclosure Policy, and Anti-Corruption and Gifts Policy, or talk to your manager, the eMarketing Department, the Corporate Communications Department, the Legal Department or the Office of Compliance for questions or additional information.

The Code in Action

I commented on a Facebook post about eco-friendly products and processes and mentioned some of our new products. Now someone wants to interview me for his blog.

May I do this if I don't tell him I work for Armstrong?

Straightforward, open communication is as important in the online world as it is everywhere else. We never talk about Armstrong products without divulging that we work for the company. No matter what the media, we always state that our opinions are our own, not Armstrong's.



The Office of Compliance

The Chief Compliance Officer is an officer designated by the Board of Directors. This officer reports to the Audit Committee of the Board of Directors and the full Board. The Audit Committee oversees our general compliance with the law and this Code of Business Conduct.

The Chief Compliance Officer maintains appropriate staff to work with business managers and employees to provide timely, pragmatic advice on compliance questions and administer education, training and compliance auditing programs and investigates violations of the Code.

You can reach the Office of Compliance via e-mail at OfficeofCompliance@Armstrongceilings.com or via the toll-free Armstrong Ethics Line at 877.481.8913 or online at Armstrong.EthicsPoint.com.

Code Administration

We respond to possible misconduct in a manner designed to ensure fair treatment of any individuals involved, and uphold our stakeholders' faith in our company.

Investigations

We take seriously all reports of violations of the law, this Code or company policies and investigate them. We conduct investigations in a manner that is impartial, objective, thorough and timely. We cooperate honestly in any investigation, maintaining appropriate confidentiality.

Discipline & Corrective Action

Violations of the law, the Code or company policies can result in discipline ranging from verbal or written reprimands to termination of employment. Violations of the law also may result in prosecution, imprisonment and fines.

Following any violation, we look for and implement process and procedural improvements and other corrective action to keep the problem from happening again.

Waiver

Any waivers granted under this Code will be disclosed as required by federal securities laws and NYSE rules.

Where to Learn More

See our Reporting Concerns or Compliance Issues Policy or talk to your manager, Human Resources, the Legal Department or the Office of Compliance for questions and additional information.

Acknowledgment

Please complete the Acknowledgment on the following page and return a copy to:

Armstrong World Industries, Inc.
AWI Benefit Services, Bldg 5B
2500 Columbia Avenue / PO Box 3001
Lancaster, PA 17604-3001

Email: AWIBenefits@armstrongceilings.com

If you are located outside the U.S., or at a plant location, return it to your local HR Department.

Where local law or policy varies from those outlined, local law or policy will apply. For issues pertaining to the Code of Business Conduct, e.g., where an employee function does not exist locally, contact your local HR Department for information or assistance.

Employee/Consultant

Armstrong World Industries Code of Business Conduct

NOTE: You may be asked to sign an Acknowledgment periodically. Keep your copy of the Code in a safe place for future reference. (The Code and this acknowledgment do not constitute any assurance of continued employment, or change or modify any employee's status as an at-will employee.)

TO: Office of Compliance

Print Name:

Department:____

Employee Number: ____

- I acknowledge that I have received, read and understand the Armstrong World Industries Code of Business Conduct (the "Code"). I have obtained guidance where I have had questions
- I acknowledge that the Code sets and refers to policies and procedures that I must follow as a condition of employment
- I acknowledge that my compliance with the Code is a requirement of my employment (or consulting agreement if applicable) with Armstrong and/or its affiliated company
- I acknowledge that I can perform my duties in compliance with the Code and company policies
- I acknowledge it is my duty to report actual or suspected violations of the Code to my supervisor or other company officials specified by the Code and to cooperate with investigations
- Except as I have described below, I am not aware of any violation or suspected violation of the Code or company policy

Date: ____________________________

Signature: ________________________

Armstrong
World Industries

Exhibit No. 19

TRADING IN SECURITIES BY EMPLOYEES, OFFICERS, DIRECTORS AND OTHERS
(Company Policy CP-70.D)

This is a Company Policy of Armstrong World Industries, Inc. ("Armstrong").
It applies to you, in your capacity as an Armstrong employee, and to all employees, directors, and officers of Armstrong and its subsidiaries worldwide, and others as set forth below.

1. PURPOSE AND OBJECTIVES

We must observe laws that deal with trading in Armstrong Securities (as defined below). The law bars directors, officers, employees and other individuals who possess material non-public information from trading on the basis of that information. Transactions will be considered "on the basis of" material non-public information if the person engaged in the transaction was aware of the material non-public information at the time of the transaction. In some circumstances the law also holds supervisors responsible for improper trading by employees that could have been prevented. Unless otherwise authorized, you also may not reveal non-public information to outsiders.

This Policy also goes beyond what the law requires in order to protect public confidence in the integrity of the markets for Armstrong Securities. For this reason, your purchases of Armstrong Securities should be made for the purpose of long-term investment. Short-Term Trading (as defined below) and other speculative transactions involving Armstrong Securities are prohibited.

Personal financial emergency or other personal circumstances are not mitigating factors under the securities laws and will not excuse a failure to comply with this Policy.

2. PEOPLE COVERED BY THIS POLICY

All Armstrong employees, officers, directors, consultants, agents, contractors and temporary workers ("Armstrong personnel") are subject to this Policy. It applies at the Armstrong parent company and all divisions and worldwide subsidiaries. More stringent requirements specified below apply only to directors, executive officers and "Designated Employees".

You may not do indirectly something that you can't do directly. This restriction means that this Policy, including the obligations and prohibitions contained herein, applies with equal force to your immediate family[1] and any person or entity whose trading is influenced, directed or controlled by you, any trust of which you or your spouse or domestic partner serves as trustee and any entity in which you or a member of your immediate family has a material ownership or shares investment control.[2] You are responsible for ensuring that these other individuals and entities comply with this Policy.

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[1] For purposes of this Policy, immediate family includes (a) family members who reside in the same household with you (including your spouse, domestic partner, children, stepchildren, grandchildren, parents, stepparents, grandparents, siblings and in-laws, but only if they reside in the same household with you), (b) children of you or of your spouse or domestic partner who do not reside in the same household with you but are financially dependent upon you and (c) any other family members who do not reside in your household but whose transactions are directed by you.

[2] For purposes of this Policy, entities you control include entities controlled by you and/or by your immediate family, including any estate planning trust for which you and/or any of your immediate family serves as trustee, and other trusts, corporations, partnerships and other entities (including investment clubs) at which you and/or any of your immediate family hold a majority of the voting power or a majority of the seats on the board (or similar governing body) or for which you and/or any of your immediate family have a practical ability to make all investment decisions, whether as an officer or employee, by contract or otherwise.

3. DEFINITIONS OF TERMS USED HERE

"**Armstrong**" and the "**Company**" mean Armstrong World Industries, Inc. and all worldwide subsidiaries.

"**Armstrong personnel**" has the meaning specified in Section 2 above.

"**Armstrong Securities**" or "**Company Securities**" are Securities issued by or based upon the performance of Armstrong.

"**Call**" means an option that gives its purchaser the right to purchase stock:

- from the option seller;
- for a limited period of time (usually 30, 60 or 90 days); and
- generally at the market or other strike price at the time the option is written.

The option purchaser is not obligated to exercise the option if market conditions are not in the purchaser's favor.

