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DELTA REPORT

10-K

ROG - ROGERS CORP

10-K - DECEMBER 31, 2022 COMPARED TO 10-K - DECEMBER 31, 2021

The following comparison report has been automatically generated

TOTAL DELTAS	2260
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CHANGES	405
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DELETIONS	1218
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ADDITIONS	637
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended **December 31, 2021** **December 31, 2022**
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 1-4347

ROGERS CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts

06-0513860

(State or other jurisdiction of incorporation or organization)

(I. R. S. Employer Identification No.)

2225 W. Chandler Blvd., Chandler, Arizona 85224-6155

(Address of Principal Executive Offices) (Zip Code)

Registrant's telephone number, including area code: (480) 917-6000

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, par value \$1.00 per share	ROG	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 (or for such shorter period that the registrant was required to file such reports), 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 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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 voting common equity held by non-affiliates as of **June 30, 2021** **June 30, 2022**, the last business day of the registrant's most recently completed second fiscal quarter, was approximately **\$3,726,261,447** **\$4,882,986,050**. Rogers has no non-voting common equity. The number of shares outstanding of common stock as of **February 17, 2022** **February 24, 2023** was **18,803,211** **18,606,748**.

ROGERS CORPORATION
FORM 10-K

December 31, **2021** **2022**

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Part I

Item 1. Business

As used herein, the "Company," "Rogers," "we," "us," "our" and similar terms include Rogers Corporation and its subsidiaries, unless the context indicates otherwise.

Forward-Looking Statements

This Annual Report on Form 10-K includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). Such statements are generally accompanied by words such as "anticipate," "assume," "believe," "could," "estimate," "expect," "foresee," "goal," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "seek," "target" or similar expressions that convey uncertainty as to future events or outcomes. Forward-looking statements are based on assumptions and beliefs that we believe to be reasonable; however, assumed facts almost always vary from actual results, and the differences between assumed facts and actual results could be material depending upon the circumstances. Where we express an expectation or belief as to future results, that expectation or belief is expressed in good faith and based on assumptions believed to have a reasonable basis. We cannot assure you, however, that the stated expectation or belief will occur or be achieved or accomplished. Among the factors that could cause our results to differ materially from those indicated by forward-looking statements are risks and uncertainties inherent in our business including, without limitation:

- **our ability to complete the proposed merger with DuPont de Nemours, Inc. (DuPont), the termination of which may cause us to incur substantial costs that may adversely affect our financial results and operations and the market price of our capital stock;**

- the duration and impacts of the novel coronavirus (COVID-19) global pandemic and efforts to contain its transmission and distribute vaccines, including the effect of these factors on our business, suppliers, supply chains, customers, end users and economic conditions generally;
- failure to capitalize on, volatility within, or other adverse changes with respect to the Company's growth drivers, including advanced mobility and advanced connectivity, such as delays in adoption or implementation of new technologies;
- failure to successfully execute on the Company's long-term growth strategy as a standalone company;
- uncertain business, economic and political conditions in the United States (U.S.) and abroad, particularly in China, South Korea, Germany, Belgium, England and Hungary, where we maintain significant manufacturing, sales or administrative operations;
- the trade policy dynamics between the U.S. and China reflected in trade agreement negotiations, the imposition of tariffs and other trade restrictions, as well as the potential for U.S.-China supply chain decoupling;
- fluctuations in foreign currency exchange rates;
- our ability to develop innovative products and the extent to which they are incorporated into end-user products and systems;
- the extent to which end-user products and systems incorporating our products achieve commercial success;
- the ability and willingness of our sole or limited source suppliers to deliver certain key raw materials, including commodities, to us in a timely and cost-effective manner;
- intense global competition affecting both our existing products and products currently under development;
- business interruptions due to catastrophes or other similar events, such as natural disasters, war, terrorism or public health crises;
- the impact of sanctions, export controls and other foreign asset or investment restriction;
- failure to realize, or delays in the realization of, anticipated benefits of acquisitions and divestitures due to, among other things, the existence of unknown liabilities or difficulty integrating acquired businesses;
- our ability to attract and retain management and skilled technical personnel;
- our ability to protect our proprietary technology from infringement by third parties and/or allegations that our technology infringes third party rights;
- changes in effective tax rates or tax laws and regulations in the jurisdictions in which we operate;
- failure to comply with financial and restrictive covenants in our credit agreement or restrictions on our operational and financial flexibility due to such covenants;
- the outcome of ongoing and future litigation, including our asbestos-related product liability litigation;
- changes in environmental laws and regulations applicable to our business; and
- disruptions in, or breaches of, our information technology systems; and
- our terminated merger with DuPont de Nemours, Inc. (DuPont), which may cause us to incur substantial costs that may adversely affect our financial results and operations and the market price of our capital stock, including as a result of litigation.

Our forward-looking statements are expressly qualified by these cautionary statements, which you should consider carefully, along with the risks discussed under the headings "Item 1A. Risk Factors" and "Item 7. Management's Discussion and Analysis of Results of Operations and Financial Position" and elsewhere in this report, any of which could cause actual results to differ materially from historical results or anticipated results. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.

Company Background and Strategy

Rogers Corporation designs, develops, manufactures and sells high-performance and high-reliability engineered materials and components to meet our customers' demanding challenges. We operate two strategic operating segments: Advanced Electronics Solutions (AES) and Elastomeric Material Solutions (EMS). The remaining operations, which represent our non-core businesses, are reported in our Other operating segment. We have a history of innovation and have established Innovation Centers for our research and development (R&D) activities in Chandler, Arizona, Arizona; Burlington, Massachusetts, Massachusetts; Eschenbach, Germany Germany; and Suzhou, China. We are headquartered in Chandler, Arizona.

Our growth and profitability strategy is based upon the following principles: (1) market-driven organization, (2) innovation leadership, (3) synergistic mergers and acquisitions, and (4) operational excellence. Our priorities in executing this strategy are focused on driving near-term improvements to profitability and improving the growth outlook for the Company over the next several years by further strengthening our focus on commercial activities, expanding capacity to meet customer demand and driving innovation.

As a market-driven organization, we are focused on capitalizing on growth drivers, including advanced mobility and advanced connectivity. More specifically, opportunities in addition to the impact of COVID-19 discussed below, the key medium- to long-term trends currently affecting our business include the increasing electrification of vehicles, including electric and hybrid electric vehicles (EV/HEV), and increasing use of advanced driver assistance systems (ADAS) in the automotive industry, the advancement of communication systems in aerospace and defense and the growth of 5G smartphones in the portable electronics industry. In addition to our focus on advanced mobility and advanced connectivity in the automotive, portable electronics and telecommunications industries, these markets, we sell into a variety of other markets including general industrial, aerospace and defense, mass transit, clean energy, wireless infrastructure and connected devices, mass transit.

Our sales and marketing approach is based on addressing these trends, while our strategy focuses on factors for success as a manufacturer of engineered materials and components: performance, reliability, technical service capabilities, cost, efficiency, innovation and technology. Through this strategy we expect to be able to drive further commercial wins, which provide the potential for higher growth in the future. We have also expanded our capabilities through organic investment and acquisitions and strive to ensure high quality solutions for our customers.

Our operational excellence efforts are focused on driving significant near-term improvement in our profitability. These efforts include focusing on adding strategic new hires and improving processes and tools to achieve better performance. We have also taken specific cost improvement actions in the fourth quarter of 2022 and first quarter of 2023 that will benefit subsequent quarters. These actions include optimizing our manufacturing footprint, divesting non-core product lines and reduction to manufacturing and corporate employees. We continue to review and re-align our manufacturing and engineering footprint in an effort to maintain a leading competitive position globally. We have established or expanded our capabilities in various locations in globally and to support of our customers' growth initiatives.

We seek to enhance our operational and financial performance by investing in research and development, manufacturing and materials efficiencies, and new product initiatives that respond to the needs of our customers. We strive to evaluate operational and strategic alternatives to improve our business structure and align our business with the changing needs of our customers and major industry trends affecting our business.

If we are able to successfully execute on our growth strategy, we see an opportunity to double our annual revenues return to historical levels of profitability and accelerate revenue growth, relative to 2022, over the next five years, several years, led by organic growth and complemented by targeted acquisitions. This robust outlook is supported by our participation in a number of fast-growing markets and by our strong competitive positions in these markets. Advanced mobility markets, which are comprised of The fastest growing market opportunity is expected to be EV/HEV and ADAS, are expected to grow at the fastest rate. Third-party where third-party analysis projects that the EV/HEV market will grow at compound annual growth rate of more than 25% over the next five years and ADAS at a rate of more than 15% over that time period, several years. Within the EV/HEV market, we believe our advanced battery cell pads, ceramic substrates and power interconnects provide multiple content opportunities to capitalize on this growth. In each of these areas we have secured a number of design wins and have a strong pipeline, which provides confidence in our growth outlook. In the ADAS market, we continue to build on our current position with new design wins, including those for next-generation automotive radar systems. Other markets with a strong growth trajectory include ADAS, aerospace and defense, clean energy and portable electronics. These Each of these markets are projected is expected to grow at high single digit rates and we expect that they will contribute to our growth strategy's aim of doubling revenues over the next five years, strategy.

To support our revenue growth opportunity during the five-year strategic planning period, we have initiated a manufacturing expansion plan, which includes expanding capacity at existing Rogers' manufacturing facilities, relocating existing manufacturing capabilities to enhance operational efficiency and adding new manufacturing facilities. This expansion plan will require a significant increase in capital spending together with an associated increase in operating expenses, as compared to historic capital spending and operating expenses over the previous five years. During the five-year strategic planning period, we also will have significant capital expenditures associated with implementing our enterprise resource planning system.

Proposed Terminated Merger Agreement with DuPont

On November 1, 2021, we entered into a definitive merger agreement to be acquired by DuPont in an all-cash transaction at a price of \$277.00 per share of the Company's capital stock. The merger agreement provides provided for the acquisition of Rogers Corporation by DuPont through the merger of Cardinalis Merger Sub, Inc., a wholly owned subsidiary of DuPont, with and into Rogers Corporation, with Rogers Corporation surviving the merger as a wholly owned subsidiary of DuPont. Company shareholders approved the merger agreement at a special shareholder meeting held on January 25, 2022. The merger is agreement provided both Rogers Corporation and DuPont with a right to terminate the merger agreement if the merger had not closed on or before November 1, 2022. Consummation of the merger was subject to receipt of various customary closing conditions, including regulatory approvals and satisfaction of other customary conditions. The merger is expected to close approval by the end State Administration for Market Regulation of China (SAMR). As of November 1, 2022, the parties had not received regulatory approval from SAMR. On November 1, 2022, the Company received from DuPont a notice of termination of the second quarter merger agreement. Pursuant to the terms of 2022, the merger agreement, the Company received a regulatory termination fee from DuPont in the amount of \$162.5 million, before taxes, and incurred a transaction-related fee of \$20.4 million.

COVID-19 Update

The global COVID-19 pandemic has affected and continues to affect Rogers' business, operations and demand from customers with the emergence and spread of new variants of the virus, such as Delta and Omicron, although to a lesser extent than in

2020, mainly due to the rollout of vaccinations, virus. In response to the outbreak, Rogers prioritized the safety and well-being of its employees—including incentivizing vaccinations, implementing social distancing initiatives in its facilities, providing remote working arrangements for certain employees, expanding personal protective equipment usage, enhancing plant hygiene processes and extending employee benefits, while at the same time taking actions to preserve business continuity. Our non-manufacturing employees transitioned seamlessly to remote working arrangements and are effectively collaborating both internally and with our customers. In some Surges in COVID-19 cases based on local conditions, non-manufacturing in China resulted in lockdowns as well as various restrictions. These measures have not disrupted our manufacturing efforts, however, they are causing logistics challenges. Even since China ended its zero COVID policy in late 2022, although a significant percentage of our employees in Suzhou, China were diagnosed with COVID, our manufacturing was not materially disrupted and to date we have returned to their worksites, received no reports of permanent disability or death among our employees. We expect that the COVID-19 pandemic will have a continuing but uncertain impact on our business and operations in the short- and medium-term.

Operating Segments

Advanced Electronics Solutions

Our AES operating segment designs, develops, manufactures and sells circuit materials, ceramic substrate materials, busbars and cooling solutions for applications in EV/HEV, wireless infrastructure (i.e., power amplifiers, antennas and small cells), automotive (i.e., ADAS), telematics and thermal solutions, aerospace and defense (i.e., antenna systems, communication systems and phased array radar systems), mass transit, clean energy (i.e., variable frequency drives, renewable energy), connected devices (i.e., mobile internet devices and thermal solutions) and wired infrastructure (i.e., computing and IP internet protocol (IP) infrastructure) markets. We believe these materials have characteristics that offer performance and other functional advantages in many market applications, which serve to differentiate our products from other commonly available materials. AES products are sold globally to converters, fabricators, distributors and OEMs. original equipment manufacturers (OEMs). Trade names for our AES products include: curamik®, ROLINX®, RO4000® Series, RO3000® Series, RT/duroid®, CLTE Series®, TMM®, AD Series®, DiClad® Series, CuClad® Series, Kappa®, COOLSPAN®, TC Series®, 92ML™, IsoClad® Series, MAGTRESX®, MAGTRESX®, XTremeSpeed XTremeSpeed™ RO1200™ Laminates, IM Series™, 2929 Bondply, 3001 Bondply Film SpeedWave® Prepreg, RO4400™/RO4400T™ Series and SpeedWave™ Prepreg, Radix™. As of December 31, 2021 December 31, 2022, our AES operating segment had manufacturing and administrative facilities in Chandler, Arizona; Rogers, Connecticut; Bear, Delaware; Eschenbach, Germany; Evergem, Belgium; Budapest, Hungary; and Suzhou, China.

Elastomeric Material Solutions

Our EMS operating segment designs, develops, manufactures and sells engineered material solutions for a wide variety of applications and markets. These include polyurethane and silicone materials used in cushioning, gasketing and sealing, and vibration management applications for EV/HEV, general industrial, portable electronics, automotive, mass transit, aerospace and defense, footwear and impact mitigation and printing markets; customized silicones used in flex heater and semiconductor thermal applications for EV/HEV, general industrial, portable electronics, automotive, mass transit, aerospace and defense and medical markets; polytetrafluoroethylene and ultra-high molecular weight polyethylene materials used in wire and cable protection, electrical insulation, conduction and shielding, hose and belt protection, vibration management, cushioning, gasketing and sealing, and venting applications for EV/HEV, general industrial, automotive and aerospace and defense markets. We believe these materials have characteristics that offer functional advantages in many market applications, which serve to differentiate our products from other commonly available materials. EMS products are sold globally to converters, fabricators, distributors and OEMs. Trade names for our EMS products include: PORON®, BISCO®, DeWAL®, ARLON®, eSorba®, Griswold®, XRD®, Silicone Engineering and R/bak®.

As of **December 31, 2021** **December 31, 2022**, our EMS operating segment had manufacturing and administrative facilities in **Moosup, Connecticut**; Rogers, Connecticut; Woodstock, Connecticut; Bear, Delaware; Carol Stream, Illinois; Narragansett, Rhode Island; Evergem, Belgium; Blackburn, England; **Ansan, Siheung**, South Korea; and Suzhou, China. We also own 50% of two unconsolidated joint ventures: (1) Rogers Inoac Corporation (RIC), a joint venture established in Japan to design, develop, manufacture and sell PORON® products predominantly for the Japanese market and (2) Rogers INOAC Suzhou Corporation (RIS), a joint venture established in China to design, develop, manufacture and sell PORON® products primarily for RIC customers in various Asian countries. INOAC Corporation owns the remaining 50% of both RIC and RIS. RIC has manufacturing facilities at the INOAC facilities in Nagoya and Mie, Japan, and RIS has manufacturing facilities at Rogers' facilities in Suzhou, China.

Other

Our Other operating segment consists of elastomer components for applications in the general industrial market, as well as elastomer floats for level sensing in fuel tanks, motors, and storage tanks applications in the general industrial and automotive

markets. We sell our elastomer components under our ENDUR® trade name and our floats under our NITROPHYL® trade name.

Sales and Competition

We sell our materials and components primarily through direct sales channels positioned near major concentrations of our customers in North America, Europe and Asia. We sold to approximately **3,400 3,500** customers worldwide in **2021, 2022**, primarily OEMs and component suppliers. No individual customer represented more than 10% of our total net sales for **2021, 2022**; however, there are concentrations of OEM customers in our AES operating segment (semiconductor and automotive manufacturers). Although the loss of any one of our larger customers would require a period of adjustment, during which the results of operations could be materially adversely impacted, we believe that such events could be successfully mitigated over a period of time due to the diversity of our customer base.

We employ a technical sales and marketing approach pursuant to which we work collaboratively to provide design engineering, testing, product development and other technical support services to OEMs that incorporate our engineered materials and components in their products. Component suppliers convert, modify or otherwise incorporate our engineered materials and components into their components for these OEMs in accordance with their specifications. Accordingly, we provide similar technical support services to component suppliers.

We compete primarily with manufacturers of high-end materials, some of which are large, multi-national companies, principally on the basis of innovation, historical customer relationships, product quality, reliability, performance and price, technical and engineering service and support, breadth of product line, and manufacturing capabilities. We also compete with manufacturers of commodity materials, including smaller regional producers with lower overhead costs and profit requirements located in Asia that attempt to upsell their products based principally upon price, particularly for products that have matured in their life cycle. We believe that we have a competitive advantage because of our reputation for innovation, the performance, reliability and quality of our materials and components, and our commitment to technical support and customer service.

Our sales are generally pursuant to short-term purchase orders. These purchase orders are made without deposits and may be rescheduled, canceled or modified on relatively short notice, without substantial penalty. Therefore, even though we may have a large backlog from time to time, we believe the purchase orders or backlog are not necessarily a reliable indicator of future sales.

Research and Development

We have a history of innovation, and innovation leadership is a key component of our overall business strategy. The markets we serve are typically characterized by rapid technological changes and advances. Accordingly, the success of our strategy is in part dependent on our ability to develop market-leading products, which is primarily driven by efforts in R&D. We are focused on identifying technologies and innovations related to both our current product portfolio as well as initiatives targeted at further diversifying and growing our business. As part of this technology commitment, we have a Rogers Innovation Center co-located at Northeastern University in Burlington, Massachusetts, as well as Rogers Innovation Centers at our facilities in Chandler, **Arizona, Arizona**; Eschenbach, **Germany Germany**; and Suzhou, China. Our Innovation Centers focus on early stages of technical and commercial development of new high-tech materials solutions in an effort to align with market direction and needs.

Patents and Other Intellectual Property

We have many domestic and foreign patents, licenses and additional patent applications pending related to technology in each of our operating segments. These patents and licenses vary in duration and provide some protection from competition. We also own a number of registered and unregistered trademarks and have acquired and developed certain confidential and proprietary technologies, including trade secrets that we believe to be of some importance to our business.

While we believe our patents and other intellectual property provide a competitive advantage to our operating segments, we believe that a significant part of our competitive position and future success will be determined by factors such as the innovative skills, systems and process knowledge, and technological expertise of our personnel; the range of new products we develop; and our customer service and support.

Manufacturing and Raw Materials

The key raw materials used in our business are as follows: for our AES operating segment, copper, polymer, polytetrafluoroethylene, fiberglass materials and ceramic and brazing paste materials, including silver; and for our EMS operating segment, polyol, isocyanates, polytetrafluoroethylene, ultra-high molecular weight polyethylene materials **silicone** and **natural rubber silicone** materials.

Some of the raw materials used in our business are available through sole or limited-source suppliers. While we have undertaken strategies to mitigate the risks associated with sole or limited source suppliers, these strategies may not be effective in all cases, and price increases or disruptions in our supply of raw materials could have a material adverse impact on our business. For additional information, refer to "Item 1A. Risk Factors."

Seasonality

Except for some minor seasonality for consumer products, which often aligns with year-end holidays and product launch cycles, the operations of our segments have not been seasonal.

Human Capital Management

The Company's continuing success derives from our talented and dedicated employees globally, who are responsible for the innovation, operations and ethics foundational to our business and its future. In **2021, 2022**, our employees navigated the challenges from COVID-19, and, with an overarching commitment to health and safety, maintained a

steady flow of materials for our customers, including for critical infrastructure and health applications.

As of December 31, 2021 December 31, 2022, we employed approximately 3,675 3,800 people, of whom approximately 1,350 were employed in the U.S., 1,400 1,300 in Europe and 800 1,100 in China. Approximately 425 400 of our domestic employees are covered by collective bargaining agreements or by specific labor agreements and approximately 950 800 of our European employees are covered by work council arrangements.

Our approach to human capital management is based on our culture of respect, which is built on the ethical foundation of our Code of Business Ethics and our commitment to making choices that are based on what is ethically sound and not just what is easy or expedient. Additionally, we connect our day-to-day work with our organizational objectives through our Cultural Behaviors: Live Safely, Trust, Just Decide, Speak Openly, Simply Improve, Innovate and Deliver Results. Management's principal objectives, with oversight from our Board of Directors, are Health and Safety, Employee Experience and Diversity, Equity and Inclusion.

Health and Safety

The Promoting the health and safety of our employees is a paramount objective, one of our most important objectives. We strive to minimize lost workdays and recordable incidents. To promote awareness and accountability, safety performance data is shared throughout the company and executive compensation includes safety performance factors.

As part of our efforts to ensure promote employee safety related to COVID-19, we have taken a structured approach to control potential onsite exposures. We have global, regional and site-specific pandemic steering committees ensuring that policies and procedures are developed and implemented in accordance with recommendations put forth by the recognized health authorities in each part of the world in which we operate. All policy recommendations, new or changed, are reviewed and approved by our executive leadership team, ensuring timely communication to our employees prior to implementation.

The global committee has worked to ensure that employees understand that the Company supports the position that vaccination is the best means of minimizing the effects of a COVID-19 infection. In 2021, we provided a financial incentive for employees who became fully vaccinated, which helped drive a global employee vaccination rate of approximately 70%. As a means of continuing to incentivize employees to seek vaccination, policies now offer paid time for employees to get vaccinated, recover from any side effects from vaccination, or to seek testing. We have implemented a number of exposure control requirements for all individuals at our operating locations.

We continue to follow the guidance issued by recognized authorities around the world and make adjustments to our global, regional, and local policies as necessary. The global committee will continue to meet regularly to provide guidance to our organization as circumstances evolve.

Employment Experience

We take a comprehensive approach to the employment experience, striving to use a fair and inclusive recruiting process to select talented individuals. Once we hire, we endeavor to provide our employees a safe and ethical work environment that includes fair compensation, opportunities for career development and employee engagement. We are proud to invest in our employees' futures through a variety of technical and other training opportunities internally, as well as education reimbursement programs globally.

Diversity, Equity and Inclusion

We continue to advance efforts to improve diversity, equity and inclusion within the Company, focusing on attracting and maintaining diverse talent within the organization and promoting awareness and acceptance globally. We believe that our diversity, equity and inclusion will make the Company a more desirable workplace and will lead to improved business performance.

Information About Our Executive Officers

Our executive officers as of February 22, 2022 March 1, 2023 were as follows:

Name	Age	Present Position	Year Appointed to Present Position	Other Relevant Positions Held
Bruce D. Hoechner	62	President and Chief Executive Officer, Director, Principal Executive Officer	2011	
Ramakumar Mayampurath	58	Senior Vice President and Chief Financial Officer, Principal Financial Officer	2021	Vice President, Corporate Finance from December 2020 to May 2021; Vice President, Business Transformation from March 2020 to December 2020; Vice President, Financial Planning and Analysis from November 2014 to December 2020
Jonathan J. Rowntree	50	Senior Vice President and General Manager, Advanced Electronics Solutions	2019	Senior Vice President and Global Head of Industrial Electronics, Henkel Electronic Materials, from January 2017 to May 2019; Senior Vice President and General Manager, Henkel Electronic Materials, from July 2015 to December 2016.
Randall C. Gouveia	58	Senior Vice President and General Manager, Elastomeric Material Solutions	2019	Vice President and General Manager, Eastman Chemical Co., from December 2014 to June 2019.
Peter B. Williams	59	Senior Vice President, Global Operations and Supply Chain	2019	Vice President of Global Operations, MKS Instruments, 2011 to July 2019.
Robert C. Daigle	58	Senior Vice President and Chief Technology Officer	2009	

Jay B. Knoll	58	Senior Vice President, Corporate Development, General Counsel, Chief Sustainability Officer and Secretary	2021	Vice President and General Counsel, Rogers Corporation, from November 2014 to February 2017. Senior Vice President, Corporate Development, General Counsel and Secretary, from February 2017 to October 2021.
Benjamin M. Buckley	49	Vice President and Chief Human Resources Officer	2019	Associate General Counsel and Director of Global Compliance and Integrity, Rogers Corporation, from October 2014 to January 2019.

Name	Age	Present Position	Year Appointed to Present Position	Other Relevant Positions Held
R. Colin Gouveia	59	President and Chief Executive Officer, Director, Principal Executive Officer	2022	Senior Vice President and General Manager of Elastomeric Material Solutions June 2019 to December 2022; Vice President and General Manager, Eastman Chemical Co., from December 2014 to June 2019.
Ramakumar Mayampurath	58	Senior Vice President and Chief Financial Officer, Principal Financial Officer	2021	Vice President, Corporate Finance from December 2020 to May 2021; Vice President, Business Transformation from March 2020 to December 2020; Vice President, Financial Planning and Analysis from November 2014 to December 2020
Brian Larabee	56	Vice President and General Manager of Elastomeric Material Solutions	2022	Senior Director, Product Management from February 2021 to December 2022; Director, EMS New Product and Business Development from November 2016 to February 2021.
Larry Schmid	61	Senior Vice President, Global Operations and Supply Chain	2023	President, Pilko & Associates, from 2020 to 2023; Global Manufacturing & Engineering Operations Director, The Dow Chemical Company, Performance Materials & Coatings, from 2018 to 2019; Global Operations Director, The Dow Chemical Company, Dow Performance Silicones, from 2016 to 2018.

Available Information

We make available on our website (<http://www.rogerscorp.com>), or through a link posted on our website, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, reports filed by our executive officers and directors pursuant to Section 16 of the Exchange Act, and amendments to those reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (SEC). In addition, the SEC maintains an internet site that contains these reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC (<http://www.sec.gov>).

We also make available on our website the charters for our Audit Committee, Compensation and Organization Committee, and Nominating and Governance Committee, in addition to our Corporate Governance Guidelines, Bylaws, Code of Business Ethics, and Compensation Recovery Policy. Our website is not incorporated into or a part of this Form 10-K.

Item 1A. Risk Factors

Our business, results of operations and financial position are subject to various risks, including those discussed below, which may affect the value of our capital stock. The following risk factors, which we believe represent the most significant factors that may make an investment in our capital stock risky, may cause our actual results to differ materially from those projected in any forward-looking statement. You should carefully consider these factors, as well as the other information contained in this Annual Report on Form 10-K, including the information set forth in "Item 1. Business - Forward-Looking Statements" and "Item 7. Management's Discussion and Analysis of Results of Operations and Financial Position," when evaluating an investment in our capital stock.

Risks Relating to the DuPont Merger

We may not be able to complete the proposed merger with DuPont and we may incur substantial costs that may adversely affect our financial results and operations and the market price of our capital stock.

Adoption of the merger agreement is subject to customary closing conditions, including the receipt of foreign and domestic regulatory approvals, which may not be fulfilled in a timely manner or at all, and accordingly, the merger may not be completed. In addition, the parties can mutually decide to terminate the merger agreement, or Rogers or DuPont may unilaterally elect to terminate the merger agreement under certain circumstances. If the merger agreement is terminated under certain circumstances, we may be required to pay a \$135.0 million termination fee to DuPont. If the proposed merger with DuPont is not completed, the price of our capital stock may decline to the extent that the current market price of our capital stock reflects a market assumption that the merger will be completed. Additionally, if the merger is not completed, we may experience negative reactions from financial markets and our suppliers, customers and employees. Each of these factors may adversely affect the trading price of our capital stock, as well as our results and operations and financial condition. Several lawsuits relating to the merger have been filed, as discussed further in "Item 3. Legal Proceedings." Rogers and DuPont may be subject to additional lawsuits challenging the merger, and adverse rulings in these lawsuits may delay or prevent the merger from being completed or require Rogers or DuPont to incur significant costs to defend or settle these lawsuits. Any delay in completing the merger could cause us not to realize, or be delayed in realizing, some or all of the benefits that we expect to achieve if the merger is successfully completed within the anticipated time frame.

While the proposed merger is pending, we will be subject to contractual restrictions that could adversely affect our business and operations.

The merger agreement with DuPont restricts us from taking specified actions without DuPont's consent until the merger is completed or the merger agreement is terminated, including making certain significant acquisitions or investments, incurring certain indebtedness, making non-ordinary course capital expenditures in excess of certain

thresholds, amending or modifying certain material contracts, divesting certain assets, and making certain non-ordinary course changes to personnel and employee compensation. These restrictions, and others more fully described in the merger agreement, may affect our ability to execute our business strategies and attain our financial and other goals and may impact our financial condition, results of operations and cash flows.

Uncertainties related to the merger could adversely affect our businesses, sales and gross margins.

In response to the announcement of the merger or due to ongoing uncertainty about the merger, customers may delay or defer purchasing decisions or elect to switch to other suppliers. In particular, prospective customers could be reluctant to purchase our products and services due to uncertainty about the direction of our offerings and willingness to support our products. To the extent that the merger creates uncertainty among those persons and organizations contemplating purchases such that one large customer, or a significant group of smaller customers, delays, defers or changes purchases in connection with the planned merger, our revenues could be adversely affected. We may make assurances to customers to address their uncertainty about the direction of our products and related support offerings, which may result in additional obligations. In addition, the announcement of the merger may cause prospective customers to delay or defer purchasing decisions resulting in a decline in our net sales, which could have a significant impact on our results of operations and financial condition. Our quarterly net sales and net income could be substantially below expectations of market analysts, potentially resulting in a decline in our stock price. We may also experience negative reactions from the Company's employees, suppliers, vendors, or regulators. Additionally, matters relating to the merger will require substantial commitments of time and resources by our management and the expenditure of significant funds in the form of fees and expenses, which would otherwise have been devoted to day-to-day operations and other opportunities that may have been beneficial to us as an independent company.

Risks Relating to the COVID-19 Pandemic

The COVID-19 pandemic and global responsive measures have impacted our business and results of operations and could materially adversely affect our business, results of operations and financial position in future periods.

The COVID-19 pandemic continues to have global impacts and has resulted in governmental authorities implementing numerous responsive measures, such as travel bans and other restrictions, including quarantines, shelter-in-place and stay-home orders, transportation disruptions, closures and shutdowns. We maintain significant manufacturing and administrative operations in the U.S., China, Germany, Belgium, Germany, England, South Korea and Hungary, and each of these countries has been significantly affected by the outbreak and taken measures to try to contain it and to distribute vaccines as they are approved. In particular, the recent end to 'zero COVID' policies in China may have unpredictable impacts on our operations, suppliers, and customers. In recent months, a significant percentage of our employees in Suzhou, China were diagnosed with COVID, but to-date we have received no reports of permanent disability or death among our employees. We have also modified our business practices in an effort to ensure business continuity while promoting continued employee health and well-being. Collectively, these measures have impacted and are likely to continue to impact our workforce and operations. In addition, the outbreak and associated responsive measures have resulted in significant disruption of the global economy, including increased volatility in financial markets, supply chains and demand for certain goods and services, as well as significant intervention and stimulus measures by governments.

There is considerable uncertainty regarding the effect of COVID-19 as well as current and future responsive measures on our business, including on our workforce and operations. We may experience sustained demand reductions for our products in certain end markets, be unable to satisfy customer demand and face increased operating costs, asset impairments and cash flow reductions, all of which could have a material adverse effect on our business, results of operations and financial position.

Risks Relating to Our Business, Strategy and Operations

Failure to capitalize on, volatility within, or other adverse changes with respect to the Company's growth drivers, including advanced mobility and advanced connectivity, may adversely affect our business.

We derived approximately 28% 32% and 19% 15% of our net sales for the year ended December 31, 2021 December 31, 2022 from sales relating to the key market growth drivers of advanced mobility and advanced connectivity, respectively. These growth drivers are served by our direct and indirect customers in a variety of markets, including automotive (i.e., ADAS) and EV/HEV, wireless infrastructure and portable electronics. These growth drivers, as well as specific market and industry trends within them, may be volatile, cyclical and sensitive to a variety of factors, including general economic conditions (including higher inflation and interest rates), demand disruptions (including third-party component availability at our customers), technology disruptions, consumer preferences and political priorities. Adverse or cyclical changes to and within these growth drivers, such as delays in adoption or implementation of new technologies, has resulted in, and may continue to result in, reduced demand for certain of our products, production overcapacity, increased inventory levels and related risks of obsolescence, as well as price erosion, ultimately leading to a decline in our operating results. Acceleration within these growth drivers and corresponding rapid increases in demand for certain products may also require us to make significant capital investments or acquisitions in facilities and information systems and significantly increase our personnel in order to increase production levels and to maintain customer relationships and market positions. However, we may not be able to increase our production levels with sufficient speed or efficiency to capitalize on such increases in demand.

We have extensive international operations, and events and circumstances that have general international consequence or specific impact in the countries in which we operate may materially adversely affect our business.

For the year ended December 31, 2021 December 31, 2022, approximately 72% 69% of our net sales resulted from sales in foreign markets, with approximately 47% 40% and 24% 27% of such net sales occurring in Asia and Europe, respectively. We expect our net sales in foreign markets to continue to represent a substantial majority of our consolidated net sales. We maintain significant manufacturing and administrative operations in China, Germany, Belgium, Germany, England, South Korea and Hungary, and approximately 60% 63% of our employees were located outside the U.S. as of December 31, 2021 December 31, 2022. Risks related to our extensive international operations include the following:

- foreign currency fluctuations, particularly in the value of the euro, the Chinese renminbi, the South Korean won, the British pound, the Japanese yen and the Hungarian forint against the U.S. dollar;
- economic and political instability due to regional or country-specific events or changes in relations between the U.S. and the countries in which we operate;
- accounts receivable practices across countries, including longer payment cycles;
- export control or customs matters, including tariffs and trade restrictions;
- changes in multilateral and bilateral trade relations
- complications in complying, and failure to comply, with a variety of laws and regulations applicable to our foreign operations, including due to unexpected changes in the laws or regulations of the countries in which we operate;
- failure to comply with the Foreign Corrupt Practices Act or other applicable anti-corruption laws;

- greater difficulty protecting our intellectual property;
- compliance with foreign employment regulations, as well as work stoppages and labor and union disputes.

The foregoing risks may be particularly acute in emerging markets such as China, where our operations are subject to greater uncertainty due to increased volatility associated with the developing nature of the economic, legal and governmental systems of these countries, changes in bilateral and multilateral arrangements with the U.S. and other governments, and challenges that some multinational customers that are headquartered in emerging markets may have complying fully with U.S. and other developed market extraterritorial regulations. In addition, our business has been, and may continue to be, adversely affected by the lack of development, or disruptions, of transportation or other critical infrastructure, including wireless infrastructure, in emerging markets. If we are unable to successfully manage the risks associated with expanding our global business, or to adequately manage operational fluctuations, it may materially adversely affect our business, results of operations and financial position.

Deteriorating trade relations between the U.S. and China, other trade conflicts and barriers, economic sanctions, and Chinese policies to decrease dependence on foreign suppliers could limit or prevent certain existing or potential customers from doing business with us and materially adversely affect our business.

The increased trade conflicts between the U.S. and its major trading partners, evidenced by trade restrictions such as tariffs, taxes, export controls, economic sanctions, and enhanced policies designed to protect national security, could adversely impact our business. In particular, we have experienced and expect that we may in the future experience impacts on our business due to the increase in trade conflicts between the U.S. and China. The May 2019 U.S. Department of Commerce addition of Huawei Technologies Co., Ltd. (Huawei) to its "entity list," and subsequently implemented Foreign Direct Products Rules, limited the ability of U.S. and foreign companies to export products and license technologies to Huawei. Such export controls, as well as retaliatory controls and tariffs that China has imposed and which remain in place to a certain extent under the Phase 1 agreement reached between the U.S. and China on January 15, 2020, could continue to restrict our ability to do business with Chinese customers. Further U.S. government actions to protect domestic economic and security interests could lead to further restrictions. China continues to be a fast-developing market and an area of potential growth for us. Sales to customers located in China and the Asia Pacific region have typically accounted for nearly half of our total sales and a substantial majority of our overall sales to customers located outside the U.S. In addition, certain of the end products created in China that incorporate our products are ultimately sold outside of the Asia Pacific region. We expect that revenue from these sales generally, and sales to China and the Asia Pacific region specifically, will continue to be a material component of our total revenue. Therefore, any financial crisis, trade war or dispute or other major event causing business disruption in international jurisdictions generally, and China and the Asia Pacific region in particular, could negatively affect our business, results of operations and financial position.

China's stated policy of reducing its dependence on foreign manufacturers and technology companies has resulted and may continue to result in reduced demand for our products in China. These trends, combined with supply chain disruptions caused by COVID-19, may lead to increased decoupling of the supply chains for U.S. and Chinese economies, thereby leading to reduced market opportunities and disrupted supply chains for U.S. companies with sales and operations in China. Increased geopolitical tensions between the U.S. and China would likely accelerate these trends. Both countries could pursue policies to reduce their dependence on foreign goods. Such policies could have a material adverse impact on our business, results of operations and financial position. In addition, as a consequence of such policies, there are risks that the Chinese government may, among other things, require the use of local suppliers, compel companies that do business in China to partner with local companies to conduct business, or provide incentives to government-backed local customers to buy from local suppliers rather than companies like ours, all of which could adversely impact our business, results of operations and financial position.

Our business is dependent upon our development of innovative products and our customers' incorporation of those products into end user products and systems that achieve commercial success.

As a manufacturer and supplier of engineered materials and components, our business depends upon our ability to innovate and sell our materials and components for inclusion in other products that are developed, manufactured and sold by our customers. We strive to differentiate our products and secure long-term demand through our engagement with our customers to design in our materials and components as part of their product development processes. The value of any design-in largely depends upon the decision of our customers to manufacture their products or systems in sufficient production quantities, the commercial success of the end product and the extent to which the design of our customers' products or systems could accommodate substitution of competitor products. A consistent failure to introduce new products in a timely manner, achieve **design-ins** **design wins** or achieve market acceptance on commercially reasonable terms could materially adversely affect our business, results of operations and financial position. The introduction of new products presents particularly significant business challenges in our business because product development commitments and expenditures must be made well in advance of product sales.

Our dependence on sole or limited source suppliers for certain of our raw materials could materially adversely affect our ability to manufacture products and materially increase our costs.

We rely on sole and limited source suppliers for certain of the raw materials that are critical to the manufacturing of our products. This reliance subjects us to risks related to our potential inability to obtain an adequate supply of required raw materials, particularly given our use of lean manufacturing and just-in-time inventory techniques, and our reduced control over pricing and timing of delivery of raw materials. Our operating results could be materially adversely affected if we were unable to obtain adequate supplies of these materials in a timely manner or if their cost increased significantly.

While we believe we could obtain and qualify alternative sources for most sole and limited source supplier materials if necessary, the transition time could be long, particularly if the change requires us to redesign our systems. Ultimately, we may be unable to redesign our systems, which could further increase delays or prevent us from manufacturing our products at all. Even if a system redesign is feasible, increased costs associated with such a redesign would decrease our profit margins, perhaps materially, if we could not effectively pass such costs along to our customers. Further, it would likely result in production and delivery delays, which could lead to lost sales and damage to our relationships with current and potential customers.

We face intense global competition, which could reduce demand for our products or create additional pricing pressure on our products.

We operate in a highly competitive global environment and compete with domestic and international companies principally on the basis of the following:

- innovation;
- historical customer relationships;
- product quality, reliability, performance and price;
- technical and engineering service and support;
- breadth of product line; and
- manufacturing capabilities.

Our competitors include commodity materials suppliers, which offer product substitutions based mostly on price, and suppliers of alternate solutions, which offer product substitutions or eliminations based mostly on disruptive technology. Certain of these competitors have greater financial and other resources than we have and, in some cases, these competitors are well established in specific product niches. We expect that our competitors will continue to improve the design and performance of their products, which could result in the development of products that offer price or performance features superior to our products. Furthermore, our customers may engage in internal manufacturing of products that may result in reduced demand for our products. If we are unable to maintain our competitive advantage for any reason, demand for our products may be materially reduced, which may adversely affect our business, results of operations and financial position.

Moreover, as OEMs, particularly in the electronics and automotive markets, seek cost reductions from their supply chains, our customers may make greater demands on us with regard to pricing and other contractual terms. This may adversely affect our gross margins on certain products or exacerbate competition that we face which could ultimately result in lower potential sales.

We have engaged in transactions in the past and may in the future acquire or dispose of businesses, or engage in other transactions, which expose us to a variety of risks that could materially adversely affect our business operating results and financial position.

From time to time, we have explored and pursued transaction opportunities that we believe complement our core businesses, and we expect to do so again in the future. We have also divested and may again consider divesting businesses or assets that we do not regard as part of our core businesses. These transaction opportunities may come in the form of acquisitions, joint ventures, investments, divestitures or other structures. There are risks associated with such transactions, including, without limitation, general business risk, technology risk, market acceptance risk, litigation risk, environmental risk, regulatory approval risk and risks associated with the failure to complete announced transactions. In the case of acquisitions, we may not be able to discover, during the due diligence process or otherwise, all known and unknown risks associated with the business we are acquiring, including the existence of liabilities. We may spend a significant portion of available cash, incur substantial debt or issue equity securities, which would dilute current shareholders' equity ownership, to pay for the acquisitions. In addition, if we are unsuccessful in integrating any acquired company or business into our operations or if integration is more difficult than anticipated, we may experience disruptions that could harm our business and result in our failure to realize the anticipated benefits of the acquisitions. In the case of divestitures, we may agree to indemnify acquiring parties for known or unknown liabilities arising from the businesses we are divesting. We have incurred, and may in the future incur, significant costs in the pursuit and evaluation of transactions that we do not consummate for a variety of reasons.

As a result, these transactions may not ultimately create value for us or our shareholders and may harm our reputation and materially adversely affect our business, results of operations and financial position.

The failure to attract and retain specialized technical and management personnel could impair our expected growth and future success.

We depend upon the continued services and performance of key executives, senior management and skilled technical personnel, particularly our sales engineers and other professionals with significant experience in the key industries we serve. Competition for these personnel from other companies, academic institutions and government entities is intense, and our expected growth and future success will depend, in large part, upon our ability to attract and retain these individuals. In addition, we have recently appointed a new Chief Executive Officer and have undergone other management changes as we execute on our growth strategy as a standalone company. Our continued performance will depend in part on the success of our new leadership.

If we suffer loss or disruption to our facilities, supply chains, distribution systems or information technology systems due to catastrophe or other events, our business could be seriously harmed.

Our facilities, supply chains, distribution systems and information technology systems are subject to catastrophic loss or disruption due to fire, flood, earthquake, hurricane, public health crisis, war, terrorism or other natural or man-made disasters or events. If any of these facilities, supply chains or systems were to experience a catastrophic loss or disruption, it could disrupt our operations, delay production and shipments, result in defective products or services, damage customer relationships and our reputation and result in legal exposure and large repair or replacement expenses. For instance, the COVID-19 pandemic and related quarantines and work and travel restrictions have disrupted, and may continue to disrupt, production of and demand for certain of our products. Additionally, there was a fire at our UTIS manufacturing facility in Ansan, South Korea in early

February 2021, which resulted in extensive damage to the manufacturing site. While some commercial operations resumed in late 2021, with the launch of a replacement production line at one of our Suzhou, China facilities, as we have not yet resumed and commercial operations production at our new location in Siheung, South Korea. Korea commenced in late-January 2023. The extent to which these events will continue to affect our results of operations and financial position remains uncertain. The third-party insurance coverage that we maintain will vary from time to time in both type and amount depending on cost, availability and our decisions regarding risk retention, and may be unavailable or insufficient to protect us against losses or disruptions.

A significant disruption in, or breach in security of, our information technology systems or violations of data protection laws could materially adversely affect our business and reputation.

In the ordinary course of business, we collect and store confidential information, including proprietary business information belonging to us, our customers, suppliers, business partners and other third parties and personally identifiable information of our employees. We rely on information technology systems to protect this information and to keep financial records, process orders, manage inventory, coordinate shipments to customers, and operate other critical functions. Our information technology systems are susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, telecommunication failures, systems upgrades (including the planned implementation of a new enterprise resource planning system) and user errors. If we experience a disruption in our information technology systems, it could result in the loss of sales and customers and significant incremental costs, which could materially adversely affect our business.

We are also subject to security breaches caused by computer viruses, illegal break-ins or hacking, sabotage, or acts of vandalism by disgruntled employees or third parties. The risk of a security breach or disruption, particularly through cyberattack or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased, in part because of evolving technologies, the ubiquitous use of the Internet and telecommunications technologies (including mobile devices) to conduct business transactions. Our information technology network and systems have been and, we believe, continue to be under constant attack. Accordingly, despite our security measures or those of our third-party service providers, we have experienced and may in the future experience security breaches, including breaches that we may not be able to detect. Security breaches of our information technology systems, including through mobile devices, could result in the misappropriation or unauthorized disclosure of confidential information belonging to us or to our customers, suppliers, business partners, employees or other third parties, which could result in our suffering significant financial and reputational damage. If we are unable to protect sensitive information, our customers or governmental authorities could question the adequacy of our security processes and procedures and our compliance with applicable laws and regulations, including evolving government cyber security requirements for government contractors.