"**Designated Employees**" means employees within the Legal, Finance, Investor Relations or other departments or operations of the Company who are designated in writing as such by the General Counsel, the CFO, the Treasurer or the Controller. Employees who from time to time may have access to confidential financial or operating information will be identified as Designated Employees.

"**Executive Officer**" means an officer who is advised by the Legal Department that they are required to file reports of stock ownership and transactions with the SEC under Section 16 of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**").

"**Material non-public information**" is information that is both "material" and "non-public".

"**Material**" information is any information for which there is a substantial likelihood that a reasonable investor would consider it important in a decision to buy, hold, sell, vote or make any other investment decision regarding securities or other financial instruments or would view the information as significantly altering the total mix of information in the marketplace about the issuer of the security or other financial instrument. **Any information that could reasonably be expected to affect the price of our Securities is likely to be considered "material".** Either positive or negative information may be material. Common examples of information that can be regarded as material includes information about:

- financial results, financial condition, projections, estimates or performance relative to operations, earnings or financial condition;

- the creation of significant financial obligations, or any significant default under or acceleration of any financial obligation;
- joint ventures, mergers, acquisitions or tender offers;
- contracts (or contract terminations) involving significant products, supplies or services;
- significant purchases or asset sales, or the disposition of a subsidiary;
- changes in dividend policies, a stock split or the offering of additional securities;
- changes in the board of directors or senior management;
- significant discoveries, new products or marketing changes;
- restatements of financial results, or significant impairments, significant write-offs or significant changes in reserves;
- significant cybersecurity incidents, such as a data breach, or any other significant disruption in the Company's operations or loss, potential loss, breach or unauthorized access of its property or assets, whether at its facilities or through its information technology infrastructure;
- significant litigation or government investigation; and
- the gain or loss of a substantial customer or supplier.

We can't supply a complete list of material information because one does not exist. If you have any questions as to whether information is "material", you should contact the Company's Legal Department. In general, it is advisable to resolve any close questions as to the materiality of information by assuming the information is material.

"**Non-public**" information is any information that has not been broadly disclosed to the public for a sufficient period to be reflected in the price of the security. As a general rule, information should be considered non-public until at least one full trading day has elapsed after the information is broadly distributed to the public in a press release, a public filing with the SEC, a pre-announced public webcast or another broad, non-exclusionary form of public communication. All information remains non-public until it is publicly disclosed by the Company through authorized channels. Treat all such information as confidential and proprietary. You may not disclose it to others, including relatives or business or social acquaintances. Similarly, information about another company you receive in the course of your work at Armstrong in circumstances indicating that it is not yet in public circulation must be considered non-public. (See Section 8 below.)

"**Put**" means an option that gives its purchaser the right to sell stock:

- to the option seller;
- for a limited period of time (usually 30, 60 or 90 days); and

• at the market price of such stock at the time the option is written or at an agreed-upon price known as the "**Strike Price**".

The option purchaser is not obligated to exercise the option if market conditions are not in the purchaser's favor.

"**Securities**" means any stock, preferred stock, bonds, debentures, notes or other debt securities, options, warrants or other derivative or financial instrument issued by or based upon the performance of a company.

"**Short Selling**" is a technique in which an investor agrees to sell stock that he/she does not currently own to another person at a future time (usually 30, 60 or 90 days). The investor expects to purchase the stock at a lower price in the future prior to the time he/she has committed to sell it. The investor will profit only if the price of the stock declines.

"**Short-Term Trading**" means any purchase and sale or sale and purchase of Armstrong Securities within thirty (30) calendar days where such subsequent transaction results in an investment gain to the individual or entity placing the transaction. Note that Directors and Executive Officers are also subject to the more rigorous "short swing trading" prohibitions discussed in Section 12 of this Policy.

4. YOU MAY NOT TRADE WHILE YOU POSSESS MATERIAL NON-PUBLIC INFORMATION

• Never trade in Armstrong Securities (including options, derivatives or event contracts involving or based on Armstrong Securities) while you are aware of **material non-public information** about the Company. Do not purchase, sell or otherwise transact in such Securities directly or indirectly. You also may not disclose or "tip" such information to others who may trade (see Section 10 below).

• If you are aware of **material non-public information** relating to the Company, you may not engage in any other action (through derivative contracts, through disclosure to or action through friends or family or otherwise) to take personal advantage of that information, or to pass it on to others.

• If you believe that you have received information in the course of your employment or affiliation with Armstrong about Armstrong or another public company that is or may be **material** and **non-public**, you should not trade or otherwise transact in Armstrong Securities or those of the other public company. If you are uncertain whether information is either material or non-public, you should take the following steps before trading in the Securities of Armstrong or such other public company:

o Report the matter immediately to the General Counsel.

- o Do not communicate the information to any person inside or outside the Company other than to the General Counsel until you have been advised that communication is appropriate.
- o Do not purchase or sell the Securities until the General Counsel instructs you in writing that such trading is permissible.

This Policy continues to apply to your transactions in Armstrong Securities for so long as you continue to possess or have access to material non-public information, even after you have ended employment or other services to the Company or a subsidiary. If you are aware of material non-public information when your employment or service relationship ends, you may not trade in Armstrong Securities until that information has become public or is no longer material.

Remember, if a Securities transaction becomes the subject of scrutiny, it will be viewed after the fact with the benefit of "20-20" hindsight. And it is difficult, if not impossible, to prove you did not have access to material non-public information that may turn up somewhere in the Company. As a result, before engaging in any transaction, you should carefully consider how it would be viewed by authorities and the public.

5. TRANSACTIONS IN CERTAIN COMPANY PLANS

a. *Transactions Based on Inside Information Are Prohibited.*

The trading restrictions in this Policy do not apply to purchases of Company stock in the 401(k) plan resulting from periodic contributions to the plan based on your payroll contribution election. The trading restrictions do apply, however, to elections you make under the 401(k) plan to (i) increase or decrease the percentage of your contributions that will be allocated to a Company stock fund, (ii) move balances into or out of a Company stock fund, (iii) borrow money against your 401(k) plan account if the loan will result in liquidation of some or all of your Company stock fund balance and (iv) pre-pay a plan loan if the pre-payment will result in the allocation of loan proceeds to a Company stock fund.

b. *Designated Employee Elections and Changes in Investment Options for Future Contributions Are Exempt from Pre-Clearance.*

If you are a Designated Employee, your elections or changes of investment options for future contributions to your accounts in such plans are exempt from the pre-clearance process specified in Section 11 of this Policy. Changes in such accounts involving Designated Employees' existing investments in Armstrong Securities are subject to the blackouts and pre-clearance process specified in Section 11 of this Policy.

6. TRADING IN OPTIONS AND OTHER DERIVATIVES FOR ARMSTRONG SECURITIES, MARGINING AND OTHER SPECULATIVE ACTIVITY ARE PROHIBITED

a. *You May Not Engage in Speculative Transactions Involving Armstrong Securities.*

This prohibition encompasses “short sales”, Puts and other trading or hedging activity that anticipates a decline in price or decreases the risks associated with holding Armstrong Securities. These instruments can involve “a bet against the Company”, raise issues about the insider knowledge of the person involved or create a conflict of interest. We should not profit if Armstrong Securities decline in value. Our stock-based compensation plans provide incentives that link our personal gains to the success of Armstrong stock. Allowing our people to profit from a decline in the stock price severs that link.