In addition, the processing and storage of certain information is increasingly subject to privacy and data security regulations, and many such regulations are country-specific. The interpretation and application of data protection laws in the U.S., Europe, and elsewhere, including the EU General Data Protection Regulation and the California Consumer Privacy Act, are uncertain,

evolving and may be inconsistent among jurisdictions. Compliance with these various laws may be onerous and require us to incur substantial costs or to change our business practices in a manner that adversely affects our business, while failure to comply with such laws may subject us to substantial penalties.

Employee benefit cost increases could reduce our profitability.

Our profitability is affected by employee benefit costs, particularly medical and other employee benefits. In recent years, employee medical costs have increased due to factors such as the increase in health care costs in the U.S. These factors will continue to put pressure on our business and financial performance, as employee benefit costs continue to escalate. We may not succeed in limiting future cost increases. Continued employee benefit cost increases could have an adverse effect on our results of operations, cash flows and financial position.

Legal, Compliance and Regulatory Risks

Our business may be materially adversely affected if we cannot protect our proprietary technology or if we infringe the proprietary rights of others.

Our proprietary technology supports our ability to compete effectively with other companies, and we seek to protect our intellectual property rights by obtaining domestic and foreign patents, trademarks and copyrights, and maintaining trade secrets for our manufacturing processes. It is possible, however, that our efforts to obtain such protection in the U.S. and abroad will be unsuccessful or that the protection afforded will not be sufficiently broad to protect our technology.

Even if domestic and foreign laws do grant initial protection to our technology, our competitors or other third parties may subsequently obtain and unlawfully copy, use or disclose our technologies, products, and processes. We believe that the risk of piracy of our technology is particularly acute in the foreign countries in which we operate. In circumstances in which we conclude that our proprietary technology has been infringed, we have pursued, and may again pursue, litigation to enforce our rights. The defense and prosecution of intellectual property infringement suits are both costly and time consuming, even if the outcome is favorable to us. If we are not successful in protecting our proprietary technology or if the protection afforded to us is not sufficiently broad, our competitors may be able to manufacture and offer products substantially similar to our own, thereby reducing demand for our products and adversely affecting our results of operations and financial position. We may also be adversely affected by, and subject to increased competition as a result of, the normal expiration of our issued patents.

Our competitors or other third parties may also assert infringement or invalidity claims against us in the future. In addition to the significant costs associated with such suits, as noted above, an adverse outcome could subject us to significant liabilities to third parties and require us to license rights from third parties or cease selling our products. Any of these events may have a material adverse effect on our business, results of operations and financial position.

As a multinational corporation doing business in the U.S. and various foreign jurisdictions, changes in tax laws or exposures to additional tax liability could negatively impact our operating results.

As a result of the variability and uncertainty in global taxation, we are subject to a wide variety of tax-related risks, any of which could provoke changes in our global structure, international operations or intercompany agreements, which could materially reduce our net income in future periods or result in restructuring costs, increased effective tax rates and other expenses. Given the global nature of our business, a number of factors may increase our effective tax rates or otherwise subject us to additional tax liability, including:

- decisions to redeploy foreign earnings outside of their country of origin for which we have not previously provided for income taxes;
- increased scrutiny of our transactions by taxing authorities;
- changes in the geographic mix of our profits among jurisdictions with differing statutory income tax rates;
- ability to utilize, or changes in the valuation of, deferred tax assets; and
- changes in tax laws, regulations and interpretations thereof or issuance of new interpretations of laws or regulations applicable to us.

For instance, many foreign jurisdictions are actively considering changes to existing tax laws as a result of the base erosion and profit shifting project undertaken by the Organization for Economic Co-operation and Development (OECD). If these changes are enacted, our tax obligations could increase in countries where we do business or sell our products.

The terms of our credit agreement subject us to risks, including potential acceleration of our outstanding indebtedness if we fail to satisfy financial ratios and comply with numerous covenants.

Our credit agreement contains, and any future debt agreements into which we enter may contain, certain financial ratios and certain restrictive covenants that, among other things, limit our ability to incur indebtedness or liens, acquire other businesses, dispose of assets, or make investments. Our ability to make scheduled payments on these borrowings and to satisfy financial ratios may be adversely affected by changes in economic or business conditions beyond our control, while the restrictive covenants to which we are subject may limit our ability to take advantage of potential business opportunities as they arise.

Failure to satisfy these financial ratios or to comply with the covenants in our credit agreement would constitute a default. An uncured default with respect to one or more of our covenants could result in outstanding borrowings thereunder being declared immediately due and payable, which may also trigger an obligation to repay other outstanding indebtedness. Any such acceleration of our indebtedness would have a material adverse effect on our cash flows, financial position and results of operations.

Our credit agreement historically permitted us to borrow euro-currency loans that bear interest based on the London interbank offered rate (LIBOR), plus a specified spread. As announced in March 2021 by the United Kingdom's Financial Conduct Authority (FCA) and LIBOR's administrator, the publication of the one-week and two-month USD LIBOR maturities and non-USD LIBOR maturities ceased immediately after December 31, 2021, with the remaining USD LIBOR maturities ceasing immediately after June 30, 2023. Certain LIBOR borrowings may now be unavailable. Rogers Corporation and JPMorgan Chase Bank, N.A. entered into an amendment to our credit agreement that provides for a new benchmark interest rate to replace the discontinued LIBOR reference rates as necessary. There is a risk that this new reference rate may be higher than our projected future LIBOR interest rates, thereby causing the cost of our borrowings to increase.

We may be adversely affected by litigation stemming from product liability and other claims.

Our products may contain defects that we do not detect before sale, which may lead to warranty or damage claims against us or product recalls. We are involved in various unresolved legal matters that arise in the ordinary course of our operations or otherwise, including asbestos-related product liability claims related to our operations before the 1990s. For additional information, refer to "Item 3. Legal Proceedings" and "Note 12 – Commitments and Contingencies" to "Item 8. Financial Statements and Supplementary Data." We maintain insurance coverage with respect to certain claims, but the policy coverage limits may not be adequate or cover a particular loss. Costs associated with, among other things, the defense of, or settlements or judgments relating to, claims against us that are not covered by insurance or that result in settlements in excess of insurance coverage may adversely affect our business, results of operations and financial position. Irrespective of insurance coverage, claims against us could divert the attention of our senior management and/or result in reputational damage, thereby adversely affecting our business.

Our projections on the potential exposure and expected insurance coverage relating to our asbestos-related product liability claims are based on a number of assumptions, including the number of new claims to be filed each year, the average cost of disposing of such claims, the length of time it takes to dispose of such claims, coverage issues among insurers and the continuing solvency of various insurance companies, as well as the numerous uncertainties surrounding asbestos litigation in the U.S. To the extent such assumptions are inaccurate, the net liabilities that we have recorded in our financial statements may fail to approximate the losses we could suffer in connection with such claims.

We are subject to many environmental laws and regulations as well as potential environmental liabilities that could adversely affect our business.

We are subject to a variety of federal, state, local and foreign laws, rules and regulations related to the use, storage, handling, discharge or disposal of certain toxic, volatile or otherwise hazardous chemicals, gases and other substances used in manufacturing our products. Some of these laws in the U.S. include the Federal Clean Water Act, Clean Air Act, Resource Conservation and Recovery Act, Comprehensive Environmental Response, Compensation, and Liability Act, Toxic Substances Control Act, and similar state statutes and regulations. In the European Union (EU), we are subject to the EU regulations (and their related national implementing legislation) including the Registration, Evaluation, Authorization and Restriction of Chemicals, the Regulation on the Classification, Labelling and Packaging of Substances and Mixtures and the Industrial Emissions Directive. Compliance with these laws and regulations could require us to incur substantial expenses, including in connection with the acquisition of new equipment. Any failure to comply with present or future environmental laws, rules and regulations could result in criminal and civil liabilities, fines, suspension of production or cessation of certain operations, any of which could have a material adverse effect on our business, results of operations and financial position. For example, governmental authorities in the U.S. and in other jurisdictions are increasingly focused on potential contamination resulting from the use of so-called "forever chemicals," most notably per- and polyfluoroalkyl substances (PFAS). Products containing PFAS have been used in manufacturing, industrial, and consumer applications over many decades, including in some of our engineered materials and components. In 2021, the Biden Administration announced a multi-agency plan to address PFAS contamination and the U.S. Environmental Protection Agency released its PFAS Strategic Roadmap, which identified a comprehensive approach to addressing PFAS. We may incur costs in connection with any obligations to transition away from the usage of PFAS-containing products, to dispose of PFAS-containing waste or to remediate any PFAS contamination, which could have a negative effect on our financial position, results of operations and cash flows.

In addition, some environmental laws impose liability, sometimes without fault, for investigating and/or cleaning up contamination on, or emanating from, properties currently or formerly owned, leased or operated by us, as well as for damages to property or natural resources and for personal injury arising out of such contamination. Such liability may be joint and several, meaning that we could be held responsible for more than our share of the liability involved, or even the entire liability.

For additional information regarding our material legal proceedings, refer to "Note 12 – Commitments and Contingencies" to "Item 8. Financial Statements and Supplementary Data."

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We operate various general offices and manufacturing facilities throughout the U.S., Europe and Asia. The following table provides certain information about the material general offices and manufacturing facilities used by our operating segments:

Location	Floor Space (Square Feet)	Type of Facility	Leased / Owned	Operating Segment
<i>United States</i>				
Chandler, Arizona	147,000	Manufacturing	Owned	AES
Chandler, Arizona	105,100	Manufacturing	Owned	AES
Chandler, Arizona	100,000	Manufacturing	Owned	AES
Chandler, Arizona	75,000	Administrative Offices	Owned	All
Chandler, Arizona	17,000	Warehouse	Leased through 3/2026	AES
Rogers, Connecticut	388,100	Manufacturing / Administrative Offices	Owned	All
Moosup, Connecticut	185,500	Manufacturing	Owned	EMS
Woodstock, Connecticut	150,600	Manufacturing	Owned	EMS
Carol Stream, Illinois	216,600	Manufacturing	Owned	EMS
Bear, Delaware	125,000	Manufacturing / Administrative Offices	Owned	All
Narragansett, Rhode Island	84,600	Manufacturing	Owned	EMS
Burlington, Massachusetts	6,000	R&D Lab / Administrative Offices	Leased through 2/2024	All
<i>Europe</i>				
Eschenbach, Germany	149,000	Manufacturing / Administrative Offices	Owned	AES
Eschenbach, Germany	51,000 13,000	Warehouse / Administrative Offices	Leased through 12/2024	AES
Eschenbach, Germany	24,100	Warehouse / Administrative Offices	Leased through 12/2022 8/2023	AES
Evergem, Belgium	122,000 116,500	Manufacturing / Administrative Offices	Owned	All
Evergem, Belgium	55,700 88,200	Warehouse / Administrative Offices	Leased through 5/2022 6/2027	AES
Ghent, Belgium	45,000 56,700	Warehouse	Leased through 3/2023 2024	All
Budapest, Hungary	47,000 46,800	Manufacturing	Leased through 2/2023 2027	AES
Blackburn, England	58,000	Manufacturing / Warehouse / Administrative Offices	Owned	EMS
Blackburn, England	9,000	Warehouse	Leased through 8/2029	EMS
<i>Asia</i>				
Suzhou, China	821,000	Manufacturing / Administrative Offices	Owned	All
Suzhou, China	77,000	Manufacturing / Administrative Offices	Leased through 12/2031	EMS
Suzhou, China	75,000	Manufacturing / Administrative Offices	Leased through 1/2033	EMS
Siheung, South Korea	17,500	Manufacturing / Administrative Offices	Leased through 2/2025	EMS

Item 3. Legal Proceedings

Asbestos Products Litigation

We, like many other industrial companies, have been named as a defendant in a number of lawsuits filed in courts across the country by persons alleging personal injury from exposure to products containing asbestos. We were a defendant in 543 537 asbestos-related product liability cases as of December 31, 2021 December 31, 2022, compared to 561 543 cases as of December 31, 2020 December 31, 2021, with the change reflecting new cases, dismissals, settlements and other dispositions. We have never mined, milled, manufactured or marketed asbestos; rather, we made and provided to industrial users a limited number of products that contained encapsulated asbestos, but we stopped manufacturing these products in the late 1980s. In virtually all of the cases against us, the plaintiffs are seeking unspecified damages above a jurisdictional minimum against multiple defendants who may have manufactured, sold or used asbestos-containing products to which the plaintiffs were allegedly exposed and from which they purportedly suffered injury. Most of these cases are being litigated in Maryland, Illinois, Missouri and New York; however, we are also defending cases in other states. We intend to vigorously defend these cases, primarily on the basis of the plaintiffs' inability to establish compensable loss as a result of exposure to our products. As of December 31, 2021 December 31, 2022, the estimated liability and estimated insurance recovery for all current and future indemnity and defense costs projected through 2064 was \$68.3 \$65.0 million and \$62.6 \$59.8 million, respectively.

The indemnity and defense costs of our asbestos-related product liability litigation to date have been substantially covered by insurance. As of December 31, 2021 December 31, 2022, our consolidated statements of financial position include a \$5.8 \$5.2 million net accrual of estimated asbestos-related expenses that exceed asbestos-related insurance coverage for all current and future indemnity and defense costs projected through 2064. For additional information regarding our asbestos-related product liability litigation, refer to "Note 12 – Commitments and Contingencies" to "Item 8. Financial Statements and Supplementary Data."

Other Matters

We are currently involved in a variety of other legal proceedings that we view as ordinary, routine litigation incidental to our business, including commercial disputes, intellectual property matters, personal injury claims, tax claims and employment matters. Although the outcome of no legal matter can be predicted with certainty, we do not believe that the outcome of any of these legal proceedings, either individually or in the aggregate, will have a material adverse effect on our business, results of operations, cash flows or financial position. In addition, we are involved in certain environmental matters, which we do not view as material legal proceedings, either pending or known to be contemplated. For additional information regarding certain of these matters, refer to "Note 12 – Commitments and Contingencies" to "Item 8. Financial Statements and Supplementary Data."

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Capital Stock Market Prices and Dividend Policy

Our capital stock is traded on the New York Stock Exchange under the symbol "ROG". As of the end of business on February 17, 2022 February 24, 2023, we had 291 282 shareholders of record.

We currently retain all of our earnings for use in the operation and expansion of our business, to repurchase or redeem capital stock, and in the repayment of our debt. We have never declared or paid any cash dividends on our capital stock and may not pay any cash dividends in the foreseeable future. Whether or not dividends will be paid in the future will depend on, among other things, our results of operations, financial condition, level of indebtedness, cash requirements, covenants in our financings, contractual restrictions and other factors that our board of directors and our shareholders may deem relevant.

Performance Graph

The following graph compares the cumulative total return on Rogers' capital stock over the past five fiscal years with the cumulative total return on the Standard & Poor's Industrials Index (S&P Industrials) and the S&P Small Cap 600 Electronic Equipment, Instruments & Components Index. The graph tracks the performance of a \$100 investment in the Company's common stock and in each of the indexes (with the reinvestment of all dividends) on the date specified.

rog-20221231_g1.jpg

Issuer Purchases of Equity Securities

In 2015, we initiated a share repurchase program (the Program) of up to \$100.0 million of the Company's capital stock. We initiated the Program to mitigate the dilutive effects of stock option exercises and vesting of restricted stock units granted by the Company, in addition to enhancing shareholder value. The Program has no expiration date and may be suspended or discontinued at any time without notice. In 2022, we made \$25.0 million of share repurchases using cash from operations and cash on hand. There were no share repurchases in 2021, 2021 or 2020. As of December 31, 2021 December 31, 2022, \$49.0 \$24.0 million remained available to purchase under the Program. For additional information regarding share repurchases, refer to "Note 8 – Capital Stock and Equity Compensation" to "Item 8. Financial Statements and Supplementary Data."

(Dollars in thousands, except shares and per share amounts)

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet be Purchased under the Plans or Programs
October 1, 2022 to October 31, 2022	—	\$ —	—	\$ 49,014
November 1, 2022 to November 30, 2022	140,501	\$ 103.45	140,501	\$ 34,480
December 1, 2022 to December 31, 2022	97,305	\$ 107.55	97,305	\$ 24,015

We did not repurchase any shares in the months prior to November 2022.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Results of Operations and Financial Position

The following discussion and analysis of our results of operations and financial position should be read together with our consolidated financial statements and accompanying notes, which are contained in "Item 8. Financial Statements and Supplementary Data."

The discussion of the comparison of our 2020 2021 and 2019 2020 results was previously disclosed within the Management's Discussion & Analysis in Part II, Item 7 of the Company's Annual Report on Form 10-K filed with the SEC on February 19, 2021 February 22, 2022, and has been omitted from this section pursuant to Instruction 1 to Item 303(b) of Regulation S-K.

Company Background and Strategy

Rogers Corporation designs, develops, manufactures and sells high-performance and high-reliability engineered materials and components to meet our customers' demanding challenges. We operate two strategic operating segments: Advanced Electronics Solutions (AES) and Elastomeric Material Solutions (EMS). The remaining operations, which represent our non-core businesses, are reported in our Other operating segment. We have a history of innovation and have established Innovation Centers for our research and development (R&D) activities in Chandler, Arizona, Arizona; Burlington, Massachusetts, Massachusetts; Eschenbach, Germany Germany; and Suzhou, China. We are headquartered in Chandler, Arizona.

Our growth and profitability strategy is based upon the following principles: (1) market-driven organization, (2) innovation leadership, (3) synergistic mergers and acquisitions, and (4) operational excellence. Our priorities in executing this strategy are focused on driving near-term improvements to profitability and improving the growth outlook for the Company over the next several years by further strengthening our focus on commercial activities, expanding capacity to meet customer demand and driving innovation.

As a market-driven organization, we are focused on capitalizing on growth drivers, including advanced mobility and advanced connectivity. More specifically, opportunities in addition to the impact of COVID-19 discussed below, the key medium- to long-term trends currently affecting our business include the increasing electrification of vehicles, including electric and hybrid electric vehicles (EV/HEV), and increasing use of advanced driver assistance systems (ADAS) in the automotive industry, the advancement of communication systems in aerospace and defense and the growth of 5G smartphones in the portable electronics industry. In addition to our focus on advanced mobility and

advanced connectivity in the automotive, portable electronics and telecommunications industries, these markets, we sell into a variety of other markets including general industrial, aerospace and defense, mass transit, clean energy, wireless infrastructure and connected devices, mass transit.

Our sales and marketing approach is based on addressing these trends, while our strategy focuses on factors for success as a manufacturer of engineered materials and components: performance, reliability, technical service capabilities, cost, efficiency, innovation and technology. Through this strategy we expect to be able to drive further commercial wins, which provide the potential for higher growth in the future. We have also expanded our capabilities through organic investment and acquisitions and strive to ensure high quality solutions for our customers.

Our operational excellence efforts are focused on driving significant near-term improvement in our profitability. These efforts include focusing on adding strategic new hires and improving processes and tools to achieve better performance. We have also taken specific cost improvement actions in the fourth quarter of 2022 and first quarter of 2023 that will benefit subsequent quarters. These actions include optimizing our manufacturing footprint, divesting non-core product lines and reduction to manufacturing and corporate employees. We continue to review and re-align our manufacturing and engineering footprint in an effort to maintain a leading competitive position globally. We have established or expanded our capabilities in various locations in globally and to support of our customers' growth initiatives.

We seek to enhance our operational and financial performance by investing in research and development, manufacturing and materials efficiencies, and new product initiatives that respond to the needs of our customers. We strive to evaluate operational and strategic alternatives to improve our business structure and align our business with the changing needs of our customers and major industry trends affecting our business.

If we are able to successfully execute on our growth strategy, we see an opportunity to double our annual revenues return to historical levels of profitability and accelerate revenue growth, relative to 2022, over the next five years, several years, led by organic growth and complemented by targeted acquisitions. This robust outlook is supported by our participation in a number of fast-growing markets and by our strong competitive positions in these markets. Advanced mobility markets, which are comprised of The fastest growing market opportunity is expected to be EV/HEV and ADAS, are expected to grow at the fastest rate. Third-party where third-party analysis projects that the EV/HEV market will grow at compound annual growth rate of more than 25% over the next five years and ADAS at a rate of more than 15% over that time period, several years. Within the EV/HEV market, we believe our advanced battery cell pads, ceramic substrates and power interconnects provide multiple content opportunities to capitalize on this growth. In each of these areas we have secured a number of design wins and have a strong pipeline, which provides confidence in our growth outlook. In the ADAS market, we continue to build on our current position with new design wins, including those for next-generation automotive radar systems. Other markets with a strong growth trajectory include ADAS, aerospace and defense, clean energy and portable electronics. These Each of these markets are projected is expected to grow at high single digit rates and we expect that they will contribute to our growth strategy's aim of doubling revenues over the next five years.

To support our revenue growth opportunity during the five-year strategic planning period, we have initiated a manufacturing expansion plan, which includes expanding capacity at existing Rogers' manufacturing facilities, relocating existing manufacturing capabilities to enhance operational efficiency and adding new manufacturing facilities. This expansion plan will require a significant increase in capital spending together with an associated increase in operating expenses, as compared to historic capital spending and operating expenses over the previous five years. During the five-year strategic planning period, we also will have significant capital expenditures associated with implementing our enterprise resource planning system. strategy.

Proposed Terminated Merger with DuPont

On November 1, 2021, we entered into a definitive merger agreement to be acquired by DuPont de Nemours, Inc. (DuPont) in an all-cash transaction at a price of \$277.00 per share of the Company's capital stock. The merger agreement provides provided for the acquisition of Rogers Corporation by DuPont through the merger of Cardinalis Merger Sub, Inc., a wholly owned subsidiary of DuPont, with and into Rogers Corporation, with Rogers Corporation surviving the merger as a wholly owned subsidiary of DuPont. Company shareholders approved the merger agreement at a special shareholder meeting held on January 25, 2022. The merger is agreement provided both Rogers Corporation and DuPont with a right to terminate the merger agreement if the merger had not closed on or before November 1, 2022. Consummation of the merger was subject to receipt of various customary closing conditions, including regulatory approvals and satisfaction of other customary conditions. The merger is expected to close approval by the end State Administration for Market Regulation of China (SAMR). As of November 1, 2022, the parties had not received regulatory approval from SAMR. On November 1, 2022, the Company received from DuPont a notice of termination for the merger agreement. Pursuant to the terms of the second quarter merger agreement, the Company received a regulatory termination fee from DuPont in the amount of 2022, \$162.5 million, before taxes, and incurred a transaction-related fee of \$20.4 million.

Executive Summary

The following key highlights and factors should be considered when reviewing our results of operations, financial position and liquidity:

- In 2021 2022 as compared to 2020, 2021, our net sales increased by 16.2% 4.1% to \$932.9 \$971.2 million, our gross margin increased 100 decreased 430 basis points to 37.4% 33.1% from 36.4% 37.4%, and operating income as a percentage of net sales increased 420 230 basis points to 12.6% 14.9% from 8.4% 12.6%.
- In early February With respect to other operating (income) expense, net, we recognized income of \$144.0 million and expense of \$5.3 million in 2022 and 2021, there was respectively, primarily related to the financial impacts from the regulatory termination fee net of a transaction-related fee, as well as the impacts from the fire at our UTIS manufacturing facility in Ansan, South Korea. This facility manufactures eSorba® polyurethane foams used in portable electronics and display applications. Operations in South Korea will be disrupted into the first half of 2023. We recognized net expense of \$6.2 million in 2021 related to the financial impacts from the fire, which consisted of write-offs of fixed assets and inventory destroyed and/or damaged in the fire, professional services, costs incurred due to obligations under our manufacturing facility lease agreement, lease impairments, compensation and benefits for certain of our UTIS employees and third-party property claims, partially offset by the recognition of certain anticipated insurance recoveries.
- On October 8, 2021, we acquired Silicone Engineering Ltd. (Silicone Engineering), a leading European manufacturer of silicone material solutions based in Blackburn, England, for a combined purchase price of \$172.3 million for the company, net of cash acquired, and its facility. Substantially all of our \$190.0 million in borrowings under our existing credit facility in October 2021 were used to fund the transaction, with the remaining amounts being used for general corporate purposes. We incurred transaction costs of \$3.9 million related to this acquisition.
- Our 2021 net sales and gross margin were tempered by global supply chain disruptions, which we expect to continue into 2022.
- We recognized \$3.1 \$1.5 million and \$12.3 \$3.1 million of restructuring charges in 2021 2022 and 2020, 2021, respectively, related to the manufacturing footprint optimization plans involving certain Europe and Asia manufacturing locations, primarily impacting our AES operating segment.

- In 2021, we recognized \$65.1 million of impairment charges in 2022, primarily related to certain AES operating segment equipment-in-process and certain EMS operating segment intangibles and fixed assets in the U.S.
- We incurred \$6.9 million \$21.7 million of expenses related to the terminated merger with DuPont, mainly associated with retention awards, a discretionary RESIP contribution and professional services expense and retention awards. expenses in 2022.
- We incurred incremental direct borrowed \$100.0 million on the revolver to fund our operations, and made a \$75.0 million repayment at the end of 2022.
- On February 16, 2023, we announced a reduction in force plan of our global workforce that is expected to be completed in the first half of 2023. The plan is expected to significantly reduce our manufacturing costs and operating expenses, and are being done in conjunction with other previously announced cost reduction initiatives. We estimate that we will incur approximately \$10 million to \$13 million in pre-tax restructuring charges related to this plan, all of \$1.9 million which are expected to be in the form of cash-based expenditures and \$4.9 million substantially all of which are expected to be related to employee severance and other termination benefits.
- On February 17, 2023 we entered into an asset purchase agreement to sell our high-performance engineered cellular elastomer business for a net purchase price of \$1.8 million. The business disposition is scheduled to be completed in 2021 and 2020, respectively, due to the COVID-19 pandemic. early March.

Results of Operations

The following table sets forth, for the periods indicated, selected operations data expressed as a percentage of net sales:

	2021			2020		2022			2021		
Net sales	Net sales	100.0	%		100.0	%	Net sales	100.0	%	100.0	%
Gross margin	Gross margin	37.4	%		36.4	%	Gross margin	33.1	%	37.4	%
Selling, general and administrative expenses	Selling, general and administrative expenses	20.6	%		22.7	%	Selling, general and administrative expenses	22.5	%	20.6	%
Research and development expenses	Research and development expenses	3.2	%		3.7	%	Research and development expenses	3.6	%	3.2	%
Restructuring and impairment charges	Restructuring and impairment charges	0.4	%		1.6	%	Restructuring and impairment charges	6.9	%	0.4	%
Other operating (income) expense, net	Other operating (income) expense, net	0.6	%		—	%	Other operating (income) expense, net	(14.8)	%	0.6	%
Operating income	Operating income	12.6	%		8.4	%	Operating income	14.9	%	12.6	%
Equity income in unconsolidated joint ventures	Equity income in unconsolidated joint ventures	0.7	%		0.6	%	Equity income in unconsolidated joint ventures	0.5	%	0.7	%
Pension settlement charges	Pension settlement charges	(0.1)	%		—	%	Pension settlement charges	—	%	(0.1)	%
Other income (expense), net	Other income (expense), net	0.6	%		0.4	%	Other income (expense), net	0.1	%	0.6	%
Interest expense, net	Interest expense, net	(0.3)	%		(0.9)	%	Interest expense, net	(1.0)	%	(0.3)	%
Income before income tax expense	Income before income tax expense	13.5	%		8.5	%	Income before income tax expense	14.5	%	13.5	%
Income tax expense	Income tax expense	1.9	%		2.3	%	Income tax expense	2.5	%	1.9	%
Net income	Net income	11.6	%		6.2	%	Net income	12.0	%	11.6	%

Net Sales and Gross Margin

(Dollars in thousands)	(Dollars in thousands)	2021		2020		(Dollars in thousands)	2022		2021	
Net sales	Net sales	\$	932,886	\$	802,583	Net sales	\$	971,171	\$	932,886
Gross margin	Gross margin	\$	349,139	\$	291,820	Gross margin	\$	321,015	\$	349,139
Percentage of net sales	Percentage of net sales	37.4	%	36.4	%	Percentage of net sales	33.1	%	37.4	%

Net sales increased by 16.2% 4.1% in 2021 2022 compared to 2020 2021. Our AES and EMS operating segments had a net sales increases decrease of 16.5% 0.8% and 15.2% and a net sales increase of 11.1%, respectively. The \$32.0 million of the increase in net sales, or 3.4%, primarily reflects the impact of increased net sales from our Silicone Engineering subsidiary. The increase was primarily further due to higher net sales in the EV/HEV clean energy, aerospace and defense and ADAS mass transit markets in our AES operating segment and higher net sales in the general industrial, mass transit and EV/HEV consumer and automotive markets in our EMS operating segment. The increase was segment, partially offset by lower net sales in the wireless infrastructure, aerospace and defense, ADAS and clean energy markets in our AES operating segment and lower net sales in portable electronics and mass transit markets market in our EMS operating segment. Additionally, our EMS operating segment net sales increased by \$8.3 million, or 1.0%, reflecting the impact from our acquisition of Silicone Engineering. Net sales benefited was unfavorably impacted from favorable foreign currency impacts of \$22.3 \$36.9 million, or 2.8% 4.0%, due to the appreciation depreciation in value of the euro, and Chinese renminbi and British pound relative to the U.S. dollar.

Gross margin as a percentage of net sales increased 100 decreased 430 basis points to 33.1% in 2022 compared to 37.4% in 2021 compared to 36.4% in 2020, 2021. Gross margin in 2021 2022 was favorably impacted by unfavorable factory utilization, unfavorable yield performance, higher freight, duties and tariffs expenses and a higher inventory reserves provision in our AES and EMS operating segments, as well as lower volume in our AES operating segment and unfavorable changes in raw material costs in our EMS operating segment. This was partially offset by the favorable absorption impacts of fixed overhead costs and lower inventory reserve provisions commercial actions taken in our AES and EMS operating segments, as well as favorable productivity improvements changes in raw material costs in our AES operating segment and favorable product mix higher volume in our EMS operating segment. This was partially offset by higher commodity and raw material costs, higher fixed overhead expenses, and higher freight, duty and tariff expenses in our AES and EMS operating segments, as well as unfavorable product mix in our AES operating segment and unfavorable productivity performance due to raw material shortages and unfavorable yield performance in our EMS operating segment. The higher freight, duty and tariff expenses were primarily due to the recognition in the second quarter of 2020 of a \$3.3 million benefit from Chinese duty tax recoveries.

UTIS net sales were significantly impacted by a fire at our manufacturing facility in Ansan, South Korea in February 2021. The impacts to our EMS operating segment net sales and gross margin in the first half of 2021 were partially mitigated by our ability to sell our undamaged finished goods inventory.

In 2021, our net sales were tempered by global supply chain disruptions, primarily related to semiconductor chip and other key component and raw material shortages, as well as regional power outages in China, and their impacts on customer demand, partially offset by the favorable impacts of commercial actions taken earlier in 2021. Further, supply constraints on raw material and labor availability moderated production levels, creating operational inefficiencies, headwinds, which negatively impacted our gross margin. The global supply chain disruptions experienced Further, the recent COVID-19 outbreaks, particularly in the 2021 and their impacts Asia, adversely impacted our customers' ability to continue manufacturing operations, which in turn negatively impacted our net sales and gross margin are expected to continue into in 2022. We plan to mitigate any inflationary impacts through a combination of pricing actions and operating efficiencies.

We incurred incremental direct costs associated with the temporary additional benefits established under our dependent care, premium pay and sick pay programs in response to the COVID-19 pandemic, as well as additional safety supplies. These costs impacted our gross margin by \$1.7 million and \$4.5 million in 2021 and 2020, respectively.

Selling, General and Administrative Expenses

(Dollars in thousands)		2021	2020
Selling, general and administrative expenses	\$	193,153	\$ 182,283
Percentage of net sales		20.6 %	22.7 %

(Dollars in thousands)		2022	2021
Selling, general and administrative expenses	\$	218,828	\$ 193,153
Percentage of net sales		22.5 %	20.6 %

Selling, general and administrative (SG&A) expenses increased 6.0% 13.3% in 2021 2022 from 2020, 2021, primarily due to an \$11.2 million increase in professional services expenses, a \$17.7 million \$5.0 million increase in total compensation and benefits, an \$11.1 million increase in professional services expense, a \$5.3 million \$2.5 million increase in software expenses, a \$1.2 million \$2.4 million increase in recruiting/relocation/travel expenses a \$0.4 million increase in advertising costs and a \$0.3 million \$2.1 million increase in utility expenses. This was partially offset by a \$27.9 million decrease in other intangible assets asset amortization expense.

The decrease in amortization expense in 2021 from 2020 was due to the acceleration of amortization expense related to our DSP customer relationships and trademarks and trade names definite-lived other intangible assets, which were both accelerated to be fully amortized by December 31, 2020 due to an adjustment to their remaining useful lives. We recognized amortization expense for our DSP definite-lived other intangible assets of \$0.3 million and \$29.2 million in 2021 and 2020, respectively. For additional information, refer to "Note 6 – Goodwill and Other Intangible Assets" to "Item 8. Financial Statements and Supplementary Data."

The increase in total compensation and benefits is was primarily due to higher incentive compensation expenses year-over-year, including a \$1.4 million an \$8.6 million impact in 2021 for retention awards issued in connection with the terminated DuPont merger, merger, and a \$6.5 million discretionary RESIP contribution, partially offset by lower incentive compensation expense. The increase in professional services expense is primarily due to \$5.5 million \$6.4 million of expenses incurred related to the terminated merger with DuPont and \$3.0 million \$0.8 million of expenses expense incurred related to our acquisition of Silicone Engineering.

Research and Development Expenses

(Dollars in thousands)		2021	2020	(Dollars in thousands)		2022	2021
Research and development expenses	\$	29,904	\$ 29,320	Research and development expenses	\$	35,207	\$ 29,904
Percentage of net sales		3.2 %	3.7 %	Percentage of net sales		3.6 %	3.2 %

R&D expenses increased 2.0% 17.7% in 2021 2022 from 2020, 2021, primarily due to increases a \$2.3 million increase in laboratory expenses, depreciation and total compensation and benefits, partially offset by decreases a \$2.0 million increase in professional services, laboratory expenses and a \$0.4 million increase in travel expenses.

Restructuring and Impairment Charges and Other Operating (Income) Expense, Net

(Dollars in thousands)		2021	2020	(Dollars in thousands)		2022	2021
Restructuring and impairment charges	\$	3,570	\$ 12,987	Restructuring and impairment charges	\$	66,562	\$ 3,570

Other operating (income) expense, net	Other operating (income) expense, net			Other operating (income) expense, net		
	\$ 5,330	\$ (104)		\$ (144,014)	\$ 5,330	

We recognized \$3.1 \$1.5 million and \$12.3 \$3.1 million of restructuring charges 2022 and 2021, and 2020, respectively, primarily related to the manufacturing footprint optimization plans involving certain Europe and Asia manufacturing locations, primarily impacting our AES operating segment locations.

We recognized \$0.5 \$65.1 million and \$0.6 \$0.5 million of impairment charges in 2022 and 2021, and 2020, respectively, respectively. The impairment charges in 2022 were primarily related to certain AES operating segment equipment-in-process in the U.S. as well as certain EMS operating segment intangibles and fixed assets in Belgium.

With respect to other operating (income) expense, net, we recognized expense of \$5.3 million, primarily related to the financial impacts from a fire at our UTIS manufacturing facility in Ansan, South Korea high-performance engineered cellular elastomer business in the first quarter of 2021, which impacted our EMS operating segment. This impact consisted of write-offs of fixed assets and inventory destroyed and/or damaged in the fire, professional services, costs incurred due to obligations under our manufacturing facility lease agreement, lease impairments, compensation and benefits for certain of our UTIS employees and third-party property claims, partially offset by the recognition of certain anticipated insurance recoveries. There may be other potential costs that cannot be reasonably foreseen or estimated at this time and we continue to evaluate information as it becomes available. U.S.

For additional information, refer to "Note 15 – Supplemental Financial Information" to "Item 8. Financial Statements and Supplementary Data."

With respect to other operating (income) expense, net, we recognized income of \$144.0 million and expense of \$5.3 million in 2022 and 2021, respectively, primarily related to the financial impacts from the regulatory termination fee net of a transaction-related fee, as well as the impacts from the fire at our UTIS manufacturing facility in Ansan, South Korea.

Equity Income in Unconsolidated Joint Ventures

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
Equity income in unconsolidated joint ventures	Equity income in unconsolidated joint ventures	\$ 7,032	\$ 4,877	Equity income in unconsolidated joint ventures	\$ 4,437	\$ 7,032

As of December 31, 2021 December 31, 2022, we had two unconsolidated joint ventures, each 50% owned: Rogers INOAC Corporation (RIC) and Rogers INOAC Suzhou Corporation (RIS). Equity income in those unconsolidated joint ventures increased 44.2% decreased 36.9% in 2022 from 2021 from

2020 due to higher lower net sales driven by strong sales in the portable electronics for RIC and general industrial markets, RIS and improved operational unfavorable productivity performance for RIC, primarily due to higher utilization of production capacity. RIC.

Pension Settlement Charges and Other Income (Expense), Net

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
Pension settlement charges	Pension settlement charges	\$ (534)	\$ (55)	Pension settlement charges	\$ —	\$ (534)
Other income (expense), net	Other income (expense), net	\$ 5,136	\$ 3,513	Other income (expense), net	\$ 1,058	\$ 5,136

In 2021, and 2020, we recorded \$0.5 million and \$0.1 million of pre-tax settlement charges in connection with further settlement efforts related to the termination of the Rogers Corporation Defined Benefit Pension Plan (following its merger with the Hourly Employees Pension Plan of Arlon LLC, Microwave Material and Silicone Technologies Divisions, Bear, Delaware (collectively, the Merged Plan)). For additional information, refer to "Note 11 – Pension Benefits, Other Postretirement Benefits and Employee Savings and Investment Plan" to "Item 8. Financial Statements and Supplementary Data."

Other income (expense), net improved decreased to a net \$1.1 million of income of in 2022 compared to \$5.1 million of income in 2021 compared to a net income of \$3.5 million in 2020 2021. The decrease was due to unfavorable impacts from our copper derivative contracts and unfavorable impacts from our foreign currency transactions, partially offset by favorable impacts from our foreign currency transactions, copper derivative contracts and net periodic benefit credits from our defined benefit plans, partially offset by unfavorable impacts from our foreign currency derivative contracts, derivatives.

Interest Expense, Net

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
Interest expense, net	Interest expense, net	\$ (2,536)	\$ (7,135)	Interest expense, net	\$ (9,547)	\$ (2,536)

Interest expense, net, decreased increased by 64.5% \$7.0 million in 2021 2022 from 2020, 2021, primarily due to a lower weighted-average outstanding balance for our borrowings under our revolving credit facility as well as a \$2.4 million acceleration of interest expense in 2020 as a result of the termination of the interest rate swap. We expect interest expense, net to increase in 2022 due a higher weighted-average outstanding balance for our borrowings under our revolving credit facility.

Income Tax Expense

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
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Income tax expense	Income tax expense	\$	18,147	\$	18,544	Income tax expense	\$	23,751	\$	18,147
Effective tax rate	Effective tax rate		14.4 %		27.1 %	Effective tax rate		16.9 %		14.4 %

Our effective income tax rate for 2021 2022 was 14.4% 16.9% compared to 27.1% 14.4% for 2020 2021. The decrease increase from 2020 2021 was primarily due to the beneficial impact of increased reversals decrease in the current year benefit from the reversal of unrecognized tax positions in China, benefits.

Operating Segment Net Sales and Operating Income

Advanced Electronics Solutions

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
Net sales	Net sales	\$ 534,429	\$ 458,679	Net sales	\$ 530,215	\$ 534,429
Operating income	Operating income	\$ 50,198	\$ 32,023	Operating income	\$ 77,163	\$ 50,198

Our AES operating segment net sales increased decreased by 16.5% 0.8% in 2021 2022 compared to 2020 2021. The increase decrease in net sales was primarily driven by lower net sales in the wireless infrastructure, aerospace and defense, ADAS, and clean energy markets, partially offset by higher net sales in the EV/HEV clean energy, aerospace and defense and ADAS mass transit markets. Net sales were benefited unfavorably impacted from favorable foreign currency fluctuations of \$13.4 million \$25.3 million, or 2.9% 4.7%, due to the appreciation depreciation in value of the euro and Chinese renminbi relative to the U.S. dollar.

Operating income increased by 56.8% 53.7% in 2021 2022 from 2020 2021. The increase in operating income was primarily due to higher volume, favorable absorption of fixed overhead year-over-year changes in shared service operating expense allocations driven by the merger termination fee less costs favorable productivity improvements and a lower inventory reserves provision, in addition incurred related to a \$8.9 million decrease in restructuring charges. This was the terminated DuPont merger, partially offset by higher commodity \$41.5 million in restructuring and impairment charges. Additionally, operating income also increased due to commercial actions taken and favorable changes in raw material costs, partially offset by unfavorable product mix, factory utilization, lower volume, unfavorable yield performance, higher freight, duties and tariffs expenses and a higher fixed overhead expenses. The higher freight, duty and tariff expenses were primarily due to the recognition in the second quarter of 2020 of a \$3.3 million benefit from Chinese duty tax recoveries, inventory reserves provision. As a percentage of net sales, operating income in 2021 2022 was 9.4% 14.6%, an approximately 240 520 basis point increase as compared to 7.0% 9.4% in 2020 2021.

Additionally, we incurred In 2022 and 2021, our AES operating segment recognized impairment charges of \$40.5 million and \$0.5 million, respectively, and recognized restructuring charges and related expenses associated with our manufacturing footprint optimization plans involving certain Europe and Asia manufacturing locations. We recognized \$3.0 of \$1.1 million and \$11.9 \$3.0 million, of restructuring charges and related expenses pertaining to these restructuring projects, in 2021 and 2020, respectively. For additional information related to restructuring and impairment charges, refer to "Note 15 – Supplemental Financial Information" to "Item 8. Financial Statements and Supplementary Data."

In 2021, our AES operating segment net sales were tempered by global supply chain disruptions, primarily related to semiconductor chip and other key component and raw material shortages, as well as regional power outages in China, and their impacts on customer demand, partially offset by the favorable impacts of commercial actions taken earlier in 2021. Further, supply Supply constraints on raw material and labor availability moderated production levels, creating operational inefficiencies, headwinds, which negatively impacted our AES operating segment gross margin. The global supply chain disruptions experienced Further, the recent COVID-19 outbreaks, particularly in 2021 and their impacts Asia, adversely impacted our customers' ability to continue manufacturing operations, which in turn negatively impacted our AES operating segment net sales and gross margin are expected to continue into in 2022.

Our AES operating segment incurred incremental direct costs associated with the temporary additional benefits established under our dependent care, premium pay and sick pay programs in response to the COVID-19 pandemic, as well as additional safety supplies. These costs impacted our AES operating segment operating income by \$1.1 million and \$2.9 million in 2021 and 2020, respectively.

Elastomeric Material Solutions

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
Net sales	Net sales	\$ 378,017	\$ 328,177	Net sales	\$ 420,006	\$ 378,017
Operating income	Operating income	\$ 60,051	\$ 30,817	Operating income	\$ 60,351	\$ 60,051

Our EMS operating segment net sales increased by 15.2% 11.1% in 2021 2022 compared to 2020 2021. The increase in net sales was primarily driven by \$32.0 million in net sales, or 8.5%, reflecting the impact of increased net sales from our Silicone Engineering subsidiary, as well as higher net sales in the general industrial and EV/HEV, consumer and automotive markets, partially offset by lower net sales in the portable electronics and mass transit markets. Additionally, EMS net sales increased by \$8.3 million in net sales, or 2.5%, reflecting the impact from our acquisition of Silicone Engineering, market. Net sales benefited from favorable were unfavorably impacted by foreign currency fluctuations of \$8.4 million \$11.2 million, or 3.0%, due to the depreciation in value of the British pound, euro and Chinese renminbi relative to the U.S. dollar.

Operating income increased by 0.5% in 2022 from 2021. The increase in operating income was primarily due to favorable year-over-year changes in shared service operating expense allocations driven by the merger termination fee less costs incurred related to the terminated DuPont merger, and an \$8.6 million favorable change in charges/benefits related to the UTIS fire, partially offset by \$25.0 million in restructuring and impairment charges. Additionally, operating income also increased due to the favorable impacts of commercial actions taken and higher volume, partially offset by unfavorable factory utilization, unfavorable changes in raw material costs, unfavorable yield performance, higher freight, duties and tariffs expenses and a higher inventory reserves provision. As a percentage of net sales, operating income in 2022 was 14.4%, an approximately 150 basis point decrease as compared to 15.9% in 2021.

In 2022 and 2021, our EMS operating segment recognized impairment charges of \$24.6 million and no charges, respectively, and recognized restructuring charges and related expenses of \$0.4 million and \$0.1 million, respectively. For additional information related to restructuring and impairment charges, refer to "Note 15 – Supplemental Financial

Information" to "Item 8. Financial Statements and Supplementary Data."

Supply constraints on raw material and labor availability moderated production levels, creating operational headwinds, which negatively impacted our gross margin. Further, the recent COVID-19 outbreaks, particularly in Asia, adversely impacted our customers' ability to continue manufacturing operations, which in turn negatively impacted our net sales in 2022.

Other

(Dollars in thousands)		2022		2021	
Net sales		\$	20,950	\$	20,440
Operating income		\$	6,918	\$	6,933

Net sales in our Other operating segment increased by 2.5% in 2022 from 2021. Our Other operating segment operating income decreased by 0.2% in 2022 from 2021. Net sales were unfavorably impacted by foreign currency fluctuations of \$0.5 million, or 2.5%, due to the appreciation/depreciation in value of the Chinese renminbi and euro relative to the U.S. dollar.