In addition, Short-Term Trading, trading in Calls and other market options to buy Armstrong Securities or other derivative securities can lead to questions about our motivation and insider knowledge, and undermine confidence in the markets for Armstrong Securities.

Therefore, the following are prohibited:

- any Short-Term Trading of Armstrong Securities (note that Directors and Executive Officers are also subject to the more rigorous “short-swing trading” prohibitions discussed in Section 12 of this Policy);
- “short sales” and “selling short against the box” of Armstrong Securities—*i.e.*, the sale of a security that must be borrowed to make delivery or a sale with a delayed delivery;
- purchases or sales of Puts or Calls involving Armstrong Securities; and
- trading in all functionally equivalent transactions, and other “hybrid” species of securities based on Armstrong Securities, such as “straddles”, “equity swaps”, “exchange funds” and any other derivative security or contract linked to Armstrong Securities.

b. ***Borrowing on Margin and Pledging Securities Are Prohibited.***

You may not hold Armstrong Securities in a margin account or pledge Armstrong Securities as collateral for a loan. This restriction on purchasing Armstrong Securities on margin does not apply to the “cashless exercise” of stock options (*i.e.*, the exercise of a stock option where the seller sells some of the shares underlying the option to pay the taxes required to be withheld, the exercise price of the options so exercised and/or broker commissions related to the transactions). Securities held in a margin account as collateral for a margin loan may be sold by the broker without the customer’s consent if the customer fails to meet a margin call. Similarly, securities pledged (or hypothecated) as collateral for a loan may be sold in foreclosure if the borrower defaults on the loan. Because a margin sale or foreclosure sale may occur at a time when the pledgor is aware of material non-public information or otherwise is not permitted to trade in Armstrong Securities, you are prohibited from holding the Armstrong Securities in a margin account or otherwise pledging Armstrong Securities as collateral for a loan.

7. OTHER RESTRICTIONS

a. ***Gifts of Armstrong Securities***

Gifts of Armstrong Securities are prohibited by individuals that are in possession of material non-public information or during a blackout period (as applicable) unless the donee expressly agrees that it will not transact in the gifted Armstrong Securities while the donor is in possession of material non-public information.

b. ***Standing and Limit Orders***

Except in accordance with an approved trading plan (as discussed below), you may not place open orders, such as limit orders or stop orders, with brokers, particularly where the order is likely to remain outstanding for an extended period of time. Open orders may result in the execution of a trade at a time when you are aware of material non-public information or otherwise not permitted to trade in Armstrong Securities, which may result in inadvertent violations of this Policy and the securities laws.

c. ***Limitations on the Company***

The Company may not, directly or indirectly, buy or sell Armstrong Securities while in possession of material non-public information related to the Company unless such trading activity otherwise complies with all applicable securities laws.

8. EXCEPTIONS

The only exceptions to this Policy are for:

a. ***Receipt and Vesting of Restricted Stock and Options Granted by the Company***

The trading restrictions under this Policy do not apply to the acceptance or purchase of restricted stock and options issued or offered by the Company. The trading restrictions under this Policy also do not apply to the vesting, cancellation or forfeiture of restricted stock or options in accordance with applicable plans and agreements or the exercise of a tax withholding right pursuant to which the Company withholds shares of Armstrong Securities to satisfy tax withholding requirements upon the vesting of any such awards.

b. ***Exercise of Stock Options for Cash***

The trading restrictions under this Policy do not apply to the exercise of stock options for cash under the Company’s stock option plans. Likewise, the trading restrictions under this Policy do not apply to the exercise of stock options in a stock-for-stock exercise with the Company or an election to have the Company withhold Securities to cover tax obligations in connection with an option exercise. However, the trading restrictions under this Policy do apply to (i) the sale of any Securities issued upon the exercise of a stock option, (ii) a cashless exercise of a stock option through a broker, since this involves selling a portion of the underlying shares to cover the costs of exercise and (iii) any other market sale for the purpose of generating the cash needed to pay the exercise price of an option.

c. ***Investments in Mutual Funds and Indices***

The trading restrictions under this Policy do not apply to investments in diversified, widely owned mutual funds in which Armstrong Securities do not represent a significant portion of the holdings of the mutual fund or index.

*d. **Stock Splits, Stock Dividends and Similar Transactions***

The trading restrictions under this Policy do not apply to a change in the number of Securities held as a result of a stock split or stock dividend applying equally to all securities of a class, or similar transactions.

*e. **Inheritance***

The trading restrictions under this Policy do not apply to transfers by will or the laws of descent and distribution.

*f. **Change in Form of Ownership***

Transactions that involve merely a change in the form in which you own Securities are permissible with prior Company approval. For example, you may transfer shares to an *inter vivos* trust of which you are the sole beneficiary during your lifetime.

9. YOU MAY NOT TRADE IN THE SECURITIES OF CERTAIN OTHER COMPANIES

You may not trade in the Securities (including options, event contracts or any other derivatives) of other companies (such as vendors, distributors, customers, acquisition targets and strategic partners) while you have material non-public information about that other company that you received in the course of your affiliation with Armstrong. You also may not disclose or “tip” such information about other companies to others who may trade.

For example (this list is not exhaustive):

- You may not profit or enable others to profit from a situation where you learn about a planned Armstrong transaction with another company.
- If you learn of a transaction such as an acquisition or Armstrong investment in another company, you may not trade in its securities.
- If you are negotiating with a vendor over a major supply contract that could increase or decrease its stock price, you may not trade in its securities.
- In general, you must not put yourself in a position where your personal investment or trading could compromise or conflict with your duties to Armstrong.
- If you have responsibility for or influence over Armstrong’s relationship with any other company in which you own Securities, and the price of these Securities could be affected by Armstrong’s decisions, you must disclose this situation to your manager. See Company Policy CP-20.B (“**Conflicts of Interest**”).

• You also must observe the requirements of Company Policy CP-20.B Section 2(c) (“**Investments/Business Interests**”), which limit your ownership of companies that do business with Armstrong.

• If you have responsibility for or influence over our relationship with a vendor or other third party, you must observe the requirements of Company Policy CP-20.B (“**Conflicts of Interest**”), and you may not engage in Short-Term-Trading of Securities of that company.

10. AUTHORIZED CHANNELS FOR PUBLIC DISCLOSURE; REPORTING OF UNAUTHORIZED DISCLOSURES

You may not “tip” information to people who may trade in Armstrong Securities.

See Company Policy CP-70.C (“**Disclosure Policy**”). Only the Chief Executive Officer and the Chief Financial Officer may approve the disclosure of material non-public Company information. Unless the CEO or CFO designates another spokesperson in a particular case, only an Authorized Spokesperson (as defined in Company Policy CP-70.C (“**Disclosure Policy**”)) may release information that has been approved by the CEO or CFO for disclosure.

You must forward press, analyst, investor and other inquiries to either the Corporate Communications or the Investor Relations office. You may not share non-public Company information with people outside the Company unless it is a necessary part of your job. The people to whom you disclose it should have a business relationship with us that requires that information and an agreement or other arrangement that requires them to keep it confidential and prevent trading based on the information.

If non-public information is inadvertently disclosed, no matter the circumstances, the person who makes or discovers that disclosure should immediately report the facts to the Legal Department. We may need to make an immediate filing with the SEC.

11. DIRECTORS, EXECUTIVE OFFICERS AND DESIGNATED EMPLOYEES MAY NOT TRADE DURING “BLACKOUT” PERIODS, AND MUST OBTAIN PRE-CLEARANCE FOR ALL TRANSACTIONS

All directors and executive officers, as well as Designated Employees, must:

(i) not trade or otherwise transact in Armstrong Securities during “blackout” periods that the Company establishes (for reference, the blackout periods for the current fiscal year are available by request from the Legal Department, but blackout periods will generally commence at least two full weeks before the end of the first quarter and four full weeks before the end of each subsequent quarter, and will generally lift two full trading days after the public release of quarterly or annual financial results); and

(ii) obtain written clearance through the Legal Department prior to any transaction involving Armstrong Securities and trade only within the time period authorized in such written pre-clearance.

Persons subject to these requirements will be notified and will be informed of the relevant "blackout" periods and the pre-clearance procedure specified by the Legal Department. This pre-clearance process will help us make timely filings of required trading reports, prevent inadvertent violations and avoid the appearance of improper transactions. Pre-clearance will help avoid trades while the insider is unaware of a pending major development.

Under certain circumstances, the Company may permit directors, executive officers and Designated Employees to utilize a stock trading plan that complies with Rule 10b5-1 of the Exchange Act. Entrance into any such plan, if permitted, and any modification or termination of any existing plan, shall be subject to Company pre-approval. All such pre-approval requests shall be directed to the Company Legal Department. The ability of a director, executive officer or Designated Employee to enter into, modify the terms of or terminate such a plan is subject to the same prohibitions on trading while in possession of material non-public information outlined in this policy.

Trades by directors, executive officers and Designated Employees in Armstrong Securities that are properly executed pursuant to an approved Rule 10b5-1 trading plan are not subject to the prohibition on trading on the basis of material non-public information contained in this Policy or to the restrictions set forth above relating to pre-clearance procedures and blackout periods. As stated in this Policy, however, all Rule 10b5-1 trading plans must be approved in advance in writing by the Legal Department.

12. DIRECTORS AND EXECUTIVE OFFICERS HAVE SECTION 16(b) FILING AND "SHORT-SWING" TRADING RESTRICTIONS

Directors and executive officers are subject to an additional limitation on their trading: Section 16 of the Exchange Act. If you are subject to this law, the Legal Department will tell you. Directors and executive officers should be aware that most transactions in Company stock, including gifts, are subject to the accelerated two business day reporting requirements under Section 16 of the Exchange Act. It also requires the disgorgement of "short-swing" profits (resulting from a purchase followed by a sale, or a sale followed by a purchase, within a period of less than six months). Section 16 is complex and mechanical and offers few mitigating factors. Therefore, it is imperative that Directors and executive officers obtain clearance from a member of the Legal Department prior to consummating any transaction in Armstrong Securities. Practices specified by the Legal Department to promote compliance with Section 16 must be followed.

13. LIABILITY OF SUPERVISORS

Company supervisors must take notice of and prevent avoidable insider trading abuses. When you share material non-public information with the Armstrong personnel who work under you, you should remind them of these rules. You could be personally liable if you disregard insider trading by your employees. Questions about this should be directed to the Legal Department, which can assist in training employees and addressing problem situations.

14. GUIDANCE AND ENFORCEMENT

If you have any questions about specific transactions or compliance with this Policy, contact the Company's Legal Department. However, ultimate responsibility for adhering to this Policy and avoiding improper transactions rests with each individual.

Requests for exemption from the provisions of this Policy should be directed in writing to the Legal Department, which may in extremely limited circumstances, in consultation with the Disclosure Committee, give written approval for a requested transaction on a case-by-case basis.

Violations will be addressed as appropriate under the circumstances, but will be considered serious, and could potentially result in penalties up to and including termination and loss of gains on stock options and restricted stock provided by the Company.

[END OF POLICY]

Policy Number: **CP-70.D**

Trading in Company Securities by Employees, Officers and Directors

Policy Owner: **Austin K. So**

Policy Last Reviewed: **November 25, 2024**

Exhibit No. 21

Subsidiaries of Armstrong World Industries, Inc.
December 31, 2024

The following is a list of subsidiaries of Armstrong World Industries, Inc., omitting certain subsidiaries, which, when not considered in the aggregate, but as a single subsidiary, would not constitute a significant subsidiary.

U.S. Subsidiaries	**Jurisdiction of Incorporation**
Armstrong Cork Finance LLC	Delaware
Armstrong Ventures, Inc.	Delaware
Armstrong World Industries (Delaware) LLC	Delaware
AWI Licensing Company	Delaware

Exhibit No. 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (Nos. 333-265908, 333-251362, 333-212457 and 333-154765) on Form S-8 and in the registration statement (No. 333-255634) on Form S-3 of our reports dated February 25, 2025, with respect to the consolidated financial statements and financial statement schedule II of Armstrong World Industries, Inc. and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Philadelphia, Pennsylvania
February 25, 2025

Exhibit No. 23.2

Consent of Independent Auditors

We consent to the incorporation by reference in the registration statements (Nos. 333-265908, 333-251362, 333-212457 and 333-154765) on Form S-8 and in the registration statement (No. 333-255634) on Form S-3 of Armstrong World Industries, Inc. of our report dated February 17, 2025, with respect to the consolidated financial statements of Worthington Armstrong Venture and its subsidiary, which report appears in the Form 10-K of Armstrong World Industries, Inc. dated February 25, 2025.

/s/ KPMG LLP

Philadelphia, Pennsylvania
February 25, 2025

Exhibit No. 31.1

I, Victor D. Grizzle, certify that:

1) I have reviewed this report on Form 10-K of Armstrong World Industries, Inc.;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: February 25, 2025

/s/ Victor D. Grizzle
Victor D. Grizzle
Director, President and Chief Executive Officer

Exhibit No. 31.2

I, Christopher P. Calzaretta, certify that:

1) I have reviewed this report on Form 10-K of Armstrong World Industries, Inc.;

2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: February 25, 2025

/s/ Christopher P. Calzaretta
Christopher P. Calzaretta
Senior Vice President and Chief Financial Officer

Exhibit No. 32.1

Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

I certify to the best of my knowledge and belief that the Annual Report on Form 10-K of Armstrong World Industries, Inc. (the “Company”) containing its financial statements for the fiscal year ended December 31, 2024 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in that report fairly presents, in all material respects, the financial condition and results of operations of the Company as of that date.

/s/ Victor D. Grizzle

Victor D. Grizzle
Director, President and Chief Executive Officer
Armstrong World Industries, Inc.

Dated: February 25, 2025

Exhibit No. 32.2

Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

I certify to the best of my knowledge and belief that the Annual Report on Form 10-K of Armstrong World Industries, Inc. (the "Company") containing its financial statements for the fiscal year ended December 31, 2024 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and that information contained in that report fairly presents, in all material respects, the financial condition and results of operations of the Company as of that date.

/s/ Christopher P. Calzaretta

Christopher P. Calzaretta
Senior Vice President and Chief Financial Officer
Armstrong World Industries, Inc.