Operating income increased by 94.9% in 2021 from 2020. The increase was primarily due to a \$27.6 million decrease in other intangible assets amortization expense. The increase in operating income was also due to higher volume, favorable absorption of fixed overhead costs, favorable product mix and a lower inventory reserves provision. This was volume, partially offset by unfavorable yield performance, higher freight, duties and tariffs expenses, higher fixed overhead expenses, as well as higher raw material costs and unfavorable productivity performance due to raw material shortages. performance. As a percentage of net sales, operating income in 2021/2022 was 15.9%/33.0%, an approximately 650/90 basis point increase/decrease as compared to 9.4%/33.9% in 2020.

The decrease in other intangible assets amortization expense in 2021 from 2020 was due to the acceleration of amortization expense related to our DSP customer relationships and trademarks and trade names definite-lived other intangible assets, which were both accelerated to be fully amortized by December 31, 2020 due to an adjustment to their remaining useful lives. We recognized amortization expense for our DSP definite-lived other intangible assets of \$0.3 million and \$29.2 million in 2021 and 2020, respectively. For additional information, refer to "Note 6 – Goodwill and Other Intangible Assets" to "Item 8. Financial Statements and Supplementary Data."

Additionally, we recognized expense of \$6.2 million related to the financial impacts from a fire at our UTIS manufacturing facility in Ansan, South Korea in 2021. This impact consisted of write-offs of fixed assets and inventory destroyed and/or damaged in the fire, professional services, costs incurred due to obligations under our manufacturing facility lease agreement, compensation and benefits for certain of our UTIS employees, partially offset by the recognition of certain anticipated insurance recoveries. There may be other potential costs that cannot be reasonably foreseen or estimated at this time and we continue to evaluate information as it becomes available. For additional information, refer to "Note 15 – Supplemental Financial Information" to "Item 8. Financial Statements and Supplementary Data."

UTIS net sales were significantly impacted by a fire at our manufacturing facility in Ansan, South Korea in February 2021. The impacts to our EMS operating segment net sales and gross margin in the first half of 2021 were partially mitigated by our ability to sell our undamaged finished goods inventory.

In 2021, our EMS operating segment net sales were tempered by global supply chain disruptions, primarily related to semiconductor chip and other key component and raw material shortages, as well as regional power outages in China, and their impacts on customer demand, partially offset by the favorable impacts of commercial actions taken earlier in 2021. Further, supply constraints on raw material and labor availability moderated production levels, creating operational inefficiencies, which negatively impacted our gross margin. The global supply chain disruptions experienced in the 2021 and their impacts to our net sales and gross margin are expected to continue into 2022.

Our EMS operating segment incurred incremental direct costs associated with the temporary additional benefits established under our dependent care, premium pay and sick pay programs in response to the COVID-19 pandemic, as well as additional safety supplies. These costs impacted our EMS operating segment operating income by \$0.8 million and \$1.9 million in 2021 and 2020, respectively.

Other

(Dollars in thousands)		2021		2020	
Net sales		\$	20,440	\$	15,727
Operating income		\$	6,933	\$	4,494

Net sales in our Other operating segment increased by 30.0% in 2021 from 2020. The increase in net sales was primarily due to higher demand in the automotive market. Net sales were favorably impacted by foreign currency fluctuations of \$0.6 million, or 3.7%, due to the appreciation in value of the Chinese renminbi relative to the U.S. dollar.

Our Other operating segment operating income increased by 54.3% in 2021 from 2020. The increase in operating income was primarily driven by higher volume and favorable absorption of fixed overhead costs, partially offset by higher fixed overhead expenses and higher freight expenses. As a percentage of net sales, operating income in 2021 was 33.9%, an approximately 530 basis point increase as compared to 28.6% in 2020.

Liquidity, Capital Resources and Financial Position

We believe that our existing sources of liquidity and cash flows that are expected to be generated from our operations, together with our available credit facilities, will be sufficient to fund our operations, currently planned capital expenditures, R&D efforts and our debt service commitments, for at least the next 12 months. Our merger agreement with DuPont does not restrict these currently planned capital expenditures. We regularly review and evaluate the adequacy of our cash flows, borrowing facilities and banking relationships, seeking to ensure that we have the appropriate access to cash to fund both our near-term operating needs and our long-term strategic initiatives. The following table illustrates the location of our cash and cash equivalents by our three major geographic areas:

(Dollars in thousands)	As of December 31,				As of December 31,			
	(Dollars in thousands)	2021	2020		(Dollars in thousands)	2022	2021	
United States	United States	\$ 76,621	\$ 21,657		United States	\$ 119,931	\$ 76,621	
Europe	Europe	\$ 56,034	\$ 55,449		Europe	\$ 69,877	\$ 56,034	

Asia	Asia	99,641	114,679	Asia	46,042	99,641
Total cash and cash equivalents	Total cash and cash equivalents	\$ 232,296	\$ 191,785	Total cash and cash equivalents	\$ 235,850	\$ 232,296

Approximately \$155.7 \$115.9 million of our cash and cash equivalents were held by non-U.S. subsidiaries as of December 31, 2021 December 31, 2022. We did not make any changes in 2021 2022 to our position on the permanent reinvestment of our historical earnings from foreign operations. With the exception of certain of our Chinese subsidiaries, where a substantial portion of our Asia cash and cash equivalents are held, we continue to assert that historical foreign earnings are indefinitely reinvested.

Net working capital was \$420.1 \$517.3 million and \$362.7 \$420.1 million as of December 31, 2021 December 31, 2022 and 2020 2021, respectively.

(Dollars in thousands)	(Dollars in thousands)	As of December 31,		(Dollars in thousands)	As of December 31,	
Key Financial	Key Financial			Key Financial		
Position Accounts:	Position Accounts:	2021	2020	Position Accounts:	2022	2021
Cash and cash equivalents	Cash and cash equivalents	\$ 232,296	\$ 191,785	Cash and cash equivalents	\$ 235,850	\$ 232,296
Accounts receivable, net	Accounts receivable, net	163,092	134,421	Accounts receivable, net	177,413	163,092
Inventories	Inventories	133,384	102,360	Inventories	182,402	133,384
Borrowings under revolving credit facility	Borrowings under revolving credit facility	190,000	25,000	Borrowings under revolving credit facility	215,000	190,000

Significant changes in our statement of financial position accounts from December 31, 2020 December 31, 2021 to December 31, 2021 December 31, 2022 were as follows:

- Accounts receivable, net increased 21.3% 8.8% to \$177.4 million as of December 31, 2022, from \$163.1 million as of December 31, 2021, from \$134.4 million as of December 31, 2020. The increase was primarily due to higher a \$13.3 million increase in our income taxes receivable, as well as an increase in days sales outstanding, partially offset by the receipt or settlement of \$6.3 million in recognized UTIS fire insurance receivables and lower net sales at the end of 2021 2022 compared to the end of 2020, as well as \$5.7 million related to our acquisition of Silicone Engineering and the recognition of \$5.4 million in UTIS fire insurance receivables for anticipated recoveries related to property damage claims, 2021.
- Inventories increased 30.3% 36.7% to \$182.4 million as of December 31, 2022, from \$133.4 million as of December 31, 2021, from \$102.4 million as of December 31, 2020, primarily driven by raw material cost increases as well as the ramp up of raw material purchases and production efforts to meet anticipated demand, as well as a decrease in inventory reserves and the \$2.5 million related to our acquisition of Silicone Engineering, demand.
- Borrowings under revolving credit facility increased to \$215.0 million as of December 31, 2022, from \$190.0 million as of December 31, 2021, from \$25.0 million as of December 31, 2020. The increase reflects \$190.0 \$100.0 million in borrowings under our revolving credit facility in October 2021, substantially all of which was used to fund our acquisition of Silicone Engineering Ltd., with the remaining amount used

for general corporate purposes, throughout 2022. This was partially offset by \$25.0 a \$75.0 million of discretionary principal payments on our revolving credit facility during payment at the first part end of 2021, 2022. For additional

information regarding this facility, as well as the Fourth Amended Credit Agreement, refer to "Note 9 – Debt" to "Item 8. Financial Statements and Supplementary Data."

(Dollars in thousands)	(Dollars in thousands)	Year Ended December 31,		(Dollars in thousands)	Year Ended December 31,	
Key Cash Flow	Key Cash Flow			Key Cash Flow		
Measures:	Measures:	2021	2020	Measures:	2022	2021
Net cash provided by operating activities	Net cash provided by operating activities	\$ 124,363	\$ 165,056	Net cash provided by operating activities	\$ 129,461	\$ 124,363
Net cash used in investing activities	Net cash used in investing activities	(238,615)	(40,385)	Net cash used in investing activities	(113,117)	(238,615)
Net cash (used in) provided by financing activities	Net cash (used in) provided by financing activities	159,057	(104,189)	Net cash (used in) provided by financing activities	(10,104)	159,057

In 2022, cash and cash equivalents increased \$3.6 million, primarily due to \$100.0 million in borrowings under our revolving credit facility and cash flows generated by operations, partially offset by \$116.8 million in capital expenditures, a \$75.0 million of principal payment made on our outstanding borrowings under our revolving credit facility, \$25.0 million in share repurchases, as well as \$10.8 million in tax payments related to net share settlement of equity awards.

In 2021, cash and cash equivalents increased \$40.5 million, primarily due to \$190.0 million in borrowings under our revolving credit facility and cash flows generated by operations, partially offset by \$71.1 million in capital expenditures, a \$25.0 million of principal payments payment made on our outstanding borrowings on under our revolving credit facility, as well as \$2.9 million in tax payments related to net share settlement of equity awards.

In 2020, cash and cash equivalents increased \$24.9 million, primarily due to \$150.0 million in borrowings under our revolving credit facility and cash flows generated by operations, partially offset by \$248.0 million of principal payments made on our outstanding borrowings on our revolving credit facility, \$40.4 million in capital expenditures, as well as \$5.4 million in tax payments related to net share settlement of equity awards.

In 2022, 2023, we expect capital spending to be in the range of approximately \$155.0 million \$65.0 million to \$165.0 million \$75.0 million, of which we are contractually committed to \$39.9 million \$16.7 million as of December 31, 2021 December 31, 2022. We plan to fund our capital spending in 2022 2023 with cash from operations and cash on-hand, as well as our existing revolving credit facility, if necessary.

There Excluding \$3.9 million of inventory purchase commitments, there are no contractual obligations requiring material cash requirements in 2022 and beyond, excluding those already noted, including those related to our outstanding borrowings under our revolving credit facility, our operating and finance lease obligations and our pension benefit and other postretirement benefit obligations, which are discussed in Note 9 – Debt, Note 10 – Leases and Note 11 – Pension Benefits, Other Postretirement Benefits and Employee Savings and Investment Plan, to Item 8. Financial Statements and Supplementary Data, respectively.

We do not have any off-balance sheet arrangements that have, or are, in the opinion of management, reasonably likely to have a current or future material effect on our results of operations or financial position.

Restriction on Payment of Dividends

The Fourth Amended Credit Agreement generally permits us to pay cash dividends to our shareholders, provided that (i) no default or event of default has occurred and is continuing or would result from the dividend payment and (ii) our total net leverage ratio does not exceed 2.75 to 1.00. If our total net leverage ratio exceeds 2.75 to 1.00, we may nonetheless make up to \$20.0 million in restricted payments, including cash dividends, during the fiscal year, provided that no default or event of default has occurred and is continuing or would result from the payments. Our total net leverage ratio did not exceed 2.75 to 1.00 as of December 31, 2021 December 31, 2022. For additional information regarding the Fourth Amended Credit Agreement, refer to “Note 9 – Debt” to “Item 8. Financial Statements and Supplementary Data.”

Under the terms of the merger agreement with DuPont, we are restricted from paying any dividends or other distributions to our shareholders, or making any material modifications to our dividend policy, without the prior approval of DuPont.

Critical Accounting Estimates

Our consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles, which require management to make estimates, judgments and assumptions that affect the amounts reported in the financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances and believe that appropriate reserves have been established using on reasonable methodologies and appropriate assumptions based on facts and circumstances that are known; however, actual results may differ from these estimates under different assumptions or conditions. Certain accounting policies may require a choice between acceptable accounting methods or may require substantial judgment or estimation in their application. A summary of our critical accounting estimates is presented below:

Product Liabilities

We endeavor to maintain insurance coverage with reasonable deductible levels to protect us from potential exposures to product liability claims. Any liability associated with such claims is based on management's best estimate of the potential claim value, while insurance receivables associated with related claims are not recorded until verified by the insurance carrier.

For asbestos-related claims, we recognize projected asbestos liabilities and related insurance receivables, with any difference between the liability and related insurance receivable recognized as an expense in the consolidated statements of operations.

Our estimates of asbestos-related contingent liabilities and related insurance receivables are based on a claim projection analysis and an insurance usage analysis prepared annually by third parties. The claim projection analysis contains numerous assumptions, including number of claims that might be received, the type and severity of the disease alleged by each claimant,

the long latency period associated with asbestos exposure, dismissal rates, average indemnity costs, average defense costs, costs of medical treatment, the financial resources of other companies that are co-defendants in claims, uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, and the impact of potential changes in legislative or judicial standards, including potential tort reform. Furthermore, any predictions with respect to these assumptions are subject to even greater uncertainty as the projection period lengthens. The insurance usage analysis considers, among other things, applicable deductibles, retentions and policy limits, the solvency and historical payment experience of various insurance carriers, the likelihood of recovery as estimated by external legal counsel and existing insurance settlements.

The liability projection period covers all current and future indemnity and defense costs through 2064, which represents the expected end of our asbestos liability exposure with no further ongoing claims expected beyond that date. This conclusion was based on our history and experience with the claims data, the diminished volatility and consistency of observable claims data, the period of time that has elapsed since we stopped manufacturing products that contained encapsulated asbestos and an expected downward trend in claims due to the average age of our claimants, which is approaching the average life expectancy.

Our accrued asbestos liabilities may not approximate our actual asbestos-related indemnity and defense costs, and our accrued insurance recoveries may not be realized. We believe it is reasonably possible that we may incur additional charges for our asbestos liabilities and defense costs in the future that could exceed existing reserves and insurance recoveries. We plan to continue to vigorously defend ourselves and believe we have substantial unutilized insurance coverage to mitigate future costs related to this matter.

We review our asbestos-related projections annually in the fourth quarter of each year unless facts and circumstances materially change during the year, at which time we would analyze these projections. We believe the assumptions made on the potential exposure and expected insurance coverage are reasonable at the present time, but are subject to uncertainty based on the actual future outcome of our asbestos litigation.

As of December 31, 2021 December 31, 2022, the estimated liabilities and estimated insurance recoveries for all current and future indemnity and defense costs projected through 2064 were \$68.3 \$65.0 million and \$62.6 \$59.8 million, respectively.

Business Combination Purchase Price Allocation

The application of the acquisition method requires the allocation of the purchase price amongst the acquisition date fair values of identifiable assets acquired and liabilities assumed in a business combination. Fair values are determined using the income approach, market approach and/or cost approach depending on the nature of the asset or liability being valued and the reliability of available information. The income approach estimates fair value by discounting associated lifetime expected future cash flows to their present value and relies on significant assumptions regarding future revenues, expenses, working capital levels and discount rates. The market approach estimates fair value by analyzing recent actual market transactions for similar assets or liabilities. The cost approach estimates fair value based on the expected cost to replace or reproduce the asset or liability and relies on assumptions regarding the occurrence and extent of any physical, functional and/or economic obsolescence.

Customer relationships were valued using the multi-period excess earnings method (MPEEM) of the income approach. Significant assumptions used in the valuation include projected revenues and gross margins, customer attrition rate and an appropriate discount rate. No residual value was assigned to the acquired customer relationships. The customer relationships are amortized on an economic useful life basis commensurate with future anticipated cash flows. The total weighted average amortization period for the Silicone Engineering customer relationship definite-lived intangible asset is 9.5 years.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Market Risk

Foreign Currency Risk

Our financial results are affected by changes in foreign exchange rates and economic conditions in foreign countries in which we operate. Our primary overseas markets are in Europe and Asia, thus exposing us to exchange rate risk from fluctuations in the euro, the Chinese renminbi, British pound, Korean won and certain other currencies. We seek to mitigate exposure to variability in currency exchange rates, when possible, through the use of natural hedges, whereby purchases and sales in the same foreign currency and with similar maturity dates offset one another. We further seek to mitigate this exposure through hedging activities by entering into foreign exchange forward contracts with third parties when the use of natural hedges is not possible or desirable. We currently do not use derivative instruments for trading or speculative purposes. We monitor foreign exchange risks and at times manage such risks on specific transactions. Our risk management process primarily uses analytical techniques and sensitivity analysis. In 2021, 2022, a 10% strengthening of the U.S. dollar relative to other currencies would have resulted in a decrease to net sales and net income of approximately \$39 million \$38 million and \$6 million \$2 million, respectively, while a 10% weakening of the U.S. dollar relative to other currencies would have resulted in an increase to net sales and net income of approximately \$48 million \$46 million and \$7 million \$3 million, respectively.

Interest Rate Risk

As of December 31, 2021 December 31, 2022, we had \$190.0 \$215.0 million in borrowings outstanding under our revolving credit facility. The interest charged on these borrowings fluctuates with movements in the benchmark LIBOR. As of December 31, 2021 December 31, 2022, the interest rate on our revolving credit facility was 1.72% 4.87%, and a 100 basis point increase in LIBOR would have increased the amount of interest expense by approximately \$0.4 \$2.2 million for the year ended December 31, 2021 December 31, 2022.

Commodity Risk

We are subject to fluctuations in the cost of raw materials used to manufacture our materials and products. In particular, we are exposed to market fluctuations in commodity pricing as we utilize certain materials, such as copper and ceramic, which are key materials in certain of our products. In order to minimize the risk of market driven price changes in these commodities, we utilize hedging strategies to insulate us against price fluctuations of copper, the most frequently used commodity in our manufacturing processes. We currently do not use hedging strategies to minimize the risk of price fluctuations on other commodity-based raw materials; however, we regularly review such strategies to hedge market risk on an ongoing basis.

For additional discussion, refer to "Note 2 – Fair Value Measurements" and "Note 3 – Hedging Transactions and Derivative Financial Instruments" to "Item 8. Financial Statements and Supplementary Data."

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM (PCAOB ID 238)

To the Board of Directors and Shareholders of Rogers Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Rogers Corporation and its subsidiaries (the "Company" "Company") as of December 31, 2021 December 31, 2022 and 2020, 2021, and the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2021 December 31, 2022, including the related notes and schedule of valuation and qualifying accounts for each of the three years in the period ended December 31, 2021 December 31, 2022 appearing under Item 8 (collectively referred to as the "consolidated" "consolidated financial statements" "statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2021 December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2021 December 31, 2022 and 2020, 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021 December 31, 2022 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021 December 31, 2022, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements 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. 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Silicone Engineering Ltd. from its assessment of internal control over financial reporting as of December 31, 2021, because it was acquired by the Company in a purchase business combination during 2021. We have also excluded Silicone Engineering Ltd. from our audit of internal control over financial reporting. Silicone Engineering Ltd. is a wholly-owned subsidiary whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting represent 2.0% and 0.9%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2021.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) 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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters 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 matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Asbestos-Related Liabilities and Insurance Receivables

As described in Notes 1 and 12 to the consolidated financial statements, the Company's consolidated asbestos-related liabilities and asbestos-related insurance receivables balances were \$68.3 \$65.0 million and \$62.6 \$59.8 million, respectively, as of December 31, 2021 December 31, 2022. Management reviews the asbestos-related projections annually in the fourth quarter of each year unless facts and circumstances materially change during the year, at which time management would analyze these projections. Management recognizes a liability for asbestos-related contingencies that are probable of occurrence and reasonably estimable. In connection with the recognition of liabilities for asbestos-related matters, management records asbestos-related asbestos related insurance receivables that are deemed probable. Management's Management's estimates of asbestos-related contingent liabilities and related insurance receivables are based on a claim projection analysis and an insurance usage analysis, respectively, prepared annually by third parties. The claim projection analysis contains numerous assumptions, including the number of claims that might be received, the type and severity of the disease alleged by each claimant, the long latency period associated with asbestos exposure, dismissal rates, average indemnity costs, average defense costs, costs of medical treatment, the financial resources of other companies that are co-defendants in claims, uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, and the impact of potential changes in legislative or judicial standards, including potential tort reform. The insurance usage analysis considers, among other things, applicable deductibles, retentions and policy limits, the solvency and historical payment experience of various insurance carriers, the likelihood of recovery as estimated by external legal counsel and existing insurance settlements.

The principal considerations for our determination that performing procedures relating to asbestos-related asbestos related liabilities and insurance receivables is a critical audit matter are (i) the significant judgment by management when determining the asbestos-related liabilities and insurance receivables; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's management's significant assumptions related to the number of claims that might be received, type and severity of the disease alleged by each claimant, average indemnity costs, average defense costs, and dismissal rates used in the claim projection analysis; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the analyses of the asbestos-related liabilities and insurance receivables. These procedures also included, among others (i) testing management's management's process for determining the asbestos-related liabilities and insurance receivables estimates; (ii) evaluating the

appropriateness of the claim projection and insurance usage analyses; (iii) testing the completeness and accuracy of the underlying data used in the analyses; and (iv) evaluating the reasonableness of significant assumptions used by management related to the number of claims that might be received, type and severity of the disease alleged by each claimant, average indemnity costs, average defense costs, and dismissal rates. Professionals with specialized skill and knowledge were used to assist in evaluating management's analyses and significant assumptions related to the number of claims that might be received, type and severity of the disease alleged by each claimant, average indemnity costs, average defense costs, and dismissal rates.

Acquisition of Silicone Engineering Ltd. - Valuation of Customer Relationships Intangible Asset

As described in Notes 1 and 17 to the consolidated financial statements, on October 8, 2021, the Company acquired Silicone Engineering Ltd. for a combined purchase price of \$172.3 million, net of cash acquired, and its facility. This acquisition resulted in the recognition of \$73.6 million of other intangible assets, including a customer relationships intangible asset of \$48.9 million. As disclosed by management, the customer relationships intangible asset was valued using the multi-period excess earnings method of the income approach. Significant assumptions used in the valuation include projected revenues and gross margins, customer attrition rate, and an appropriate discount rate.

The principal considerations for our determination that performing procedures relating to the valuation of the customer relationships intangible asset from the acquisition of Silicone Engineering Ltd. is a critical audit matter are (i) the significant judgment by management when determining the fair value of the customer relationships intangible asset; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions related to projected revenues, customer attrition rate, and discount rate; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the acquisition accounting, including controls over management's valuation of the customer relationships intangible asset. These procedures also included, among others (i) reading the purchase agreement; (ii) testing management's process for determining the fair value of the customer relationships intangible asset; (iii) evaluating the appropriateness of the multi-period excess earnings method; (iv) testing the completeness and accuracy of the underlying data used in the multi-period excess earnings method; and (v) evaluating the reasonableness of the significant assumptions used by management related to projected revenues, customer attrition rate, and discount rate. Evaluating management's significant assumptions related to projected revenues and customer attrition rate involved evaluating whether the significant assumptions used by management were reasonable considering (i) the current and past performance of Silicone Engineering Ltd.; (ii) the consistency with external market and industry data; and (iii) whether these significant assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in evaluating (i) the appropriateness of the multi-period excess earnings method and (ii) the reasonableness of the discount rate significant assumption.

/s/ PricewaterhouseCoopers LLP

Phoenix, Arizona

February 22, 2022 March 1, 2023

We have served as the Company's auditor since 2015.

ROGERS CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

For each of the fiscal years in the three-year period ended December 31, 2021 December 31, 2022

(Dollars and shares in thousands, except per share amounts)	(Dollars and shares in thousands, except per share amounts)	2021	2020	2019	(Dollars and shares in thousands, except per share amounts)	2022	2021	2020
Net sales	Net sales	\$ 932,886	\$ 802,583	\$ 898,260	Net sales	\$ 971,171	\$ 932,886	\$ 802,583
Cost of sales	Cost of sales	583,747	510,763	583,968	Cost of sales	650,156	583,747	510,763
Gross margin	Gross margin	349,139	291,820	314,292	Gross margin	321,015	349,139	291,820
Selling, general and administrative expenses	Selling, general and administrative expenses	193,153	182,283	168,682	Selling, general and administrative expenses	218,828	193,153	182,283
Research and development expenses	Research and development expenses	29,904	29,320	31,685	Research and development expenses	35,207	29,904	29,320
Restructuring and impairment charges	Restructuring and impairment charges	3,570	12,987	2,485	Restructuring and impairment charges	66,562	3,570	12,987
Other operating (income) expense, net	Other operating (income) expense, net	5,330	(104)	959	Other operating (income) expense, net	(144,014)	5,330	(104)
Operating income	Operating income	117,182	67,334	110,481	Operating income	144,432	117,182	67,334

Equity income in unconsolidated joint ventures	Equity income in unconsolidated joint ventures	7,032	4,877	5,319	Equity income in unconsolidated joint ventures	4,437	7,032	4,877
Pension settlement charges	Pension settlement charges	(534)	(55)	(53,213)	Pension settlement charges	—	(534)	(55)
Other income (expense), net	Other income (expense), net	5,136	3,513	(592)	Other income (expense), net	1,058	5,136	3,513
Interest expense, net	Interest expense, net	(2,536)	(7,135)	(6,869)	Interest expense, net	(9,547)	(2,536)	(7,135)
Income before income tax expense	Income before income tax expense	126,280	68,534	55,126	Income before income tax expense	140,380	126,280	68,534
Income tax expense	Income tax expense	18,147	18,544	7,807	Income tax expense	23,751	18,147	18,544
Net income	Net income	\$ 108,133	\$ 49,990	\$ 47,319	Net income	\$ 116,629	\$ 108,133	\$ 49,990
Basic earnings per share	Basic earnings per share	\$ 5.77	\$ 2.68	\$ 2.55	Basic earnings per share	\$ 6.21	\$ 5.77	\$ 2.68
Diluted earnings per share	Diluted earnings per share	\$ 5.73	\$ 2.67	\$ 2.53	Diluted earnings per share	\$ 6.15	\$ 5.73	\$ 2.67
Shares used in computing:	Shares used in computing:				Shares used in computing:			
Basic earnings per share	Basic earnings per share	18,731	18,681	18,573	Basic earnings per share	18,784	18,731	18,681
Diluted earnings per share	Diluted earnings per share	18,863	18,706	18,713	Diluted earnings per share	18,953	18,863	18,706

The accompanying notes are an integral part of the consolidated financial statements.

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ROGERS CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For each of the fiscal years in the three-year period ended **December 31, 2021** December 31, 2022

(Dollars in thousands)	(Dollars in thousands)	2021	2020	2019	(Dollars in thousands)	2022	2021	2020
Net income	Net income	\$ 108,133	\$ 49,990	\$ 47,319	Net income	\$ 116,629	\$ 108,133	\$ 49,990
Foreign currency translation adjustment	Foreign currency translation adjustment	(25,070)	24,907	(4,990)	Foreign currency translation adjustment	(39,934)	(25,070)	24,907
Pension and other postretirement benefits:	Pension and other postretirement benefits:				Pension and other postretirement benefits:			
Pension settlement (benefits) charges, net of tax (Note 4)	Pension settlement (benefits) charges, net of tax (Note 4)	—	(48)	43,934	Pension settlement (benefits) charges, net of tax (Note 4)	—	—	(48)
Actuarial net gain (loss) incurred, net of tax (Note 4)	Actuarial net gain (loss) incurred, net of tax (Note 4)	(823)	1,255	(6,079)	Actuarial net gain (loss) incurred, net of tax (Note 4)	(244)	(823)	1,255
Amortization of loss, net of tax (Note 4)	Amortization of loss, net of tax (Note 4)	225	244	390	Amortization of loss, net of tax (Note 4)	157	225	244

Derivative instrument designated as cash flow hedge:	Derivative instrument designated as cash flow hedge:				Derivative instrument designated as cash flow hedge:			
Change in unrealized loss before reclassifications, net of tax (Note 4)	Change in unrealized loss before reclassifications, net of tax (Note 4)	—	(1,504)	(1,171)	Change in unrealized loss before reclassifications, net of tax (Note 4)	—	—	(1,504)
Unrealized loss (gain) reclassified into earnings, net of tax (Note 4)	Unrealized loss (gain) reclassified into earnings, net of tax (Note 4)	—	2,476	(155)	Unrealized loss (gain) reclassified into earnings, net of tax (Note 4)	—	—	2,476
Other comprehensive income (loss)	Other comprehensive income (loss)	(25,668)	27,330	31,929	Other comprehensive income (loss)	(40,021)	(25,668)	27,330
Comprehensive income	Comprehensive income	\$ 82,465	\$ 77,320	\$ 79,248	Comprehensive income	\$ 76,608	\$ 82,465	\$ 77,320

The accompanying notes are an integral part of the consolidated financial statements.

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ROGERS CORPORATION CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

		As of December 31,			As of December 31,	
(Dollars and share amounts in thousands, except par value of capital stock)	(Dollars and share amounts in thousands, except par value of capital stock)	2021	2020	(Dollars and share amounts in thousands, except par value of capital stock)	2022	2021
Assets	Assets			Assets		
Current assets	Current assets			Current assets		
Cash and cash equivalents	Cash and cash equivalents	\$ 232,296	\$ 191,785	Cash and cash equivalents	\$ 235,850	\$ 232,296
Accounts receivable, less allowance for credit losses of \$1,223 and \$1,682		163,092	134,421			
Accounts receivable, less allowance for credit losses of \$1,007 and \$1,223				Accounts receivable, less allowance for credit losses of \$1,007 and \$1,223	177,413	163,092
Contract assets	Contract assets	36,610	26,575	Contract assets	38,853	36,610
Inventories	Inventories	133,384	102,360	Inventories	182,402	133,384
Prepaid income taxes	Prepaid income taxes	1,921	2,960	Prepaid income taxes	4,042	1,921
Asbestos-related insurance receivables, current portion	Asbestos-related insurance receivables, current portion	3,176	2,986	Asbestos-related insurance receivables, current portion	3,881	3,176
Other current assets	Other current assets	13,586	13,088	Other current assets	17,426	13,586
Total current assets	Total current assets	584,065	474,175	Total current assets	659,867	584,065
Property, plant and equipment, net of accumulated depreciation of \$367,850 and \$365,844		326,967	272,378			

Property, plant and equipment, net of accumulated depreciation of \$381,584 and \$367,850				Property, plant and equipment, net of accumulated depreciation of \$381,584 and \$367,850	358,415	326,967
Investments in unconsolidated joint ventures	Investments in unconsolidated joint ventures	16,328	15,248	Investments in unconsolidated joint ventures	14,082	16,328
Deferred income taxes	Deferred income taxes	32,671	28,667	Deferred income taxes	50,649	32,671
Goodwill	Goodwill	370,189	270,172	Goodwill	352,365	370,189
Other intangible assets, net of amortization	Other intangible assets, net of amortization	176,353	118,026	Other intangible assets, net of amortization	133,724	176,353
Pension assets	Pension assets	5,123	5,278	Pension assets	5,251	5,123
Asbestos-related insurance receivables, non-current portion	Asbestos-related insurance receivables, non-current portion	59,391	63,807	Asbestos-related insurance receivables, non-current portion	55,926	59,391
Other long-term assets	Other long-term assets	27,479	16,254	Other long-term assets	15,935	27,479
Total assets	Total assets	\$ 1,598,566	\$ 1,264,005	Total assets	\$ 1,646,214	\$ 1,598,566
Liabilities and Shareholders' Equity	Liabilities and Shareholders' Equity			Liabilities and Shareholders' Equity		
Current liabilities	Current liabilities			Current liabilities		
Accounts payable	Accounts payable	\$ 64,660	\$ 35,987	Accounts payable	\$ 57,342	\$ 64,660
Accrued employee benefits and compensation	Accrued employee benefits and compensation	48,196	41,708	Accrued employee benefits and compensation	34,158	48,196
Accrued income taxes payable	Accrued income taxes payable	9,632	8,558	Accrued income taxes payable	5,504	9,632
Asbestos-related liabilities, current portion	Asbestos-related liabilities, current portion	3,841	3,615	Asbestos-related liabilities, current portion	4,968	3,841
Finance lease obligations, current portion				Finance lease obligations, current portion	498	198
Other accrued liabilities	Other accrued liabilities	37,620	21,641	Other accrued liabilities	40,067	37,422
Total current liabilities	Total current liabilities	163,949	111,509	Total current liabilities	142,537	163,949
Borrowings under revolving credit facility	Borrowings under revolving credit facility	190,000	25,000	Borrowings under revolving credit facility	215,000	190,000
Pension and other postretirement benefits liabilities	Pension and other postretirement benefits liabilities	1,618	1,612	Pension and other postretirement benefits liabilities	1,501	1,618
Asbestos-related liabilities, non-current portion	Asbestos-related liabilities, non-current portion	64,491	69,620	Asbestos-related liabilities, non-current portion	60,065	64,491
Finance lease obligations, non-current portion				Finance lease obligations, non-current portion	1,295	209
Non-current income tax	Non-current income tax	7,131	16,346	Non-current income tax	9,985	7,131

Deferred income taxes	Deferred income taxes	29,451	8,375	Deferred income taxes	23,557	29,451
Other long-term liabilities	Other long-term liabilities	23,031	10,788	Other long-term liabilities	19,808	22,822
Commitments and contingencies (Note 10 and Note 12)	Commitments and contingencies (Note 10 and Note 12)			Commitments and contingencies (Note 10 and Note 12)		
Shareholders' equity	Shareholders' equity			Shareholders' equity		
Capital stock - \$1 par value; 50,000 authorized shares; 18,730 and 18,677 shares issued and outstanding, respectively		18,730	18,677			
Capital stock - \$1 par value; 50,000 authorized shares; 18,574 and 18,730 shares issued and outstanding, respectively				Capital stock - \$1 par value; 50,000 authorized shares; 18,574 and 18,730 shares issued and outstanding, respectively	18,574	18,730
Additional paid-in capital	Additional paid-in capital	163,583	147,961	Additional paid-in capital	140,702	163,583
Retained earnings	Retained earnings	981,825	873,692	Retained earnings	1,098,454	981,825
Accumulated other comprehensive loss	Accumulated other comprehensive loss	(45,243)	(19,575)	Accumulated other comprehensive loss	(85,264)	(45,243)
Total shareholders' equity	Total shareholders' equity	1,118,895	1,020,755	Total shareholders' equity	1,172,466	1,118,895
Total liabilities and shareholders' equity	Total liabilities and shareholders' equity	\$ 1,598,566	\$ 1,264,005	Total liabilities and shareholders' equity	\$ 1,646,214	\$ 1,598,566

The accompanying notes are an integral part of the consolidated financial statements.

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ROGERS CORPORATION

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

For each of the fiscal years in the three-year period ended December 31, 2021 December 31, 2022

(Dollars and share amounts in thousands)	(Dollars and share amounts in thousands)	2021	2020	2019	(Dollars and share amounts in thousands)	2022	2021	2020
Capital Stock	Capital Stock				Capital Stock			
Balance, beginning of period	Balance, beginning of period	\$ 18,677	\$ 18,577	\$ 18,395	Balance, beginning of period	\$ 18,730	\$ 18,677	\$ 18,577
Shares issued for vested restricted stock units, net of shares withheld for taxes	Shares issued for vested restricted stock units, net of shares withheld for taxes	29	82	144	Shares issued for vested restricted stock units, net of shares withheld for taxes	69	29	82
Stock options exercised		—	—	11				
Shares issued for employee stock purchase plan	Shares issued for employee stock purchase plan	14	13	15	Shares issued for employee stock purchase plan	6	14	13
Shares issued to directors	Shares issued to directors	10	5	12	Shares issued to directors	7	10	5
Shares repurchased					Shares repurchased	(238)	—	—

Balance, end of period	Balance, end of period	18,730	18,677	18,577	Balance, end of period	18,574	18,730	18,677
Additional Paid-In Capital	Additional Paid-In Capital				Additional Paid-In Capital			
Balance, beginning of period	Balance, beginning of period	147,961	138,526	132,360	Balance, beginning of period	163,583	147,961	138,526
Shares issued for vested restricted stock units, net of shares withheld for taxes	Shares issued for vested restricted stock units, net of shares withheld for taxes	(2,910)	(5,439)	(7,694)	Shares issued for vested restricted stock units, net of shares withheld for taxes	(10,852)	(2,910)	(5,439)
Stock options exercised		—	—	333				
Shares issued for employee stock purchase plan	Shares issued for employee stock purchase plan	1,548	1,347	1,234	Shares issued for employee stock purchase plan	944	1,548	1,347
Shares issued to directors	Shares issued to directors	(10)	(5)	(12)	Shares issued to directors	(7)	(10)	(5)
Equity compensation expense	Equity compensation expense	16,994	13,532	12,305	Equity compensation expense	11,796	16,994	13,532
Shares repurchased					Shares repurchased	(24,762)	—	—
Balance, end of period	Balance, end of period	163,583	147,961	138,526	Balance, end of period	140,702	163,583	147,961
Retained Earnings	Retained Earnings				Retained Earnings			
Balance, beginning of period	Balance, beginning of period	873,692	823,702	776,403	Balance, beginning of period	981,825	873,692	823,702
Net income	Net income	108,133	49,990	47,319	Net income	116,629	108,133	49,990
Cumulative-effect adjustment for lease accounting		—	—	(20)				
Balance, end of period	Balance, end of period	981,825	873,692	823,702	Balance, end of period	1,098,454	981,825	873,692
Accumulated Other Comprehensive Loss	Accumulated Other Comprehensive Loss				Accumulated Other Comprehensive Loss			
Balance, beginning of period	Balance, beginning of period	(19,575)	(46,905)	(78,834)	Balance, beginning of period	(45,243)	(19,575)	(46,905)
Other comprehensive income (loss)	Other comprehensive income (loss)	(25,668)	27,330	31,929	Other comprehensive income (loss)	(40,021)	(25,668)	27,330
Balance, end of period	Balance, end of period	(45,243)	(19,575)	(46,905)	Balance, end of period	(85,264)	(45,243)	(19,575)
Total Shareholders' Equity	Total Shareholders' Equity	\$ 1,118,895	\$ 1,020,755	\$ 933,900	Total Shareholders' Equity	\$ 1,172,466	\$ 1,118,895	\$ 1,020,755

The accompanying notes are an integral part of the consolidated financial statements.

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ROGERS CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOWS

For each of the fiscal years in the three-year period ended **December 31, 2021** **December 31, 2022**

<i>(Dollars in thousands)</i>	<i>(Dollars in thousands)</i>	2021	2020	2019	<i>(Dollars in thousands)</i>	2022	2021	2020
Operating Activities:	Operating Activities:				Operating Activities:			
Net income	Net income	\$ 108,133	\$ 49,990	\$ 47,319	Net income	\$ 116,629	\$ 108,133	\$ 49,990
Adjustments to reconcile net income to cash provided by operating activities:	Adjustments to reconcile net income to cash provided by operating activities:				Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization	Depreciation and amortization	43,284	71,425	49,162	Depreciation and amortization	45,879	43,284	71,425
Equity compensation expense	Equity compensation expense	16,994	13,532	12,305	Equity compensation expense	11,796	16,994	13,532
Deferred income taxes	Deferred income taxes	(3,195)	(13,406)	(17,549)	Deferred income taxes	(20,556)	(3,195)	(13,406)
Equity in undistributed income of unconsolidated joint ventures	Equity in undistributed income of unconsolidated joint ventures	(7,032)	(4,877)	(5,319)	Equity in undistributed income of unconsolidated joint ventures	(4,437)	(7,032)	(4,877)
Dividends received from unconsolidated joint ventures	Dividends received from unconsolidated joint ventures	4,965	7,075	5,375	Dividends received from unconsolidated joint ventures	4,677	4,965	7,075
Pension settlement charges	Pension settlement charges	534	(63)	53,213	Pension settlement charges	—	534	(63)
Pension and other postretirement benefits	Pension and other postretirement benefits	(471)	(160)	(943)	Pension and other postretirement benefits	21	(471)	(160)
Asbestos-related provision (benefit)	Asbestos-related provision (benefit)	(220)	(682)	1,720	Asbestos-related provision (benefit)	30	(220)	(682)
(Gain) loss on sale or disposal of property, plant and equipment		(880)	41	756				
Loss (gain) on sale or disposal of property, plant and equipment					Loss (gain) on sale or disposal of property, plant and equipment	460	(880)	41
Impairment charges	Impairment charges	455	639	1,537	Impairment charges	65,085	455	639
UTIS fire fixed asset and inventory write-offs	UTIS fire fixed asset and inventory write-offs	1,947	—	—	UTIS fire fixed asset and inventory write-offs	200	1,947	—
Provision (benefit) for credit losses	Provision (benefit) for credit losses	(279)	223	437	Provision (benefit) for credit losses	208	(279)	223
Changes in assets and liabilities:	Changes in assets and liabilities:				Changes in assets and liabilities:			
Accounts receivable	Accounts receivable	(26,197)	(8,934)	20,677	Accounts receivable	(32,251)	(26,197)	(8,934)
Proceeds from insurance/government subsidies related to operations	Proceeds from insurance/government subsidies related to operations	400	—	—	Proceeds from insurance/government subsidies related to operations	1,153	400	—
Contract assets	Contract assets	(10,035)	(4,120)	273	Contract assets	(3,895)	(10,035)	(4,120)
Inventories	Inventories	(34,413)	34,687	(1,200)	Inventories	(51,610)	(34,413)	34,687
Pension and postretirement benefit contributions	Pension and postretirement benefit contributions	(160)	(253)	(103)	Pension and postretirement benefit contributions	(94)	(160)	(253)
Other current assets	Other current assets	1,723	(217)	(1,519)	Other current assets	(6,295)	1,723	(217)
Accounts payable and other accrued expenses	Accounts payable and other accrued expenses	36,688	10,084	(9,139)	Accounts payable and other accrued expenses	(8,700)	36,688	10,084
Other, net	Other, net	(7,878)	10,072	4,321	Other, net	11,161	(7,878)	10,072
Net cash provided by operating activities	Net cash provided by operating activities	124,363	165,056	161,323	Net cash provided by operating activities	129,461	124,363	165,056

Investing Activities:	Investing Activities:	Investing Activities:
Acquisition of business, net of cash received	Acquisition of business, net of cash received (168,204) — —	Acquisition of business, net of cash received (3,581) (168,204) —
Capital expenditures	Capital expenditures (71,125) (40,385) (51,597)	Capital expenditures (116,788) (71,125) (40,385)
Proceeds from the sale of property, plant and equipment, net	Proceeds from the sale of property, plant and equipment, net 714 — 9	Proceeds from the sale of property, plant and equipment, net 714 —
Return of capital from unconsolidated joint ventures	— — 2,625	
Proceeds from insurance claims		Proceeds from insurance claims 7,252 — —
Net cash used in investing activities	Net cash used in investing activities (238,615) (40,385) (48,963)	Net cash used in investing activities (113,117) (238,615) (40,385)
Financing Activities:	Financing Activities:	Financing Activities:
Proceeds from borrowings under revolving credit facility	Proceeds from borrowings under revolving credit facility 190,000 150,000 —	Proceeds from borrowings under revolving credit facility 100,000 190,000 150,000
Line of credit issuance costs	Line of credit issuance costs — (1,862) —	Line of credit issuance costs — — (1,862)
Repayment of debt principal and finance lease obligations	Repayment of debt principal and finance lease obligations (29,624) (248,330) (105,886)	Repayment of debt principal and finance lease obligations (75,271) (29,624) (248,330)
Payments of taxes related to net share settlement of equity awards	Payments of taxes related to net share settlement of equity awards (2,881) (5,357) (7,550)	Payments of taxes related to net share settlement of equity awards (10,783) (2,881) (5,357)
Proceeds from the exercise of stock options, net	— — 344	
Proceeds from issuance of shares to employee stock purchase plan	Proceeds from issuance of shares to employee stock purchase plan 1,562 1,360 1,249	Proceeds from issuance of shares to employee stock purchase plan 950 1,562 1,360
Share repurchases		Share repurchases (25,000) — —
Net cash (used in) provided by financing activities	Net cash (used in) provided by financing activities 159,057 (104,189) (111,843)	Net cash (used in) provided by financing activities (10,104) 159,057 (104,189)
Effect of exchange rate fluctuations on cash	Effect of exchange rate fluctuations on cash (4,294) 4,454 (1,406)	Effect of exchange rate fluctuations on cash (2,686) (4,294) 4,454
Net increase (decrease) in cash and cash equivalents	Net increase (decrease) in cash and cash equivalents 40,511 24,936 (889)	Net increase (decrease) in cash and cash equivalents 3,554 40,511 24,936
Cash and cash equivalents at beginning of period	Cash and cash equivalents at beginning of period 191,785 166,849 167,738	Cash and cash equivalents at beginning of period 232,296 191,785 166,849
Cash and cash equivalents at end of period	Cash and cash equivalents at end of period \$ 232,296 \$ 191,785 \$ 166,849	Cash and cash equivalents at end of period \$ 235,850 \$ 232,296 \$ 191,785
Supplemental Disclosures:	Supplemental Disclosures:	Supplemental Disclosures:
Accrued capital additions	Accrued capital additions \$ 10,903 \$ 715 \$ 3,420	Accrued capital additions \$ 6,675 \$ 10,903 \$ 715
Cash paid during the year for:	Cash paid during the year for:	Cash paid during the year for:
Interest, net of amounts capitalized	Interest, net of amounts capitalized \$ 2,402 \$ 7,251 \$ 7,762	Interest, net of amounts capitalized \$ 9,701 \$ 2,402 \$ 7,251
Income taxes	Income taxes \$ 33,788 \$ 29,983 \$ 17,593	Income taxes \$ 60,772 \$ 33,788 \$ 29,983

The accompanying notes are an integral part of the consolidated financial statements.