Dated: February 25, 2025

Exhibit No. 99.1

WORTHINGTON ARMSTRONG VENTURE

Consolidated Financial Statements

December 31, 2024 and 2023

(With Independent Auditors' Report Thereon)

WORTHINGTON ARMSTRONG VENTURE

Table of Contents

Independent Auditors' Report

The Board of Directors
Worthington Armstrong Venture:

Opinion

We have audited the consolidated financial statements of Worthington Armstrong Venture and its subsidiary (the Company), which comprise the consolidated balance sheets as of December 31, 2024 and 2023, and the related consolidated statements of income and comprehensive income, partners' deficit, and cash flows for each of the years in the three-year period ended December 31, 2024, and the related notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2024 in accordance with U.S. generally accepted accounting principles.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with U.S. generally accepted accounting principles, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for one year after the date that the consolidated financial statements are issued.

Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the consolidated financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the consolidated financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

/s/ KPMG LLP

Philadelphia, Pennsylvania
February 17, 2025

WORTHINGTON ARMSTRONG VENTURE
Consolidated Balance Sheets
December 31, 2024 and 2023
(Dollar amounts in thousands)

Assets	2024	2023
Current assets:		
Cash and cash equivalents	$ 3,806	$ 2,547
Accounts receivable, net	49,509	40,002
Receivables from affiliates	3,808	1,913
Inventory, net	52,567	42,157
Other current assets	349	2,293
Total current assets	110,039	88,912
Property, plant, and equipment, net	40,292	37,639
Goodwill and intangibles	14,655	8,891
Operating lease assets	38,750	40,267
Other assets	347	390
Total assets	$ 204,083	$ 176,099
Liabilities and Partners' Deficit		
Current Liabilities:		
Accounts payable	$ 18,208	$ 16,105
Accounts payable to affiliates	443	4,402
Accrued expenses	7,757	7,347
Operating lease liabilities	5,248	4,993
Taxes payable	204	190
Total current liabilities	31,860	33,037
Long-term liabilities:		
Long-term debt	337,556	326,341
Long term operating lease liabilities	33,502	35,274
Other long-term liabilities	2,228	2,318
Total long-term liabilities	373,286	363,933
Total liabilities	405,146	396,970
Partners’ deficit:		
Accumulated deficit	(200,897)	(220,695)
Accumulated other comprehensive loss	(166)	(176)
Total partners’ deficit	(201,063)	(220,871)
Total liabilities and partners’ deficit	$ 204,083	$ 176,099

See accompanying notes to consolidated financial statements.

WORTHINGTON ARMSTRONG VENTURE
Consolidated Statements of Income and Comprehensive Income
Years ended December 31, 2024, 2023, and 2022
(Dollar amounts in thousands)

	2024	2023	2022
Net sales	$ 492,329	$ 448,995	$ 458,159
Cost of sales	(195,455)	(185,823)	(227,046)
Gross margin	296,874	263,172	231,113
Selling, general, and administrative expenses	(62,215)	(59,116)	(57,757)
Operating income	234,659	204,056	173,356
Other income (expense), net	(1,143)	257	323
Interest expense	(17,256)	(16,844)	(9,767)
Income from operations before tax expense	216,260	187,469	163,912
Income tax expense	(348)	(232)	(203)
Total net income	215,912	187,237	163,709
Other comprehensive income:			
Change in pension plan	1,269	119	861
Change in cash flow hedge	(1,259)	1,244	566
Total other comprehensive income	10	1,363	1,427
Total comprehensive income	$ 215,922	$ 188,600	$ 165,136

See accompanying notes to consolidated financial statements.

WORTHINGTON ARMSTRONG VENTURE
Consolidated Statements of Partners' Deficit
Years ended December 31, 2024, 2023, and 2022
(Dollar amounts in thousands)

	Contributed capital: Armstrong Ventures, Inc.	Contributed capital: The Worthington Steel Company	Accumulated deficit	Accumulated other comprehensive income (loss)	Total partners' deficit
Balance, December 31, 2021	$ —	$ —	$ (169,641)	$ (2,966)	$ (172,607)
Net income	—	—	163,709	—	163,709
Distributions	—	—	(209,000)	—	(209,000)
Change in pension plan	—	—	—	861	861
Change in cash flow hedge	—	—	—	566	566
Balance, December 31, 2022	—	—	(214,932)	(1,539)	(216,471)
Net income	—	—	187,237	—	187,237
Distributions	—	—	(193,000)	—	(193,000)
Change in pension plan	—	—	—	119	119
Change in cash flow hedge	—	—	—	1,244	1,244
Balance, December 31, 2023	—	—	(220,695)	(176)	(220,871)
Net income	—	—	215,912	—	215,912
Distributions	—	—	(196,000)	—	(196,000)
Other	—	—	(114)	—	(114)
Change in pension plan	—	—	—	1,269	1,269
Change in cash flow hedge	—	—	—	(1,259)	(1,259)
Balance, December 31, 2024	$ —	$ —	$ (200,897)	$ (166)	$ (201,063)

See accompanying notes to consolidated financial statements.

WORTHINGTON ARMSTRONG VENTURE
Consolidated Statements of Cash Flows
Years ended December 31, 2024, 2023, and 2022
(Dollar amounts in thousands)

	2024	2023	2022
Cash flows from operating activities:			
Net income	$ 215,912	$ 187,237	$ 163,709
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	5,168	4,739	4,774
Pension settlement expense	1,016	-	-
Changes in assets and liabilities:			
Change in receivables	(8,778)	1,699	(493)
Change in inventory	(10,194)	9,481	21,625
Change in payables and accrued expenses	(1,762)	2,398	(10,973)
Other	775	37	1,526
Net cash provided by operating activities	202,137	205,591	180,168
Cash flows from investing activities:			
Purchases of property, plant, and equipment	(7,418)	(6,178)	(8,121)
Cash paid for acquisition	(8,460)	-	-
Net cash used in investing activities	(15,878)	(6,178)	(8,121)
Cash flows from financing activities:			
Proceeds from revolving credit facility	253,000	213,000	233,500
Repayment of revolving credit facility	(242,000)	(221,000)	(195,000)
Distributions paid	(196,000)	(193,000)	(209,000)
Net cash used in financing activities	(185,000)	(201,000)	(170,500)
Net increase (decrease) in cash and cash equivalents	1,259	(1,587)	1,547
Cash and cash equivalents at beginning of year	2,547	4,134	2,587
Cash and cash equivalents at end of year	$ 3,806	$ 2,547	$ 4,134
Supplemental disclosures:			
Interest paid	$ 17,271	$ 17,459	$ 9,005
Income taxes paid	336	198	212

See accompanying notes to consolidated financial statements.

(1) Description of Business

Worthington Armstrong Venture (the Company) is a general partnership, formed in June 1992, between Armstrong Ventures, Inc. (Armstrong), a subsidiary of Armstrong World Industries, Inc., and The Worthington Steel Company (Worthington), a Delaware corporation (a subsidiary of Worthington Enterprises, Inc.). Its business is to manufacture and market suspension systems for commercial and residential ceiling markets throughout the world. The Company has seven manufacturing plants located throughout the United States.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation and Use of Estimates

These consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) and include management estimates and judgments, where appropriate. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include the valuation of property, plant, and equipment and goodwill, operating lease liabilities and right-of-use assets, accrual for volume rebates, and assets and obligations related to employee benefits.

The consolidated financial statements include the accounts of the Company and its subsidiary. All significant intercompany transactions have been eliminated.

(b) Revenue Recognition

The Company recognizes revenue upon transfer of control of products to the customer, which typically occurs upon shipment. The main performance obligation to customers is the delivery of products in accordance with purchase orders. Each purchase order confirms the transaction price for the products purchased under the arrangement. Direct shipments to building materials distributors, home centers, direct customers and retailers represent the majority of sales transactions. Standard sales terms are Free On Board (“FOB”) shipping point; however, the Company does have minimal sales terms that are FOB destination. At the point of shipment, the customer is required to pay under normal sales terms, which in most cases are 45 days or less, with no material financing components. While the majority of the Company’s revenue is derived from the sale of standard products, the Company also manufactures and sells customized ceiling products. The manufacturing cycle for these products is typically short.

The Company’s products are sold with normal and customary return provisions. Limited warranties are provided for defects in materials or factory workmanship, sagging and warping, and certain other manufacturing defects. Warranties are not sold separately to customers, and product warranties place certain requirements on the purchaser, including installation and maintenance in accordance with written instructions. In addition to the warranty program, under certain limited circumstances, the Company will occasionally, at its sole discretion, provide a customer accommodation repair or replacement. Warranty repairs and replacements are most commonly made by professional installers employed by or affiliated with the Company’s independent distributors. Sales returns and warranty claims have historically not been material and do not constitute separate performance obligations.

The Company often offers incentive programs to its customers, primarily volume rebates and promotions. The majority of the Company’s rebates are designated as a percentage of annual customer purchases. Rebate amounts are estimated based on actual sales for the period and accrued for the projected incentive programs costs. The costs of rebate accruals are recorded as a reduction to revenue. Other sales discounts, including early pay promotions, are deducted immediately from the sales invoice.

Sales taxes collected from customers and remitted to governmental authorities are accounted for on a net basis and, therefore, are excluded from revenues in the consolidated statements of income and comprehensive income.

(c) Derivative Instruments and Hedging Activities

The Company recognizes all derivative instruments as either assets or liabilities in the consolidated balance sheet at their respective fair values. For derivatives designated in hedging relationships, changes in the fair value are recognized in accumulated other comprehensive income, to the extent the derivative is effective at offsetting the changes in cash flows being hedged until the hedged item affects earnings. For derivatives not designated as hedges or that do not meet the criteria for hedge accounting, all changes in fair value are recorded immediately to profit or loss.

(d) Advertising Costs and Research and Development Expenditures

The Company recognizes advertising costs and research and development expense as incurred. Advertising expense was $2,090, $1,844, and $2,102 for the years ended December 31, 2024, 2023, and 2022, respectively. Research and development expense was $4,102, $3,924, and $4,195 for the years ended December 31, 2024, 2023, and 2022, respectively.

(e) Taxes

The Company is a general partnership in the United States, and accordingly, generally, U.S. federal and state income taxes are the responsibility of the two general partners. The Company recognizes the effect of uncertain income tax positions only if those positions are more likely than not of being sustained. Recognized income tax benefits are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

(f) Trade Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The Company maintains an allowance for doubtful accounts for estimated credit losses inherent in its accounts receivable portfolio. In establishing the required allowance, management considers historical losses, current receivables aging, and existing industry and national economic data. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. The Company does not have any off-balance-sheet credit exposure related to its customers.

(g) Inventories

Inventories are valued at the lower of cost and net realizable value. Cost is determined on the first-in, first-out method.

(h) Long-Lived Assets

Property, plant, and equipment are stated at cost, with accumulated depreciation and amortization deducted to arrive at net book value. Depreciation charges are determined generally on the straight-line basis over the useful lives as follows: buildings, 30 years; machinery and equipment, 5 to 15 years; and leasehold improvements over the shorter of 10 years or the life of the lease. Impairment losses are recorded when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount. If an impairment exists, the asset is reduced to fair value.

(i) Leases

The Company enters into operating leases for certain manufacturing plants, warehouses, and automobiles. The Company's leases have remaining lease terms of up to 10 years. Several leases include options for the Company to renew in certain increments. The Company considers these components in determining the lease term used to establish the right-of-use ("ROU") assets and lease liabilities when it is reasonably certain that the Company will exercise that option. The Company's lease agreements do not contain any residual value guarantees or material restrictive covenants. Short-term leases with an initial term of 12 months or less are not recorded on the consolidated balance sheet. The lease expenses are recognized on a straight-line basis over the lease term.

(Dollar amounts in thousands)

As the Company's leases do not provide an implicit rate, an Incremental Borrowing Rate based on information that is available at the lease commencement date is used to compute the present value of lease payments, which is an estimate of the collateralized borrowing rate the Company would incur on future lease payments over a similar term.

(j) Goodwill and Intangibles

Goodwill represents the excess of the aggregate purchase price over the fair value of the net assets acquired in a purchase business combination. Goodwill is tested for impairment at least annually. The impairment tests performed in 2024 and 2023 did not result in an impairment of goodwill.

Intangible assets primarily represent acquired customer relationships, which are amortized on a straight-line basis over their estimated useful lives, which range from 5 to 15 years. Amortization expense was $403, $164, and $164 for the years ended December 31, 2024, 2023, and 2022, respectively. Intangible assets are reviewed for impairment when indicators of impairment are present. The Company did not test intangible assets for impairment in 2024 or 2023, as no indicators of impairment existed.

(k) Recently Adopted Accounting Standards

In November 2021, the FASB issued ASU 2021-10, Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance, which requires most business entities to disclose information about certain government assistance they receive. The related disclosure requirements include (1) the nature of the transactions and the related accounting policy used; (2) the line items on the balance sheet and income statement that are affected and the amounts applicable to each financial statement line item; and (3) significant terms and conditions of the transactions. The Company adopted the ASU on January 1, 2022. See Note 10 for discussion regarding such amounts recorded in 2022.

(l) Recently Issued Accounting Standards

In November 2024, the FASB issued ASU 2024-03, Income Statement – Reporting Comprehensive Income – Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses, which requires the disaggregation of certain expense captions into specified categories in disclosures within the notes to the consolidated financial statements to provide enhanced transparency into the expense captions presented on the face of the statement of income and comprehensive income. ASU 2024-03 is effective for annual reporting periods beginning after December 15, 2026, with early adoption permitted, and may be applied either prospectively or retrospectively to financial statements issued for reporting periods after the effective date of ASU 2024-03 or retrospectively to any or all prior periods presented in the financial statements. The Company is currently evaluating the impact that the adoption of ASU 2024-03 will have on its related disclosures.

(3) Accounts Receivable

The Company sells its products to select, preapproved customers whose businesses are directly affected by changes in economic and market conditions. The Company considers these factors and the financial condition of each customer when establishing its allowance for losses from doubtful accounts. The allowance for doubtful accounts was $104 and $134 at December 31, 2024 and 2023, respectively.

(4) Inventory

	2024	2023
Finished goods	$ 18,374	$ 17,251
Goods in process	713	348
Raw materials	29,758	20,814
Supplies	3,722	3,744
Total inventory, net of reserves	$ 52,567	$ 42,157

(Dollar amounts in thousands)

(5) Derivative Instruments and Hedging Activities

The Company may use interest-rate related derivative instruments to manage its exposure related to changes in interest rates on its variable-rate debt instruments and uses commodity derivatives to manage its exposure to commodity price fluctuations. The Company does not enter into derivative instruments for any purpose other than cash flow hedging. The Company does not speculate using derivative instruments.