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ROGERS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 – Basis of Presentation, Organization and Summary of Significant Accounting Policies

As used herein, the terms “Company,” “Rogers,” “we,” “us,” “our” and similar terms mean Rogers Corporation and its consolidated subsidiaries, unless the context indicates otherwise.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and our wholly-owned subsidiaries, after elimination of intercompany balances and transactions. The preparation of financial statements, in conformity with accounting principles generally accepted in the United States (U.S. GAAP), requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Organization

Through the fourth quarter of 2020, we operated three strategic operating segments: Advanced Connectivity Solutions (ACS), Elastomeric Material Solutions (EMS) and Power Electronics Solutions (PES), with the remaining operations, which represented our non-core businesses, being reported in a fourth operating segment, the Other operating segment. In the first quarter of 2021, we completed the realignment of our strategic business segments to reflect the combination of our ACS and PES businesses resulting in a new strategic business segment, Advanced Electronics Solutions (AES). The combination of these two complementary businesses with capabilities in both high power and high frequency applications is expected to enhance our overall value proposition to customers in multiple high-growth markets. As a result of our organizational and reporting structure changes, we re-evaluated the chief operating decision maker's review and assessment of the Company's operating performance for purposes of performance monitoring and resource allocation. We determined, based on the financial data utilized by the chief operating decision maker to assess segment performance and allocate resources among the Company's strategic business segments, that we **now** have three operating segments under this new organizational and reporting structure: AES, EMS and Other. Reported results for the AES operating segment prior to 2021 represent the aggregation of the results for our former ACS and PES operating segments.

Advanced Electronics Solutions

Our AES operating segment designs, develops, manufactures and sells circuit materials, ceramic substrate materials, busbars and cooling solutions for applications in electric and hybrid electric vehicles (EV/HEV), wireless infrastructure (i.e., power amplifiers, antennas and small cells), automotive (i.e., advanced driver assistance systems (ADAS), telematics and thermal solutions, aerospace and defense (i.e., antenna systems, communication systems and phased array radar systems), mass transit, clean energy (i.e., variable frequency drives, renewable energy), connected devices (i.e., mobile internet devices and thermal solutions) and wired infrastructure (i.e., computing and **IP internet protocol (IP) infrastructure**) markets. We believe these materials have characteristics that offer performance and other functional advantages in many market applications, which serve to differentiate our products from other commonly available materials. AES products are sold globally to converters, fabricators, distributors and **OEMs, original equipment manufacturers (OEMs)**. Trade names for our AES products include: curamik®, ROLINX®, RO4000® Series, RO3000® Series, RT/duroid®, CLTE Series®, TMM®, AD Series®, DiClad® Series, CuClad® Series, Kappa®, COOLSPAN®, TC Series®, 92ML™, IsoClad® Series, **MAGTREX™ MAGTREX®, XTremeSpeed XTremeSpeed™ RO1200™ Laminates, IM Series™, 2929 Bondply, 3001 Bondply Film SpeedWave® Prepreg, RO4400™/RO4400T™ Series and SpeedWave™ Prepreg, Radix™**. As of **December 31, 2021** **December 31, 2022**, our AES operating segment had manufacturing and administrative facilities in Chandler, Arizona; Rogers, Connecticut; Bear, Delaware; Eschenbach, Germany; Evergem, Belgium; Budapest, Hungary; and Suzhou, China.

Elastomeric Material Solutions

Our EMS operating segment designs, develops, manufactures and sells engineered material solutions for a wide variety of applications and markets. These include polyurethane and silicone materials used in cushioning, gasketing and sealing, and vibration management applications for EV/HEV, general industrial, portable electronics, automotive, mass transit, aerospace and defense, footwear and impact mitigation and printing markets; customized silicones used in flex heater and semiconductor thermal applications for EV/HEV, general industrial, portable electronics, automotive, mass transit, aerospace and defense and medical markets; polytetrafluoroethylene and ultra-high molecular weight polyethylene materials used in wire and cable protection, electrical insulation, conduction and shielding, hose and belt protection, vibration management, cushioning, gasketing and sealing, and venting applications for EV/HEV, general industrial, automotive and aerospace and defense markets. We believe these materials have characteristics that offer functional advantages in many market applications, which serve to differentiate our products from other commonly available materials. EMS products are sold globally to converters, fabricators, distributors and **original equipment manufacturers (OEMs), OEMs**. Trade names for our EMS products include: PORON®, BISCO®, DeWAL®, ARLON®, eSorba®, **Griswold®, XRD®, Silicone Engineering and R/bak®**.

As of **December 31, 2021** **December 31, 2022**, our EMS operating segment had manufacturing and administrative facilities in **Moosup, Connecticut;** Rogers, Connecticut; Woodstock, Connecticut; Bear, Delaware; Carol Stream, Illinois; Narragansett, Rhode Island; Evergem, Belgium; Blackburn, England; **Ansan, Siheung,** South Korea; and Suzhou, China. We also own 50% of two unconsolidated joint ventures: (1) Rogers Inoac Corporation (RIC), a joint venture established in Japan to design, develop, manufacture and sell PORON® products predominantly for the Japanese market and (2) Rogers INOAC Suzhou Corporation (RIS), a joint venture established in China to design, develop, manufacture and sell PORON® products primarily for RIC customers in various Asian countries. INOAC Corporation owns the remaining 50% of both RIC and RIS. RIC has manufacturing facilities at the INOAC facilities in Nagoya and Mie, Japan, and RIS has manufacturing facilities at Rogers' facilities in Suzhou, China.

Other

Our Other operating segment consists of elastomer components for applications in general industrial market, as well as elastomer floats for level sensing in fuel tanks, motors, and storage tanks applications in the general industrial and automotive markets. We sell our elastomer components under our ENDUR® trade name and our floats under our NITROPHYL® trade name.

Summary of Significant Accounting Policies

Cash Equivalents

Highly liquid investments with original maturities of three months or less are considered cash equivalents. These investments are stated at cost, which approximates fair value.

Investments in Unconsolidated Joint Ventures

We account for our investments in and advances to unconsolidated joint ventures, both of which are 50% owned, using the equity method of accounting.

Foreign Currency

All balance sheet accounts of foreign subsidiaries are translated or remeasured at exchange rates in effect at each year end, and income statement items are translated using the average exchange rates for the year. Translation adjustments for those entities that operate under a local currency are recorded directly to a separate component of shareholders' equity, while remeasurement adjustments for those entities that operate under the parent's functional currency are recorded to the income statement as a

component of "Other income (expense), net." Currency transaction gains and losses are reported as income or expense, respectively, in the consolidated statements of operations as a component of "Other income (expense), net." Such adjustments resulted in losses of \$1.7 million, gains of \$3.0 million and gains of \$0.9 million in 2022, 2021 and losses of \$0.9 million in 2021, 2020, and 2019, respectively.

Allowance for Credit Losses

The allowance for credit losses is determined based on a variety of factors that affect the potential collectability of the related receivables, including the length of time receivables are past due, customer credit ratings, financial stability of customers, specific one-time events and past customer history. In addition, in circumstances where we are made aware of a specific customer's inability to meet its financial obligations, a specific allowance is established. The majority of accounts are individually evaluated on a regular basis and appropriate reserves are established as deemed appropriate based on the criteria previously mentioned. The remainder of the reserve is based on our estimates and takes into consideration historical trends, market conditions and the composition of our customer base.

Inventories

Inventories are stated at the lower of cost or net realizable value with costs determined primarily on a first-in, first-out (FIFO) basis. We record allowances for estimated losses due to excess, obsolete and slow-moving inventory that is determined for groups of products based on purchases in the recent past and/or expected future demand, as well as market conditions, design cycles and other economic factors. Abnormal amounts of idle facility expense and waste are not capitalized in inventory. The allocation of fixed production overheads to the inventory cost is based on the normal capacity of the production facilities.

Our "Inventories" line item in the consolidated statements of financial position consisted of the following:

(Dollars in thousands)	(Dollars in thousands)	As of December 31,		(Dollars in thousands)	As of December 31,	
		2021	2020		2022	2021
Raw materials	Raw materials	\$ 60,208	\$ 44,976	Raw materials	\$ 87,851	\$ 60,208
Work-in-process	Work-in-process	29,078	25,291	Work-in-process	45,100	29,078
Finished goods	Finished goods	44,098	32,093	Finished goods	49,451	44,098
Total inventories	Total inventories	\$ 133,384	\$ 102,360	Total inventories	\$ 182,402	\$ 133,384

Property, Plant and Equipment

Property, plant and equipment are stated on the basis of cost. For financial reporting purposes, provisions for depreciation are calculated on a straight-line basis over the following estimated useful lives of the underlying assets:

Property, Plant and Equipment Classification	Estimated Useful Lives
Buildings and improvements	30-40 years
Machinery and equipment	5-15 years
Office equipment	3-10 years

Software Costs

We capitalize certain internal and external costs of computer software developed or obtained for internal use, principally related to software coding, software configuration, designing system interfaces and installation and testing of the software. We amortize capitalized internal use software costs using the straight-line method over the estimated useful lives of the software, generally from three to five years. Net capitalized software and development costs were \$58.9 million and \$28.6 million as of December 31, 2022 and \$0.3 million for the years ended December 31, 2021 and 2020, 2021, respectively. The December 31, 2021 December 31, 2022 balance is almost entirely attributable to our planned implementation of a new enterprise resource planning system. Capitalized software is included within "Property, plant and equipment, net of accumulated depreciation" in the consolidated statements of financial position.

Goodwill and Other Intangible Assets

We have made acquisitions over the years that included the recognition of intangible assets. Intangible assets are classified into three categories: (1) goodwill; (2) other intangible assets with definite lives subject to amortization; and (3) other intangible assets with indefinite lives not subject to amortization. Other intangible assets can include items such as trademarks and trade names, licensed technology, customer relationships and covenants not to compete, among other things. Each definite-lived other intangible asset is amortized over its respective economic useful life using the economic attribution method.

Goodwill is evaluated for impairment annually, and between annual impairment assessments if events or changes in circumstances indicate the carrying value may be impaired, by first performing a qualitative assessment to determine whether a quantitative goodwill impairment assessment is necessary. If it is determined, based on qualitative factors, the fair value of the reporting unit may be more likely than not less than its carrying amount or if significant changes to macro-economic factors related to the reporting unit have occurred that could materially impact fair value, a quantitative goodwill impairment assessment would be required. We can elect to forgo the qualitative assessment and perform a quantitative assessment. The quantitative assessment compares the fair value of a reporting unit with its carrying amount. The application of the quantitative assessment requires significant judgment, including the assignment of assets and liabilities to reporting units and determination of the fair value of each reporting unit. Determining the fair value is subjective and requires the use of significant estimates and assumptions, including financial projections for net sales, gross margin and operating margin, discount rates, terminal growth rates and future market conditions, among others. When performing the quantitative assessment, we have historically estimated the fair value of our reporting units using an income approach based on the present value of future cash flows through a five-year discounted cash flow analysis. Upon performing the quantitative assessment, if the carrying value of the reporting unit exceeds its fair value, an impairment charge is recognized in an amount equal to that excess, not to exceed the carrying amount of goodwill.

We currently have four The application of the annual goodwill impairment test requires significant judgment, including the identification of reporting units, with goodwill; assignment of assets and liabilities to reporting units and determination of the fair value of each reporting unit. Determining the fair value is subjective and requires

the use of significant estimates and assumptions, including financial projections for net sales, gross margin and operating margin, discount rates, terminal growth rates and future market conditions, among others. We estimated the fair value of our reporting units using an income approach based on the present value of future cash flows through a five-year discounted cash flow analysis. The discounted cash flow analysis utilized the discount rates for each of the reporting units ranging from 11.1% for EMS to 13.6% for ECD, and terminal growth rates ranging from 3.4% for EMS to 3.5% for RF Solutions, EMS, curamik® and Elastomer Components Division (ECD). Consistent with historical practice, ECD. We believe this approach yields the most appropriate evidence of fair value as our reporting units are not easily compared to other corporations involved in similar businesses. We further believe that the assumptions and rates used in our annual goodwill impairment test on these reporting units was performed as of November 30, 2021. In 2021, we elected to utilize a qualitative assessment, are reasonable, but inherently uncertain. There were no impairment charges resulting from our goodwill impairment assessment for the year ended December 31, 2021 December 31, 2022. Our RF Solutions, EMS, curamik® and ECD reporting units had allocated goodwill of \$51.7 million, \$248.4 \$234.8 million, \$67.9 \$63.7 million and \$2.2 million respectively, as of December 31, 2021 December 31, 2022.

Indefinite-lived other intangible assets are evaluated for impairment annually, and between annual impairment assessments if events or changes in circumstances indicate the carrying value may be impaired, by first performing a qualitative assessment to determine whether a quantitative indefinite-lived other intangible asset impairment assessment is necessary. If it is determined, based on qualitative factors, the fair value of the indefinite-lived other intangible asset may be more likely than not less than its

carrying amount or if significant changes to macro-economic factors related to the indefinite-lived other intangible asset have occurred that could materially impact fair value, a quantitative indefinite-lived other intangible asset impairment assessment would be required. We can elect to forgo the qualitative assessment and perform a quantitative assessment. The quantitative assessment compares the fair value of the indefinite-lived other intangible asset with its carrying amount. The application of the quantitative assessment requires significant judgment, including determining the fair value of each indefinite-lived other intangible asset. Fair value is primarily based on income approaches using discounted cash flow models, which have significant assumptions. Such assumptions are subject to variability from year to year and are directly impacted by global market conditions. There were no impairment charges resulting from our indefinite-lived other intangible assets impairment assessment

for the year ended December 31, 2021 December 31, 2022. Our curamik® reporting unit had an indefinite-lived other intangible asset of \$4.5 \$4.2 million as of December 31, 2021 December 31, 2022.

Definite-lived other intangible assets are tested for recoverability whenever events or changes in circumstances indicate the carrying value may not be recoverable. The recoverability test involves comparing the estimated sum of the undiscounted cash flows for each definite-lived other intangible asset to its respective carrying value. If a definite-lived other intangible asset's carrying value is greater than the sum of its undiscounted cash flows, then the definite-lived other intangible asset's carrying value is compared to its estimated fair value and an impairment charge is recognized for the excess and charged to operations. The application of the recoverability test requires significant judgment, including the identification of the asset group and determination of undiscounted cash flows and fair value of the underlying definite-lived other intangible asset. Determination of undiscounted cash flows requires the use of significant estimates and assumptions, including certain financial projections. Fair value is primarily based on income approaches using discounted cash flow models, which have significant assumptions. Such assumptions are subject to variability from year to year and are directly impacted by global market conditions. There were no \$17.9 million of impairment charges resulting from our definite-lived other intangible assets impairment analysis for the year ended December 31, 2021 December 31, 2022. Our RF Solutions, EMS and curamik® reporting units had definite-lived other intangible assets of \$2.8 \$1.9 million, \$163.0 \$123.3 million and \$6.1 \$4.4 million, respectively, as of December 31, 2021 December 31, 2022.

The useful life determination for each indefinite-lived other intangible asset is evaluated each reporting period to determine whether events and circumstances support an indefinite useful life. The useful life determination for each definite-lived other intangible asset is evaluated each reporting period to determine whether events and circumstances warrant a revision to the remaining period of amortization.

Pension and Other Postretirement Benefits

We sponsor one material defined benefit pension plan, the Rogers Corporation Employees' Pension Plan (the Union Plan), which covers certain union employees, and we sponsor multiple fully insured or self-funded medical plans and fully insured life insurance plans for retirees. The Union Plan was frozen in 2013 so that future benefits no longer accrue. The costs and obligations associated with these plans are dependent upon various actuarial assumptions used in calculating such amounts. These assumptions include discount rates, long-term rates of return on plan assets, mortality rates, and other factors. The assumptions used in these models are determined as follows: (i) the discount rate used is based on the PruCurve bond index; (ii) the long-term rate of return on plan assets is determined based on historical portfolio results, market conditions and our expectations of future returns; and (iii) the mortality rate is based on a mortality projection that estimates current longevity rates and their impact on the long-term plan obligations. We determine these assumptions based on consultation with outside actuaries and investment advisors. Any changes in these assumptions could have a significant impact on our assets and liabilities. We review these assumptions periodically throughout the year and update as necessary.

We are required, as an employer, to: (a) recognize in our consolidated statements of financial position an asset for a plan's overfunded status or a liability for a plan's underfunded status; (b) measure a plan's assets and a plan's obligations that determine our funded status as of the end of the year; and (c) recognize changes in the funded status of a defined benefit plan in the year in which the changes occur and report these changes in accumulated other comprehensive loss. Additionally, actuarial losses (gains) that are not immediately recognized as net periodic pension cost (credit) are recognized as a component of accumulated other comprehensive loss (income) and amortized into net periodic pension cost (credit) in future periods.

Investments were stated at fair value as of the dates reported. Securities traded on a national securities exchange were valued at the last reported sales price on the last business day of the plan year. Fixed-income bonds were valued using price evaluations provided by independent pricing services. The fair value of the guaranteed deposit account was determined through discounting expected future investment cash flow from both investment income and repayment of principal for each investment purchased. The estimated fair values of the participation units owned by the plan in pooled separate accounts were based on quoted redemption values and adjusted for management fees and asset charges, as determined by the recordkeeper, on the last business day of the relevant plan year. Pooled separate accounts are accounts established solely for the purpose of investing the assets of one or more plans. Funds in a separate account are not commingled with other Company assets for investment purposes.

Environmental and Product Liabilities

We accrue for our environmental investigation, remediation, operating and maintenance costs when it is probable that a liability has been incurred and the amount can be reasonably estimated. For environmental matters, the most likely cost to be incurred is accrued based on an evaluation of currently available facts with respect to each individual site, including existing technology, current laws and regulations and prior remediation experience. For sites with multiple potential responsible parties (PRPs), we consider our likely proportionate share of the anticipated remediation costs and the ability of the other parties to fulfill their obligations in establishing a provision for those costs. When no amount within a range of estimates is more likely to occur than another, we accrue to the low end of the range and disclose the range. When future liabilities are determined to be reimbursable by insurance coverage, an accrual is recorded for the potential liability and a receivable is recorded for the estimated insurance reimbursement amount. We are exposed to the uncertain nature inherent in such remediation and the possibility that initial estimates will not reflect the final outcome of a matter.

We review our asbestos-related projections annually in the fourth quarter of each year unless facts and circumstances materially change during the year, at which time we would analyze these projections. We believe the assumptions made on the potential exposure and expected insurance coverage are reasonable at the present time, but are subject to uncertainty based on the actual future outcome of our asbestos litigation. Our estimates of asbestos-related contingent liabilities and related insurance receivables are based on a claim projection analysis and an insurance usage analysis prepared annually by third parties. The claim projection analysis contains numerous assumptions, including number of claims that might be received, the type and severity of the disease alleged by each claimant, the long latency period associated with asbestos exposure, dismissal rates, average indemnity costs, average defense costs, costs of medical treatment, the financial resources of other companies that are co-defendants in claims, uncertainties surrounding the litigation process from jurisdiction and from case to case, and the impact of potential changes in legislative or judicial standards, including potential tort reform. Furthermore, any predictions with respect to these assumptions are subject to even greater uncertainty as the projection period lengthens. The insurance usage analysis considers, among other things, applicable deductibles, retentions and policy limits, the solvency and historical payment experience of various insurance carriers, the likelihood of recovery as estimated by external legal counsel and existing insurance settlements.

We believe the assumptions used in our models for determining our potential exposure and related insurance coverage are reasonable at the present time, but such assumptions are inherently uncertain. Given the inherent uncertainty in making projections, we plan to re-examine periodically the assumptions used in the projections of current and future asbestos claims, and we will update them if needed based on our experience, changes in the assumptions underlying our models, and other relevant factors, such as changes in the tort system. Our accrued asbestos liabilities may not approximate our actual asbestos-related indemnity and defense costs, and our accrued insurance recoveries may not be realized. We believe that it is reasonably possible that we may incur additional charges for our asbestos liabilities and defense costs in the future that could exceed existing reserves and insurance recoveries.

Fair Value of Financial Instruments

Management believes that the carrying values of financial instruments, including cash and cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities approximate fair value based on the maturities of these instruments. The fair value of our borrowings under our revolving credit facility are determined using discounted cash flows based upon our estimated current interest cost for similar type borrowings or current market value, which falls under Level 2 of the fair value hierarchy. Based on our credit characteristics as of December 31, 2021 December 31, 2022, borrowings would generally bear interest at London interbank offered rate (LIBOR) plus 162.5 175.0 basis points. As the current borrowings under the Fourth Amended Credit Agreement bear interest at adjusted 1-month LIBOR plus 162.5 175.0 basis points, we believe the carrying value of our borrowings approximates fair value. For additional information on the calculation of fair value measurements, refer to "Note 2 – Fair Value Measurements."

Hedging Transactions and Derivative Financial Instruments

From time to time, we use derivative instruments to manage commodity, interest rate and foreign currency exposures. Derivative instruments are viewed as risk management tools and are not used for trading or speculative purposes. To qualify for hedge accounting treatment, derivatives used for hedging purposes must be designated and deemed effective as a hedge of the identified underlying risk exposure at the inception of the contract. Accordingly, changes in fair value of the derivative contract must be highly correlated with changes in the fair value of the underlying hedged item at inception of the hedge and over the life of the hedge contract.

Derivatives used to hedge forecasted cash flows associated with interest rates, foreign currency commitments, or forecasted commodity purchases are accounted for as cash flow hedges. For those derivative instruments that qualify for hedge accounting treatment, if the hedge is highly effective, all changes in the fair value of the derivative hedging instrument are recorded in other comprehensive income (loss). The derivative hedging instrument will be reclassified to earnings when the hedged item impacts earnings. For those derivative instruments that do not qualify for hedge accounting treatment, any related gains and losses are recognized in the consolidated statements of operations as a component of "Other income (expense), net." For additional information, refer to "Note 3 – Hedging Transactions and Derivative Financial Instruments."

Concentration of Credit and Investment Risk

We extend credit on an uncollateralized basis to almost all customers. Concentration of credit and geographic risk with respect to accounts receivable is limited due to the large number and general dispersion of accounts that constitute our customer base. We routinely perform credit evaluations on our customers. As of December 31, 2021 December 31, 2022 and 2020, 2021, there were no customers that individually accounted for more than 10% of total accounts receivable. We did not experience significant credit losses on customers' accounts in 2022, 2021 2020 or 2019.

2020.

We are subject to credit and market risk by using derivative instruments. If a counterparty fails to fulfill its performance obligations under a derivative contract, our credit risk will equal the fair value of the derivative instrument. We seek to minimize counterparty credit (or repayment) risk by entering into derivative transactions with major financial institutions with investment grade credit ratings.

We invest excess cash principally in investment grade government securities and time deposits. We have established guidelines relative to diversification and maturities in order to maintain safety and liquidity. These guidelines are periodically reviewed and modified to reflect changes in market conditions.

Income Taxes

We are subject to income taxes in the U.S. and in numerous foreign jurisdictions. We account for income taxes following Accounting Standards Codification (ASC) 740, *Income Taxes*, recognizing deferred tax assets and liabilities using enacted tax rates for the effect of temporary differences between book and tax basis of recorded assets and liabilities. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some or all of a deferred tax asset will not be realized.

We record benefits for uncertain tax positions based on an assessment of whether it is more likely than not that the tax positions will be sustained by the taxing authorities. If this threshold is not met, no tax benefit of the uncertain position is recognized. If the threshold is met, we recognize the largest amount of the tax benefit that is greater than

fifty percent likely to be realized upon ultimate settlement.

We recognize interest and penalties within the "Income tax expense" line item in the consolidated statements of operations. Accrued interest and penalties are included within the related tax liability line item in the consolidated statements of financial position.

Revenue Recognition

Recognition of revenue occurs when a customer obtains control of promised goods or services in an amount that reflects the consideration to which the providing entity expects to be entitled in exchange for those goods or services. We recognize revenue when all of the following criteria are met: (1) we have entered into a binding agreement, (2) the performance obligations have been identified, (3) the transaction price to the customer has been determined, (4) the transaction price has been allocated to the performance obligations in the contract, and (5) the performance obligations have been satisfied. The majority of our shipping terms permit us to recognize revenue at point of shipment. Some shipping terms require the goods to be cleared through customs or be received by the customer before title passes. In those instances, revenue is not recognized until either the customer has received the goods or they have passed through customs, depending on the circumstances. Shipping and handling costs are treated as fulfillment costs. Sales tax or VAT are excluded from the measurement of the transaction price.

We manufacture some products to customer specifications which are customized to such a degree that it is unlikely that another entity would purchase these products or that we could modify these products for another customer. These products are deemed to have no alternative use to the Company whereby we have an enforceable right to payment evidenced by contractual termination clauses. In accordance with ASC 606, for those circumstances we recognize revenue on an over-time basis. Revenue recognition does not occur until the product meets the definition of "no alternative use" and therefore, items that have not yet reached that point in the production process are not included in the population of items with over-time revenue recognition.

As appropriate, we record estimated reductions to revenue for customer returns, allowances, and warranty claims. Provisions for such reductions are made at the time of sale and are typically derived from historical trends and other relevant information.

Earnings Per Share

Basic earnings per share is based on the weighted average number of common shares outstanding. Diluted earnings per share is based on the weighted average number of common shares outstanding and all dilutive potential common shares outstanding.

Equity Compensation

Equity compensation mainly consists of expense related to restricted stock units and deferred stock units.

Performance-based restricted stock unit compensation expense is based on achievement of both market and service conditions. The fair value of these awards is determined based on a Monte Carlo simulation valuation model on the grant date. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period with no changes for final projected payout of the awards.

Time-based restricted stock unit compensation expense is based on the achievement of only service conditions. The fair value of these awards is determined based on the market value of the underlying stock price on the grant date. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period.

Deferred stock units, which are granted to non-management directors, are fully vested on the date of grant and the related shares are generally issued on the 13-month anniversary of the grant date unless the director elects to defer the receipt of those shares.

The fair value of these awards is determined based on the market value of the underlying stock price on the grant date. The compensation related to these grants is expensed immediately on the date of grant.

Business Combination Purchase Price Allocation

The application of the acquisition method requires the allocation of the purchase price amongst the acquisition date fair values of identifiable assets acquired and liabilities assumed in a business combination. Fair values are determined using the income approach, market approach and/or cost approach depending on the nature of the asset or liability being valued and the reliability of available information. The income approach estimates fair value by discounting associated lifetime expected future cash flows to their present value and relies on significant assumptions regarding future revenues, expenses, working capital levels and discount rates. The market approach estimates fair value by analyzing recent actual market transactions for similar assets or liabilities. The cost approach estimates fair value based on the expected cost to replace or reproduce the asset or liability and relies on assumptions regarding the occurrence and extent of any physical, functional and/or economic obsolescence.

Restructuring Activities

We record charges associated with restructuring activities, such as employee termination benefits, when management approves and commits to a plan of termination, or over the future service period, if any. Other costs associated with restructuring activities may include contract termination costs, including costs related to leased facilities to be abandoned or subleased, and facility and employee relocation costs.

Advertising Costs

Advertising costs are expensed as incurred and amounted to \$3.3 million, \$2.7 million and \$2.2 million in 2022, 2021 and \$3.6 million in 2021, 2020, and 2019, respectively.

Note 2 – Fair Value Measurements

The accounting guidance for fair value measurements establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value.

- Level 1 – Quoted prices in active markets for identical assets or liabilities.
- Level 2 – Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- 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.

As a result of our pension termination and settlement efforts in late 2019 and the first half of 2020, we have had a pension surplus investment balance, which is was accounted for as an available-for-sale investment as of June 2020 investment. For additional information regarding this balance, refer to "Note 11 – Pension Benefits and Other Postretirement Benefits." Available-for-sale investments measured at fair value on a recurring basis, categorized by the level of inputs used in the valuation, were as follows:

(Dollars in thousands)	Available-for-Sale Investment at Fair Value as of December 31, 2021			
	Level 1	Level 2	Level 3	Total
Pension surplus investment ⁽¹⁾	\$ 6,638	\$ —	\$ —	\$ 6,638

Pension surplus investment	Available-for-Sale Investment at Fair Value as of December 31, 2022			
	Level 1	Level 2	Level 3	Total
	\$ —	\$ —	\$ —	\$ —

Pension surplus investment ⁽¹⁾	Available-for-Sale Investment at Fair Value as of December 31, 2020			
	Level 1	Level 2	Level 3	Total ⁽¹⁾
	\$ 6,706	\$ 2,400	\$ —	\$ 9,106

Pension surplus investment ⁽¹⁾	Available-for-Sale Investment at Fair Value as of December 31, 2021			
	Level 1	Level 2	Level 3	Total ⁽¹⁾
	\$ 6,638	\$ —	\$ —	\$ 6,638

⁽¹⁾ These balances were This balance was invested in funds comprised of short-term cash and fixed income securities, a money market fund and was recorded in the "Other long-term assets" line item in the condensed consolidated statements of financial position. As of December 31, 2021 and 2020, the fair value of these investments this investment approximated their its carrying value.

From time to time we enter into various instruments that require fair value measurement, including foreign currency contracts, copper derivative contracts and interest rate swaps. Derivative instruments measured at fair value on a recurring basis, categorized by the level of inputs used in the valuation, include:

(Dollars in thousands)	(Dollars in thousands)	Derivative Instruments at Fair Value as of December 31, 2021				(Dollars in thousands)	(Dollars in thousands)	Derivative Instruments at Fair Value as of December 31, 2022			
		Level 1	Level 2	Level 3	Total ⁽¹⁾			Level 1	Level 2	Level 3	Total ⁽¹⁾
Foreign currency contracts	Foreign currency contracts	\$ —	\$ (16)	\$ —	\$ (16)	Foreign currency contracts	Foreign currency contracts	\$ —	\$ (82)	\$ —	\$ (82)
Copper derivative contracts	Copper derivative contracts	\$ —	\$ 1,344	\$ —	\$ 1,344	Copper derivative contracts	Copper derivative contracts	\$ —	\$ 500	\$ —	\$ 500
(Dollars in thousands)	(Dollars in thousands)	Derivative Instruments at Fair Value as of December 31, 2020				(Dollars in thousands)	(Dollars in thousands)	Derivative Instruments at Fair Value as of December 31, 2021			
		Level 1	Level 2	Level 3	Total ⁽¹⁾			Level 1	Level 2	Level 3	Total ⁽¹⁾
Foreign currency contracts	Foreign currency contracts	\$ —	\$ (130)	\$ —	\$ (130)	Foreign currency contracts	Foreign currency contracts	\$ —	\$ (16)	\$ —	\$ (16)
Copper derivative contracts	Copper derivative contracts	\$ —	\$ 4,785	\$ —	\$ 4,785	Copper derivative contracts	Copper derivative contracts	\$ —	\$ 1,344	\$ —	\$ 1,344

⁽¹⁾ All balances were recorded in the "Other current assets" or "Other accrued liabilities" line items in the consolidated statements of financial position.

For additional information on our derivative contracts, refer to "Note 3 – Hedging Transactions and Derivative Financial Instruments."

Note 3 – Hedging Transactions and Derivative Financial Instruments

We are exposed to certain risks related to our ongoing business operations. The primary risks being managed through our use of derivative instruments are foreign currency exchange rate risk, commodity pricing risk (primarily related to copper) and interest rate risk. We do not use derivative financial instruments for trading or speculative purposes. The valuation of derivative contracts used to manage each of these risks is described below:

- **Foreign Currency** – The fair value of any foreign currency option derivative is based upon valuation models applied to current market information such as strike price, spot rate, maturity date and volatility, and by reference to market values resulting from an over-the-counter market or obtaining market data for similar instruments with similar characteristics.
- **Commodity** – The fair value of copper derivatives is computed using a combination of intrinsic and time value valuation models, which are collectively a function of five primary variables: price of the underlying instrument, time to expiration, strike price, interest rate and volatility. The intrinsic valuation model reflects the difference

between the

strike price of the underlying copper derivative instrument and the current prevailing copper prices in an over-the-counter market at period end. The time value valuation model incorporates changes in the price of the underlying copper derivative instrument, the time value of money, the underlying copper derivative instrument's strike price and the remaining time to the underlying copper derivative instrument's expiration date from the period end date.

- **Interest Rates** – The fair value of interest rate swap instruments is derived by comparing the present value of the interest rate forward curve against the present value of the swap rate, relative to the notional amount of the swap. The net value represents the estimated amount we would receive or pay to terminate the agreements. Settlement amounts for an “in the money” swap would be adjusted down to compensate the counterparty for cost of funds, and the adjustment is directly related to the counterparties' credit ratings.

The guidance for the accounting and disclosure of derivatives and hedging transactions requires companies to recognize all of their derivative instruments as either assets or liabilities at fair value in the statements of financial position. The accounting for changes in the fair value (i.e., gains or losses) of a derivative instrument depends on whether it has been designated and qualifies for hedge accounting treatment as defined under the applicable accounting guidance. For derivative instruments that are designated and qualify for hedge accounting treatment as cash flow hedges (i.e., hedging the exposure to variability in expected future cash flows that is attributable to a particular risk), the effective portion of the gain or loss on the derivative instrument is reported as a component of other comprehensive income (loss). This gain or loss is reclassified into earnings in the same line item of the consolidated statements of operations associated with the forecasted transaction and in the same period or periods during which the hedged transaction affects earnings. As of **December 31, 2021** **December 31, 2022**, we did not have any derivative contracts that qualified for hedge accounting treatment.

Foreign Currency

In **2021**, **2022**, we entered into U.S. dollar, **euro** **Korean won**, and **Korean won** **euro** forward contracts. We entered into these foreign currency forward contracts to mitigate certain global transactional exposures. These contracts do not qualify for hedge accounting treatment. As a result, any fair value adjustments required on these contracts are recorded in “Other income (expense), net” in our consolidated statements of operations in the period in which the adjustment occurred.

As of **December 31, 2021** **December 31, 2022** the notional values of these foreign currency forward contracts were as follows:

Notional Values of Foreign Currency Derivatives			
USD/CNH	\$	18,013,435	13,598,684
KRW/USD	₩		7,596,600,000
EUR/USD	€		11,444,549
KRW/USD	₩	5,936,000,000	3,756,866

Commodity

As of **December 31, 2021** **December 31, 2022**, we had **10** **12** outstanding contracts to hedge exposure related to the purchase of copper in our AES operating segment. These contracts are held with financial institutions and are intended to offset rising copper prices and do not qualify for hedge accounting treatment. As a result, any fair value adjustments required on these contracts are recorded in “Other income (expense), net” in our consolidated statements of operations in the period in which the adjustment occurred.

As of **December 31, 2021** **December 31, 2022**, the volume of our copper contracts outstanding were as follows:

Volume of Copper Derivatives	
January 2022 2023 - March 2022 2023	213 69 metric tons per month
April 2022 2023 - June 2022 2023	168 69 metric tons per month
July 2022 2023 - September 2022 2023	69 metric tons per month
October 2022 2023 - December 2022 2023	69 metric tons per month

Interest Rates

In March 2017, we entered into an interest rate swap to hedge the variable interest rate on \$75.0 million of our \$450.0 million revolving credit facility. We terminated the interest rate swap in September 2020. As a result, we settled the interest rate swap for \$2.4 million in October 2020, representing the fair value of the interest rate swap on the date of termination. Both Rogers Corporation and the counterparties released each other from all obligation under the interest rate swap agreement, including the obligation to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to the agreed upon notional principal amount of \$75.0 million.

Effects on Financial Statements

The following table presents the impact from these instruments on the statement of operations and statements of comprehensive income:

(Dollars in thousands)	Financial Statement Line Item	Years Ended December 31,			(Dollars in thousands)	Financial Statement Line Item	Years Ended December 31,		
		2021	2020	2019			2022	2021	2020

Foreign Currency Contracts	Foreign Currency Contracts					Foreign Currency Contracts				
Contracts not designated as hedging instruments	Contracts not designated as hedging instruments	Other income (expense), net	\$ (2,890)	\$ (1,981)	\$ (779)	Contracts not designated as hedging instruments	Other income (expense), net	\$ (251)	\$ (2,890)	\$ (1,981)
Copper Derivatives Contracts	Copper Derivatives Contracts					Copper Derivatives Contracts				
Contracts not designated as hedging instruments	Contracts not designated as hedging instruments	Other income (expense), net	\$ 3,914	\$ 3,610	\$ (716)	Contracts not designated as hedging instruments	Other income (expense), net	\$ 848	\$ 3,914	\$ 3,610
Interest Rate Swap Contract	Interest Rate Swap Contract					Interest Rate Swap Contract				
Contract designated as hedging instrument	Contract designated as hedging instrument	Other comprehensive income (loss)	\$ —	\$ 1,254	\$ (1,715)	Contract designated as hedging instrument	Other comprehensive income (loss)	\$ —	\$ —	\$ 1,254

Note 4 – Accumulated Other Comprehensive Loss

The changes in accumulated other comprehensive loss by component for each of the fiscal years in the two-year period ended **December 31, 2021** December 31, 2022 were as follows:

<i>(Dollars and accompanying footnotes in thousands)</i>	<i>(Dollars and accompanying footnotes in thousands)</i>	Foreign Currency Translation Adjustments	Pension and Other Postretirement Benefits ⁽¹⁾	Derivative Instrument Designated as Cash Flow Hedge ⁽²⁾	Total	<i>(Dollars and accompanying footnotes in thousands)</i>	Foreign Currency Translation Adjustments	Pension and Other Postretirement Benefits ⁽¹⁾	Total
Balance as of December 31, 2019		\$ (35,478)	\$ (10,455)	\$ (972)	\$ (46,905)				
Other comprehensive income (loss) before reclassifications		24,907	1,255	(1,504)	24,658				
Amounts reclassified to earnings		—	196	2,476	2,672				
Net other comprehensive income (loss) for period		24,907	1,451	972	27,330				
Balance as of December 31, 2020	Balance as of December 31, 2020	(10,571)	(9,004)	—	(19,575)	Balance as of December 31, 2020	\$ (10,571)	\$ (9,004)	\$ (19,575)
Other comprehensive income (loss) before reclassifications	Other comprehensive income (loss) before reclassifications	(25,070)	(823)	—	(25,893)	Other comprehensive income (loss) before reclassifications	(25,070)	(823)	(25,893)
Amounts reclassified to earnings	Amounts reclassified to earnings	—	225	—	225	Amounts reclassified to earnings	—	225	225
Net other comprehensive income (loss) for period	Net other comprehensive income (loss) for period	(25,070)	(598)	—	(25,668)	Net other comprehensive income (loss) for period	(25,070)	(598)	(25,668)
Balance as of December 31, 2021	Balance as of December 31, 2021	\$ (35,641)	\$ (9,602)	\$ —	\$ (45,243)	Balance as of December 31, 2021	(35,641)	(9,602)	(45,243)

Other comprehensive income (loss) before reclassifications	Other comprehensive income (loss) before reclassifications	(39,934)	(244)	(40,178)
Amounts reclassified to earnings	Amounts reclassified to earnings	—	157	157
Net other comprehensive income (loss) for period	Net other comprehensive income (loss) for period	(39,934)	(87)	(40,021)
Balance as of December 31, 2022	Balance as of December 31, 2022	<u>\$ (75,575)</u>	<u>\$ (9,689)</u>	<u>\$ (85,264)</u>

(1) Net of taxes of \$1,926, \$2,125, \$1,951 and \$2,368 \$1,951 for the years ended December 31, 2021, December 31, 2022, 2020, 2021 and 2019, respectively.

(2) Net of taxes of \$0, \$0 and \$282 for the years ended December 31, 2021, 2020, and 2019, respectively.

The impacts to the consolidated statements of operations related to items reclassified to earnings were as follows:

		Years Ended December 31,				Years Ended December 31,	
	Financial Statement				Financial Statement		
(Dollars in thousands)	Line Item	2021	2020	(Dollars in thousands)	Line Item	2022	2021
Amortization/settlement of pension and other postretirement benefits	Amortization/settlement of pension and other postretirement benefits			Amortization/settlement of pension and other postretirement benefits			
	Pension settlement charges	\$ —	\$ 63		Pension settlement charges	\$ —	\$ —
	Other income (expense), net ⁽¹⁾	(290)	(315)		Other income (expense), net ⁽¹⁾	(405)	(290)
	Income tax (expense) benefit	65	56		Income tax (expense) benefit	248	65
	Net income	<u>\$ (225)</u>	<u>\$ (196)</u>		Net income	<u>\$ (157)</u>	<u>\$ (225)</u>
Unrealized gains (losses) on derivative instrument ⁽²⁾	Unrealized gains (losses) on derivative instrument ⁽²⁾						
	Other income (expense), net	\$ —	\$ (3,191)				
	Income tax (expense) benefit	—	715				
	Net income	<u>\$ —</u>	<u>\$ (2,476)</u>				

(1) These accumulated other comprehensive loss components are included in the computation of net periodic pension cost. For additional details, refer to "Note 11 – Pension Benefits, Other Postretirement Benefits and Employee Savings and Investment Plan."

(2) This relates to the derivative instrument designated as a cash flow hedge and held as of the end of the year for each year presented.

Note 5 – Property, Plant and Equipment

Our "Property, plant and equipment, net" line item in the consolidated statements of financial position consisted of the following:

		As of December 31,				As of December 31,	
(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021	
Land and improvements	Land and improvements	<u>\$ 24,804</u>	<u>\$ 22,589</u>	Land and improvements	<u>\$ 23,886</u>	<u>\$ 24,804</u>	

Buildings and improvements	Buildings and improvements	163,920	155,669	Buildings and improvements	169,548	163,920
Machinery and equipment	Machinery and equipment	322,653	324,773	Machinery and equipment	334,069	322,653
Office equipment	Office equipment	57,156	59,001	Office equipment	61,447	57,156
Property plant and equipment, gross	Property plant and equipment, gross	568,533	562,032	Property plant and equipment, gross	588,950	568,533
Accumulated depreciation	Accumulated depreciation	(367,850)	(365,844)	Accumulated depreciation	(381,584)	(367,850)
Property, plant and equipment, net	Property, plant and equipment, net	200,683	196,188	Property, plant and equipment, net	207,366	200,683
Equipment in process	Equipment in process	126,284	76,190	Equipment in process	151,049	126,284
Total property, plant and equipment, net	Total property, plant and equipment, net	\$ 326,967	\$ 272,378	Total property, plant and equipment, net	\$ 358,415	\$ 326,967

Depreciation expense was \$29.5 million, \$29.0 million and \$29.3 million in 2022, 2021 and \$31.4 2020, respectively. Additionally, we recognized \$47.2 million, \$0.5 million and \$0.6 million of impairment charges in 2022, 2021 and 2020, and 2019, respectively. For additional information related to the impairment charges, refer to "Note 15 – Supplemental Financial Information."

Note 6 – Goodwill and Other Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the period ending December 31, 2021 December 31, 2022, by operating segment, were as follows:

(Dollars in thousands)	(Dollars in thousands)	Advanced Electronics Solutions	Elastomeric Material Solutions	Other	Total	(Dollars in thousands)	Advanced Electronics Solutions	Elastomeric Material Solutions	Other	Total
December 31, 2020	\$	124,927	\$ 143,021	\$ 2,224	\$ 270,172					
Acquisition		—	107,231	—	107,231					
December 31, 2021						December 31, 2021	\$ 119,567	\$ 248,398	\$ 2,224	\$ 370,189
Purchase accounting adjustment						Purchase accounting adjustment	—	(926)	—	(926)
Foreign currency translation adjustment	Foreign currency translation adjustment	(5,360)	(1,854)	—	(7,214)	Foreign currency translation adjustment	(4,215)	(12,683)	—	(16,898)
December 31, 2021	\$	119,567	\$ 248,398	\$ 2,224	\$ 370,189					
December 31, 2022						December 31, 2022	\$ 115,352	\$ 234,789	\$ 2,224	\$ 352,365

Other Intangible Assets

The carrying amount of other intangible assets were as follows:

(Dollars in thousands)	(Dollars in thousands)	December 31, 2021			December 31, 2020			(Dollars in thousands)	(Dollars in thousands)	December 31, 2022			December 31, 2021		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount			Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	Customer relationships	\$198,095	\$ 77,870	\$120,225	\$150,863	\$ 72,014	\$ 78,849	Customer relationships	\$178,605	\$ 85,569	\$ 93,036	\$198,095	\$ 77,870	\$120,225	
Technology	Technology	88,445	54,900	33,545	83,469	53,540	29,929	Technology	82,349	59,052	23,297	88,445	54,900	33,545	
Trademarks and trade names	Trademarks and trade names	25,504	8,968	16,536	12,039	8,149	3,890	Trademarks and trade names	19,098	6,639	12,459	25,504	8,968	16,536	
Covenants not to compete	Covenants not to compete	2,693	1,137	1,556	1,340	827	513	Covenants not to compete	1,919	1,199	720	2,693	1,137	1,556	

Total definite-lived other intangible assets	Total definite-lived other intangible assets	314,737	142,875	171,862	247,711	134,530	113,181	Total definite-lived other intangible assets	281,971	152,459	129,512	314,737	142,875	171,862
Indefinite-lived other intangible asset	Indefinite-lived other intangible asset	4,491	—	4,491	4,845	—	4,845	Indefinite-lived other intangible asset	4,212	—	4,212	4,491	—	4,491
Total other intangible assets	Total other intangible assets	\$319,228	\$142,875	\$176,353	\$252,556	\$134,530	\$118,026	Total other intangible assets	\$286,183	\$152,459	\$133,724	\$319,228	\$142,875	\$176,353

In the table above, gross carrying amounts and accumulated amortization may differ from prior periods due to foreign exchange rate fluctuations.

Amortization expense was \$16.4 million, \$14.3 million and \$42.1 million in 2022, 2021 and 2020, respectively. Additionally, in 2022, we impaired \$17.9 million in 2021, 2020 of customer relationships, technology and 2019, respectively, trademarks and trade names definite-lived other intangible assets related to our high-performance engineered cellular elastomer business. For additional information related to the impairment charges, refer to "Note 15 – Supplemental Financial Information." The estimated annual future amortization

expense is \$17.0 \$13.2 million, \$16.0 \$12.1 million, \$14.6 \$10.6 million, \$12.7 \$10.2 million and \$12.1 \$9.8 million in 2022, 2023, 2024, 2025, 2026 and 2026, 2027, respectively. These amounts could vary based on changes in foreign currency exchange rates.

In 2020, our Diversified Silicone Products, Inc. (DSP) customer relationships and trademarks and trade names definite-lived other intangible assets were both accelerated to be fully amortized by December 31, 2020, causing higher amortization expense. As part of our ongoing assessment of the useful lives of our definite-lived other intangible assets, we reviewed the deterioration of our DSP business and identified significant customer attrition, a sustained substantial decrease in net sales, as well as the planned phase-out of the DSP trademark and trade name by December 2020. Based on these events and circumstances, we concluded an adjustment to the remaining useful lives of our DSP customer relationships and trademarks and trade names definite-lived other intangible assets was warranted.

The weighted average amortization period as of December 31, 2021 December 31, 2022, by definite-lived other intangible asset class, is presented in the table below:

Definite-Lived Other Intangible Asset Class	Weighted Average Remaining Amortization	
	Period	
Customer relationships	8.13	7.7
Technology	3.67	3.6
Trademarks and trade names	2.21	10.1
Covenants not to compete	1.31	1.0
Total definite-lived other intangible assets	6.63	7.2

Note 7 – Earnings Per Share

Basic earnings per share is based on the weighted average number of common shares outstanding. Diluted earnings per share is based on the weighted average number of common shares outstanding and all dilutive potential common shares outstanding.

The following table sets forth the computation of basic and diluted earnings per share:

		Years Ended December 31,					Years Ended December 31,		
		2021	2020	2019			2022	2021	2020
(Dollars and shares in thousands, except per share amounts)	(Dollars and shares in thousands, except per share amounts)				(Dollars and shares in thousands, except per share amounts)				
Numerator:	Numerator:				Numerator:				
Net income	Net income	\$ 108,133	\$ 49,990	\$ 47,319	Net income	\$ 116,629	\$ 108,133	\$ 49,990	
Denominator:	Denominator:				Denominator:				
Weighted average shares outstanding - basic	Weighted average shares outstanding - basic	18,731	18,681	18,573	Weighted average shares outstanding - basic	18,784	18,731	18,681	
Effect of dilutive shares	Effect of dilutive shares	132	25	140	Effect of dilutive shares	169	132	25	

Weighted average shares outstanding - diluted	Weighted average shares outstanding - diluted	18,863	18,706	18,713	Weighted average shares outstanding - diluted	18,953	18,863	18,706
Basic earnings per share	Basic earnings per share	\$ 5.77	\$ 2.68	\$ 2.55	Basic earnings per share	\$ 6.21	\$ 5.77	\$ 2.68
Diluted earnings per share	Diluted earnings per share	\$ 5.73	\$ 2.67	\$ 2.53	Diluted earnings per share	\$ 6.15	\$ 5.73	\$ 2.67

Dilutive shares are calculated using the treasury stock method and primarily include unvested restricted stock units. Anti-dilutive shares are excluded from the calculation of diluted shares and diluted earnings per share. For 2022, 2021 and 2020, 18,444, 721 and 2019, 721, 8,454 and 20,520 shares were excluded, respectively.

Note 8 - Capital Stock and Equity Compensation

Capital Stock

Our 2019 Long-Term Equity Compensation Plan, which was approved by our shareholders in May 2019, permits the granting of restricted stock units and certain other forms of equity awards to officers and other key employees. Under this plan, we also grant each non-management director deferred stock units, which permit non-management directors to receive, at a later date, one share of Rogers capital stock for each deferred stock unit, with no payment of any consideration by the director at the time the shares were received.

Shares of capital stock reserved for possible future issuance were as follows:

		As of December 31,			As of December 31,	
		2021	2020		2022	2021
Shares reserved for issuance under outstanding restricted stock unit awards	Shares reserved for issuance under outstanding restricted stock unit awards	320,381	324,260	Shares reserved for issuance under outstanding restricted stock unit awards	255,310	320,381
Deferred compensation to be paid in stock, including deferred stock units	Deferred compensation to be paid in stock, including deferred stock units	9,500	12,715	Deferred compensation to be paid in stock, including deferred stock units	6,850	9,500
Additional shares reserved for issuance under Rogers Corporation 2019 Long-Term Equity Compensation Plan	Additional shares reserved for issuance under Rogers Corporation 2019 Long-Term Equity Compensation Plan	869,516	918,809	Additional shares reserved for issuance under Rogers Corporation 2019 Long-Term Equity Compensation Plan	914,439	869,516
Shares reserved for issuance under the Rogers Corporation Global Stock Ownership Plan for Employees ⁽¹⁾	Shares reserved for issuance under the Rogers Corporation Global Stock Ownership Plan for Employees ⁽¹⁾	5,552	78,678	Shares reserved for issuance under the Rogers Corporation Global Stock Ownership Plan for Employees ⁽¹⁾	59,611	65,163
Total	Total	1,204,949	1,334,462	Total	1,236,210	1,264,560

⁽¹⁾ This is an employee stock purchase plan within the meaning of Section 432(b) of the Internal Revenue Code of 1986, as amended, that was discontinued suspended as of December 31, 2021, pursuant to the Merger Agreement, then-pending merger agreement with DuPont.

Share Repurchases

In 2015, we initiated a share repurchase program (the Program) of up to \$100.0 million of the Company's capital stock. We initiated the Program to mitigate potentially dilutive effects of stock options and shares of restricted stock granted by the Company, in addition to enhancing shareholder value. The share repurchase program has no expiration date and may be suspended or discontinued at any time without notice. As of December 31, 2022, \$24.0 million remained of our \$100.0 million share repurchase program. In 2022, we purchased 237,806 shares for a total value of \$25.0 million. There were no share repurchases in 2021 or 2020.

Equity Compensation

Performance-Based Restricted Stock Units

As of December 31, 2021 December 31, 2022, we had performance-based restricted stock units from 2021 2020 and 2019 2020 outstanding. These awards generally cliff vest at the end of a three-year measurement period. However, employees whose employment terminates during the measurement period due to death, disability, or, in certain cases,

retirement may receive a pro-rata payout based on the number of days they were employed during the measurement period. Participants are eligible to be awarded shares ranging from 0% to 200% of the original award amount, based on certain defined performance measures.

The outstanding awards have one measurement criteria: the three-year total shareholder return (TSR) on our capital stock as compared to that of a specified group of peer companies. The TSR measurement criteria of the awards is considered a market condition. As such, the fair value of this measurement criteria is determined on the grant date using a Monte Carlo simulation valuation model. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period with no changes for final projected payout of the awards. We account for forfeitures as they occur.

Below were the assumptions used in the Monte Carlo calculation for each material award granted in 2021, 2020 and 2019, 2020:

		February 10, 2021	February 12, 2020	June 3, 2019	February 7, 2019	February 10, 2021	February 12, 2020
Expected volatility	Expected volatility	51.0%	41.0%	39.7%	36.7%	51.0%	41.0%
Expected term (in years)	Expected term (in years)	2.9	2.9	2.6	2.9	2.9	2.9
Risk-free interest rate	Risk-free interest rate	0.18%	1.41%	1.78%	2.43%	0.18%	1.41%

Expected volatility – In determining expected volatility, we have considered a number of factors, including historical volatility.

Expected term – We use the vesting period of the award to determine the expected term assumption for the Monte Carlo simulation valuation model.

Risk-free interest rate – We use an implied “spot rate” yield on U.S. Treasury Constant Maturity rates as of the grant date for our assumption of the risk-free interest rate.

Expected dividend yield – We do not currently pay dividends on our capital stock; therefore, a dividend yield of 0% was used in the Monte Carlo simulation valuation model.

A summary of activity of the outstanding performance-based restricted stock units for 2021, 2020 and 2019, 2020 is presented below:

		2021		2020		2019			2022		2021		2020	
		Weighted-Average Grant		Weighted-Average Grant		Weighted-Average Grant			Weighted-Average Grant		Weighted-Average Grant		Weighted-Average Grant	
		Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value		Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value
Awards outstanding as of January 1	Awards outstanding as of January 1	111,059	\$ 170.84	106,943	\$ 161.33	142,434	\$ 110.19	Awards outstanding as of January 1	114,554	\$ 196.23	111,059	\$ 170.84	106,943	\$ 161.33
Awards granted	Awards granted	41,507	258.17	87,244	131.99	112,160	114.22	Awards granted	26,819	176.33	41,507	258.17	87,244	131.99
Stock issued	Stock issued	—	—	(75,486)	111.54	(135,032)	69.10	Stock issued	(60,053)	179.72	—	—	(75,486)	111.54
Awards forfeited	Awards forfeited	(38,012)	189.69	(7,642)	179.89	(12,619)	152.22	Awards forfeited	(15,807)	204.69	(38,012)	189.69	(7,642)	179.89
Awards outstanding as of December 31	Awards outstanding as of December 31	114,554	\$ 196.23	111,059	\$ 170.84	106,943	\$ 161.33	Awards outstanding as of December 31	65,513	\$ 201.18	114,554	\$ 196.23	111,059	\$ 170.84

We recognized \$2.3 million, \$7.7 million, \$5.8 million and \$5.0 million of compensation expense related to performance-based restricted stock units in 2022, 2021, 2020 and 2019, 2020, respectively. As of December 31, 2021, December 31, 2022, there was \$7.4 million of total unrecognized compensation cost related to unvested performance-based restricted stock units. That cost is expected to be recognized over a weighted average period of 0.9 years.

Time-Based Restricted Stock Units

As of December 31, 2021, December 31, 2022, we had time-based restricted stock unit awards from 2022, 2021, 2020 and 2019, 2020 outstanding. The outstanding awards all ratably vest on the first, second and third anniversaries of the original grant date. However, employees whose employment terminates during the measurement period due to death, disability, or, in certain cases, retirement may receive a pro-rata payout based on the number of days they were employed subsequent to the last grant anniversary date. Each time-based restricted stock unit represents a right to receive one share of the Rogers’ capital stock at the end of the vesting period. The fair value of the award is determined by the market value of the underlying stock price at the grant date. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period. We account for forfeitures as they occur.

A summary of activity of the outstanding time-based restricted stock units for 2022, 2021, 2020 and 2019, 2020 is presented below:

2021	2020	2019	2022	2021	2020
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		Weighted-Average Grant		Weighted-Average Grant		Weighted-Average Grant			Weighted-Average Grant		Weighted-Average Grant		Weighted-Average Grant	
		Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value		Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value
Awards outstanding as of January 1	Awards outstanding as of January 1	102,142	\$ 120.16	101,685	\$ 122.68	117,476	\$ 116.10	Awards outstanding as of January 1	96,989	\$ 157.49	102,142	\$ 120.16	101,685	\$ 122.68
Awards granted	Awards granted	50,640	180.19	58,807	116.87	62,115	126.92	Awards granted	96,620	219.60	50,640	180.19	58,807	116.87
Stock issued	Stock issued	(46,329)	146.45	(50,868)	111.16	(68,111)	81.53	Stock issued	(48,253)	183.00	(46,329)	146.45	(50,868)	111.16
Awards forfeited	Awards forfeited	(9,464)	146.58	(7,482)	122.87	(9,795)	116.52	Awards forfeited	(21,072)	223.90	(9,464)	146.58	(7,482)	122.87
Awards outstanding as of December 31	Awards outstanding as of December 31	96,989	\$ 157.49	102,142	\$ 120.16	101,685	\$ 122.68	Awards outstanding as of December 31	124,284	\$ 194.60	96,989	\$ 157.49	102,142	\$ 120.16

We recognized \$8.2 million, \$7.6 million, \$6.0 million and \$5.8 million of compensation expense related to time-based restricted stock units in 2022, 2021, 2020 and 2019, respectively. As of December 31, 2021, December 31, 2022, there was \$7.8 million of total unrecognized compensation cost related to unvested time-based restricted stock units. That cost is expected to be recognized over a weighted average period of 0.9 years.

Deferred Share Repurchases

In 2015, we initiated a share repurchase program (the Program) of up to \$100.0 million of the Company's capital stock. We initiated the Program to mitigate potentially dilutive effects of stock options and shares of restricted stock granted by the Company, in addition to enhancing shareholder value. The share repurchase program has no expiration date and may be suspended or discontinued at any time without notice. As of December 31, 2022, \$24.0 million remained of our \$100.0 million share repurchase program. In 2022, we purchased 237,806 shares for a total value of \$25.0 million. There were no share repurchases in 2021 or 2020.

Equity Compensation

Performance-Based Restricted Stock Units

We grant deferred As of December 31, 2022, we had performance-based restricted stock units to non-management directors, from 2021 and 2020 outstanding. These awards are fully vested generally cliff vest at the end of a three-year measurement period. However, employees whose employment terminates during the measurement period due to death, disability, or, in certain cases, retirement may receive a pro-rata payout based on the date number of grant and days they were employed during the related measurement period. Participants are eligible to be awarded shares are generally issued ranging from 0% to 200% of the original award amount, based on certain defined performance measures.

The outstanding awards have one measurement criteria: the three-year total shareholder return (TSR) on our capital stock as compared to that of a specified group of peer companies. The TSR measurement criteria of the awards is considered a market condition. As such, the fair value of this measurement criteria is determined on the 13-month anniversary grant date using a Monte Carlo simulation valuation model. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period with no changes for final projected payout of the awards. We account for forfeitures as they occur.

Below were the assumptions used in the Monte Carlo calculation for each material award granted in 2021 and 2020:

	February 10, 2021	February 12, 2020
Expected volatility	51.0%	41.0%
Expected term (in years)	2.9	2.9
Risk-free interest rate	0.18%	1.41%

Expected volatility – In determining expected volatility, we have considered a number of factors, including historical volatility.

Expected term – We use the vesting period of the award to determine the expected term assumption for the Monte Carlo simulation valuation model.

Risk-free interest rate – We use an implied "spot rate" yield on U.S. Treasury Constant Maturity rates as of the grant date unless for our assumption of the individual elects risk-free interest rate.

Expected dividend yield – We do not currently pay dividends on our capital stock; therefore, a dividend yield of 0% was used in the Monte Carlo simulation valuation model.

A summary of activity of the outstanding performance-based restricted stock units for 2021 and 2020 is presented below:

	2022	2021	2020

	Weighted-Average			Weighted-Average			Weighted-Average	
	Awards Outstanding	Grant Date Fair Value	Awards Outstanding	Grant Date Fair Value	Awards Outstanding	Grant Date Fair Value	Awards Outstanding	Grant Date Fair Value
Awards outstanding as of January 1	114,554	\$ 196.23	111,059	\$ 170.84	106,943	\$ 161.33		
Awards granted	26,819	176.33	41,507	258.17	87,244	131.99		
Stock issued	(60,053)	179.72	—	—	(75,486)	111.54		
Awards forfeited	(15,807)	204.69	(38,012)	189.69	(7,642)	179.89		
Awards outstanding as of December 31	65,513	\$ 201.18	114,554	\$ 196.23	111,059	\$ 170.84		

We recognized \$2.3 million, \$7.7 million and \$5.8 million of compensation expense related to **defer the receipt** performance-based restricted stock units in 2022, 2021 and 2020, respectively. As of **those shares**, **Each deferred** December 31, 2022, there was \$1.9 million of total unrecognized compensation cost related to unvested performance-based restricted stock units. That cost is expected to be recognized over a weighted average period of 0.5 years.

Time-Based Restricted Stock Units

As of December 31, 2022, we had time-based restricted stock unit **results** awards from 2022, 2021 and 2020 outstanding. The outstanding awards all ratably vest on the first, second and third anniversaries of the original grant date. However, employees whose employment terminates during the measurement period due to death, disability, or, in certain cases, retirement may receive a pro-rata payout based on the **issuance** number of days they were employed subsequent to the last grant anniversary date. Each time-based restricted stock unit represents a right to receive one share of the Rogers' capital stock. The grant stock at the end of **deferred stock units is typically done annually during the second quarter of each year**, vesting period. The fair value of the award is determined by the market value of the underlying stock price at the grant date. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period. We account for forfeitures as they occur.

A summary of activity of the outstanding **deferred** time-based restricted stock units for 2022, 2021 **2020** and **2019** 2020 is presented below:

		2021		2020		2019				2022		2021		2020	
		Weighted-Average Grant		Weighted-Average Grant		Weighted-Average Grant				Weighted-Average Grant		Weighted-Average Grant		Weighted-Average Grant	
		Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value			Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value	Awards Outstanding	Date Fair Value
Awards outstanding as of January 1	Awards outstanding as of January 1	12,450	\$ 113.96	7,150	\$ 170.89	8,400	\$ 108.86	Awards outstanding as of January 1		96,989	\$ 157.49	102,142	\$ 120.16	101,685	\$ 122.68
Awards granted	Awards granted	6,450	188.60	10,400	108.88	5,950	183.40	Awards granted		96,620	219.60	50,640	180.19	58,807	116.87
Stock issued	Stock issued	(9,400)	104.68	(5,100)	183.40	(7,200)	108.86	Stock issued		(48,253)	183.00	(46,329)	146.45	(50,868)	111.16
Awards forfeited	Awards forfeited							Awards forfeited		(21,072)	223.90	(9,464)	146.58	(7,482)	122.87
Awards outstanding as of December 31	Awards outstanding as of December 31	9,500	\$ 173.82	12,450	\$ 113.96	7,150	\$ 170.89	Awards outstanding as of December 31		124,284	\$ 194.60	96,989	\$ 157.49	102,142	\$ 120.16

We recognized **\$1.2** \$8.2 million, **\$1.1** \$7.6 million and **\$1.1** \$6.0 million of compensation expense related to **deferred** time-based restricted stock units in 2022, 2021 and 2020, and **2019**, respectively. As of December 31, 2022, there was \$16.1 million of total unrecognized compensation cost related to unvested time-based restricted stock units. That cost is expected to be recognized over a weighted average period of 0.9 years.

Share Repurchases

In 2015, we initiated a share repurchase program (the Program) of up to \$100.0 million of the Company's capital stock. We initiated the Program to mitigate potentially dilutive effects of stock options and shares of restricted stock granted by the Company, in addition to enhancing shareholder value. The share repurchase program has no expiration date and may be suspended or discontinued at any time without notice. As of **December 31, 2021** December 31, 2022, **\$49.0** \$24.0 million remained of our \$100.0 million share repurchase program. In 2022, we purchased 237,806 shares for a total value of \$25.0 million. There were no share repurchases in 2021 or 2020.

Equity Compensation

Performance-Based Restricted Stock Units

As of December 31, 2022, we had performance-based restricted stock units from 2021 and 2020 outstanding. These awards generally cliff vest at the end of a three-year measurement period. However, employees whose employment terminates during the measurement period due to death, disability, or, **2019**, in certain cases, retirement may receive a pro-rata payout based on the number of days they were employed during the measurement period. Participants are eligible to be awarded shares ranging from 0% to 200% of the original award amount, based on certain defined performance measures.

The outstanding awards have one measurement criteria: the three-year total shareholder return (TSR) on our capital stock as compared to that of a specified group of peer companies. The TSR measurement criteria of the awards is considered a market condition. As such, the fair value of this measurement criteria is determined on the grant date using a Monte Carlo simulation valuation model. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period with no changes for final projected payout of the awards. We account for forfeitures as they occur.

Below were the assumptions used in the Monte Carlo calculation for each material award granted in 2021 and 2020:

	February 10, 2021	February 12, 2020
Expected volatility	51.0%	41.0%
Expected term (in years)	2.9	2.9
Risk-free interest rate	0.18%	1.41%

Expected volatility – In determining expected volatility, we have considered a number of factors, including historical volatility.

Expected term – We use the vesting period of the award to determine the expected term assumption for the Monte Carlo simulation valuation model.

Risk-free interest rate – We use an implied “spot rate” yield on U.S. Treasury Constant Maturity rates as of the grant date for our assumption of the risk-free interest rate.

Expected dividend yield – We do not currently pay dividends on our capital stock; therefore, a dividend yield of 0% was used in the Monte Carlo simulation valuation model.

A summary of activity of the outstanding performance-based restricted stock units for 2021 and 2020 is presented below:

	2022		2021		2020	
	Awards Outstanding	Weighted-Average Grant Date Fair Value	Awards Outstanding	Weighted-Average Grant Date Fair Value	Awards Outstanding	Weighted-Average Grant Date Fair Value
Awards outstanding as of January 1	114,554	\$ 196.23	111,059	\$ 170.84	106,943	\$ 161.33
Awards granted	26,819	176.33	41,507	258.17	87,244	131.99
Stock issued	(60,053)	179.72	—	—	(75,486)	111.54
Awards forfeited	(15,807)	204.69	(38,012)	189.69	(7,642)	179.89
Awards outstanding as of December 31	65,513	\$ 201.18	114,554	\$ 196.23	111,059	\$ 170.84

We recognized \$2.3 million, \$7.7 million and \$5.8 million of compensation expense related to performance-based restricted stock units in 2022, 2021 and 2020, respectively. As of December 31, 2022, there was \$1.9 million of total unrecognized compensation cost related to unvested performance-based restricted stock units. That cost is expected to be recognized over a weighted average period of 0.5 years.

Time-Based Restricted Stock Units

As of December 31, 2022, we had time-based restricted stock unit awards from 2022, 2021 and 2020 outstanding. The outstanding awards all ratably vest on the first, second and third anniversaries of the original grant date. However, employees whose employment terminates during the measurement period due to death, disability, or, in certain cases, retirement may receive a pro-rata payout based on the number of days they were employed subsequent to the last grant anniversary date. Each time-based restricted stock unit represents a right to receive one share of the Rogers' capital stock at the end of the vesting period. The fair value of the award is determined by the market value of the underlying stock price at the grant date. We recognize compensation expense on all of these awards on a straight-line basis over the vesting period. We account for forfeitures as they occur.

A summary of activity of the outstanding time-based restricted stock units for 2022, 2021 and 2020 is presented below:

	2022		2021		2020	
	Awards Outstanding	Weighted-Average Grant Date Fair Value	Awards Outstanding	Weighted-Average Grant Date Fair Value	Awards Outstanding	Weighted-Average Grant Date Fair Value
Awards outstanding as of January 1	96,989	\$ 157.49	102,142	\$ 120.16	101,685	\$ 122.68
Awards granted	96,620	219.60	50,640	180.19	58,807	116.87
Stock issued	(48,253)	183.00	(46,329)	146.45	(50,868)	111.16
Awards forfeited	(21,072)	223.90	(9,464)	146.58	(7,482)	122.87
Awards outstanding as of December 31	124,284	\$ 194.60	96,989	\$ 157.49	102,142	\$ 120.16

We recognized \$8.2 million, \$7.6 million and \$6.0 million of compensation expense related to time-based restricted stock units in 2022, 2021 and 2020, respectively. As of December 31, 2022, there was \$16.1 million of total unrecognized compensation cost related to unvested time-based restricted stock units. That cost is expected to be recognized over a weighted average period of 0.9 years.

Deferred Stock Units

We grant deferred stock units to non-management directors. These awards are fully vested on the date of grant and the related shares are generally issued on the 13-month anniversary of the grant date unless the individual elects to defer the receipt of those shares. Each deferred stock unit results in the issuance of one share of Rogers' capital

stock. The grant of deferred stock units is typically done annually during the second quarter of each year. The fair value of the award is determined by the market value of the underlying stock price at the grant date.

A summary of activity of the outstanding deferred stock units for 2022, 2021 and 2020 is presented below:

	2022		2021		2020	
	Awards Outstanding	Weighted-Average Grant Date Fair Value	Awards Outstanding	Weighted-Average Grant Date Fair Value	Awards Outstanding	Weighted-Average Grant Date Fair Value
Awards outstanding as of January 1	9,500	\$ 173.82	12,450	\$ 113.96	7,150	\$ 170.89
Awards granted	4,800	272.12	6,450	188.60	10,400	108.88
Stock issued	(7,450)	183.20	(9,400)	104.68	(5,100)	183.40
Awards outstanding as of December 31	6,850	\$ 232.51	9,500	\$ 173.82	12,450	\$ 113.96

We recognized \$1.3 million, \$1.2 million and \$1.1 million of compensation expense related to deferred stock units in 2022, 2021 and 2020, respectively.

Note 9 – Debt

In October 2020, we entered into the Fourth Amended and Restated Credit Agreement with JPMorgan Chase Bank, N.A. as administrative agent, and the lenders party thereto (the Fourth Amended Credit Agreement). The Fourth Amended Credit Agreement amends and restates the Third Amended Credit Agreement, and provides for a revolving credit facility with up to a \$450.0 million borrowing capacity, with sublimits for multicurrency borrowings, letters of credit and swing-line notes, in addition to a \$175.0 million accordion feature. Borrowings may be used to finance working capital needs, for letters of credit and for general corporate purposes in the ordinary course of business, including the financing of permitted acquisitions (as defined in the Fourth Amended Credit Agreement). The Fourth Amended Credit Agreement extends the maturity, the date on which all amounts borrowed or outstanding under the Fourth Amended Credit Agreement are due, from October 16, 2020 to March 31, 2024.

All obligations under the Fourth Amended Credit Agreement are guaranteed by each of our existing and future material domestic subsidiaries, as defined in the Fourth Amended Credit Agreement (the Guarantors). The obligations are also secured by a Fourth Amended and Restated Pledge and Security Agreement, dated as of October 16, 2020, entered into by us and the Guarantors which grants to the administrative agent, for the benefit of the lenders, a security interest, subject to certain exceptions, in substantially all of our and the Guarantors' non-real estate assets. These assets include, but are not limited to, receivables, equipment, intellectual property, inventory, and stock in certain subsidiaries.

On March 5, 2021, in March 2021, the U.K. Financial Conduct Authority ("FCA") publicly announced that immediately after December 31, 2021, publication of most Euro, Swiss Franc, Japanese Yen and Pound Sterling Libor LIBOR settings will permanently cease. On October 15, 2021, In October 2021, Rogers Corporation and JPMorgan Chase Bank, N.A. entered into an amendment (Amendment No 1) to the Fourth Amended Credit Agreement to adopt a new benchmark interest rate to replace the discontinued Libor LIBOR reference rates.

Borrowings under the Fourth Amended Credit Agreement can be made as alternate base rate loans, euro-currency loans, or RFR loans. Alternate base rate loans bear interest at a base reference rate plus a spread of 62.5 to 100.0 basis points, depending on our leverage ratio. The base reference rate is the greatest of (a) the prime rate in effect on such day, (b) the NYFRB rate in effect on such day plus ½ of 1%, and or (c) the adjusted LIBOR for a one month one-month interest period in dollars on such day (or if such day is not a business day, the immediately preceding business day) plus 1%. Euro-currency loans bear interest based on adjusted LIBOR plus a spread of 162.5 to 200.0 basis points, depending on our leverage ratio. RFR loans bears interest based upon the Sterling Overnight Index Average (SONIA) plus 0.0326% plus a spread of 162.5 to 200.0 basis points. Based on our leverage ratio as of December 31, 2021 December 31, 2022, the spread was 162.5 175.0 basis points.

In addition to interest payable on the principal amount of indebtedness outstanding from time to time under the Fourth Amended Credit Agreement, we incur an annual fee of 25 to 35 basis points (based upon our leverage ratio), paid quarterly, of the unused amount of the lenders' commitments under the Fourth Amended Credit Agreement.

The Fourth Amended Credit Agreement contains customary representations and warranties, covenants, mandatory prepayments and events of default under which our payment obligations may be accelerated. If an event of default occurs, the lenders may, among other things, terminate their commitments and declare all outstanding borrowings to be immediately due and payable together with accrued interest and fees. The financial covenants include requirements to maintain (1) a total net leverage ratio of no more than 3.25 to 1.00, subject to a one-time election to increase the maximum total net leverage ratio to 3.50 to 1.00 for one fiscal year in connection with a permitted acquisition, and (2) an interest coverage ratio of no less than 3.00 to 1.00. We are permitted to net up to \$50.0 million of unrestricted domestic cash and cash equivalents against indebtedness in the calculation of the total net leverage ratio.

The Fourth Amended Credit Agreement generally permits us to pay cash dividends to our shareholders, provided that (i) no default or event of default has occurred and is continuing or would result from the dividend payment and (ii) our total net leverage ratio does not exceed 2.75 to 1.00. If our total net leverage ratio exceeds 2.75 to 1.00, we may nonetheless make up to \$20.0 million in restricted payments, including cash dividends, during the fiscal year, provided that no default or event of default has occurred and is continuing or would result from the payments. Our total net leverage ratio did not exceed 2.75 to 1.00 as of December 31, 2021 December 31, 2022.

In 2022, we borrowed \$100.0 million under our revolving credit facility for use in various operations. In 2021, we borrowed \$190.0 million under our revolving credit facility, which was primarily used to fund our acquisition of Silicone Engineering Limited. In 2020, we borrowed \$150.0 million under our revolving credit facility as a precautionary measure of increasing our cash position and preserving our financial flexibility with the uncertainty in the global markets resulting from the COVID-19 pandemic. In 2019, we did not borrow anything under our revolving credit facility. In 2022, 2021 2020 and 2019, 2020, we made discretionary principal payments on our revolving credit facility of \$75.0 million, \$25.0 million \$248.0 million and \$105.5 \$248.0 million, respectively.

We had \$190.0 \$215.0 million of outstanding borrowings under our revolving credit facility as of December 31, 2021 December 31, 2022, and \$25.0 \$190.0 million as of December 31, 2020 December 31, 2021. We had \$1.6 million \$0.9 million and \$2.3 million \$1.6 million of outstanding line of credit issuance costs as of December 31, 2021 December 31, 2022 and 2020, 2021, respectively, which will be amortized over the life of the Fourth Amended Credit Agreement.

Note 10 – Leases

Finance Leases

We had a finance lease obligation related to our manufacturing facility in Eschenbach, Germany. Under the terms of the lease agreement, we had an option to purchase the property upon the expiration of the lease on June 30, 2021 at a price which was the greater of (i) the then-current market value or (ii) the residual book value of the land including the buildings and installations thereon. We exercised this purchase option with a net cash payment of \$5.0 million on June 30, 2021, extinguishing the remaining finance lease obligation and finance lease right-of-use asset related to this facility. Our finance lease obligation related to this facility was \$4.2 million just prior to the exercise of the purchase option and \$4.5 \$4.2 million as of December 31, 2020 December 31, 2021. The finance lease right-of-use asset balance for this facility was \$6.1 million just prior to the exercise of the purchase option and \$6.5 \$6.1 million as of December 31, 2020 December 31, 2021, respectively. Accumulated amortization related to this finance lease right-of-use asset was \$4.5 million just prior to the exercise of the purchase option and as of December 31, 2021 December 31, 2022. The aggregate of all other finance lease obligations, finance lease right-of-use assets and related accumulated amortization, were immaterial as of December 31, 2021 December 31, 2022 and December 31, 2020 December 31, 2021.

Amortization expense related to our finance lease right-of-use assets, which is primarily included in the “Cost of sales” line item of the consolidated statements of operations, was immaterial for each of the years ended December 31, 2021 December 31, 2022 and 2020, 2021. Interest expense related to our finance lease obligations, which is included in the “Interest expense, net” line item of the consolidated statements of operations, was immaterial for each of the years ended December 31, 2021 December 31, 2022 and 2020, 2021. Payments made on the principal portion of our finance lease obligations were immaterial for each of the years ended December 31, 2021 December 31, 2022 and 2020, 2021.

Operating Leases

We have operating leases primarily related to building space and vehicles. Renewal options are included in the lease term to the extent we are reasonably certain to exercise the option. The exercise of lease renewal options is at our sole discretion. We account for lease components separately from non-lease components. The incremental borrowing rate represents our ability to borrow on a collateralized basis over a similar lease term. Our expenses and payments for operating leases were as follows:

(Dollars in thousands)	(Dollars in thousands)	Year Ended December 31,			(Dollars in thousands)	Year Ended December 31,		
		2021	2020	2019		2022	2021	2020
Operating leases expense	Operating leases expense	\$ 3,002	\$ 3,257	\$ 3,119	Operating leases expense	\$ 2,788	\$ 3,002	\$ 3,257
Short-term leases expense	Short-term leases expense	\$ 330	\$ 464	\$ 192	Short-term leases expense	\$ 579	\$ 330	\$ 464
Payments on operating lease obligations	Payments on operating lease obligations	\$ 2,784	\$ 2,893	\$ 2,967	Payments on operating lease obligations	\$ 3,063	\$ 2,784	\$ 2,893

Lease Balances in Statements of Financial Position

Our assets and liabilities balances related to finance and operating leases reflected in the consolidated statements of financial position were as follows:

(Dollars in thousands)	(Dollars in thousands)	Financial Statement Line Item	As of December 31,		(Dollars in thousands)	Financial Statement Line Item	As of December 31,	
			2021	2020			2022	2021
Finance lease right-of-use assets	Finance lease right-of-use assets	Property, plant and equipment, net	\$ 389	\$ 7,017	Finance lease right-of-use assets	Property, plant and equipment, net	\$ 1,749	\$ 389
Operating lease right-of-use assets	Operating lease right-of-use assets	Other long-term assets	\$ 17,161	\$ 4,216	Operating lease right-of-use assets	Other long-term assets	\$ 13,013	\$ 17,161
Finance lease obligations, current portion	Finance lease obligations, current portion	Other accrued liabilities	\$ 198	\$ 4,755	Finance lease obligations, current portion	Finance lease obligations, current portion	\$ 498	\$ 198
Finance lease obligations, non-current portion	Finance lease obligations, non-current portion	Other long-term liabilities	\$ 209	\$ 322	Finance lease obligations, non-current portion	Finance lease obligations, non-current portion	\$ 1,295	\$ 209
Total finance lease obligations	Total finance lease obligations		\$ 407	\$ 5,077	Total finance lease obligations		\$ 1,793	\$ 407

Operating lease obligations, current portion	Operating lease obligations, current portion	Other accrued liabilities	\$	2,810	\$	2,275	Operating lease obligations, current portion	Other accrued liabilities	\$	2,842	\$	2,810
Operating lease obligations, non-current portion	Operating lease obligations, non-current portion	Other long-term liabilities	\$	14,965	\$	2,219	Operating lease obligations, non-current portion	Other long-term liabilities	\$	10,689	\$	14,965
Total operating lease obligations	Total operating lease obligations		\$	17,775	\$	4,494	Total operating lease obligations		\$	13,531	\$	17,775

Net Future Minimum Lease Payments

The following table includes future minimum lease payments under finance and operating leases together with the present value of the net future minimum lease payments as of **December 31, 2021** **December 31, 2022**:

		Finance			Operating					Finance			Operating		
		Leases Signed	Less: Leases Not Yet Commenced	Leases in Effect	Leases Signed	Less: Leases Not Yet Commenced	Leases in Effect			Leases Signed	Less: Leases Not Yet Commenced	Leases in Effect	Leases Signed	Less: Leases Not Yet Commenced	Leases in Effect
(Dollars in thousands)	(Dollars in thousands)							(Dollars in thousands)							
2022		422	(217)	205	3,462	(47)	3,415	2022		608	(46)	562	3,536	(81)	3,455
2023	2023	490	(290)	200	2,682	(45)	2,637	2023	2023	425	(49)	376	2,716	(142)	2,574
2024	2024	300	(290)	10	1,635	(40)	1,595	2024	2024	425	(50)	375	2,360	(145)	2,215
2025	2025	300	(290)	10	1,334	(18)	1,316	2025	2025	418	(45)	373	2,057	(72)	1,985
2026								2026		212	(45)	167	1,310	(3)	1,307
2027								2027		164	(38)	126	4,682	—	4,682
Thereafter	Thereafter	371	(364)	7	12,758	(3)	12,755	Thereafter	Thereafter	2,252	(273)	1,979	16,661	(443)	16,218
Total lease payments	Total lease payments	1,883	(1,451)	432	21,871	(153)	21,718	Total lease payments	Total lease payments	2,252	(273)	1,979	16,661	(443)	16,218
Less: Interest	Less: Interest	(74)	49	(25)	(3,946)	3	(3,943)	Less: Interest	Less: Interest	(218)	32	(186)	(2,718)	31	(2,687)
Present Value of Net Future Minimum Lease Payments	Present Value of Net Future Minimum Lease Payments	\$ 1,809	\$ (1,402)	\$ 407	\$ 17,925	\$ (150)	\$ 17,775	Present Value of Net Future Minimum Lease Payments	Present Value of Net Future Minimum Lease Payments	\$ 2,034	\$ (241)	\$ 1,793	\$ 13,943	\$ (412)	\$ 13,531

The following table includes information regarding the lease term and discount rates utilized in the calculation of the present value of net future minimum lease payments:

		Finance Leases	Operating Leases		Finance Leases	Operating Leases
Weighted Average Remaining Lease Term	Weighted Average Remaining Lease Term	2.1 years	11.1 years	Weighted Average Remaining Lease Term	4.6 years	6.5 years
Weighted Average Discount Rate	Weighted Average Discount Rate	3.75%	3.87%	Weighted Average Discount Rate	3.89%	5.24%

Practical Expedients

We have elected to recognize lease payments in the consolidated statements of operations on a straight-line basis over the term of the lease for short-term leases. We also elected the package of practical expedients that allows us to carry forward the historical lease classification and accounting for indirect costs for any existing leases.

Note 11 – Pension Benefits, Other Postretirement Benefits and Employee Savings and Investment Plan

Pension and Other Postretirement Benefits

Pension and Other Postretirement Benefit Plans

As of **December 31, 2021** **December 31, 2022**, we had one qualified noncontributory defined benefit pension plan: the Union Plan. In June 2020, we completed the remaining settlement efforts for the Rogers Corporation Defined Benefit Pension Plan (following its merger with the Hourly Employees Pension Plan of Arlon LLC, Microwave Material and Silicone Technologies Divisions, Bear, Delaware (collectively, the Merged Plan)), which had been terminated and substantially settled in late 2019. There are no plans to terminate the Union Plan.

Additionally, we sponsor non-qualified noncontributory defined benefit pension plans and postretirement benefit plans including multiple fully insured or self-funded medical plans and life insurance plans for certain retirees. The measurement date for all plans is December 31st for each respective plan year.

Pension Plan Termination & Settlement

During the second quarter of 2019, following receipt of a determination letter from the Internal Revenue Service (IRS), the Company amended the Merged Plan to (a) terminate the Merged Plan (subject to discretionary approval by the Company's Chief Executive Officer) and (b) add a lump sum distribution option in connection with the termination of the Merged Plan, if approved. The Company subsequently provided participants of the Merged Plan an option to elect either a lump sum distribution or an annuity.

In October 2019, our Chief Executive Officer approved the termination of the Rogers Corporation Defined Benefit Pension Plan (following its merger with the Hourly Employees Pension Plan of Arlon LLC, Microwave Material and Silicone Technologies Divisions, Bear, Delaware (collectively, the Merged Plan)). Plan. We provided participants of the Merged Plan an option to elect either a lump sum distribution or an annuity. A group annuity contract was purchased with an insurance company for all participants who did not elect a lump sum distribution. The insurance company became responsible for administering and paying pension benefit payments effective January 1, 2020. In the third quarter of 2021, we recorded a \$0.5 million pre-tax settlement charge in connection with further settlement efforts for the Merged Plan termination.

Upon completion of the pension termination and settlement processes for the Merged Plan, we had a \$9.7 million remaining pension surplus investment balance. In July 2020 and December 2021, we transferred \$9.2 million of the pension surplus investment balance to a suspense account held within a trust for the Rogers Employee Savings and Investment Plan (RESIP), a 401(k) plan for domestic employees. In December 2021, we transferred the remaining pension investment balance not initially transferred, to the RESIP trust suspense account. The In 2021, \$0.5 million of the pension surplus investment balance not transferred to was used for further settlement efforts for the trust suspense account will be used to pay any final plan expenses, after which the remainder of these funds will be moved to the RESIP trust suspense account. Merged Plan termination. The funds in the RESIP trust suspense account have been, and will continue to be, were used to fund certain employer contributions. As of December 31, 2021, In 2022, we exhausted the remaining pension surplus investment balance was approximately \$6.6 million. balance.

Plan Assets and Plan Benefit Obligations

The following table summarizes the change in plan assets and changes in benefit obligations:

(Dollars in thousands)	(Dollars in thousands)	Pension Benefits		Other Postretirement Benefits		(Dollars in thousands)	Pension Benefits		Other Postretirement Benefits	
		2021	2020	2021	2020		2022	2021	2022	2021
Change in plan assets:	Change in plan assets:					Change in plan assets:				
Fair value of plan assets as of January 1	Fair value of plan assets as of January 1	\$ 35,296	\$ 42,835	\$ —	\$ —	Fair value of plan assets as of January 1	\$ 33,462	\$ 35,296	\$ —	\$ —
Actual return on plan assets	Actual return on plan assets	(222)	3,615	—	—	Actual return on plan assets	(5,616)	(222)	—	—
Employer contributions	Employer contributions	—	—	165	192	Employer contributions	—	—	19	165
Benefit payments	Benefit payments	(1,612)	(1,647)	(165)	(192)	Benefit payments	(1,546)	(1,612)	(19)	(165)
Transfer related to plan termination	Transfer related to plan termination	—	(9,744)	—	—	Transfer related to plan termination	—	—	—	—
Pension settlements	Pension settlements	—	237	—	—	Pension settlements	—	—	—	—
Fair value of plan assets as of December 31	Fair value of plan assets as of December 31	\$ 33,462	\$ 35,296	\$ —	\$ —	Fair value of plan assets as of December 31	\$ 26,300	\$ 33,462	\$ —	\$ —
Change in plan benefit obligations:	Change in plan benefit obligations:					Change in plan benefit obligations:				
Fair value of plan benefit obligations as of January 1	Fair value of plan benefit obligations as of January 1	\$ 30,289	\$ 30,300	\$ 1,503	\$ 1,599	Fair value of plan benefit obligations as of January 1	\$ 28,652	\$ 30,289	\$ 1,444	\$ 1,503
Service cost	Service cost	—	—	41	56	Service cost	—	—	89	41
Interest cost	Interest cost	732	908	26	40	Interest cost	746	732	36	26
Actuarial (gain) loss	Actuarial (gain) loss	(757)	491	39	—	Actuarial (gain) loss	(6,573)	(757)	(109)	39
Benefit payments	Benefit payments	(1,612)	(1,647)	(165)	(192)	Benefit payments	(1,546)	(1,612)	(19)	(165)
Pension settlements	Pension settlements	—	237	—	—	Pension settlements	—	—	—	—

Fair value of plan benefit obligations as of December 31	Fair value of plan benefit obligations as of December 31	\$	28,652	\$	30,289	\$	1,444	\$	1,503	Fair value of plan benefit obligations as of December 31	\$	21,279	\$	28,652	\$	1,441	\$	1,444
Amount overfunded (underfunded)	Amount overfunded (underfunded)	\$	4,810	\$	5,007	\$	(1,444)	\$	(1,503)	Amount overfunded (underfunded)	\$	5,021	\$	4,810	\$	(1,441)	\$	(1,444)

The decreases in our plan benefit obligations in 2021 2022 and 2020 2021 were primarily driven by actuarial gains and benefit payments, partially offset by interest costs and actuarial losses, costs.

Our pension-related balances reflected in the consolidated statements of financial position consisted of the following:

		Pension Benefits		Other Postretirement Benefits			Pension Benefits		Other Postretirement Benefits	
		As of December 31,		As of December 31,			As of December 31,		As of December 31,	
(Dollars in thousands)	(Dollars in thousands)	2021	2020	2021	2020	(Dollars in thousands)	2022	2021	2022	2021
Assets & Liabilities:	Assets & Liabilities:					Assets & Liabilities:				
Non-current assets	Non-current assets	\$ 5,123	\$ 5,278	\$ —	\$ —	Non-current assets	\$ 5,251	\$ 5,123	\$ —	\$ —
Current liabilities	Current liabilities	(3)	(14)	(136)	(148)	Current liabilities	(4)	(3)	(166)	(136)
Non-current liabilities	Non-current liabilities	(310)	(257)	(1,308)	(1,355)	Non-current liabilities	(226)	(310)	(1,275)	(1,308)
Net assets (liabilities)	Net assets (liabilities)	\$ 4,810	\$ 5,007	\$ (1,444)	\$ (1,503)	Net assets (liabilities)	\$ 5,021	\$ 4,810	\$ (1,441)	\$ (1,444)
Accumulated Other Comprehensive Loss:	Accumulated Other Comprehensive Loss:					Accumulated Other Comprehensive Loss:				
Net actuarial (loss) gain	Net actuarial (loss) gain	\$ (11,807)	\$ (11,171)	\$ 80	\$ 119	Net actuarial (loss) gain	\$ (11,803)	\$ (11,807)	\$ 189	\$ 80
Prior service benefit	Prior service benefit	—	—	—	97	Prior service benefit	—	—	—	—
Accumulated other comprehensive (loss) income	Accumulated other comprehensive (loss) income	\$ (11,807)	\$ (11,171)	\$ 80	\$ 216	Accumulated other comprehensive (loss) income	\$ (11,803)	\$ (11,807)	\$ 189	\$ 80

The projected benefit obligation (PBO), accumulated benefit obligation (ABO), and fair value of plan assets for the pension plan with a PBO or ABO in excess of its plan assets were immaterial as of December 31, 2021 December 31, 2022 and 2020.

2021.