The Company currently uses Secured Overnight Financing Rate (SOFR) debt to finance its operations after transitioning from the variable-rate London Interbank Offered Rate (LIBOR) debt in December 2022. The Company's mechanisms for using SOFR as the base rate remain largely the same as under LIBOR, with the exception of a small monthly basis point adjustment intended to ensure that SOFR rates effectively mirror higher LIBOR rates. The debt obligations expose the Company to variability in interest payments due to changes in interest rates. Management believes that it is prudent to limit the variability of a portion of its interest payments, and thus may enter into interest rate swap agreements to manage fluctuations in cash flows resulting from changes in the benchmark interest rate. The swap changes the variable-rate cash flow exposure on the debt obligations to fixed cash flows. The Company is not currently utilizing interest rate swaps; however, management will continue to evaluate opportunities to limit variability of cash flows resulting from changes in the benchmarked interest rate.

The Company also strategically enters into certain derivative instruments to hedge exposure to changes in cash flows attributable to commodity price fluctuations associated with certain forecasted transactions, specifically the future purchases of steel and aluminum used in manufacturing the Company's products. Changes in the fair value of steel and aluminum derivative instruments designated as hedging instruments and that effectively offset the variability of cash flows associated with anticipated purchases of steel and aluminum are reported in accumulated other comprehensive income. These amounts subsequently are reclassed into cost of goods sold when the related inventory is liquidated and affects earnings. The Company assesses hedge effectiveness both at the onset of the hedge and at regular intervals throughout the life of the derivative instrument.

The fair value of derivatives designated as hedging instruments held as of December 31, 2024 and 2023 are as follows:

	2024		2023	
	B/S Location	**Fair value**	**B/S Location**	**Fair value**
Steel and aluminum hedges (current)	Accrued expenses	$ 168	Other current assets	$ 1,091

The amount of gain (loss) recognized in accumulated other comprehensive income was ($168) and $1,091, respectively as of December 31, 2024 and 2023.

(6) Property, Plant, and Equipment

	2024	2023
Land	$ 673	$ 673
Buildings	16,976	16,609
Machinery and equipment	85,407	80,072
Computer software	2,621	2,574
Construction in process	8,835	7,296
	114,512	107,224
Accumulated depreciation and amortization	(74,220)	(69,585)
Total property, plant, and equipment, net	$ 40,292	$ 37,639

Depreciation expense was $4,765, $4,575 and $4,610 for the years ended December 31, 2024, 2023 and 2022, respectively.

(7) Fair Value of Financial Instruments

The Company does not hold or issue financial instruments for trading purposes.

The carrying amounts of cash and cash equivalents, accounts receivable, and accounts payable approximate their fair value due to the short-term maturity of these instruments. The carrying value and estimated fair value of debt was $337,556 and $325,598, respectively, at December 31, 2024. The carrying value and estimated fair value of debt was $326,341 and $306,420, respectively, at December 31, 2023.

The fair value of the Company's debt is based on the amount of future cash flows discounted using rates the Company would currently be able to realize for similar instruments of comparable maturity.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. U.S. GAAP establishes a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. The three levels of inputs used to measure fair value are as follows:

Level 1 – Quoted prices in active markets for identical assets or liabilities.

Level 2 – Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies, and similar techniques that use significant unobservable inputs.

The Company's derivatives are valued using Level 2 inputs. The fair values are disclosed in Note 5. The Company does not have any significant financial or nonfinancial assets or liabilities that are valued using Level 3 inputs.

(8) Debt

The Company has a $250,000 revolving credit facility (Facility) with PNC Bank and other lenders which expires March 31, 2026. In December 2022, the Company entered into an amendment to its Revolving Credit agreement which replaced LIBOR with the SOFR as the reference rate plus a spread adjustment. The Company applied an optional expedient under Topic 848, Reference Rate Reform, that allowed it to account for the contract modification as a continuation of the existing contract without further analysis. As of December 31, 2024 and 2023 there was $188,000 and $177,000, respectively, outstanding under the Facility. The Company can borrow at rates with a range over adjusted SOFR of 1.125% to 1.75%, depending on the Company's leverage ratio, as defined by the terms of the Facility. As of December 31, 2024 and 2023, the Company's interest rate was 5.71% and 6.71%, respectively. On February 6, 2025, the Company amended and restated the Facility, which now provides for a $275,000 revolving credit facility which expires February 6, 2030, and bears interest at rates with a range over adjusted SOFR of 1.375% to 2.00%, depending on the Company's leverage ratio.

On October 19, 2018, the Company issued $50,000 of 10-year private placement notes with PGIM, Inc. (PGIM Series B Notes) that mature in October 2028. At December 31, 2024 and 2023, there was $50,000 outstanding. The PGIM Series B Notes bear interest at 4.79% that is paid on a quarterly basis.

On February 5, 2021, the Company issued $50,000 of 8-year private placement notes with PGIM, Inc. (PGIM Series D Notes) that mature in February 2029. At December 31, 2024 and 2023, there was $50,000 outstanding. The PGIM Series D Notes bear interest at 3.05% that is paid on a quarterly basis.

On January 7, 2021, the Company issued $50,000 of 10-year private placement notes with Bank of America N.A. (BoA Series C Notes) that mature in January 2031. At December 31, 2024 and 2032 there was $50,000 outstanding. The BoA Series C Notes bear interest at 2.90% that is paid bi-annually.

As of December 31, 2024 and 2023, unamortized debt issuance costs were $444 and $659, respectively. The debt agreements contain certain restrictive financial covenants, including, among others, interest coverage and leverage ratios. The Company was in compliance with its covenants during the years ended and as of December 31, 2024 and 2023.

(Dollar amounts in thousands)

(9) Pension Benefit Programs

The Company contributes to the Worthington Industries Deferred Profit Sharing Plan for eligible U.S. employees. Costs for this plan were $1,842, $1,584 and $1,297 for 2024, 2023 and 2022, respectively.

The Company also had a U.S. defined-benefit pension plan for eligible hourly employees that worked in its former manufacturing plant located in Malvern, Pennsylvania. This plan was curtailed in January 2004 due to the consolidation of the Company's East Coast operations, which eliminated the expected future years of service for participants in the plan.

During the year ended December 31, 2024, the Company terminated the defined-benefit pension plan and settled the remaining plan obligations by offering lump sum settlements to all participants not receiving monthly benefits and purchasing annuities for all remaining plan participants. These actions reduced the number of participants in the defined-benefit pension plan to zero and the Company has no future obligations related to the plan.

After purchasing the annuities and settling the remaining administrative expenses; the Company was in an overfunded position and funds were reverted to the Company, which offset a portion of the pension settlement charges. Pension settlement expense of $1,016 was recorded in other income (expense), net in the consolidated statements of income and comprehensive income

The following tables set forth the defined-benefit pension plan's benefit obligations and funded status at December 31, 2024 and 2023:

	2024	2023
Projected benefit obligation at beginning of year	$ 3,706	$ 4,145
Interest cost	87	195
Actuarial gain	(88)	(65)
Benefits paid	(3,705)	(569)
Projected benefit obligation at end of year	$ —	$ 3,706

Note: The $1,016 settlement charge incurred in 2024 is included within the "Benefits paid" total.