The PBO, ABO, and fair value of plan assets for the pension plan with plan assets in excess of its PBO or ABO were \$28.3 \$21.0 million, \$28.3 \$21.0 million and \$33.5 \$26.3 million, respectively, as of December 31, 2021 December 31, 2022. The PBO, ABO, and fair value of plan assets for the pension plans with plan assets in excess of their PBO or ABO were \$30.0 \$28.3 million, \$30.0 \$28.3 million and \$35.3 \$33.5 million, respectively, as of December 31, 2020 December 31, 2021.

The PBO and ABO of plan assets for the other postretirement benefit plans with a PBO or ABO in excess of plan assets were both \$1.4 million as of December 31, 2022. The PBO and ABO of plan assets for the other postretirement benefit plans with a PBO or ABO in excess of plan assets were both \$1.4 million as of December 31, 2021. The PBO and ABO of plan assets for the other postretirement benefit plans with a PBO or ABO in excess of plan assets were both \$1.5 million as of December 31, 2020. The other postretirement benefit plans did not have any plan assets as of December 31, 2021 December 31, 2022 or 2020 2021.

Components of Net Periodic Benefit Cost (Credit)

The components of net periodic benefit cost (credit) were as follows:

		Pension Benefits			Other Postretirement Benefits					Pension Benefits			Other Postretirement Benefits		
		Years Ended December 31,			Years Ended December 31,					Years Ended December 31,			Years Ended December 31,		
(Dollars in thousands)	(Dollars in thousands)	2021	2020	2019	2021	2020	2019	(Dollars in thousands)	2022	2021	2020	2022	2021	2020	
Service cost	Service cost	\$ —	\$ —	\$ —	\$ 41	\$ 56	\$ 61	Service cost	\$ —	\$ —	\$ —	\$ 89	\$ 41	\$ 56	

Interest cost	Interest cost	732	908	5,641	26	40	59	Interest cost	746	732	908	36	26	40
Expected return of plan assets	Expected return of plan assets	(1,558)	(1,574)	(6,932)	—	—	—	Expected return of plan assets	(1,359)	(1,558)	(1,574)	—	—	—
Amortization of prior service credit	Amortization of prior service credit	—	—	—	(97)	(112)	(1,011)	Amortization of prior service credit	—	—	—	—	(97)	(112)
Amortization of net loss (gain)	Amortization of net loss (gain)	387	427	1,514	—	—	—	Amortization of net loss (gain)	405	387	427	—	—	—
Settlement charge	Settlement charge	—	(63)	53,213	—	—	—	Settlement charge	—	—	(63)	—	—	—
Net periodic benefit cost (credit)	Net periodic benefit cost (credit)	\$ (439)	\$ (302)	\$ 53,436	\$ (30)	\$ (16)	\$ (891)	Net periodic benefit cost (credit)	\$ (208)	\$ (439)	\$ (302)	\$ 125	\$ (30)	\$ (16)

Plan Assumptions

The key plan assumptions utilized in our annual plan measurements were as follows:

		Pension Benefits				Other Postretirement Benefits						Pension Benefits				Other Postretirement Benefits			
		2021		2020		2021		2020				2022		2021		2022		2021	
Weighted average assumptions used in benefit obligations:	Weighted average assumptions used in benefit obligations:									Weighted average assumptions used in benefit obligations:									
Discount rate	Discount rate	2.75	%	2.50	%	2.25	%	1.75	%	Discount rate	5.25	%	2.75	%	5.00	%	2.25	%	
Weighted average assumptions used in net periodic benefit costs:	Weighted average assumptions used in net periodic benefit costs:									Weighted average assumptions used in net periodic benefit costs:									
Discount rate	Discount rate	2.50	%	3.25	%	1.75	%	2.75	%	Discount rate	2.75	%	2.50	%	2.25	%	1.75	%	
Expected long-term rate of return on assets	Expected long-term rate of return on assets	4.53	%	4.53	%	—	%	—	%	Expected long-term rate of return on assets	4.17	%	4.53	%	—	%	—	%	

For measurement purposes as of **December 31, 2021** **December 31, 2022**, we assumed an annual health care cost trend rate of 6.25% for covered health care benefits for retirees pre-age 65 or post-age 65. The rate was assumed to decrease gradually by 0.25% annually until reaching 4.50% and remain at that level thereafter. For measurement purposes as of **December 31, 2020** **December 31, 2021**, we assumed an annual health care cost trend rate of **6.50%** 6.25% for covered health care benefits for retirees pre-age 65 or post-age 65.

Our pension plan assets are invested with the objective of achieving a total rate of return over the long-term that is sufficient to fund future pension obligations. In managing these assets and our investment strategy, we consider future cash contributions to the plan as well as the potential of the portfolio underperforming the market. We set asset allocation target ranges based on current funding status and future projections in order to mitigate the portfolio performance risk while maintaining its funded status. Fixed income securities comprise a substantial percentage of our plan assets portfolio. As of **December 31, 2021** **December 31, 2022**, we held approximately **90%** **91%** fixed income and short-term cash securities and **10%** **9%** equity securities in our portfolio, compared to **December 31, 2020** **December 31, 2021** when we held approximately 90% fixed income and short-term cash securities and 10% equity securities.

In determining our investment strategy and calculating the net benefit cost, we utilized an expected long-term rate of return on plan assets, which was developed based on several factors, including the plans' asset allocation targets, the historical and projected performance on those asset classes, as well as the plan's current asset composition. To justify our assumptions, we analyzed certain data points related to portfolio performance. Based on the historical returns and the projected future returns, we determined that a target return of **4.53%** **5.59%** is appropriate for the current portfolio.

The following table presents the fair value of the pension plan net assets by asset category and level, within the fair value hierarchy, as of **December 31, 2021** **December 31, 2022** and **2020** **2021**:

	Fair Value of Plan Assets as of December 31, 2022			
(Dollars in thousands)	Level 1	Level 2	Level 3	Total
Fixed income bonds	\$ —	\$ 22,180	\$ —	\$ 22,180

Mutual funds	2,466	—	—	2,466
Pooled separate accounts	—	531	—	531
Guaranteed deposit account	—	—	1,123	1,123
Total plan assets at fair value	\$ 2,466	\$ 22,711	\$ 1,123	\$ 26,300

(Dollars in thousands)	Fair Value of Plan Assets as of December 31, 2021			
	Level 1	Level 2	Level 3	Total
Fixed income bonds	\$ —	\$ 28,392	\$ —	\$ 28,392
Mutual funds	3,400	—	—	3,400
Pooled separate accounts	—	380	—	380
Guaranteed deposit account	—	—	1,290	1,290
Total plan assets at fair value	\$ 3,400	\$ 28,772	\$ 1,290	\$ 33,462

(Dollars in thousands)	Fair Value of Plan Assets as of December 31, 2020			
	Level 1	Level 2	Level 3	Total
Fixed income bonds	\$ —	\$ 29,896	\$ —	\$ 29,896
Mutual funds	3,535	—	—	3,535
Pooled separate accounts	—	518	—	518
Guaranteed deposit account	—	—	1,347	1,347
Total plan assets at fair value	\$ 3,535	\$ 30,414	\$ 1,347	\$ 35,296

The following table presents a summary of changes in the fair value of the guaranteed deposit account's Level 3 assets for the year ended **December 31, 2021** **December 31, 2022**:

	Guaranteed Deposit Account
Balance as of December 31, 2020 December 31, 2021	\$ 1,347,129
Change in unrealized gain (loss)	(24) (129)
Purchases, sales, issuances and settlements (net)	(33) (38)
Balance as of December 31, 2021 December 31, 2022	\$ 1,290 1,123

Cash Flows

We were not required to make any contributions to our qualified noncontributory defined benefit pension plan in **2021 2022** and **2020, 2021**. We made expected benefit payments for our qualified defined benefit pension plan through the utilization of plan assets for the funded pension plans in **2021 2022** and **2020, 2021**. As there is no funding requirement for the non-qualified noncontributory defined benefit pension plans and other postretirement benefit plans, we funded benefit payments, which were immaterial in **2021 2022** and **2020, 2021**, as incurred using cash from operations.

The benefit payments are based on the same assumptions used to measure our benefit obligations as of **December 31, 2021** **December 31, 2022**. The following table sets forth the expected benefit payments to be paid for the pension plans and the other postretirement benefit plans:

	Pension Benefits	Other Postretirement Benefits	Pension Benefits	Other Postretirement Benefits
2022	\$ 1,774	\$ 136		
2023	\$ 1,778	\$ 153	2023 \$ 1,721	\$ 166
2024	\$ 1,779	\$ 145	2024 \$ 1,725	\$ 147
2025	\$ 1,822	\$ 157	2025 \$ 1,761	\$ 158
2026	\$ 1,761	\$ 172	2026 \$ 1,712	\$ 164
2027-2031	\$ 8,401	\$ 677		
2027			2027 \$ 1,705	\$ 158
2028-2032			2028-2032 \$ 7,972	\$ 718

Employee Savings and Investment Plan

We sponsor the RESIP, a 401(k) plan for domestic employees. **Employees can** **In 2022, employees could** defer an amount they choose, up to the annual IRS limit of **\$19,500, \$20,500**. Certain eligible participants are also allowed to contribute the maximum catch-up contribution per IRS regulations. We match each eligible employee's annual pre-tax contributions at a rate of 100% for the first 1% of the employee's salary and 50% for the next 5% of each employee's salary for a total match of 3.5%. Unless otherwise indicated by the participant, the matching dollars are invested in the same funds as the participant's contributions. RESIP related expense amounted to **\$11.8 million**,

\$5.6 million and \$4.9 million in 2022, 2021 and \$4.4 2020, respectively. The increase in expense in 2022 was primarily due to a \$6.5 million in 2021, 2020 and 2019, respectively, discretionary RESIP contribution related to the previously anticipated merger with DuPont.

Note 12 – Commitments and Contingencies

Environmental & Legal

We are currently engaged in the following environmental and legal proceedings:

Voluntary Corrective Action Program

Our location in Rogers, Connecticut is part of the Connecticut Voluntary Corrective Action Program (VCAP). As part of this program, we partnered with the Connecticut Department of Energy and Environmental Protection (CT DEEP) to determine the corrective actions to be taken at the site related to contamination issues. We evaluated this matter and completed internal due

diligence work related to the site in the fourth quarter of 2015. Remediation activities on the site are ongoing and are recorded as reductions to the accrual as they are incurred. We have incurred aggregate remediation costs of \$1.8 \$1.9 million through December 31, 2021 December 31, 2022, and the accrual for future remediation efforts is \$0.9 \$0.7 million.

Asbestos

Overview

We, like many other industrial companies, have been named as a defendant in a number of lawsuits filed in courts across the country by persons alleging personal injury from exposure to products containing asbestos. We have never mined, milled, manufactured or marketed asbestos; rather, we made and provided to industrial users a limited number of products that contained encapsulated asbestos, but we stopped manufacturing these products in the late 1980s. Most of the claims filed against us involve numerous defendants, sometimes as many as several hundred.

The following table summarizes the change in number of asbestos claims outstanding during 2021 2022 and 2020: 2021:

		2021	2020		2022	2021
Claims outstanding as of January 1	Claims outstanding as of January 1	561	592	Claims outstanding as of January 1	543	561
New claims filed	New claims filed	125	115	New claims filed	129	125
Pending claims concluded*	Pending claims concluded*	(143)	(146)	Pending claims concluded*	(135)	(143)
Claims outstanding as of December 31	Claims outstanding as of December 31	543	561	Claims outstanding as of December 31	537	543

* For the year ended December 31, 2022, 119 claims were dismissed and 16 claims were settled. For the year ended December 31, 2021, 125 claims were dismissed and 18 claims were settled. For the year ended December 31, 2020, 126 claims were dismissed and 20 claims were settled. Settlements totaled approximately \$2.4 million for the year ended December 31, 2022, compared to \$2.1 million for the year ended December 31, 2021, compared to \$5.4 million for the year ended December 31, 2020.

Impacts on Financial Statements

We recognize a liability for asbestos-related contingencies that are probable of occurrence and reasonably estimable. In connection with the recognition of liabilities for asbestos-related matters, we record asbestos-related insurance receivables that are deemed probable.

The liability projection period covers all current and future indemnity and defense costs through 2064, which represents the expected end of our asbestos liability exposure with no further ongoing claims expected beyond that date. This conclusion was based on our history and experience with the claims data, the diminished volatility and consistency of observable claims data, the period of time that has elapsed since we stopped manufacturing products that contained encapsulated asbestos and an expected downward trend in claims due to the average age of our claimants, which is approaching the average life expectancy.

To date, the indemnity and defense costs of our asbestos-related product liability litigation have been substantially covered by insurance. Although we have exhausted coverage under some of our insurance policies, we believe that we have applicable primary, excess and/or umbrella coverage for claims arising with respect to most of the years during which we manufactured and marketed asbestos-containing products. In addition, we have entered into a cost sharing agreement with most of our primary, excess and umbrella insurance carriers to facilitate the ongoing administration and payment of claims covered by the carriers. The cost sharing agreement may be terminated by any party, but will continue until a party elects to terminate it. As of the filing date for this report, the agreement was not terminated, and no carrier had informed us it intended to terminate the agreement. We expect to continue to exhaust individual primary, excess and umbrella coverages over time, and there is no assurance that such exhaustion will not accelerate due to additional claims, damages and settlements or that coverage will be available as expected. We are responsible for uninsured indemnity and defense costs, and we paid \$0.6 million, \$0.5 million and \$0.4 million in 2022, 2021 and \$0.7 million in 2021, 2020, and 2019, respectively, related to such costs.

The amounts recorded for the asbestos-related liability and the related insurance receivables are based on facts known at the time and a number of assumptions. However, projecting future events, such as the number of new claims to be filed each year,

the average cost of disposing of such claims, the length of time it takes to dispose of such claims, coverage issues among insurers and the continuing solvency of various insurance companies, as well as the numerous uncertainties surrounding asbestos litigation in the U.S., could cause the actual liability and insurance recoveries for us to be higher or lower than those projected or recorded.

Changes recorded in the estimated liability and estimated insurance recovery based on the projections of asbestos litigation and corresponding insurance coverage, result in the recognition of expense or income. We recognized an immaterial amount of expense and an immaterial amount of income of \$0.2 million, in 2022 and 2021, respectively, as well as income of \$0.7 million and expense of \$1.7 million in 2021, 2020 and 2019, respectively. The benefit recognized in 2021 was primarily due to a favorable change in the indemnity cost assumptions. 2020. The benefit recognized in 2020 was primarily due to a favorable change in the defense cost assumptions. The expense recognized in 2019

was primarily due to an unfavorable change in the defense cost assumptions and the inclusion of non-mesothelioma cases in the cost projections, partially offset by a corresponding favorable change in our insurance recovery expectations.

Our projected asbestos-related claims and insurance receivables were as follows:

(Dollars in thousands)	(Dollars in thousands)	As of December 31,		(Dollars in thousands)	(Dollars in thousands)	As of December 31,	
		2021	2020			2022	2021
Asbestos-related liabilities	Asbestos-related liabilities	\$ 68,332	\$ 73,235	Asbestos-related liabilities	\$ 65,033	\$ 68,332	
Asbestos-related insurance receivables	Asbestos-related insurance receivables	\$ 62,567	\$ 66,793	Asbestos-related insurance receivables	\$ 59,807	\$ 62,567	

General

In addition to the above issues, the nature and scope of our business brings us in regular contact with the general public and a variety of businesses and government agencies. Such activities inherently subject us to the possibility of litigation, including environmental and product liability matters that are defended and handled in the ordinary course of business. We have established accruals for matters for which management considers a loss to be probable and reasonably estimable. It is the opinion of management that facts known at the present time do not indicate that such litigation will have a material adverse impact on our results of operations, financial position or cash flows.

Note 13 – Income Taxes

The “Income before income tax expense” line item in the consolidated statements of operations consisted of:

(Dollars in thousands)	(Dollars in thousands)	2021	2020	43465	(Dollars in thousands)	2022	2021	2020
Domestic	Domestic	\$ 34,435	\$ (4,371)	\$ (18,711)	Domestic	\$ 58,390	\$ 34,435	\$ (4,371)
International	International	91,845	72,905	73,837	International	81,990	91,845	72,905
Total	Total	\$ 126,280	\$ 68,534	\$ 55,126	Total	\$ 140,380	\$ 126,280	\$ 68,534

The “Income tax expense” line item in the consolidated statements of operations consisted of:

(Dollars in thousands)	(Dollars in thousands)	Current	Deferred	Total	(Dollars in thousands)	Current	Deferred	Total
2022					2022			
Domestic	Domestic	\$ 26,666	\$ (18,730)	\$ 7,936	Domestic	\$ 26,666	\$ (18,730)	\$ 7,936
International	International	17,641	(1,826)	15,815	International	17,641	(1,826)	15,815
Total	Total	\$ 44,307	\$ (20,556)	\$ 23,751	Total	\$ 44,307	\$ (20,556)	\$ 23,751
2021	2021				2021			
Domestic	Domestic	\$ 5,155	\$ (2,938)	\$ 2,217	Domestic	\$ 5,155	\$ (2,938)	\$ 2,217
International	International	16,187	(257)	15,930	International	16,187	(257)	15,930
Total	Total	\$ 21,342	\$ (3,195)	\$ 18,147	Total	\$ 21,342	\$ (3,195)	\$ 18,147
2020	2020				2020			
Domestic	Domestic	\$ 5,340	\$ (11,012)	\$ (5,672)	Domestic	\$ 5,340	\$ (11,012)	\$ (5,672)
International	International	26,610	(2,394)	24,216	International	26,610	(2,394)	24,216
Total	Total	\$ 31,950	\$ (13,406)	\$ 18,544	Total	\$ 31,950	\$ (13,406)	\$ 18,544
2019								
Domestic		\$ 3,372	\$ (16,827)	\$ (13,455)				
International		21,984	(722)	21,262				
Total		\$ 25,356	\$ (17,549)	\$ 7,807				

Deferred tax assets and liabilities as of December 31, 2021, December 31, 2022 and 2020, 2021, were comprised of the following:

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
Deferred tax assets	Deferred tax assets			Deferred tax assets		
Accrued employee benefits and compensation	Accrued employee benefits and compensation	\$ 10,647	\$ 6,199	Accrued employee benefits and compensation	\$ 8,678	\$ 10,647
Net operating loss carryforwards	Net operating loss carryforwards	3,785	2,563	Net operating loss carryforwards	4,433	3,785

Tax credit carryforwards	Tax credit carryforwards	13,170	15,081	Tax credit carryforwards	2,823	13,170
Reserves and accruals	Reserves and accruals	5,145	6,581	Reserves and accruals	4,716	5,145
Operating leases	Operating leases	4,191	665	Operating leases	4,227	4,191
Capitalized research and development	Capitalized research and development	16,622	14,167	Capitalized research and development	21,305	16,622
Other	Other	5,299	1,824	Other	10,205	5,299
Total deferred tax assets	Total deferred tax assets	58,859	47,080	Total deferred tax assets	56,387	58,859
Less deferred tax asset valuation allowance	Less deferred tax asset valuation allowance	(9,775)	(9,250)	Less deferred tax asset valuation allowance	(2,843)	(9,775)
Total deferred tax assets, net of valuation allowance	Total deferred tax assets, net of valuation allowance	49,084	37,830	Total deferred tax assets, net of valuation allowance	53,544	49,084
Deferred tax liabilities	Deferred tax liabilities			Deferred tax liabilities		
Depreciation and amortization	Depreciation and amortization	32,669	10,282	Depreciation and amortization	14,368	32,669
Postretirement benefit obligations	Postretirement benefit obligations	2,071	2,001	Postretirement benefit obligations	687	2,071
Unremitted earnings	Unremitted earnings	2,335	2,426	Unremitted earnings	2,551	2,335
Operating leases	Operating leases	4,422	714	Operating leases	4,618	4,422
Other	Other	4,367	2,115	Other	4,228	4,367
Total deferred tax liabilities	Total deferred tax liabilities	45,864	17,538	Total deferred tax liabilities	26,452	45,864
Net deferred tax asset (liability)	Net deferred tax asset (liability)	\$ 3,220	\$ 20,292	Net deferred tax asset (liability)	\$ 27,092	\$ 3,220

As of December 31, 2021 December 31, 2022, we had state net operating loss carryforwards totaling \$15.9 \$7.1 million in various state taxing jurisdictions, which expire between 2022 2023 and 2040, 2042, and approximately \$9.6 \$3.6 million of state research credit carryforwards, which will expire between 2022 2023 and 2040. We also had \$4.9 million of federal research and development (R&D) credit carryforwards that begin to expire in 2035. We believe that it is more likely than not that the benefit from certain of the state net operating loss and state R&D credits carryforwards will not be realized. In recognition of this risk, we have provided a valuation allowance of \$8.5 \$2.8 million relating to these carryforwards. We currently have approximately \$1.2 \$4.7 million of foreign tax credits that begin to expire in 2028.

We had a valuation allowance of \$2.8 million as of December 31, 2022 and \$9.8 million as of December 31, 2021 and \$9.3 million as of December 31, 2020, against certain of our deferred tax assets, primarily carryforwards expected to expire unused and deferred tax assets that are capital in nature. No valuation allowance has been provided on our other deferred tax assets, as we believe it is more likely than not that all such assets will be realized in the applicable jurisdictions. Differences between forecasted and actual future operating results or changes in carryforward periods could adversely impact the amount of deferred tax asset considered realizable.

Income tax expense differs from the amount computed by applying the U.S. federal statutory income tax rate to income before income taxes. The reasons for this difference were as follows:

(Dollars in thousands)	(Dollars in thousands)	2021	2020	2019	(Dollars in thousands)	2022	2021	2020
Tax expense at Federal statutory income tax rate	Tax expense at Federal statutory income tax rate	\$ 26,519	\$ 14,392	\$ 11,576	Tax expense at Federal statutory income tax rate	\$ 29,480	\$ 26,519	\$ 14,392
Impact of foreign operations	Impact of foreign operations	2,020	1,193	107	Impact of foreign operations	1,531	2,020	1,193
Foreign source income, net of tax credits	Foreign source income, net of tax credits	(4,944)	1,050	(2,248)	Foreign source income, net of tax credits	(6,461)	(4,944)	1,050
State tax, net of federal	State tax, net of federal	175	(313)	(690)	State tax, net of federal	6,898	175	(313)
Unrecognized tax benefits	Unrecognized tax benefits	(8,823)	5,800	543	Unrecognized tax benefits	1,921	(8,823)	5,800

Equity compensation excess tax deductions	Equity compensation excess tax deductions	262	(791)	(2,902)	Equity compensation excess tax deductions	(3,025)	262	(791)
General business credits	General business credits	(867)	(931)	(656)	General business credits	(821)	(867)	(931)
Distribution related foreign taxes	Distribution related foreign taxes	2,516	2,332	1,240	Distribution related foreign taxes	1,504	2,516	2,332
Executive compensation limitation	Executive compensation limitation	1,570	900	589	Executive compensation limitation	2,859	1,570	900
Valuation allowance change	Valuation allowance change	525	(5,375)	(2,527)	Valuation allowance change	(6,932)	525	(5,375)
Disproportionate tax effect of pension settlement charges	Disproportionate tax effect of pension settlement charges	—	—	2,510	Disproportionate tax effect of pension settlement charges	—	—	—
Other	Other	(806)	287	265	Other	(3,203)	(806)	287
Income tax expense (benefit)	Income tax expense (benefit)	\$ 18,147	\$ 18,544	\$ 7,807	Income tax expense (benefit)	\$ 23,751	\$ 18,147	\$ 18,544

Our effective income tax rate for 2021 2022 was 14.4% 16.9% compared to 27.1% 14.4% for 2020 2021. The 2021 2022 rate decrease increase was primarily due to the beneficial impact of increased the decrease in the reversals of unrecognized tax positions in China.

We did not make any changes in 2021 2022 to our position on the permanent reinvestment of our historical earnings from foreign operations. With the exception of certain Chinese subsidiaries, we continue to assert that historical foreign earnings are indefinitely reinvested. As of December 31, 2021 December 31, 2022 and 2020 2021, we had recorded a deferred tax liability of \$2.3 \$2.5 million and \$2.4 \$2.3 million, respectively, for Chinese withholding tax on undistributed earnings that are not indefinitely reinvested. The other remaining foreign subsidiaries have both the intent and ability to indefinitely reinvest their undistributed earnings and we estimate that, if these undistributed earnings are distributed, they may give rise to an estimated \$2.1 million of additional tax liabilities. If circumstances change and it becomes apparent that some, or all of the undistributed earnings as of December 31, 2021 December 31, 2022 will not be indefinitely reinvested, the provision for the tax consequences, if any, will be recorded in the period when circumstances change. Distributions out of current and future earnings are permissible to fund discretionary activities such as business acquisitions. However, when distributions are made, this could result in a higher effective tax rate.

Unrecognized tax benefits, excluding potential interest and penalties, for the years ended December 31, 2021 December 31, 2022 and 2020 2021, were as follows:

(Dollars in thousands)	(Dollars in thousands)	2021	2020	(Dollars in thousands)	2022	2021
Beginning balance as of January 1	Beginning balance as of January 1	\$ 15,688	\$ 10,217	Beginning balance as of January 1	\$ 6,583	\$ 15,688
Gross increases - current period tax positions	Gross increases - current period tax positions	1,046	5,417	Gross increases - current period tax positions	3,402	1,046
Gross increases - tax positions in prior periods	Gross increases - tax positions in prior periods	1,150	46	Gross increases - tax positions in prior periods	237	1,150
Gross decreases - tax positions in prior periods	Gross decreases - tax positions in prior periods	(9,151)	—	Gross decreases - tax positions in prior periods	(178)	(9,151)
Foreign currency exchange	Foreign currency exchange	(10)	8	Foreign currency exchange	(147)	(10)
Settlements	Settlements	(2,140)	—	Settlements	(1,028)	(2,140)
Ending balance as of December 31	Ending balance as of December 31	\$ 6,583	\$ 15,688	Ending balance as of December 31	\$ 8,869	\$ 6,583

Included in the balance of unrecognized tax benefits as of December 31, 2021 December 31, 2022 were \$5.9 \$7.8 million of tax benefits that, if recognized, would impact the effective tax rate. Also included in the balance of unrecognized tax benefit as of December 31, 2021 were \$0.5 million of tax benefits that, if recognized, would result in adjustments to other tax accounts, primarily deferred taxes. We believe that it is reasonably possible that a decrease of up to \$1.2 million in unrecognized tax benefits related to foreign exposures may be necessary within the coming year.

We recognized interest accrued related to unrecognized tax benefit as income tax expense. Related to the unrecognized tax benefits noted above, as of December 31, 2021 December 31, 2022 and 2020 2021, we had accrued potential interest and penalties of approximately \$1.1 million and \$1.2 million, respectively. We have recorded a net income tax benefit and expense of \$0.5 million and \$0.5 million in 2021 and 2020, respectively. million.

We are subject to taxation in the U.S. and various state and foreign jurisdictions. Our tax years from 2018 through 2022 are subject to examination by the tax authorities. With few exceptions, we are no longer subject to U.S. federal, state, local and foreign examinations by tax authorities for the years before 2018.

Note 14 – Operating Segment and Geographic Information

Our reporting structure is comprised of the following strategic operating segments: AES and EMS. The remaining operations, which represent our non-core businesses, are reported in the Other operating segment. We believe this structure aligns our external reporting presentation with how we currently manage and view our business internally.

Operating Segment Information

The following table presents a disaggregation of revenue from contracts with customers and other pertinent financial information, for the periods indicated; inter-segment sales have been eliminated from the net sales data:

(Dollars in thousands)	(Dollars in thousands)	Advanced Electronics Solutions	Elastomeric Material Solutions	Other	Total	(Dollars in thousands)	Advanced Electronics Solutions	Elastomeric Material Solutions	Other	Total
December 31, 2022						December 31, 2022				
Net sales - recognized over time						Net sales - recognized over time	\$ 227,031	\$ 15,887	\$ 16,361	\$ 259,279
Net sales - recognized at a point in time						Net sales - recognized at a point in time	\$ 303,184	\$ 404,119	\$ 4,589	\$ 711,892
Total net sales						Total net sales	\$ 530,215	\$ 420,006	\$ 20,950	\$ 971,171
Operating income (loss)						Operating income (loss)	\$ 77,163	\$ 60,351	\$ 6,918	\$ 144,432
Total assets						Total assets	\$ 854,194	\$ 778,655	\$ 13,365	\$ 1,646,214
Capital expenditures						Capital expenditures	\$ 58,858	\$ 57,617	\$ 313	\$ 116,788
Depreciation & amortization						Depreciation & amortization	\$ 21,721	\$ 23,480	\$ 678	\$ 45,879
Investment in unconsolidated joint ventures						Investment in unconsolidated joint ventures	\$ —	\$ 14,082	\$ —	\$ 14,082
Equity income in unconsolidated joint ventures						Equity income in unconsolidated joint ventures	\$ —	\$ 4,437	\$ —	\$ 4,437
December 31, 2021	December 31, 2021					December 31, 2021				
Net sales - recognized over time	Net sales - recognized over time	\$ 244,016	\$ 14,909	\$ 18,838	\$ 277,763	Net sales - recognized over time	\$ 244,016	\$ 14,909	\$ 18,838	\$ 277,763
Net sales - recognized at a point in time	Net sales - recognized at a point in time	\$ 290,413	\$ 363,108	\$ 1,602	\$ 655,123	Net sales - recognized at a point in time	\$ 290,413	\$ 363,108	\$ 1,602	\$ 655,123
Total net sales	Total net sales	\$ 534,429	\$ 378,017	\$ 20,440	\$ 932,886	Total net sales	\$ 534,429	\$ 378,017	\$ 20,440	\$ 932,886
Operating income (loss)	Operating income (loss)	\$ 50,198	\$ 60,051	\$ 6,933	\$ 117,182	Operating income (loss)	\$ 50,198	\$ 60,051	\$ 6,933	\$ 117,182
Total assets	Total assets	\$ 826,719	\$ 759,576	\$ 12,271	\$ 1,598,566	Total assets	\$ 826,719	\$ 759,576	\$ 12,271	\$ 1,598,566
Capital expenditures	Capital expenditures	\$ 38,945	\$ 31,777	\$ 403	\$ 71,125	Capital expenditures	\$ 38,945	\$ 31,777	\$ 403	\$ 71,125
Depreciation & amortization	Depreciation & amortization	\$ 22,936	\$ 19,695	\$ 653	\$ 43,284	Depreciation & amortization	\$ 22,936	\$ 19,695	\$ 653	\$ 43,284
Investment in unconsolidated joint ventures	Investment in unconsolidated joint ventures	\$ —	\$ 16,328	\$ —	\$ 16,328	Investment in unconsolidated joint ventures	\$ —	\$ 16,328	\$ —	\$ 16,328

Equity income in unconsolidated joint ventures	Equity income in unconsolidated joint ventures	\$	—	\$	7,032	\$	—	\$	7,032	Equity income in unconsolidated joint ventures	\$	—	\$	7,032	\$	—	\$	7,032
December 31, 2020	December 31, 2020									December 31, 2020								
Net sales - recognized over time	Net sales - recognized over time	\$	190,042	\$	10,614	\$	14,451	\$	215,107	Net sales - recognized over time	\$	190,042	\$	10,614	\$	14,451	\$	215,107
Net sales - recognized at a point in time	Net sales - recognized at a point in time	\$	268,637	\$	317,563	\$	1,276	\$	587,476	Net sales - recognized at a point in time	\$	268,637	\$	317,563	\$	1,276	\$	587,476
Total net sales	Total net sales	\$	458,679	\$	328,177	\$	15,727	\$	802,583	Total net sales	\$	458,679	\$	328,177	\$	15,727	\$	802,583
Operating income (loss)		\$	32,023	\$	30,817	\$	4,494	\$	67,334									
Total assets		\$	746,086	\$	504,199	\$	13,720	\$	1,264,005									
Capital expenditures		\$	23,689	\$	16,214	\$	482	\$	40,385									
Depreciation & amortization		\$	23,593	\$	47,159	\$	673	\$	71,425									
Investment in unconsolidated joint ventures		\$	—	\$	15,248	\$	—	\$	15,248									
Equity income in unconsolidated joint ventures		\$	—	\$	4,877	\$	—	\$	4,877									
December 31, 2019																		
Net sales - recognized over time		\$	197,702	\$	12,687	\$	18,112	\$	228,501									
Net sales - recognized at a point in time		\$	317,425	\$	348,916	\$	3,418	\$	669,759									
Total net sales		\$	515,127	\$	361,603	\$	21,530	\$	898,260									
Operating income	Operating income	\$	47,217	\$	57,080	\$	6,184	\$	110,481	Operating income	\$	32,023	\$	30,817	\$	4,494	\$	67,334
Total assets	Total assets	\$	681,161	\$	569,484	\$	22,536	\$	1,273,181	Total assets	\$	746,086	\$	504,199	\$	13,720	\$	1,264,005
Capital expenditures	Capital expenditures	\$	42,347	\$	8,550	\$	700	\$	51,597	Capital expenditures	\$	23,689	\$	16,214	\$	482	\$	40,385
Depreciation & amortization	Depreciation & amortization	\$	28,527	\$	19,887	\$	748	\$	49,162	Depreciation & amortization	\$	23,593	\$	47,159	\$	673	\$	71,425
Investment in unconsolidated joint ventures	Investment in unconsolidated joint ventures	\$	—	\$	16,461	\$	—	\$	16,461	Investment in unconsolidated joint ventures	\$	—	\$	15,248	\$	—	\$	15,248
Equity income in unconsolidated joint ventures	Equity income in unconsolidated joint ventures	\$	—	\$	5,319	\$	—	\$	5,319	Equity income in unconsolidated joint ventures	\$	—	\$	4,877	\$	—	\$	4,877

Operating Segment Net Sales by Geographic Area

The following table presents net sales by our operating segment operations by geographic area for the years indicated:

(Dollars in thousands)	(Dollars in thousands)	Net Sales ⁽¹⁾				(Dollars in thousands)	Net Sales ⁽¹⁾			
Region/Country	Region/Country	Advanced Electronics Solutions	Elastomeric Material Solutions	Other	Total	Region/Country	Advanced Electronics Solutions	Elastomeric Material Solutions	Other	Total
December 31, 2022						December 31, 2022				
United States						United States	\$ 122,707	\$ 169,490	\$ 4,439	\$ 296,636
Other Americas						Other Americas	6,628	15,389	287	22,304

Total Americas						Total Americas	129,335	184,879	4,726	318,940
China						China	154,435	121,666	7,397	283,498
Other APAC						Other APAC	75,205	31,393	2,692	109,290
Total APAC						Total APAC	229,640	153,059	10,089	392,788
Germany						Germany	78,666	30,390	1,092	110,148
Other EMEA						Other EMEA	92,574	51,678	5,043	149,295
Total EMEA						Total EMEA	171,240	82,068	6,135	259,443
Total net sales						Total net sales	\$ 530,215	\$ 420,006	\$ 20,950	\$ 971,171
December 31, 2021	December 31, 2021					December 31, 2021				
United States	United States	\$ 93,584	\$ 161,180	\$ 4,508	\$ 259,272	United States	\$ 93,584	\$ 161,180	\$ 4,508	\$ 259,272
Other Americas	Other Americas	3,107	10,226	755	14,088	Other Americas	3,107	10,226	755	14,088
Total Americas	Total Americas	96,691	171,406	5,263	273,360	Total Americas	96,691	171,406	5,263	273,360
China	China	193,422	122,000	4,773	320,195	China	193,422	122,000	4,773	320,195
Other APAC	Other APAC	85,100	27,569	2,647	115,316	Other APAC	85,100	27,569	2,647	115,316
Total APAC	Total APAC	278,522	149,569	7,420	435,511	Total APAC	278,522	149,569	7,420	435,511
Germany	Germany	72,531	29,214	827	102,572	Germany	72,531	29,214	827	102,572
Other EMEA	Other EMEA	86,685	27,828	6,930	121,443	Other EMEA	86,685	27,828	6,930	121,443
Total EMEA	Total EMEA	159,216	57,042	7,757	224,015	Total EMEA	159,216	57,042	7,757	224,015
Total net sales	Total net sales	\$ 534,429	\$ 378,017	\$ 20,440	\$ 932,886	Total net sales	\$ 534,429	\$ 378,017	\$ 20,440	\$ 932,886
December 31, 2020	December 31, 2020					December 31, 2020				
United States	United States	\$ 90,822	\$ 128,347	\$ 3,679	\$ 222,848	United States	\$ 90,822	\$ 128,347	\$ 3,679	\$ 222,848
Other Americas	Other Americas	2,943	8,437	682	12,062	Other Americas	2,943	8,437	682	12,062
Total Americas	Total Americas	93,765	136,784	4,361	234,910	Total Americas	93,765	136,784	4,361	234,910
China	China	153,297	108,161	2,859	264,317	China	153,297	108,161	2,859	264,317
Other APAC	Other APAC	70,830	43,364	2,162	116,356	Other APAC	70,830	43,364	2,162	116,356
Total APAC	Total APAC	224,127	151,525	5,021	380,673	Total APAC	224,127	151,525	5,021	380,673
Germany	Germany	70,881	19,118	410	90,409	Germany	70,881	19,118	410	90,409
Other EMEA	Other EMEA	69,906	20,750	5,935	96,591	Other EMEA	69,906	20,750	5,935	96,591
Total EMEA	Total EMEA	140,787	39,868	6,345	187,000	Total EMEA	140,787	39,868	6,345	187,000
Total net sales	Total net sales	\$ 458,679	\$ 328,177	\$ 15,727	\$ 802,583	Total net sales	\$ 458,679	\$ 328,177	\$ 15,727	\$ 802,583
December 31, 2019										
United States		\$ 95,627	\$ 160,918	\$ 4,507	\$ 261,052					
Other Americas		3,713	9,208	913	13,834					
Total Americas		99,340	170,126	5,420	274,886					
China		193,518	95,653	6,086	295,257					
Other APAC		83,858	55,402	2,920	142,180					
Total APAC		277,376	151,055	9,006	437,437					
Germany		73,673	13,702	573	87,948					
Other EMEA		64,738	26,720	6,531	97,989					
Total EMEA		138,411	40,422	7,104	185,937					
Total net sales		\$ 515,127	\$ 361,603	\$ 21,530	\$ 898,260					

(1) Net sales are allocated to countries based on the location of the customer. The table above lists individual countries with 10% or more of net sales for the periods indicated.

Revenue from Contracts with Customers

We manufacture some products to customer specifications which are customized to such a degree that it is unlikely that another entity would purchase these products or that we could modify these products for another customer. These products are deemed to have no alternative use to us whereby we have an enforceable right to payment evidenced by contractual termination clauses. In accordance with ASC 606, for those circumstances we recognize revenue on an over-time basis. Revenue recognition does not occur until the product meets the definition of "no alternative use" and therefore, items that have not yet reached that point in the production process are not included in the population of items with over-time revenue recognition.

As appropriate, we record estimated reductions to revenue for customer returns, allowances, and warranty claims. Provisions for such reductions are made at the time of sale and are typically derived from historical trends and other relevant information.

We had contract assets primarily related to unbilled revenue for revenue recognized related to products that are deemed to have no alternative use whereby we have the right to payment. Revenue is recognized in advance of billing to the customer in these circumstances as billing is typically performed at the time of shipment to the customer. The unbilled revenue is included in the contract assets on the consolidated statements of financial position.

Our contract assets by operating segment were as follows:

(Dollars in thousands)	(Dollars in thousands)	As of December 31,		(Dollars in thousands)	As of December 31,	
		2021	2020		2022	2021
Advanced Electronics Solutions	Advanced Electronics Solutions	\$ 31,398	\$ 24,199	Advanced Electronics Solutions	\$ 33,736	\$ 31,398
Elastomeric Material Solutions	Elastomeric Material Solutions	2,082	887	Elastomeric Material Solutions	1,584	2,082
Other	Other	3,130	1,489	Other	3,533	3,130
Total contract assets	Total contract assets	\$ 36,610	\$ 26,575	Total contract assets	\$ 38,853	\$ 36,610

We did not have any contract liabilities as of December 31, 2021, December 31, 2022 or 2020, 2021. No impairment losses were recognized in 2022, 2021, 2020 or 2019, 2020 on any receivables or contract assets arising from our contracts with customers.

Long-Lived Assets by Geographic Area

Our long-lived assets⁽¹⁾ by geographic area were as follows:

(Dollars in thousands)	(Dollars in thousands)	As of December 31,		(Dollars in thousands)	As of December 31,	
		2021	2020		2022	2021
United States	United States	\$ 454,531	\$ 433,870	United States	\$ 401,237	\$ 454,531
England	England	188,859	—	England	161,916	188,859
Germany	Germany	133,546	133,873	Germany	139,671	133,546
Other	Other	113,734	97,049	Other	154,693	113,734
Total long-lived assets	Total long-lived assets	\$ 890,670	\$ 664,792	Total long-lived assets	\$ 857,517	\$ 890,670

⁽¹⁾ Long-lived assets are based on the location of the asset and are comprised of goodwill, other intangible assets, property, plant and equipment and right-of-use assets. Countries with 10% or more of long-lived assets have been disclosed.

Note 15 – Supplemental Financial Information

Restructuring and Impairment Charges

The components of "Restructuring and impairment charges" line item in the condensed consolidated statements of operations, were as follows:

(Dollars in thousands)	(Dollars in thousands)	Years Ended December 31,			(Dollars in thousands)	Years Ended December 31,		
		2021	2020	2019		2022	2021	2020
Restructuring charges	Restructuring charges				Restructuring charges			
Manufacturing footprint optimization	Manufacturing footprint optimization	\$ 3,115	\$ 12,348	\$ —	Manufacturing footprint optimization	\$ 1,114	\$ 3,115	\$ 12,348
Facility consolidation		—	—	948				
U.S. footprint consolidation					U.S. footprint consolidation	363	—	—

Restructuring charges	Restructuring charges	3,115	12,348	948	Restructuring charges	1,477	3,115	12,348
Impairment charges	Impairment charges				Impairment charges			
Fixed assets impairment charges	Fixed assets impairment charges	455	587	1,537	Fixed assets impairment charges	47,191	455	587
Other impairment charges	Other impairment charges	—	52	—	Other impairment charges	17,894	—	52
Impairment charges	Impairment charges	455	639	1,537	Impairment charges	65,085	455	639
Total restructuring and impairment charges	Total restructuring and impairment charges	\$ 3,570	\$ 12,987	\$ 2,485	Total restructuring and impairment charges	\$ 66,562	\$ 3,570	\$ 12,987

Restructuring Charges - Manufacturing Footprint Optimization

During the third quarter of 2020, we commenced manufacturing footprint optimization plans involving certain Europe and Asia manufacturing locations, primarily impacting our AES operating segment, in order to achieve greater cost competitiveness as well as align capacity with end market demand. The majority of the restructuring activities were completed in the first half of 2021. We incurred restructuring charges and related expenses of \$1.1 million and \$3.1 million in 2022 and \$12.3 million in 2021 and 2020, 2021. Severance and related benefits activity related to the manufacturing footprint optimization plan is presented in the table below for the year ended December 31, 2021 December 31, 2022:

			Manufacturing Footprint Optimization Restructuring Severance and Related Benefits
(Dollars in thousands)			
Balance as of December 31, 2020	December 31, 2021		\$ 11,003 1,395
Provisions			182 363
Payments			(9,175) (1,606)
Foreign currency translation adjustment			(615) (104)
Balance as of December 31, 2021	December 31, 2022		\$ 1,395 48

Impairment Charges

We recognized \$65.1 million, \$0.5 million and \$0.6 million of impairment charges in 2022, 2021 and 2020, respectively, respectively. The impairment charges in 2022 primarily related to certain AES operating segment equipment-in-process in the U.S. as well as certain EMS operating segment intangibles and fixed assets related to our high-performance engineered cellular elastomer business in the U.S. The impairment charges in 2021 and 2020 were both primarily related to AES operating segment fixed assets in Belgium. We recognized \$1.5 million

The impairment of impairment charges the equipment-in-process in 2019 pertaining to our AES operating segment was triggered by our decision in November 2022 to exit the Price Road facility in Arizona.

The impairment of certain intangibles and fixed assets related to our high-performance engineered cellular elastomer business in our EMS operating segment was triggered upon committing to a plan in late 2022 to divest ourselves of this business by early 2023 and the subsequent fair valuing of assets and liabilities. In addition to the impairment charges, we recognized an additional \$2.6 million accrual against the remaining net assets of the business based on the estimated fair value of the business. As the high-performance engineered cellular elastomer business met the criteria of held for sale accounting as of December 31, 2022, the remaining \$4.6 million in assets and \$3.3 million in liabilities were designated as assets held for sale and liabilities held for sale, respectively, which are captured in the "Other current assets" and "Other accrued liabilities" financial statement line items of our Statements of Financial Position. The assets are primarily on certain comprised of accounts receivables, contract assets and inventories, while the liabilities are primarily comprised of accounts payables and other accrued liabilities.

On February 17, 2023 we entered into an asset purchase agreement to sell our high-performance engineered cellular elastomer business for a net purchase price of \$1.8 million. The business disposition is scheduled to be completed in connection with the Isola USA Corp. (Isola) asset acquisition, early March.