	2023
Benefit obligation at December 31	$ 3,706
Fair value of plan assets as of December 31	4,475
Funded status at end of year	$ 769
Amounts recognized in the balance sheets consist of:	
Other assets	$ 769
Accumulated other comprehensive loss	1,267
Net amount recognized	$ 2,036

Amounts recognized in accumulated other comprehensive loss represent unrecognized net actuarial losses.

The components of net periodic benefit cost are as follows:

	2024	2023	2022
Interest cost	$ 87	$ 195	$ 138
Expected return on plan assets	(75)	(167)	(343)
Recognized net actuarial loss	73	144	190
Recognized settlement charge	1,016	74	188
Net periodic benefit cost	$ 1,101	$ 246	$ 173

(Dollar amounts in thousands)

The valuations and assumptions reflect the Society of Actuaries PRI 2012 mortality table with MP-2021 generational projection scales as of December 31, 2023.

Weighted average assumptions used to determine benefit obligations for the years ended and as of December 31, 2024 and 2023 are as follows:

	2024	2023
Weighted average assumptions for the year ended December 31:		
Discount rate	4.95%	4.89%
Expected long-term rate of return on plan assets	3.50	3.50
Weighted average assumptions as of December 31:		
Discount rate	N/A	5.79%
Expected long-term rate of return on plan assets	N/A	3.50

In developing the 3.50% expected long-term rate of return assumption, the Company considered its historical returns and reviewed asset class return expectations and long-term inflation assumptions.

The Company made no contributions to the U.S. defined-benefit pension plan in 2024, 2023, and 2022.

(10) Income Taxes

The Company is a general partnership in the United States, and accordingly, U.S. federal and state income taxes are generally the responsibility of the two general partners. Therefore, no federal income tax provision has been recorded on U.S. income.

Other taxes

In 2022, the Company recorded an Employee Retention Credit (ERC) benefit of $2,154, representing a refundable payroll tax credit for eligible wages paid to our employees in 2021 under the Coronavirus Aid, Relief, and Economic Security Act. The Company accounted for the ERC by applying the grant model. The credit was recorded as an offset to payroll tax expenses within cost of goods sold and selling, general and administrative expenses in the consolidated statements of income and comprehensive income.

(11) Leases

The Company is a lessee in several noncancellable operating leases, primarily real estate for its corporate office as well as for certain of its manufacturing facilities; substantially all of the Company’s lease expense relates to building and warehouse lease expense. Several leases include options for renewal, and contain clauses for payment of real estate taxes, insurance, and certain operating costs. In most cases, management expects that in the normal course of business, leases will be renewed or replaced by other leases.

Minimum rent payments under operating leases are recognized on a straight-line basis over the term of the lease including any periods of free rent. Rent expense during 2024, 2023, and 2022 amounted to $6,113, $5,005, and $4,347, respectively.

Short-term lease expense and variable lease costs were not material for the years ended December 31, 2024, 2023 and 2022. As of December 31, 2024, the Company did not have any new leases that have not yet commenced.

The weighted average remaining lease term for the Company’s operating leases at December 31, 2024 and 2023 was 7.2 years and 8.3 years, respectively. The weighted average discount rate at December 31, 2024 and 2023 was 4.3% and 4.1%, respectively.

Cash paid for amounts included in the measurement of lease liabilities was $6,481 and $5,701 for the years ended December 31, 2024 and 2023, respectively.

(Dollar amounts in thousands)

Maturities of operating lease liabilities under noncancellable leases as of December 31, 2024 are as follows:

Year:		
2025	$	5,663
2026		6,970
2027		6,357
2028		6,327
2029		6,505
Thereafter		18,326
Total undiscounted lease payments	$	50,148
Less: imputed interest		(11,398)
Total lease liabilities	$	38,750

(12) Accumulated Other Comprehensive Income (Loss)

The following table summarizes the activity, by component, related to the change in AOCI for December 31, 2024 and 2023 and the balances for accumulated other comprehensive income (loss):

	Cash flow hedge	Pension plan	Accumulated other comprehensive (loss)
Balance, December 31, 2022	$ (151)	$ (1,388)	$ (1,539)
Other comprehensive income before reclassifications	1,244	5	1,249
Amounts reclassified from accumulated other comprehensive income	—	114	114
Net current period other comprehensive income	1,244	119	1,363
Balance, December 31, 2023	$ 1,093	$ (1,269)	$ (176)
Other comprehensive income before reclassifications	(1,259)	233	(1,026)
Amounts reclassified from accumulated other comprehensive income	—	1,036	1,036
Net current period other comprehensive income	(1,259)	1,269	10
Balance, December 31, 2024	$ (166)	$ —	$ (166)

The amount reclassified from AOCI was recorded in other income, net in the consolidated statements of income and comprehensive income.

(13) Related Parties

Armstrong provides certain selling, promotional, and administrative processing services to the Company for which it receives reimbursement. Armstrong purchases grid products from the Company, which are then resold along with Armstrong inventory to Armstrong’s customers.

	2024	2023	2022
Services provided by Armstrong	$ 26,472	$ 27,797	$ 29,083
Sales to Armstrong	34,398	32,568	34,450

Armstrong owed the Company $3,808 and $1,913 for purchases of product as of December 31, 2024 and 2023, respectively, which are included in receivables from affiliates.

Worthington, and affiliates of Worthington, provide certain administrative processing services, steel processing services, and insurance-related coverages to the Company for which it receives reimbursement.

	2024	2023	2022
Administrative services by Worthington	$ 2,004	$ 2,139	$ 2,129
Insurance-related coverage net of premiums by Worthington	626	691	1,425

The Company owed $443 and $4,402 to Worthington and affiliates of Worthington as of December 31, 2024 and 2023, respectively, which are included in accounts payable to affiliates.

(14) Acquisition

On August 1, 2024, the Company acquired the assets utilized by Data Center Resources, LLC, (DCR) in the manufacturing of DCR's products (the Business). DCR designs and manufactures customizable, modular aisle containment solutions for data centers. Assets of the Business and the results of the Business's operations have been included in the consolidated financial statements since the acquisition date. The Company concluded that the assets met the definition of a business under Accounting Standard Codification section 805, Business Combinations, and therefore the transaction has been accounted for as a business combination. Total consideration paid for the Business was $8,460, of which $2,833 was allocated to goodwill, $3,334 to intangible assets, $2,624 to accounts receivable, $216 to inventory and $547 to accounts payable. As of December 31, 2024, the Company continues to vertically integrate the customer sales and service, design and drawing, and manufacturing processes of the Business to align with the Company's existing processes.

(15) Legal Proceedings

The Company is involved in various claims and legal actions arising in the ordinary course of business. In the opinion of management, the ultimate disposition of these matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or liquidity.

(16) Business and Credit Concentrations

Approximately 36%, 35%, and 29% of net sales were to the Company's largest third-party customer for 2024, 2023, and 2022, respectively. The Company's 10 largest third-party customers accounted for approximately 82%, 80%, and 78% of the Company's net sales for 2024, 2023, and 2022, respectively, and approximately 90% and 88% of the Company's trade accounts receivable balances at December 31, 2024 and 2023, respectively. See Note 13 for sales to and amounts owed to the Company from Armstrong.

(17) Subsequent Events

Management has evaluated subsequent events through the date the annual consolidated financial statements were available to be issued, February 17, 2025.