Allocation of Restructuring and Impairment Charges to Operating Segments

The following table summarizes the allocation of restructuring and impairment charges to our operating segments:

		Years Ended December 31,				Years Ended December 31,		
(Dollars in thousands)	(Dollars in thousands)	2021	2020	2019	(Dollars in thousands)	2022	2021	2020
Advanced Electronics Solutions	Advanced Electronics Solutions				Advanced Electronics Solutions			

Allocated restructuring charges	Allocated restructuring charges	\$ 3,029	\$ 11,947	\$ —	Allocated restructuring charges	\$ 1,070	\$ 3,029	\$ 11,947
Allocated impairment charges	Allocated impairment charges	455	587	1,537	Allocated impairment charges	40,450	455	587
Elastomeric Material Solutions	Elastomeric Material Solutions				Elastomeric Material Solutions			
Allocated restructuring charges	Allocated restructuring charges	86	401	948	Allocated restructuring charges	407	86	401
Allocated impairment charges	Allocated impairment charges	—	52	—	Allocated impairment charges	24,635	—	52
Total restructuring and impairment charges	Total restructuring and impairment charges	\$ 3,570	\$ 12,987	\$ 2,485	Total restructuring and impairment charges	\$ 66,562	\$ 3,570	\$ 12,987

Subsequent Event - Restructuring Charges

On February 16, 2023, we announced a reduction in force plan of our global workforce that is expected to be completed in the first half of 2023. The plan is expected to significantly reduce our manufacturing costs and operating expenses, and are being done in conjunction with other previously announced cost reduction initiatives. We estimate that we will incur approximately \$10 million to \$13 million in pre-tax restructuring charges related to this plan, all of which are expected to be in the form of cash-based expenditures and substantially all of which are expected to be related to employee severance and other termination benefits.

Other Operating (Income) Expense, Net

The components of "Other operating (income) expense, net" were as follows:

(Dollars in thousands)	(Dollars in thousands)	Years Ended December 31,			(Dollars in thousands)	Years Ended December 31,		
		2021	2020	2019		2022	2021	2020
UTIS fire	UTIS fire				UTIS fire			
Fixed assets write-offs	Fixed assets write-offs	\$ 1,073	\$ —	\$ —	Fixed assets write-offs	\$ —	\$ 1,073	\$ —
Inventory charges	Inventory charges	874	—	—	Inventory charges	197	874	—
Professional services	Professional services	2,771	—	—	Professional services	1,449	2,771	—
Lease obligations	Lease obligations	994	—	—	Lease obligations	437	994	—
Lease impairments	Lease impairments	495	—	—	Lease impairments	—	495	—
Compensation & benefits	Compensation & benefits	2,072	—	—	Compensation & benefits	2,420	2,072	—
Third-party property claims	Third-party property claims	4,650	—	—	Third-party property claims	—	4,650	—
Other	Other	155	—	—	Other	(262)	155	—
Insurance recoveries	Insurance recoveries	(6,874)	—	—	Insurance recoveries	(6,646)	(6,874)	—
Total UTIS fire	Total UTIS fire	6,210	—	—	Total UTIS fire	(2,405)	6,210	—
Lease income		—	—	(989)				
Depreciation on leased assets		—	—	1,907				
Regulatory termination fee, net	Regulatory termination fee, net				Regulatory termination fee, net	(142,069)	—	—
Loss (gain) on sale or disposal of property, plant and equipment	Loss (gain) on sale or disposal of property, plant and equipment	(880)	41	756	Loss (gain) on sale or disposal of property, plant and equipment	460	(880)	41

Indemnity claim settlements from acquisitions		—	—	(715)				
Economic incentive grants	Economic incentive grants	—	(145)	—	Economic incentive grants	—	—	(145)
Total other operating (income) expense, net	Total other operating (income) expense, net	\$ 5,330	\$ (104)	\$ 959	Total other operating (income) expense, net	\$ (144,014)	\$ 5,330	\$ (104)

In early February 2021, there was a fire at our UTIS manufacturing facility in Ansan, South Korea, which manufactures eSorba® polyurethane foams used in portable electronics and display applications. The site was safely evacuated and there were no reported injuries; however, there was extensive damage to the manufacturing site and some damage to nearby property. **Operations** Commercial production at our new location in Siheung, South Korea will be disrupted into commenced in late-January 2023.

In 2022, in connection with the first half UTIS fire, we recognized insurance recoveries of 2023, \$6.6 million related to our ongoing insurance claim for property damage and compensation and benefits of hourly employees, incurred \$1.4 million for various professional services and incurred \$2.4 million for compensation and benefits for UTIS manufacturing employees subsequent to the fire.

We In 2021, in connection with the UTIS fire, we recognized fixed asset write-offs and inventory charges of \$1.1 million and \$0.9 million, respectively, related to property destroyed in the fire, in 2021. Additionally, we recognized a \$4.7 million contingent liability pertaining to damage to nearby property and a \$0.5 million contingent liability pertaining to our obligations for the fire damage to the building in connection with the underlying lease agreement. We have Further, in 2021 we incurred \$2.8 million of fees for various professional services in 2021 in connection with the assessment of the fire and the efforts to rebuild and resume operations. Further, we incurred operations and \$2.1 million of compensation and benefits in 2021 for UTIS manufacturing employees, subsequent to the fire. In connection with the UTIS fire, 2021, we have also recognized anticipated insurance recoveries of \$6.9 million in 2021 related to our ongoing insurance claim for property damage and compensation and benefits of hourly employees, less the applicable \$0.3 million deductible.

In connection with the transitional leaseback of a portion of the facility and certain machinery and equipment acquired from Isola in August 2018, 2022, we recognized lease income from a regulatory termination fee of \$142.1 million, which was net of an incurred transaction-related fee. For additional information, refer to "Note 16 – Mergers and related depreciation on leased assets of \$1.0 million and \$1.9 million, respectively, in 2019. In 2019, we recorded a gain of \$0.7 million for the settlement of indemnity claims related to the Isola asset acquisition. Acquisitions."

Interest Expense, Net

The components of "Interest expense, net" were as follows:

(Dollars in thousands)	Years Ended December 31,		
	2021	2020	2019
Interest on revolving credit facility	\$ 892	\$ 3,294	\$ 7,378
Interest rate swap settlements	—	3,191	(200)
Line of credit fees	1,066	715	576
Debt issuance amortization costs	715	593	552
Interest on finance leases	287	134	127
Interest income	(541)	(939)	(1,610)
Other	117	147	46
Total interest expense, net	\$ 2,536	\$ 7,135	\$ 6,869

Note 16 – Recent Accounting Standards

Recently Adopted Standards Reflected in Our 2021 Financial Statements

In August 2020, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2020-06, *Debt-Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*. Under ASU 2020-06, the embedded conversion features are no longer separated from the host contract for convertible instruments with conversion features that are not required to be accounted for as derivatives under Topic 815, or that do not result in substantial premiums accounted for as paid-in capital. Consequently, a convertible debt instrument will be accounted for as a single liability measured at its amortized cost, as long as no other features require bifurcation and recognition as derivatives. The new guidance also requires the if-converted method be applied for all convertible instruments. ASU 2020-06 is effective for fiscal years beginning after December 15, 2021, with early adoption permitted. Adoption of the standard requires using either the modified retrospective or the retrospective approach. We adopted this standard in January 2021, and it did not have a material effect on our condensed consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*. Under ASU 2019-12, the new guidance removes certain exceptions to the general principles in Topic 740. The new guidance also clarifies and amends existing guidance to improve consistent application. ASU 2019-12 is effective for our annual reporting periods beginning after December 15, 2020. The transition method (retrospective, modified retrospective, or prospective approach) related to this standard depends on the applicable guidance, and all amendments for which there is no transition guidance specified, are to be applied on a prospective basis. We adopted this standard in January 2021, and it did not have a material effect on our condensed consolidated financial statements.

(Dollars in thousands)	Years Ended December 31,		
	2022	2021	2020
Interest on revolving credit facility	\$ 8,966	\$ 892	\$ 3,294

Interest rate swap settlements	—	—	3,191
Line of credit fees	522	1,066	715
Debt issuance amortization costs	715	715	593
Interest on finance leases	23	287	134
Interest income	(685)	(541)	(939)
Other	6	117	147
Total interest expense, net	\$ 9,547	\$ 2,536	\$ 7,135

Note 17.16 – Mergers and Acquisitions

Acquisition of Silicone Engineering Ltd.

On October 8, 2021, we acquired Silicone Engineering Ltd. (Silicone Engineering), a leading European manufacturer of silicone material solutions based in Blackburn, England, for a combined purchase price of \$172.3 million for the company, net of cash acquired, and its facility. As part of the agreement, there is a \$4.1 million holdback, upon which we can issue claims against until six months after the close of the acquisition, at which point in time the holdback amount, less any holdback claims, is paid to the previous owners of Silicone Engineering. In April 2022, we paid \$1.3 million of the holdback in exchange for a 6-month extension of the holdback period. In October 2022, we paid back the remaining of the holdback, less an immaterial amount for claims. Substantially all of our \$190.0 million in borrowings under our existing credit facility in October 2021 were used to fund the transaction, with the remaining amounts being used for general corporate purposes. Silicone Engineering expands our existing advanced silicones platform in our EMS operating segment and provides us a European Center of Excellence to service customers requiring premium silicone solutions for applications in the EV/HEV, industrial, medical and other markets.

The acquisition has been accounted for in accordance with applicable purchase accounting guidance. We recorded goodwill primarily related to the expected synergies from combining operations and the value of Silicone Engineering's workforce, which is expected to be deductible for tax purposes. We also recorded other intangible assets related to the acquired customer relationships, developed technology, trademarks and trade names and covenants not to compete.

The following table represents the fair values assigned to the acquired assets and liabilities assumed in the transaction. As of the filing date of this Form 10-K, the purchase accounting and purchase price allocation for the Silicone Engineering transaction are substantially complete, as we continue to refine our valuation of certain acquired assets and liabilities assumed, have been completed.

(Dollars in thousands)

	October 8, 2021
Assets	
Accounts receivable	\$ 6,721
Other current assets	1,516
Inventories	1,787
Property, plant and equipment	9,840
Goodwill	107,231
Other intangible assets	73,628
Other long-term assets	850
Total assets	201,573
Liabilities	
Accounts payable	3,933
Accrued income taxes payable	1,383
Other accrued liabilities	2,102
Non-current income tax	1,444
Deferred income taxes	20,039
Other long-term liabilities	393
Total liabilities	29,294
Fair value of net assets acquired	\$ 172,279

The other intangible assets consist of customer relationships valued at \$48.9 million, developed technology valued at \$9.2 million, trademarks and trade names valued at \$13.6 million, a covenant not to compete valued at \$1.4 million and an order backlog valued at \$0.5 million. The fair value of acquired identified other intangible assets was determined by applying the income approach, using several significant unobservable inputs for projected cash flows as well as a customer attrition rate and a discount rate. These inputs are considered Level 3 under the fair value measurements and disclosure guidance.

At the acquisition date, the weighted average amortization period for the other intangible asset classes was 9.5 years for customer relationships, 3.9 years for developed technology, 11.6 years for trademarks and trade names, 1.6 years for the covenant not to compete and 0.1 years for the order backlog, resulting in amortization expenses ranging from \$2.8 million to \$5.2 million annually. The estimated annual future amortization expense is \$5.2 million for 2022, \$4.7 million for 2023, \$4.6 million for 2024, \$4.3 million for 2025, and \$4.2 million for 2026.

During

In 2022 and 2021, we incurred transaction costs of \$0.8 million and \$3.9 million, respectively related to the Silicone Engineering acquisition, which were recorded within selling, general and administrative (SG&A) expenses in the consolidated statements of operations.

The results of Silicone Engineering have been included in our consolidated financial statements for the period subsequent to the completion of the acquisition on October 8, 2021, through December 31, 2021. Silicone Engineering's net sales for that period totaled \$8.3 million.

Pro-Forma Financial Information

The following unaudited pro forma financial information presents the combined results of operations of Rogers and Silicone Engineering as if the Silicone Engineering acquisition had occurred on January 1, 2020. The unaudited pro forma financial information is not intended to represent or be indicative of our consolidated results of operations that would have been reported had the Silicone Engineering acquisition been completed as of January 1, 2020 and should not be taken as indicative of our future consolidated results of operations.

(Dollars in thousands)	For the Years Ended December 31,	
	2021	2020
Net sales	\$ 973,188	\$ 835,610
Net income	\$ 120,082	\$ 47,460

Terminated Merger Agreement with DuPont

On November 1, 2021, we entered into a definitive merger agreement to be acquired by DuPont de Nemours, Inc. (DuPont) in an all-cash transaction at a price of \$277.00 per share of the Company's capital stock. The merger agreement provides provided for the acquisition of Rogers Corporation by DuPont through the merger of Cardinalis Merger Sub, Inc., a wholly owned subsidiary of DuPont, with and into Rogers Corporation, with Rogers Corporation surviving the merger as a wholly owned subsidiary of DuPont. Company shareholders approved the merger agreement at a special shareholder meeting held on January 25, 2022. The merger is agreement provided both Rogers Corporation and DuPont with a right to terminate the merger agreement if the merger had not closed on or before November 1, 2022. Consummation of the merger was subject to receipt various customary closing conditions, including regulatory approval by the State Administration for Market Regulation of China (SAMR). As of November 1, 2022, the parties had not received regulatory approvals and satisfactions approval from SAMR. On November 1, 2022, the Company received from DuPont a notice of other customary conditions. The termination of the merger is expected agreement. Pursuant to close the terms of the merger agreement, the Company received a regulatory termination fee from DuPont in the second quarter amount of 2022, \$162.5 million, before taxes, and incurred a transaction-related fee of \$20.4 million.

SCHEDULE II

(Dollars in thousands)	(Dollars in thousands)	Charged to					(Dollars in thousands)	Charged to					(Dollars in thousands)
		Balance at Beginning of Period	(Reduction of) Costs and Expenses	Taken Against Allowance	Other (Deductions) Recoveries	Balance at End of Period		Balance at Beginning of Period	(Reduction of) Costs and Expenses	Taken Against Allowance	Other (Deductions) Recoveries	Balance at End of Period	
Allowance for Credit Losses	Allowance for Credit Losses						Allowance for Credit Losses						
December 31, 2022	December 31, 2022						December 31, 2022	\$ 1,223	\$ 208	\$ (424)	\$ —	\$ 1,007	
December 31, 2021	December 31, 2021	\$ 1,682	\$ 421	\$ (180)	\$ (700)	\$ 1,223	December 31, 2021	\$ 1,682	\$ 421	\$ (180)	\$ (700)	\$ 1,223	
December 31, 2020	December 31, 2020	\$ 1,691	\$ 223	\$ (232)	\$ —	\$ 1,682	December 31, 2020	\$ 1,691	\$ 223	\$ (232)	\$ —	\$ 1,682	
December 31, 2019	December 31, 2019	\$ 1,354	\$ 437	\$ (100)	\$ —	\$ 1,691							
(Dollars in thousands)	(Dollars in thousands)	Charged to					(Dollars in thousands)	Charged to					(Dollars in thousands)
		Balance at Beginning of Period	(Reduction of) Costs and Expenses	Taken Against Allowance	Other (Deductions) Recoveries	Balance at End of Period		Balance at Beginning of Period	(Reduction of) Costs and Expenses	Taken Against Allowance	Other (Deductions) Recoveries	Balance at End of Period	
Inventory E&O Reserves	Inventory E&O Reserves						Inventory E&O Reserves						
December 31, 2022	December 31, 2022						December 31, 2022	\$ 16,395	\$ 8,210	\$ (4,600)	\$ (2,980)	\$ 17,025	
December 31, 2021	December 31, 2021	\$ 22,430	\$ 8,431	\$ (7,447)	\$ (7,019)	\$ 16,395	December 31, 2021	\$ 22,430	\$ 8,431	\$ (7,447)	\$ (7,019)	\$ 16,395	
December 31, 2020	December 31, 2020	\$ 18,817	\$ 10,554	\$ (4,800)	\$ (2,141)	\$ 22,430	December 31, 2020	\$ 18,817	\$ 10,554	\$ (4,800)	\$ (2,141)	\$ 22,430	
December 31, 2019	December 31, 2019	\$ 13,548	\$ 7,522	\$ —	\$ (2,253)	\$ 18,817							

		Balance at	Charged to	Taken	Other	Balance at		Balance at	Charged to	Taken	Other	Balance
(Dollars in thousands)	(Dollars in thousands)	Beginning of Period	(Reduction of) Costs and Expenses	Against Allowance	(Deductions) Recoveries	End of Period	(Dollars in thousands)	Beginning of Period	(Reduction of) Costs and Expenses	Against Allowance	(Deductions) Recoveries	at End of Period
Valuation on Allowance for Deferred Tax Assets	Valuation on Allowance for Deferred Tax Assets						Valuation on Allowance for Deferred Tax Assets					
December 31, 2022	December 31, 2022						December 31, 2022	\$ 9,775	\$ 396	\$ (7,328)	\$ —	\$ 2,843
December 31, 2021	December 31, 2021	\$ 9,250	\$ 525	\$ —	\$ —	\$ 9,775	December 31, 2021	\$ 9,250	\$ 525	\$ —	\$ —	\$ 9,775
December 31, 2020	December 31, 2020	\$ 14,625	\$ (39)	\$ (5,336)	\$ —	\$ 9,250	December 31, 2020	\$ 14,625	\$ (39)	\$ (5,336)	\$ —	\$ 9,250
December 31, 2019	December 31, 2019	\$ 16,889	\$ 656	\$ (2,920)	\$ —	\$ 14,625						

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

The Company, with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as of **December 31, 2021** **December 31, 2022**. The Company's disclosure controls and procedures are designed (i) to ensure that information required to be disclosed by it in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) to ensure that information required to be disclosed in the reports the Company files or submits under the Exchange Act is accumulated and communicated to its management, including its Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Based on their evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures were effective as of **December 31, 2021** **December 31, 2022**.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in the Company's internal control over financial reporting during the fourth quarter of the fiscal year ended **December 31, 2021** **December 31, 2022** that have materially affected or are reasonably likely to materially affect its internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. This evaluation excluded the operations of Silicone Engineering Ltd. (Silicone Engineering), which we acquired on October 8, 2021. As part of the ongoing integration activities, we will complete an assessment of Silicone Engineering's existing controls and incorporate our controls and procedures into the acquired operations, as appropriate.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Exchange Act Rules 13a-15(f) and 15d-15(f). The Company's internal control over financial reporting was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's financial statements for external purposes in accordance with accounting principles generally accepted in the United States. Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States, and that receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our 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.

Management assessed the effectiveness of the Company's internal control over financial reporting as of **December 31, 2021** **December 31, 2022**. In making its assessment of internal control over financial reporting, management used the criteria issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework* (2013). Based on the results of this assessment, management, including our Chief Executive Officer and our Chief Financial Officer, has concluded that, as of **December 31, 2021** **December 31, 2022**, our internal control over financial reporting was effective.

The Company's independent registered public accounting firm, PricewaterhouseCoopers, LLP, has audited the effectiveness of the Company's internal control over financial reporting as of **December 31, 2021** **December 31, 2022**, as stated in their report included under "Item 8. Financial Statements and Supplementary Data."

On October 8, 2021, the Company acquired 100% of the membership interests in Silicone Engineering. As permitted, management has excluded Silicone Engineering from its assessment of internal control over financial reporting. The Silicone Engineering assets are held in a wholly-owned subsidiary whose total assets and total net sales represent 2.0% and 0.9%, respectively, of the Company's total assets and net sales as of and for the year ended December 31, 2021.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

Officers: Qualifications and Experience

Information with respect to our executive officers is presented in “Information About Our Executive Officers” section to “Part I, Item 1. Business” of this report and is hereby incorporated into this Item 10 by reference.

Directors: Qualifications and Experience

The biographical We are incorporating by reference the information below identifies with respect to the primary experience, qualifications, attributes Directors, Executive Officers and skills Corporate Governance set forth under the captions “Nominees for Director: Qualifications and Experience” and “Our Corporate Governance” in our Definitive Proxy Statement for our 2023 Annual Meeting of Shareholders, which we intend to file within 120 days after the end of our current directors.

Name, Age as of February 17, 2022, and Positions with the Company	Principal Occupation, Business Experience, Directorships and Qualifications
Keith L. Barnes Age 70 Director since 2015 Compensation & Organization Committee - Chair Nominating, Governance & Sustainability Committee	Keith Barnes served as Chairman and CEO of Verigy Pte Ltd. from 2006 until his retirement in 2011. Previously, Mr. Barnes was Chairman and CEO of Electroglas, Inc. (2003 – 2006) and Chairman and CEO of Integrated Measurement Systems (1995 – 2001). Mr. Barnes is also a director of Knowles Corporation and Viavi Solutions Inc. Mr. Barnes brings to the Board experience as a chief executive of global technology manufacturing companies, as well as experience in corporate governance.
Megan Faust Age 48 Director since 2020 Audit Committee Compensation & Organization Committee	Megan Faust is currently Executive Vice President and CFO of Amkor Technology, Inc., a leading provider of outsourced semiconductor packaging and test services. She joined Amkor in 2005 and became CFO in 2016, after serving six years as its Corporate Controller. Before that, Ms. Faust served as an auditor with KPMG LLP for 10 years. Ms. Faust brings to the Board experience as an active senior finance executive in a global technology manufacturing company.
Bruce D. Hoechner Age 62 Director since 2011 President and Chief Executive Officer	Bruce Hoechner has served as the Company's President and CEO and a director since 2011. Previously, Mr. Hoechner worked at Rohm and Haas Company for 28 years, then The Dow Chemical Company after its acquisition of Rohm and Haas in 2009. At both companies, he served in various executive positions, including leadership roles in Asia. Mr. Hoechner is also a director of Curtiss-Wright Corporation. In addition to his perspectives as the CEO of Rogers, Mr. Hoechner brings to the Board experience in global marketing and business operations and strategic development.
Carol R. Jensen Age 69 Director since 2006 Audit Committee Nominating, Governance & Sustainability Committee	Carol Jensen is currently President and Principal Partner of Lightning Ranch Group, a privately held group of companies in ranching, real estate, technology consulting, energy and aviation. Previously, Ms. Jensen was an executive in technical roles at The Dow Chemical Company, 3M Corporation and IBM Corporation and an Adjunct Professor of Chemistry at the University of Texas, Austin. Ms. Jensen brings to the Board experience in technology, particularly technology operations and innovation.
Keith Larson Age 63 Director since 2020 Audit Committee Nominating, Governance & Sustainability Committee	Keith Larson served as a Vice President of Intel Corporation and Senior Managing Director of Intel Capital, Intel's strategic investment and M&A group, until his retirement in April 2019. He joined Intel in 1996, was appointed Vice President in 2006, and served as a Managing Director of Intel Capital from 2004 to 2018. Mr. Larson is currently a director of Northwest Pipe Co. Mr. Larson brings to the Board experience as a senior executive in strategic planning and corporate development in a large multinational, technology-oriented public company, as well as experience in corporate governance.
Ganesh Moorthy Age 62 Director since 2013 Audit Committee Nominating, Governance & Sustainability Committee - Chair	Ganesh Moorthy is currently President and CEO, and a member of the Board of Directors, of Microchip Technology Incorporated, a leading manufacturer of smart, connected and secure embedded control solutions. Before his appointment as Microchip's President and CEO in 2021, Mr. Moorthy served as Microchip's President and COO (2016 – 2021), COO (2009 – 2016), Executive Vice President (2006 – 2009) and Vice President of several Microchip divisions (2001 – 2006). Mr. Moorthy brings to the Board experience as an active senior executive in a global technology manufacturing company, with particular experience in manufacturing and innovation.
Jeffrey J. Owens Age 67 Director since 2017 Audit Committee Compensation & Organization Committee	Jeffrey Owens served as Executive Vice President and CTO of Delphi Automotive PLC until his retirement in 2017. During his over 40-year career at Delphi, Mr. Owens served in a variety of technology, engineering and operating leadership roles, including as President of Delphi's Electronics and Safety Division and President of Delphi Asia Pacific. Mr. Owens currently serves as a director of Indie Semiconductor, Inc., and previously served as a director of Cypress Semiconductor Corporation. Mr. Owens brings to the Board experience as a chief technology executive of a global manufacturing company, with particular experience in technology operations and innovation.
Helene Simonet Age 69 Director since 2014 Audit Committee - Chair Compensation & Organization Committee	Helene Simonet served as Executive Vice President and CFO of Coherent, Inc. from 2002 until her retirement in 2016. Previously, Ms. Simonet served as Vice President of Finance of Coherent's former Medical Group and Vice President of Finance of its Photonics Division from 1999 to 2002. Prior to joining Coherent in 1999 as a Vice President of Finance, Ms. Simonet spent over 20 years in senior finance positions at Raychem Corporation. Ms. Simonet previously served as a director of Finisar, Inc. Ms. Simonet brings to the Board experience as a senior financial executive of a global technology manufacturing company.
Peter C. Wallace Age 67 Director since 2010 Board Chair Compensation & Organization Committee Nominating, Governance & Sustainability Committee	Peter Wallace served as CEO and a director of Gardner Denver Inc. from 2014 until his retirement in 2016. Previously, Mr. Wallace served as President and CEO and a director of Robbins & Myers, Inc. (2004 – 2013) and President and CEO of IMI Norgren Group (2001 – 2004). Mr. Wallace is also a director of Curtiss-Wright Corporation and chairman of the board of Applied Industrial Technologies, Inc. Mr. Wallace brings to the Board experience as a chief executive of global manufacturing companies, as well as experience in corporate governance.

None fiscal year pursuant to Section 14(a) of the directors were subject Exchange Act. Information with respect to any arrangement pursuant to which directors were elected, nor are there any family relationships between any directors our executive officers is presented in Part I, Item 1 of this report and any of the Company's executive officers. To the best of our knowledge, there are no pending material legal proceedings in which any of our directors, or any of their associates, is a party adverse to us or any of our affiliates, or in which the persons have a material interest adverse to us or any of our affiliates. Additionally, to the best of our knowledge, there have been no events under any bankruptcy act, no criminal proceedings and no judgments, sanctions, or injunctions during the last hereby incorporated into this Item 10 years that are material to the evaluation of the ability or integrity of any of our directors, by reference.

Code of Ethics

We have adopted a code of business conduct and ethics policy, which applies to all employees, officers and directors of Rogers Corporation. The Rogers Corporation Code of Business Ethics is posted on our website at <http://www.rogerscorp.com>. We intend to satisfy the disclosure requirements regarding any amendment to, or waiver of, a provision of the Code of Business Ethics for our principal executive officer, principal financial officer or principal accounting officer (or others performing similar functions) by posting such information on our website. Our website is not incorporated into or a part of this Form 10-K.

Audit Committee

The Audit Committee has been established in accordance with the Securities Exchange Act of 1934, as amended and related SEC regulations. The Audit Committee's authority and responsibilities, which are set forth in a written charter adopted by the Board, include oversight of the Company's financial reporting function, internal audit function and internal controls, selection, evaluation and oversight of the Company's independent auditor, and assessment and review of compliance, investigations and legal matters. The members of the Audit Committee are Helene Simonet (Chair), Megan Faust, Carol R. Jensen, Ganesh Moorthy, Jeffrey J. Owens, and Keith Larson. The Board of Directors has determined that each member of the Committee is "independent" in accordance with the NYSE's listing standards and SEC regulations. In addition, the Board of Directors has determined that all of the Audit Committee members are financially literate in accordance with NYSE listing standards and that committee members Ms. Faust, Mr. Larson, Mr. Moorthy and Ms. Simonet are "audit committee financial experts" in accordance with SEC regulations.

Item 11. Executive Compensation

We are incorporating by reference the information with respect to Executive Compensation set forth under the captions "Compensation & Organization Committee Report", "Compensation Discussion and Analysis

Named Executive Officers Analysis", "Executive Compensation", "Director Compensation" and "CEO Pay Ratio" in our Definitive Proxy Statement for 2021

Our Named Executive Officers (NEOs) for fiscal year 2021 are as follows:

Named Executive Officer	Title
Bruce D. Hoechner	President and Chief Executive Officer, Director, Principal Executive Officer
Ramakumar Mayampurath	Senior Vice President and Chief Financial Officer, Principal Financial Officer
Randall C. Gouveia	Senior Vice President and General Manager, Elastomeric Material Solutions
Jonathan J. Rowntree	Senior Vice President and General Manager, Advanced Electronics Solutions
Peter B. Williams	Senior Vice President, Global Operations and Supply Chain
Michael M. Ludwig	Former Senior Vice President, Chief Financial Officer and Treasurer (through May 2021)

Components of Compensation

The Company's executive compensation philosophy is to attract, retain, and motivate the most talented and experienced executives possible in order to achieve outstanding business performance and shareholder value at a reasonable cost. The Company's approach to executive compensation takes into account the various industries in which the Company operates, including technology. We believe that our executive compensation program provides an appropriate balance between industry competitive salary and incentive compensation as well as between risk and reward so that our compensation practices are strongly aligned with the long-term interests of our shareholders.

- Competitive base salaries targeted around market median but aligned with individual performance and experience.
- Bonus targets oriented with market median and focused both on financial results and individual objectives.
- Annual long-term incentive target grants targeted around the market median split between time-based restricted stock units and performance-based units with variations in the annual grants based on performance.

Compensation Decisions, Philosophy, and Governance

Key Compensation Actions and Decisions

At our 2021 2023 Annual Meeting of Shareholders, over 99% of the shares voted were voted in favor of our 2020 NEO compensation. Accordingly, in 2021, which we maintained our commitment intend to the use of at-risk compensation (awards under our Long-Term Incentive Program (LTIP) and Annual Incentive Compensation Plan (AICP)), pay for performance, compensation transparency, and the pursuit of pay practices competitive with those of our peers.

- Base Salary: Base salaries are targeted around the median of our peer group but will take into account experience and performance.
- At-risk Compensation: At-risk compensation made up approximately 83% of our CEO's target total direct compensation in 2021, approximately the same as 2020. For our remaining NEOs, at-risk compensation in 2021 made up approximately 67% of their target total direct compensation, approximately the same as 2020.
- Performance-based Pay: Performance-based pay made up approximately 57% of our CEO's target compensation in 2021, the same as 2020 and made up approximately 43% of target compensation in 2021 for our remaining NEOs, on average, compared to 41% in 2020.
- Pay for Performance Measures: In 2021, we continued to employ multiple performance measures to balance short-term and long-term objectives. With respect to longer-term incentives, we continued the practice of granting performance-based restricted stock units tied to the Company's three-year total shareholder return (TSR) measured relative to the TSR of a pre-established group of peer companies.

Role of Compensation & Organization Committee and the Decision-Making Process

The Compensation & Organization Committee (the "Committee" for purposes of this section) began its consideration of 2021 executive compensation by evaluating our compensation philosophy. The Committee affirmed our existing philosophy, reinforcing that our approach to compensation is fundamentally defined by our objective to attract, retain, and motivate the most talented and experienced executives possible in order to achieve outstanding business performance and shareholder value at a reasonable cost. Specifically, the Committee seeks to provide competitive base salaries for our NEOs, and to leverage short-term and long-term variable compensation in line with performance to appropriately reward our NEOs for the value they create. To achieve these goals, we seek to provide opportunity for our executive officers and other senior managers to earn compensation that is competitive with other technology companies of comparable size, global reach and complexity. In addition, we strongly

emphasize a culture of pay for performance. Our compensation strategy uses salary, bonuses, long-term incentives, and/or benefits to directly incentivize employee performance. Employee performance is generally measured by pre-defined metrics or qualitative evaluations (performance appraisals) in order to reward and align accountability for our executive officers and other senior managers in working toward the achievement of our financial, strategic and operational objectives. Accordingly, the Committee considers market compensation (overall and by element), Company performance, and individual performance, along with cost reasonableness, in setting executive compensation levels.

Role of Management

The Committee, in making executive compensation decisions, solicits input from management, as appropriate, with respect to individual and Company performance. The Committee receives recommendations and evaluations with respect to NEO compensation and performance from Mr. Hoechner (other than with respect to his own compensation). While Mr. Hoechner does not make a recommendation to the Committee with respect to his own compensation, he provides the Committee with a summary of his annual performance. The Committee considers this assessment in conjunction with materials provided by the Company's Chief Human Resources Officer regarding Mr. Hoechner's performance and recommended compensation. The Committee evaluates this input, as well as the compensation data provided by its compensation consultant, as it independently makes its assessments and compensation decisions.

Role of Compensation Consultants

The Committee is authorized to select and retain its own independent compensation consultant, and since 2017 has retained Compensia, Inc. ("Compensia" or "Consultant"). During its engagement, Compensia has advised the Committee on evolving best pay practices and pay ratio disclosure and provided competitive market data on executive officer compensation. The Committee annually reviews the independence of the Consultant as part of its standard governance practices and has determined that the Consultant is independent and that its work does not raise any conflict of interest.

Use of Peer Group Data

The Committee's use of peer group data demonstrates our focus on efficient recruitment and retention of executives who will drive our business performance and enhance shareholder value at a reasonable cost, while maintaining a competitive market position. The Committee regularly reviews the peer groups it uses to set NEO compensation.

In 2020, the Committee, in consultation with Compensia, determined that five companies in the 2020 peer group (Entegris, Inc., II-VI Incorporated, MKS Instruments, Inc., Monolithic Power Systems, Inc., and Versum Materials, Inc.) would be removed and replaced by three new companies (ESCO Technologies, FormFactor, Inc., and Materion Corporation) for our 2021 NEO compensation analysis, due to the recent acquisitions in the 2020 peer group and changes in revenue and market capitalization. The companies comprising the new peer group, which were selected in consultation with Compensia, are listed below.

2021 NEO Compensation Peer Group

Advanced Energy Industries, Inc.	Kulicke and Soffa Industries Inc.
Brooks Automation, Inc.	Littelfuse, Inc.
CMC Materials, Inc.	MACOM Technology Solutions Holding, Inc.
Diodes Incorporated	Materion Corporation
ESCO Technologies	Methode Electronics, Inc.
Ferro Corporation	Novanta Inc.
FormFactor, Inc.	Quaker Houghton Corporation
GCP Applied Technologies, Inc.	Semtech Corporation
Ingevity Corporation	Silicon Laboratories, Inc.
Knowles Electronics, LLC	

The Committee considered compensation data from the 2019 and 2020 proxy statements of these companies, with slight cost-of-living adjustments, when setting 2021 NEO compensation. Specifically, the Committee considered this peer group data when establishing the overall compensation packages for our NEOs and each element of compensation file within those packages for 2021 and, as part of that process, evaluating target total cash compensation for each NEO (defined as base salary and target payments under our AICP) and target total direct compensation for each NEO (defined as base salary and target payments under our AICP and LTIP). In general, the Committee aims to set overall executive compensation, as well as each element of executive compensation, for each NEO around the median of the peer group with variations in each compensation element to account for tenure, experience, performance, responsibilities and expected contribution.

Compensation Mix

The Committee believes that executive compensation should include a competitive combination of base salary, annual incentive compensation and long-term incentive compensation that emphasizes performance and balances shorter-term results with execution of longer-term financial and strategic initiatives.

Base Salary

Base salary is the fixed compensation element we provide to our executives based on their qualifications, experience, and regular contribution to the business. Our goal is to ensure that business decisions are in the hands of executives with proven track records, and our ability to efficiently recruit, retain and motivate such talented people depends in part on competitive base salaries. Adjustments to base salary each year are dependent upon many factors, including an executive's tenure, internal equity across the executive team based on individual roles and contributions, market trends, the Company's prior year performance, and general affordability based on business results. Base salary is generally subject to annual review, unless circumstances dictate otherwise. Generally, any base salary adjustments are effective at the beginning of the second quarter of the year.

The Committee began its assessment of 2021 NEO base salaries with an analysis of base salary relative to the base salaries paid to executives in similar positions at the companies in the peer group discussed above and aimed to set NEO base salaries around the median of the peer group. The Committee concluded that 2021 base salaries for the Rogers NEOs are reflective of the competitive market environment. The Committee concluded that a market adjustment was appropriate for Mr. Mayampurath (due to his promotion to Senior Vice President and Chief Financial Officer) and awarded merit-based increases to certain other NEOs.

Named Executive Officer	2021 Base Salary	2020 Base Salary	Base Salary % Change for 2021
Bruce D. Hoechner	\$ 753,960	\$ 732,000	3.00%
Ramakumar Mayampurath	\$ 380,000	\$ 271,014	26.68%
Randall C. Gouveia	\$ 412,698	\$ 396,825	4.00%
Jonathan J. Rowntree	\$ 407,408	\$ 391,738	4.00%
Peter B. Williams	\$ 403,988	\$ 384,750	5.00%
Michael M. Ludwig	\$ 436,800	\$ 436,800	0.00%

Annual Incentive Compensation Plan

Our AICP is intended to compensate our executives for their annual contributions to the Company's performance. Consistent with the terms of the AICP, the Committee established a performance goal (the achievement of positive operating income, where operating income is adjusted to exclude restructuring and other non-recurring charges and gains, gains and losses on foreign currency transactions, and the effects of accounting changes and certain tax adjustments) and target and maximum potential payouts early in 2021. The Committee used the peer group data described above when evaluating and determining the target and maximum potential AICP awards for the NEOs.

Named Executive Officer	2021 Base Salary	Base Salary Percentage	2021 Target Payout	2021 Maximum Payout
Bruce D. Hoechner	\$ 753,960	100%	\$ 753,960	\$ 2,500,000
Ramakumar Mayampurath	\$ 380,000	65%	\$ 247,000	\$ 750,000
Randall C. Gouveia	\$ 412,698	55%	\$ 226,984	\$ 500,000
Jonathan J. Rowntree	\$ 407,408	55%	\$ 224,074	\$ 500,000
Peter B. Williams	\$ 403,988	55%	\$ 222,193	\$ 500,000
Michael M. Ludwig	\$ 436,800	65%	—	—

(1) Mr. Ludwig was ineligible for a 2021 AICP payout since he retired from the Company in May 2021.

Following 120 days after the end of 2021, the Committee determined that the Company had generated positive annual operating income thereby satisfying the performance goal. In deciding when, and our fiscal year pursuant to what extent, to exercise negative discretion in adjusting awards downward from the maximum potential payout, the Committee looked to each NEO's achievement with respect to certain corporate/business unit performance measures and individual performance metrics; specifically, with regard to corporate/business unit performance measures, the Committee considered the following corporate performance measures in its deliberation (dollars in millions):

Performance Metric	Threshold Performance (80% Target Payout)	Target Performance (100% Target Payout)	Maximum Performance (200% Target Payout)	2021 Performance ⁽¹⁾
Net sales	\$ 677.1	\$ 846.4	\$ 1,015.7	905.6
Operating income ⁽²⁾	\$ 112.7	\$ 140.8	\$ 169.0	150.9

(1) The Committee excluded certain currency adjustments from net sales. No currency adjustment is made to operating income due to the complexities of extracting specific data.

(2) Adjusted operating income, which the Company defines as operating income excluding acquisition-related amortization of intangible assets and discrete items.

With respect to Messrs. Hoechner, Mayampurath, and Williams, each Section 14(a) of the two corporate performance metrics was assigned a 40% weight. With respect to Messrs. Gouveia and Rowntree, each of the two corporate performance metrics was assigned a 10% weight, and each of the two business unit performance metrics was assigned a 30% weight. Exchange Act.

In addition to the metrics discussed above, the Committee assigned a 20% weight to achievement of annual individual performance metrics (MBOs) by each NEO. Mr. Hoechner established the MBOs for each NEO, other than himself, following consultation with the NEOs in early 2021. The Committee established Mr. Hoechner's MBOs following consultation with Mr. Hoechner. The MBOs for the NEOs related to both quantitative performance objectives, including achievement of the annual financial plan and sales, operating efficiencies, and safety goals, and qualitative performance objectives, including updating the corporate/business unit growth strategy, expanding the Company's research and development pipeline, employee development, and streamlining the Company's financial reporting process. After the end of the year, Mr. Hoechner evaluated the performance of each NEO, other than himself, against his MBOs and provided his evaluation to the Committee. The Committee evaluated Mr. Hoechner's performance following discussions with Mr. Hoechner and after performing its own assessment of Mr. Hoechner's performance against his MBOs.

Following consideration of each NEO's achievement of the performance metrics discussed above, the Committee awarded the following AICP payouts to the NEOs:

Named Executive Officer	Actual AICP Payout
Bruce D. Hoechner	\$ 965,068
Ramakumar Mayampurath	\$ 320,033
Randall C. Gouveia	\$ 328,021
Jonathan J. Rowntree	\$ 300,025
Peter B. Williams	\$ 272,010
Michael M. Ludwig ⁽¹⁾	—

(1) Mr. Ludwig was ineligible for a 2021 AICP payout since he retired from the Company in May 2021.

Long-Term Incentive Program

Our LTIP is intended to compensate our executives for their long-term contributions to Company performance, based upon metrics that closely align with long-term shareholder value. For our NEOs, we use a combination of performance-based restricted stock units and time-based restricted stock units to balance retention and attainment of financial and operational goals. The Committee believes that such long-term incentive compensation aligns the interests of our NEOs with the interests of our shareholders.

In early 2021, Mr. Hoechner recommended to the Committee the target total dollar value of the 2021 long-term incentive award for each then-serving NEO other than himself. The Committee considered these recommendations and data drawn from the peer group in a competitive market analysis prepared by Compensia in establishing the target long-term incentive award values below. The Committee concluded that an increase in the total LTIP award for each then-serving NEO was appropriate to bring target total direct compensation for these NEOs closer to the peer group median.

Named Executive Officer	Target LTIP Award	Performance-Based Restricted Stock Units	Time-Based Restricted Stock Units
Bruce D. Hoechner	\$ 3,000,000	\$ 1,800,000	\$ 1,200,000
Ramakumar Mayampurath ⁽¹⁾	\$ 577,855	\$ 331,428	\$ 246,428
Randall C. Gouveia	\$ 825,760	\$ 412,880	\$ 412,880
Jonathan J. Rowntree	\$ 815,360	\$ 407,680	\$ 407,680
Peter B. Williams	\$ 808,500	\$ 404,250	\$ 404,250
Michael M. Ludwig ⁽²⁾	\$ —	\$ —	\$ —

(1) LTIP awards for Mr. Mayampurath include both his annual award (50%/50% split), as well as a promotional award (60%/40% split).

(2) Mr. Ludwig did not receive a 2021 equity award.

Additional information regarding the equity awards provided to our NEOs during 2021, including, where applicable, the target and maximum number of shares, is set forth in both the “Grants of Plan-Based Awards for Fiscal Year 2021 Table” and “Outstanding Equity Awards at End of Fiscal Year 2021 Table” subsections in the “Executive Compensation Tables” section below.

Performance-Based Restricted Stock Units

Performance-based restricted stock units are settled in shares of our capital stock after a three-year performance period. The number of shares delivered under the performance-based restricted stock units can range from zero to 200% of the units in the target grant, depending on our actual performance, and settlement generally requires employment throughout the full three-year performance period. There are generally up to three outstanding performance-based restricted stock unit awards at any time. In 2021, the Committee concluded that performance tied solely to the Company's three-year TSR performance relative to the Index (as defined below) remained appropriate given (i) the Company's strategic focus on synergistic acquisition opportunities and (ii) the Committee's focus on the selection of performance metrics that are appropriately challenging to achieve and efficient for the Committee to assess at the end of a performance period. The applicable performance metric was relative TSR measured as follows:

- Our TSR performance is measured against the TSR of a specified group of peer companies selected by the Committee from within Standard and Poor's Small Cap 600 Information Technology companies (the Index). The Committee believes that the Index is an appropriate group against which to measure the Company's TSR. The Committee excludes from the Index any companies that cease to publicly report financial statement data to the SEC at any time during the performance period.
- TSR performance is calculated for the Company and each of the companies in the Index by comparing the relevant company's average daily closing common stock price for a specified period prior to the start of the performance period

to its average daily closing common stock price for the corresponding period immediately preceding the end of the performance period. The calculation reflects adjustments for stock splits, reverse stock splits and similar extraordinary events that occur during the performance period. Performance-based restricted stock unit awards granted in 2021, 2020 and 2019 will reflect cash dividends paid during the performance period.

- At the end of the performance period, the Committee compares the Company's TSR to the TSR of the companies in the Index. The number of units earned at the end of the applicable three-year performance period is based on the Company's TSR performance ranked against the TSR performance of the companies in the Index. The amount vested, if any, is determined on a straight-line basis based on the table set forth below.

Company Relative TSR Performance	Payout Percentage for TSR Performance
25%	0% (threshold)
30%	20%
35%	40%
40%	60%
45%	80%
50%	100% (target)
55%	120%
60%	140%
65%	160%
70%	180%
75%	200% (maximum)

The TSR performance scale is designed to be appropriately challenging, and there is a risk that the performance-based restricted stock units will not be earned or will be earned at less than 100% of target.

Results from 2019-2021 Performance-Based Restricted Stock Units

In early 2022, the Committee reviewed calculations of the Company's relative TSR performance compared to the Index prepared by Compensia. Following this review, the Committee determined that the payout percentage for TSR performance was 180.7%. As a result, the Committee determined that Messrs. Hoechner, Mayampurath, Gouveia, Rowntree and Williams had earned 180.7% of the target number of shares under these awards.

Time-Based Restricted Stock Units

The Committee uses time-based restricted stock units to provide a long-term incentive vehicle that emphasizes retention. Annual time-based restricted stock units granted to our NEOs are generally subject to three-year ratable vesting and require our executives to remain continuously employed by the Company through the applicable vesting dates. Refer to the subsection "Potential Payments on Termination or Change in Control" subsection in the "Executive Compensation Tables" section below for information about the limited circumstances in which these awards could be subject to accelerated vesting. The value of the time-based restricted stock units ultimately earned is tied to the market price of the Company's capital stock following the vesting period, and the Committee believes the awards align NEO interests with long-term shareholder interests. As noted above, the Committee granted time-based restricted stock units to the NEOs during 2021. In addition, portions of time-based restricted stock units granted in 2018, 2019, and 2020 vested in 2021. Mr. Mayampurath received awards of time-based restricted stock units in 2018, 2019, and 2020 for his service in his previous role as Vice President of Finance, and portions of those awards vested during 2021. Mr. Ludwig forfeited his remaining outstanding time-based restricted stock units upon his retirement in May 2021; according to their terms, the time-based restricted stock units that were unvested at the time of his retirement were forfeited.

Other Benefits

We also provide our NEOs with the following additional benefits:

- Section 401(k) and health and welfare benefits, including life insurance, on substantially the same terms and conditions as they are provided to most of our other employees;
- A non-qualified funded deferred compensation plan that allows executives to defer salary and bonus and receive matching contributions on deferred amounts on a cost-effective tax-advantaged basis;
- Severance and change-in-control protection to U.S.-based NEOs to increase retention and mitigate potential conflicts of interest when NEOs perform their duties in connection with a potential change in control transaction; and
- Physicals as part of an annual executive physical program.

Merger Agreement with DuPont

The Merger Agreement (as defined in the Company's Definitive Proxy Statement filed in December 2021) provides for certain modifications to equity awards outstanding under the Company's 2019 Long-Term Equity Compensation Plan. On November 1, 2021, the Compensation & Organization Committee effectuated modifications to existing equity awards as required by the terms of the Merger Agreement.

Pursuant to the Merger Agreement, at the effective time of the merger:

- Each Company deferred stock unit or time vesting restricted stock unit ("Company RSU"), excluding Post-Signing Company RSUs as defined below, that is outstanding as of immediately prior to the effective time of the merger (the "Effective Time") will become fully vested and will automatically be canceled and converted into the right to receive an amount in cash equal to the product of the Merger Consideration (as defined in the Merger Agreement) and the number of shares subject to such Company RSU immediately prior to the Effective Time;
- Each RSU that is granted on or after the date of the Merger Agreement, excluding any such Company RSU granted to a non-employee director ("Post-Signing Company RSU"), that is outstanding as of immediately prior to the Effective Time, will be assumed by DuPont and converted automatically into a restricted stock unit in respect of shares of DuPont common stock with the same terms and conditions as are in effect with respect to such Post-Signing Company RSU immediately prior to the Effective Time ("Parent RSU"), except that such Parent RSU will relate to a number of shares of DuPont common stock that is determined based on the ratio of the Merger Consideration to the average closing price per share of DuPont's common stock for the period of 10 consecutive trading days preceding the last trading day prior to the closing date of the merger; and
- Each Company restricted stock unit subject to performance-based vesting criteria ("Company PSU") that is outstanding as of immediately prior to the Effective Time will become fully vested and will automatically be canceled and be converted into the right to receive an amount in cash equal to the product of the Merger Consideration and the number of shares subject to such Company PSU immediately prior to the Effective Time based on 120% of the target level of performance achievement.

For additional information on the impact of the Merger Agreement on the compensation of our directors and executive officers, please review the definitive proxy statement filed with the SEC and mailed to shareholders on December 16, 2021.

Stock Ownership Guidelines

Stock ownership guidelines help to foster a focus on long-term growth. The Company's stock ownership guidelines provide as follows: CEO stock ownership should reach three times base salary within five years of service as CEO, while NEOs other than the CEO are expected to own Company stock valued at least two times base salary no later than the completion of five years of service as an executive officer.

Compensation Recovery Policy

The Company has a compensation recovery policy in place to recover any compensation earned by or paid to an executive officer based on any financial result or operating objective that was impacted by the officer's misconduct.

Risk Considerations Related to Compensation

The Committee does not believe that our compensation programs encourage risks that are reasonably likely to have a material adverse effect on the Company. This belief is based on the following:

- Our compensation philosophy and strategy are reviewed by the Committee on an annual basis to align executive compensation with our business strategy.
- At-risk pay comprises a substantial portion of our executives' target total direct compensation, with company or business unit and individual performance having a meaningful effect on payouts to our NEOs. In connection therewith, performance of the CEO and the other NEOs are evaluated by the Committee each year, and that evaluation is used as the basis for future compensation decisions.
- Equity awards for our executives are earned or vest over a three-year period, which the Committee believes discourages undue short-term risk taking.
- Equity represents a significant component of our executives' target total direct compensation, and payouts with respect to at least 50% of our equity awards are contingent on Company performance.
- Our stock ownership guidelines seek to encourage a long-term perspective by our executives.
- The Committee engages an independent compensation consultant.
- The Committee reserves negative discretion to lower compensation plan payouts.
- We have a compensation recovery policy in place to recover any compensation earned by or paid to an executive officer based on any financial result or operating objective that was impacted by the officer's misconduct.

Compensation & Organization Committee Interlocks and Insider Participation

None of the Compensation & Organization Committee members (Keith L. Barnes, Megan Faust, Jeffrey J. Owens, Helene Simonet, or Peter C. Wallace):

- Has ever been an officer or employee of the Company;
- Is or has been a participant in a related party transaction with the Company (refer to the "Related Party Transactions" section to "Item 13. Certain Relationships and Related Transactions, and Director Independence" for a description of our policy on related party transactions); or
- Has any other interlocking relationships requiring disclosure under applicable SEC rules.

Compensation & Organization Committee Report

The Compensation & Organization Committee of the Board of Directors of Rogers Corporation reviewed and discussed this Compensation Discussion and Analysis set forth above with management and, based upon such review and discussion, recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Annual Report on Form 10-K.

February 22, 2022

Members of the Compensation & Organization Committee:

Keith L. Barnes, Chair

Megan Faust, Member

Jeffrey J. Owens, Member

Helene Simonet, Member

Peter C. Wallace, Member

Executive Compensation Tables

Fiscal Year 2021 Summary Compensation Table

The following table sets forth summary information concerning compensation paid or accrued for services rendered to the Company by our NEOs during the year ended December 31, 2021.

Named Executive Officer	Years Covered	Salary ⁽¹⁾		Bonus	Stock Awards ⁽²⁾	Non-Equity Incentive Plan Compensation	Change in Pension Value and Non-Qualified Deferred Compensation		All Other Compensation ⁽³⁾	Total ⁽⁵⁾
							Earnings			
Bruce D. Hoechner	2021	\$ 749,737	\$ —	\$ 4,028,787	\$ 965,068	\$ —	\$ 48,846	\$ 5,792,438		
	2020	\$ 752,784	\$ —	\$ 3,101,717	\$ 309,124	\$ —	\$ 24,537	\$ 4,188,162		
	2019	\$ 700,062	\$ —	\$ 2,781,208	\$ 495,600	\$ —	\$ 59,302	\$ 4,036,172		
Ramakumar Mayampurath	2021	\$ 334,297	\$ —	\$ 713,798	\$ 320,033	\$ —	\$ 21,171	\$ 1,389,299		
Randall C. Gouveia	2021	\$ 409,646	\$ —	\$ 1,072,551	\$ 328,021	\$ —	\$ 41,271	\$ 1,851,489		
	2020	\$ 410,513	\$ —	\$ 585,754	\$ 125,000	\$ —	\$ 107,020	\$ 1,228,287		
	2019	\$ 271,500	\$ —	\$ 364,232	\$ 127,664	\$ —	\$ 76,352	\$ 839,748		

Jonathan J. Rowntree	2021	\$	404,394	\$	—	\$	1,059,576	\$	300,025	\$	—	\$	24,131	\$	1,788,126
Peter B. Williams	2021	\$	400,288	\$	—	\$	1,050,926	\$	272,010	\$	—	\$	23,551	\$	1,746,775
	2020	\$	398,452	\$	—	\$	597,951	\$	130,290	\$	—	\$	12,920	\$	1,139,613
	2019	\$	160,769	\$	150,000	\$	337,519	\$	85,342	\$	—	\$	157,354	\$	890,984
Michael M. Ludwig	2021	\$	213,360	\$	—	\$	—	\$	—	\$	—	\$	34,406	\$	247,766
	2020	\$	449,723	\$	—	\$	1,051,579	\$	166,453	\$	—	\$	13,095	\$	1,680,850
	2019	\$	420,000	\$	—	\$	940,127	\$	211,744	\$	—	\$	17,063	\$	1,588,934

⁽¹⁾ Employees are paid on a bi-weekly schedule. Amounts in this column represent 26 pay periods in 2021.

⁽²⁾ Reflects the aggregate grant date fair value of the performance-based restricted stock units and time-based restricted stock units granted during each listed year. The grant date fair value of the performance-based restricted stock units is based on the probable outcome (as of the grant date) of the performance conditions applicable to those grants. For this purpose, the probable outcome was considered to be the compensation cost over the performance period that would have resulted if the Company achieved target performance during the performance period. The grant date fair value of the time-based restricted stock units reported above is based on the closing price per share of our capital stock on the grant date.

⁽³⁾ With respect to 2021, reflects the total amount of "All Other Compensation" reported in the "All Other Compensation for Fiscal Year 2021 Table" subsection below.

⁽⁴⁾ Mr. Ludwig retired from the Company in May 2021.

⁽⁵⁾ None of the NEOs had a change in pension value or change in non-deferred compensation earnings in 2021, 2020 or 2019.

All Other Compensation for Fiscal Year 2021 Table

The following table sets forth aggregate amounts of all other compensation earned by the NEOs or accrued by the Company for the year ended December 31, 2021, on behalf of the NEOs. Rogers does not provide any additional perquisites to its NEOs other than what is reported in the table below. The total amount reflected below is set forth in the "All Other Compensation" column of the "Fiscal Year 2021 Summary Compensation Table" subsection above.

Named Executive Officer	Company Contributions to Defined Contribution			Life Insurance Premiums	Deferred Compensation Company Match	Misc Income ⁽²⁾	All Other Compensation Total					
	Plan ⁽¹⁾	Executive Physical										
Bruce D. Hoechner	\$	33,226	\$	2,237	\$	3,120	\$	10,263	\$	—	\$	48,846
Ramakumar Mayampurath	\$	17,285	\$	—	\$	3,120	\$	—	\$	766	\$	21,171
Randall C. Gouveia	\$	20,878	\$	—	\$	3,120	\$	17,125	\$	148	\$	41,271
Jonathan J. Rowntree	\$	20,867	\$	—	\$	3,120	\$	—	\$	144	\$	24,131
Peter B. Williams	\$	20,294	\$	—	\$	3,120	\$	—	\$	137	\$	23,551
Michael M. Ludwig ⁽³⁾	\$	20,563	\$	10,723	\$	3,120	\$	—	\$	—	\$	34,406

⁽¹⁾ Includes 401(k) Company match, discretionary contribution and 1% non-elective contributions.

⁽²⁾ Includes payments made for COVID-19 vaccine incentives.

⁽³⁾ Mr. Ludwig retired from the Company in May 2021.

Grants of Plan-Based Awards for Fiscal Year 2021 Table

The following table shows all plan-based awards granted to the NEOs during fiscal year 2021. The awards under the AICP are cash awards, and the performance-based restricted stock units and time-based restricted stock units are non-cash awards (i.e., equity awards). The equity awards identified in the table below are also reported in the "Outstanding Equity Awards at End of Fiscal Year 2021 Table" subsection below and the "Fiscal Year 2021 Summary Compensation Table" subsection above.

Named Executive Officer	Grant Date	Estimated Possible Payouts under Non-Equity Incentive Plan Awards			Estimated Future Payouts under Equity Incentive Plan Awards (Expressed in Shares) ⁽²⁾			All Other Equity Awards: Number of Shares of Stock or Units	Grant Date Fair Value of Equity Awards	
		Threshold ⁽¹⁾	Target	Maximum	Threshold	Target	Maximum			
Bruce D. Hoechner		\$	700,000	\$	2,500,000					
	02/10/2021							7,190	\$	1,268,460
	02/10/2021					10,780	21,560		\$	2,760,327
Ramakumar Mayampurath		\$	225,160	\$	750,000					
	02/10/2021							460	\$	81,153
	02/10/2021					460	920		\$	117,788
	05/01/2021							890	\$	174,298
	05/01/2021					1,330	2,660		\$	340,560
Randall C. Gouveia		\$	226,984	\$	500,000					

	02/10/2021				2,480 \$	437,522
	02/10/2021			2,480	4,960	\$ 635,029
Jonathan J. Rowntree		\$ 224,074	\$ 500,000			
	02/10/2021				2,450 \$	432,229
	02/10/2021			2,450	4,900	\$ 627,347
Peter B. Williams		\$ 222,193	\$ 500,000			
	02/10/2021				2,430 \$	428,701
	02/10/2021			2,430	4,860	\$ 622,226
Michael M. Ludwig ^(a)						

⁽ⁱ⁾ There is no minimum threshold.

^(a) Represents performance-based restricted stock units where the actual number of shares to be issued will vary depending upon the Company's TSR relative to Index companies during the Company's 2021 through 2023 performance cycle. These Index companies were selected by the Committee at the time of grant, as described in the "Compensation Discussion and Analysis" section above.

^(a) Mr. Ludwig retired from the Company in May 2021.

Additional Information Regarding (i) the Fiscal Year 2021 Summary Compensation Table and (ii) Grants of Plan-Based Awards for Fiscal Year 2021 Table

The Committee converts each NEO's target long-term incentive award value into a number of target shares using the average closing price per share of our capital stock for the 30 trading days prior to the grant date. The share price used in 2021 for LTIP awards was \$167.02, based on the average closing price per share of our capital stock for the 30 trading days prior to the February 10, 2021 grant date. With respect to the grant dated May 1, 2021, the share price used to determine the award value was \$192.59. Restricted stock unit awards for NEOs (other than Mr. Hoechner and Mr. Mayampurath) are generally comprised of 50% performance-based restricted stock units and 50% time-based restricted stock units, while restricted stock unit awards for Mr. Hoechner and Mr. Mayampurath are comprised of 60% performance-based restricted stock units and 40% time-based restricted stock units. Each NEO receiving performance-based restricted stock units may earn up to twice the target award if actual performance exceeds target levels.

Outstanding Equity Awards at End of Fiscal Year 2021 Table

The following table contains information regarding outstanding equity awards held by the NEOs as of December 31, 2021. Time-based restricted stock units are reported in the first two columns of the table. Performance-based restricted stock units are reported under the table heading "Equity Incentive Plan."

Named Executive Officer	Grant Date	Number of Shares of Units of Stock That Have Not Vested ⁽¹⁾	Market Value of Shares or Units of Stock That Have Not Vested ⁽²⁾	Equity Incentive Plan	
				Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested ⁽³⁾	Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ⁽²⁾
Bruce D. Hoechner	02/07/2019	2,963	\$ 808,899		
	02/12/2020	6,553	\$ 1,788,969		
	02/10/2021	7,190	\$ 1,962,870		
	02/07/2019			13,334	\$ 3,640,182
	02/12/2020			14,740	\$ 4,024,020
	02/10/2021			10,780	\$ 2,942,940
Ramakumar Mayampurath	02/07/2019	185	\$ 50,505		
	02/12/2020	280	\$ 76,440		
	02/10/2021	460	\$ 125,580		
	05/01/2021	890	\$ 242,970		
	02/07/2019			556	\$ 151,788
	02/12/2020			420	\$ 114,660
	02/10/2021			460	\$ 125,580
	05/01/2021			1,330	\$ 363,090
Randall C. Gouveia	06/03/2019	437	\$ 119,301		
	02/12/2020	1,546	\$ 422,058		
	02/10/2021	2,480	\$ 677,040		
	06/03/2019			1,310	\$ 357,630
	02/12/2020			2,320	\$ 633,360
	02/10/2021			2,480	\$ 677,040
Jonathan J. Rowntree	06/03/2019	77	\$ 21,021		
	02/12/2020	1,480	\$ 404,040		

	02/10/2021	2,450 \$	668,850		
	06/03/2019			230 \$	62,790
	02/12/2020			2,220 \$	606,060
	02/10/2021			2,450 \$	668,850
Peter B. Williams	08/07/2019	307 \$	83,811		
	02/12/2020	1,506 \$	411,138		
	02/10/2021	2,430 \$	663,390		
	08/07/2019			920 \$	251,160
	02/12/2020			2,260 \$	616,980
	02/10/2021			2,430 \$	663,390
Michael M. Ludwig ⁽⁴⁾					

⁽¹⁾ Represents 2021, 2020 and 2019 time-based restricted stock units as of December 31, 2021, which generally vest in equal one-third increments on each of the first three anniversaries of the grant date, provided that the executive is still employed by the Company. For the 2021, 2020 and 2019 time-based restricted stock unit awards, accelerated pro-rata vesting applies in case of death, disability or termination of employment after attaining at least 60 years of age and completing five years of service and in certain cases, in connection with a change in control. Refer to the discussion in the "Potential Payments on Termination or Change in Control" subsection below.

⁽²⁾ Calculation based on the closing share price of our capital stock of \$273.00 per share on December 31, 2021.

⁽³⁾ Represents 2021, 2020 and 2019 performance-based restricted stock units outstanding as of December 31, 2021. The disclosed amounts for both the performance-based restricted stock unit reflect the targeted payout (100%). Except as described below in connection with a change in control, payment of shares earned based on performance generally requires that the executive remain employed on the last day of the fiscal year in the relevant performance period.

⁽⁴⁾ Mr. Ludwig retired from the Company in May 2021.

Equity Awards Vested for Fiscal Year 2021 Table

The following table sets forth restricted stock units for all NEOs that vested during 2021.

Named Executive Officer	Equity Awards	
	Number of Shares Acquired on Vesting	Value Realized Upon Vesting
Bruce D. Hoechner	8,340 \$	1,471,335
Ramakumar Mayampurath	402 \$	70,647
Randall C. Gouveia	1,210 \$	221,661
Jonathan J. Rowntree	816 \$	147,105
Peter B. Williams	1,060 \$	194,036
Michael M. Ludwig	2,111 \$	371,251

Pension Benefits at End of Fiscal Year 2021

Rogers previously maintained the Rogers Corporation Defined Benefit Pension Plan, a tax-qualified defined benefit pension plan and currently maintains a non-qualified unfunded pension plan (Pension Restoration Plan). Benefit accrual under both plans ceased as of June 30, 2013. None of our NEOs participated in these plans in 2021.

Non-Qualified Deferred Compensation at End of Fiscal Year 2021 Table

This table provides information about the voluntary Deferred Compensation Plan for Key Employees (NQDC) maintained for the benefit of our NEOs and other Company executives. An NEO may only earn non-qualified deferred compensation by electing to defer receipt of compensation that would otherwise be payable to him or her in cash. The amounts shown in the column "Executive Contributions" reflect deferrals of NEO compensation received in 2021, including in some cases the 2020 AICP award which was payable in 2021. If the NEOs had not chosen to defer this compensation, we would have paid these amounts to the NEOs in cash in 2021.

Named Executive Officer	Executive Contributions in the Last Fiscal Year ⁽¹⁾	Registrant Contributions in the Last Fiscal Year ⁽²⁾	Aggregate Earnings in the Last Fiscal Year ⁽³⁾	Aggregate Withdrawals Distribution	Aggregate Balance at Last Fiscal Year End
Bruce D. Hoechner	\$ 18,570	\$ 10,263	\$ 171,810	— \$	1,260,073
Ramakumar Mayampurath	\$ —	\$ —	\$ —	— \$	—
Randall C. Gouveia	\$ 26,732	\$ 17,125	\$ 13,745	— \$	100,895
Jonathan J. Rowntree	\$ —	\$ —	\$ —	— \$	—
Peter B. Williams	\$ —	\$ —	\$ —	— \$	—
Michael M. Ludwig ⁽⁴⁾	\$ —	\$ —	\$ —	— \$	—

⁽¹⁾ Deferred earnings are included in the "Salary" (Messrs. Hoechner and Gouveia) and "Non-Equity Incentive Plan Compensation" (Messrs. Hoechner and Gouveia) columns of the "Fiscal Year 2021 Summary Compensation Table" subsection above.

^{a)} Reflects 2021 matching credit on executive contributions; included in the "Deferred Compensation Company Match" column in the "All Other Compensation for Fiscal Year 2021 Table" subsection above.

^{b)} Reflects interest and investment returns on balances in 2021.

^{c)} Mr. Ludwig retired from the Company in May 2021.

The NQDC allows participants to elect to defer up to 100% of their annual bonus and 50% of their base salary. The NQDC allows for the participant to make investment elections similar to the qualified 401(k) plan. The participants' balances and any earnings thereon will be reflected on the Company's books as general unsecured obligations of the Company. All payments under the NQDC will come from the general assets of the Company. The Company has placed assets to pay plan benefits in a

Rabbi Trust to protect the assets against a change in control in the ownership or management of the Company. Once a change in control occurs, the assets may only be used to pay the promised benefit to participants, except in the event of the Company's bankruptcy or insolvency. In the event of such an occurrence, Rabbi Trust assets are treated like all other corporate assets and are subject to the claims of all general creditors of the Company. Participants will be considered a general creditor and will have no greater rights to their balance than other general creditors.

A Company match is credited on all salary and bonus deferrals but with the amount of the match being equal to the rate of the 401(k) Company match (which is currently 100% of the first 1% and 50% of the next 5% of eligible compensation). The Company match on deferrals is made in cash. Each participant has a fully vested interest in the Company match.

Payment(s) of deferred amounts with respect to the deferrals made for a specific year will commence on April 15th of the year following the passage of the number of years specified by the individual in the deferral election for that year, or 30 days after the participant ceases to be an employee. Payment elections are made at the time of the deferral election. Payments are made in a lump sum or installments over a period of not more than 10 years. Any requested changes in the timing of the payments by participants must result in the extension of the existing payment date by at least an additional five years. Accelerated payment may occur upon a change in control or a bona fide unforeseen financial hardship. Payments made upon a participant's separation from service may be delayed six months, if necessary, to avoid penalties under Internal Revenue Code Section 409A. To the extent permitted under Internal Revenue Code Section 409A, certain amounts in a participant's deferred compensation account, such as amounts deferred and vested prior to January 1, 2005, are not subject to Section 409A.

Potential Payments on Termination or Change in Control

The section below describes the payments that may be made to NEOs upon termination of employment, retirement, death, or disability or in connection with a change in control. On November 1, 2021, we entered into a Merger Agreement with DuPont. The Merger Agreement provides for certain modifications to equity awards outstanding under the Company's 2019 Long-Term Equity Compensation Plan. Because the proposed merger with DuPont could not have reasonably closed in fiscal year 2021, the amounts listed in this section do not take into account any provisions of the Merger Agreement or any terms conditioned upon the proposed merger. For further information on the Merger Agreement, please see the definitive proxy statement filed with the SEC and mailed to shareholders on December 16, 2021.

Payments Made Upon Termination

An NEO may be entitled to receive the following amounts earned during his/her term of employment regardless of the way an NEO's employment terminates, except where indicated to the contrary below:

- Unpaid base salary through the date of termination;
- Any unpaid award under the AICP with respect to a completed performance period and all vested equity awards granted under the Rogers' equity compensation plans (except in the event of termination for cause);
- All accrued and vested benefits under the Pension Restoration Plan and under the NQDC, as described in the "Pension Benefits at End of Fiscal Year 2021" and the "Non-Qualified Deferred Compensation at End of Fiscal Year 2021 Table" subsections above; and
- All other benefits under the Company's compensation and benefit programs that are available to all salaried employees and do not discriminate in scope, terms, or operation in favor of the NEOs.

Payments Made Upon Retirement

In the event of the retirement of an NEO, in addition to the items listed under the heading "Payments Made Upon Termination," for all award agreements prior to 2021, the retiring NEO will receive the following benefits:

- Payment of a pro-rata portion of the NEO's AICP award for the performance year in which the termination occurs, based on actual performance; and
- Vesting of a pro-rata portion of time- and performance-based grants, provided that the NEO is at least 60 years old and has at least five years of service at Rogers.

Payments Made Upon Death or Disability

In the event of the death or disability (as defined in the applicable compensation program), in addition to the benefits listed under the "Payments Made Upon Termination" heading above, the NEO will receive the following:

- Benefits under our disability plan or payments under our life insurance plan, as appropriate;
- Vesting of a pro-rata portion of any performance-based restricted stock units based on employment and the Company's actual performance during the performance period. Shares with respect to vested units will be paid at the end of the performance period;
- Vesting of a pro-rata portion of any time-based restricted stock units based on employment during the vesting period; and
- Payment of a pro-rata portion of the NEO's AICP award for the performance year in which the termination occurs based on actual performance.

Additional Payments Made Upon Involuntary Termination of Employment Without Cause Prior to a Change in Control or in Connection with a Change in Control

The Rogers Corporation Severance Plan (Severance Plan) provides a market-based severance program to recruit and retain executives on competitive terms. In order to participate in the Severance Plan, an executive must execute a participation agreement (Participation Agreement) providing that severance payments and benefits provided under the Severance Plan are in lieu of any other severance payments or benefits to which they would have been entitled from the Company. Each of Messrs. Hoechner, Mayampurath, Gouveia, Rowntree, and Williams (collectively, the "covered NEOs") participate in the Severance Plan.

The Severance Plan will provide benefits to a covered NEO if that NEO (i) is involuntarily terminated by the Company for any reason other than for cause or (ii) terminates his employment with the Company for good reason (each referred to as a "Qualifying Termination"). Benefits under the Severance Plan include:

- for Mr. Hoechner, a lump sum cash payment equal to the following: (A) the amount determined by multiplying the sum of his base salary and target annual bonus by two if the Qualifying Termination does not occur within two years after a change in control, and (B) the amount determined by multiplying the sum of his base salary and target annual bonus by 2.5 if the Qualifying Termination occurs within two years after a change in control;
- for covered NEOs other than Mr. Hoechner, a lump sum cash payment equal to the following: (A) the covered NEO's base salary if the Qualifying Termination does not occur within one year after a change in control (as defined in the Severance Plan) or if the Qualifying Termination occurs after the third anniversary of the covered NEO's participation in the Severance Plan, (B) the sum of the covered NEO's base salary and target annual bonus if the Qualifying Termination does not occur within one year after a change in control but occurs before the third anniversary of the covered NEO's participation in the Severance Plan, or (C) the amount determined by multiplying the sum of the covered NEO's base salary and target annual bonus by 1.5 if the Qualifying Termination occurs within one year after a change in control;
- subsidized premium payments for continuation of medical and dental insurance coverage following the Qualifying Termination for (A) 12-months, or (B) for Mr. Hoechner or if the Qualifying Termination occurs within one year after a change in control, 18 months; and
- reasonable outplacement services (with a value not to exceed \$50,000) during (A) the 12-month period (24-month period for Mr. Hoechner) immediately following the Qualifying Termination, or (B) if the Qualifying Termination occurs within one year after a change in control, the 24-month period (30-month period for Mr. Hoechner, but not beyond the end of the second calendar year after the Qualifying Termination) immediately following the Qualifying Termination.

The Severance Plan also provides that the value of, and rights attendant to, each equity-based award held by a covered NEO will be preserved or the award will be cashed out in a manner consistent with the plan and award agreement under which the award is issued. Benefits under the Severance Plan are also conditioned upon the NEO's execution of a general release and separation agreement and compliance with covenants regarding non-competition, non-solicitation, non-disparagement, and confidentiality.

Tax Reimbursements - Gross-Up Agreement

In connection with the merger with DuPont, the Compensation & Organization Committee of the Board authorized the Company to enter into participation agreements with certain employees, including certain of the Company's executive officers, and approved the form of such participation agreements (each, a "Gross-Up Agreement"). Each Gross-Up Agreement provides that if the employee becomes entitled to payments and benefits in connection with the merger, including accelerated vesting of Company equity awards, that are "excess parachute payments" under Sections 280G and 4999 of the Code, the employee will be entitled to receive an additional payment from the Company in an amount such that, after payment by the employee of all applicable taxes on the parachute payments and this additional payment (including any excise tax imposed under Section 4999 of the Code), the employee will be in the same after-tax position as if no excise tax were imposed on the parachute payments.

Refer to the section entitled "The Merger-Golden Parachute Compensation" beginning on page 48 of the definitive proxy statement filed with the SEC on December 16, 2021, for an estimate of the amounts that would become payable to each of the Company's named executive officers pursuant to each Gross-Up Agreement.

Confidentiality and Non-Compete Agreements

The Company has entered into confidentiality and non-compete agreements with most of its salaried employees, including its NEOs. These agreements generally prohibit the NEOs from accepting employment with a competitor of the Company for two years following termination of employment. If an NEO terminates employment prior to a change in control and cannot obtain employment at a rate of compensation at least equal to the rate in effect upon terminating employment with Rogers during this period, the NEOs may become entitled to additional payment from the Company. This payment will equal the difference between the executive's current compensation and his or her last regular rate of compensation with the Company, reduced by any retirement or severance income. In lieu of making payments on account of an employment termination prior to a change in control, the Company can waive its rights to enforce the non-compete agreement.

Post Termination Table

The following table was prepared as though each NEO terminated employment on December 31, 2021 using the closing share price of our capital stock of \$273.00 as of December 31, 2021 (the last trading day of the fiscal year). The amounts under the column labeled "Termination by Rogers without Cause or by NEO for Good Reason on or after a Change in Control" assume that a CIC occurred on December 31, 2021. Because the proposed merger with DuPont could not have reasonably closed in fiscal year 2021, the following amounts do not take into account any provisions of the Merger Agreement or any terms conditioned upon the proposed merger.

Summary of Separation Benefits	Termination by Rogers without Cause or by NEO for Good Reason absent a CIC		Termination by Rogers without Cause or by NEO for Good Reason on or after a CIC		Termination Due to Death or Disability	Termination Due to Retirement ⁽⁹⁾
Bruce D. Hoechner						
Cash Severance ^{(1),(4),(7)}	\$	3,016,000	\$	3,770,000	\$ 1,013,000	\$ 754,000
Accelerated Vesting of Unvested Equity ^{(5),(8)}	\$	—	\$	11,527,698	\$ 9,284,632	\$ 9,284,632
Benefits Continuation ^{(2),(6)}	\$	30,540	\$	30,540	\$ —	\$ —
Outplacement Services ⁽³⁾	\$	50,000	\$	50,000	\$ —	\$ —
Total Pre-Tax Payment	\$	3,096,540	\$	15,378,238	\$ 10,297,632	\$ 10,038,632
Ramakumar Mayampurath						

Non-Management Directors	Fair Value of Deferred		
	Retainer Earned ⁽¹⁾	Stock Unit Awards ⁽²⁾	Total
Keith L. Barnes	\$ 84,000	\$ 150,880	\$ 234,880
Carol R. Jensen	\$ 78,000	\$ 150,880	\$ 228,880
Ganesh Moorthy	\$ 84,000	\$ 150,880	\$ 234,880
Jeffrey J. Owens	\$ 79,000	\$ 150,880	\$ 229,880
Helene Simonet	\$ 90,000	\$ 150,880	\$ 240,880
Peter C. Wallace	\$ 94,000	\$ 160,310	\$ 254,310
Megan Faust ⁽³⁾	\$ 104,500	\$ 150,880	\$ 255,380
Keith Larson ⁽³⁾	\$ 107,000	\$ 150,880	\$ 257,880

⁽¹⁾ Represents annual retainer for board and committee service, which is paid in cash. Directors may elect to defer their retainers pursuant to a non-qualified deferred compensation plan. Fees for the December meeting were paid in January 2021.

⁽²⁾ The fair value of deferred stock unit awards is the same as the compensation cost reported in our financial statements. All deferred stock units awarded to directors are fully vested as of the award date. On May 5, 2021, each non-management director then serving on the Board received a deferred stock unit award of units representing 800 shares of our capital stock, except Mr. Wallace, who received a deferred stock unit award of units representing 850 shares of our capital stock. The number of shares of capital stock underlying the deferred stock unit award was calculated based on the average closing price of our capital stock over the preceding 30 business days, which was \$192.30, and the total units awarded was rounded up to the nearest increment of 50 units.

⁽³⁾ Ms. Faust and Mr. Larson were appointed to the Board in December 2020, and the amounts shown under "Retainer Earned" column for each of them also includes their pro-rata portion of 2020 cash compensation, which was paid in January 2021.

Annual Retainer

Non-management directors elected at the 2021 Annual Meeting earned an annual retainer of \$65,000, together with additional retainers as follows:

Position	Board/Committee Chair		Committee Member	
	Retainer		Retainer	
Board Chair ⁽¹⁾	\$	60,000	\$	—
Audit Committee	\$	20,000	\$	9,000
Compensation & Organization Committee	\$	15,000	\$	5,000
Nominating, Governance & Sustainability	\$	10,000	\$	4,000

⁽¹⁾ The Board Chair retainer increased from \$20,000 to \$60,000 effective October 1, 2021.

The retainers are paid quarterly in advance and are prorated for non-management directors who serve for only a portion of the year.

Deferred Stock Unit Awards

Deferred stock unit awards were granted to non-management directors as set forth in the director compensation table above. These awards were fully vested on the grant date. The stock subject to these awards is scheduled to be issued on the 13-month anniversary of the grant date unless the director elects to defer the receipt of these shares.

Perquisites and Reimbursable Expenses

Rogers does not provide its non-management directors with any perquisites. Rogers reimburses its directors for expenses associated with attending any board or committee meetings and attending certain other meetings in their capacity as board or committee members. The Board of Directors established a Directors' Education and Training Allowance Policy to provide reimbursement of up to \$10,000 during any two-year period to each non-management director for the reasonable costs to attend education and training programs, as well as membership fees in relevant professional organizations, in all such cases reflective of the director's duties to the Board, the director's background and experience, and developments relevant to corporate governance and to the Company's operations.

Director Stock Ownership Guidelines

The Company's Corporate Governance Guidelines provide that a non-management director's ownership of Company stock should be equal to at least five times the director's base annual retainer by the fifth anniversary of the first annual meeting of shareholders after such person becomes a non-management director.

Management directors are subject to the stock ownership guidelines applicable to executive officers, which are discussed in the "Stock Ownership Guidelines" heading in the "Compensation Decisions, Philosophy, and Governance" subsection the "Compensation Discussion and Analysis" section above.

CEO Pay Ratio

In August 2015, pursuant to a mandate of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the SEC adopted a rule requiring annual disclosure of the ratio of the median employee's annual total compensation to the annual total compensation of the principal executive officer (the "Pay Ratio"). Our principal executive officer is our President and CEO, Mr. Hoechner. The Pay Ratio, as set forth below, is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K.

In 2020, we identified our median employee as a manufacturing employee located in Bear, Delaware, U.S. This is the beginning of a new three-year cycle. Barring any meaningful change to our employee population, change in employee compensation that the Company believes would result in a significant modification to the pay ratio disclosure or departure of the median employee, we will use this median employee for the calculation of our 2020, 2021, and 2022 pay ratio.

We combined all of the elements of the identified employee's compensation for 2021 in accordance with the requirements of Item 402(c)(2)(x) of Regulation S-K, resulting in annual total compensation of \$42,078 for the median employee.

With respect to the annual total compensation of our CEO, we used the amount reported in the "Total" column of the "Fiscal Year 2021 Summary Compensation Table" subsection in the "Executive Compensation Tables" section above.

Median Employee annual total compensation	\$	42,078
CEO annual total compensation	\$	5,941,687
Ratio of CEO to Median Employee compensation		141.2 to 1

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table and footnotes below describe those equity compensation plans approved and not approved by security holders of Rogers Corporation as of **December 31, 2021** **December 31, 2022**:

Plan Category	Plan Category	(a)	(b)	Plan Category	Plan Category	(a)	(b)
		Number of securities to be issued upon exercise of outstanding options, warrants and rights	Number of securities remaining available for future issuance under each equity compensation plan excluding securities referenced in column (a)			Number of securities to be issued upon exercise of outstanding options, warrants and rights	Number of securities remaining available for future issuance under each equity compensation plan excluding securities referenced in column (a)
Equity Compensation Plans Approved by Security Holders	Equity Compensation Plans Approved by Security Holders			Equity Compensation Plans Approved by Security Holders	Equity Compensation Plans Approved by Security Holders		
Rogers Corporation 2009 Long-Term Equity Compensation Plan	Rogers Corporation 2009 Long-Term Equity Compensation Plan	68,383 ⁽¹⁾	— ⁽²⁾	Rogers Corporation 2009 Long-Term Equity Compensation Plan	Rogers Corporation 2009 Long-Term Equity Compensation Plan	1,200 ⁽¹⁾	— ⁽²⁾
Rogers Corporation 2019 Long-Term Equity Compensation Plan	Rogers Corporation 2019 Long-Term Equity Compensation Plan	261,498 ⁽³⁾	869,516	Rogers Corporation 2019 Long-Term Equity Compensation Plan	Rogers Corporation 2019 Long-Term Equity Compensation Plan	260,960 ⁽³⁾	914,439
Rogers Corporation Global Stock Ownership Plan For Employees	Rogers Corporation Global Stock Ownership Plan For Employees	5,552	— ⁽⁴⁾	Rogers Corporation Global Stock Ownership Plan For Employees	Rogers Corporation Global Stock Ownership Plan For Employees	—	59,611 ⁽⁴⁾
Total	Total	335,433	869,516	Total	Total	262,160	974,050

⁽¹⁾ Consists of 67,183 shares for restricted stock units and 1,200 shares for deferred stock units.

⁽²⁾ This plan expired in early February 2019.

⁽³⁾ Consists of 253,198 255,310 shares for restricted stock units and 8,300 5,650 shares for deferred stock units.

⁽⁴⁾ This is an employee stock purchase plan within the meaning of Section 432(b) of the Internal Revenue Code of 1986, as amended, that was discontinued suspended as of December 31, 2021, pursuant to the Merger Agreement, then-pending merger agreement with DuPont.

Stock Ownership

Stock Ownership of Management and Directors

This table provides We are incorporating by reference the information about the beneficial ownership of our capital stock as of February 17, 2022, by each of the current members of the Board of Directors, the NEOs listed in the "Fiscal Year 2021 Summary Compensation Table" subsection of the "Executive Compensation Tables" section to "Item 11. Executive Compensation," and by all current directors and executive officers as a group. Unless otherwise noted, the persons listed below have sole voting and investment power with respect to Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters set forth under the shares reported.

Name of Person or Group	Shares Beneficially	
	Owned ⁽¹⁾	Percent of Class ⁽²⁾
Keith L. Barnes	820	*
Megan Faust	500	*
Randall C. Gouveia	3,869	*
Bruce D. Hoechner ⁽³⁾	117,744	*
Carol R. Jensen ⁽⁴⁾	12,138	*
Keith Larson	500	*
Ramakumar Mayampurath	1,025	*
Ganesh Moorthy ⁽⁴⁾	9,900	*
Jeffrey J. Owens	4,450	*

Jonathan J. Rowntree	1,922	*
Helene Simonet	9,100	*
Peter C. Wallace	8,597	*
Peter B. Williams	2,986	*
All Current Directors and Executive Officers as a Group (16 People) ⁽¹⁾	192,544	1.02 %
Michael M. Ludwig ⁽⁵⁾	7,123	

* None caption "Security Ownership of Certain Beneficial Owners and Management" in our Definitive Proxy Statement for our 2023 Annual Meeting of Shareholders, which we intend to file within 120 days after the end of our executive officers or directors owned more than 1.0% fiscal year pursuant to Section 14(a) of our outstanding capital stock as of February 17, 2022.

⁽¹⁾ Represents the total number of currently owned shares and shares acquirable within 60 days of February 17, 2022.

⁽²⁾ Represents the percent ownership of total outstanding shares of capital stock, based on 18,803,211 shares of capital stock outstanding as of February 17, 2022, and on an individual or group basis those shares acquirable by the respective directors and executive officers within 60 days of February 17, 2022.

⁽³⁾ Mr. Hoechner owns 96,673 shares as to which investment and voting power is shared with his spouse. Mr. Hoechner's total ownership includes 21,071 shares held by a Grantor Retained Annuity Trust for which he serves as trustee.

⁽⁴⁾ Ms. Jensen and Mr. Moorthy hold all their shares in trusts in which investment and voting power is shared with their respective spouses.

⁽⁵⁾ Mr. Ludwig retired from the Company in May 2021. This is the last information the Company has on Mr. Ludwig's holdings.

Beneficial Ownership of More than Five Percent of Rogers Corporation's Capital Stock

Except as otherwise noted below, this table provides information regarding beneficial ownership of each person known to Rogers Corporation to own more than 5% of its outstanding capital stock as of February 17, 2022, based upon filings by each such person with the SEC on Schedule 13G (including amendments) under the Exchange Act. Unless otherwise noted, the beneficial owners have sole voting and dispositive power with respect to the shares listed below.

Name and Address of Beneficial Owner	Shares Beneficially Owned	Percent of Class ⁽¹⁾
BlackRock, Inc. ⁽²⁾ 55 East 52nd Street New York, NY 10055	3,273,574	17.4 %
The Vanguard Group ⁽³⁾ 100 Vanguard Blvd. Malvern, PA 19355	2,042,551	10.9 %

⁽¹⁾ Based on 18,803,211 shares outstanding as of February 17, 2022.

⁽²⁾ BlackRock, Inc., a parent holding company, reported it has beneficial ownership of the 3,273,574 shares listed above.

⁽³⁾ The Vanguard Group, a registered investment adviser, reported it has sole voting power with respect to none of the shares listed above, shared voting power with respect to 32,946 of the shares listed above, sole dispositive power with respect to 1,993,096 of the shares listed above, and shared dispositive power with respect to 49,455 of the shares listed above.

Change in Control

On November 1, 2021, we entered into a definitive merger agreement to be acquired by DuPont de Nemours, Inc. (DuPont) in an all-cash transaction at a price of \$277.00 per share of the Company's capital stock. The merger agreement provides for the acquisition of Rogers Corporation by DuPont through the merger of Cardinalis Merger Sub, Inc., a wholly owned subsidiary of DuPont, with and into Rogers Corporation, with Rogers Corporation surviving the merger as a wholly owned subsidiary of DuPont. Company shareholders approved the merger agreement at a special shareholder meeting held on January 25, 2022. The merger is subject to receipt of regulatory approvals and satisfactions of other customary conditions. The merger is expected to close in the second quarter of 2022. For further information on the merger, including potential payments to our directors and executive officers in relation to the merger, please see the definitive proxy statement filed with the SEC and mailed to shareholders on December 16, 2021.

Item 13. Certain Relationships and Related Transactions, and Director Independence

We are incorporating by reference the information with respect to Certain Relationships and Related Transactions and Director Independence as set forth under the captions "Related Party Transactions"

Since January 1, 2021, neither Rogers nor any Transactions" and "Corporate Governance - Director Independence" in our Definitive Proxy Statement for our 2023 Annual Meeting of its subsidiaries has been a participant in any transaction in Shareholders, which any we intend to file within 120 days after the end of its executive officers, directors, more than 5% shareholders, or any immediate family member our fiscal year pursuant to Section 14(a) of the foregoing (with any one of these being a "Related Party") has a material interest.

Policies and Procedures for Approval of Related Party Transactions

Rogers' Code of Business Ethics, which sets forth standards applicable to all directors, officers and employees of Rogers (the Code), prohibits the giving or accepting of personal benefits that could result in a conflict of interest. Any waiver of the Code for a director or an officer may only be granted by the Nominating, Governance & Sustainability Committee of the Board of Directors (as used in this section, the "Committee"). Any waiver of the Code that is granted to a director or an officer or amendment of the code will be posted on Rogers' website, located at <http://www.rogerscorp.com>, or otherwise publicly disclosed, as required by applicable law or NYSE rules and regulations. Waivers for other employees must be approved by certain members of senior management.

In addition, to supplement the Code, the Board of Directors has adopted a Related Party Transactions Policy. The purpose of the policy is to describe the procedures used to identify, review, approve and disclose, if necessary, any transaction or series of transactions in which: (i) the amount involved will or may be expected to exceed \$120,000 in any

calendar year, (ii) Rogers was, is or will be a participant (even if not necessarily a party); and (iii) a Related Party has or will have a direct or indirect interest (other than solely being a director or less than 10 percent beneficial owner of another entity) (with such transactions being "Interested Transactions").

The Committee reviews the material facts relating to all Interested Transactions and either approves or disapproves of the Company's entry into the Interested Transaction, subject to certain exceptions. If advance Committee approval of an Interested Transaction is not feasible, then at the Committee's next meeting, the Interested Transaction will be considered and, if the Committee determines it to be appropriate, ratified (or if not ratified, the Committee will determine if the transaction should be terminated). In determining whether to approve or ratify an Interested Transaction, the Committee will take into account, among other factors it deems appropriate, whether the Interested Transaction is on terms no less favorable to the Company than terms generally available from an unaffiliated third-party under the same or similar circumstances, whether the Interested Transaction is material to the Company, the role the Related Party has played in arranging the Interested Transaction, and the extent of the Related Party's interest in the Interested Transaction.

Director Independence

The Board of Directors, in compliance with the New York Stock Exchange (NYSE) listing standards, determines annually whether each of its directors is independent based on the absence of any direct or indirect material relationship between the Company and the director. To evaluate the materiality of any such relationship, the Board has adopted categorical independence standards consistent with the NYSE listing standards. In addition, the Board has adopted the following categorical standards, contained in the Rogers Corporation Corporate Governance Guidelines, which identify certain relationships deemed by the Board to be immaterial provided that they satisfy the criteria below:

- If a Rogers director receives direct or indirect annual compensation or other benefits (other than board and committee fees) from Rogers, the amount of such compensation must not exceed \$30,000. This immateriality standard is not applicable to Audit Committee members, who may not accept any consulting, advisory or other compensatory fee from Rogers;
- If a Rogers director is an executive officer of another company that does business with Rogers, that company's annual sales to, or purchases from, Rogers must be less than 1% of the revenues of that company;
- If a Rogers director is an executive officer of another company which is indebted to Rogers, or to which Rogers is indebted, the total amount of either company's indebtedness to the other must be less than 1% of the total consolidated assets of the company for which he or she serves as an executive officer; and
- If a Rogers director serves as an officer, director or trustee of a charitable organization, Rogers' discretionary charitable contributions to the organization must be less than 1% of that organization's total annual charitable receipts. (Rogers' matching of employee charitable contributions will not be included in the calculation of the amount of Rogers' contributions for this purpose.)

The Board of Directors has determined that all of the current directors, other than Mr. Hoechner, due to his position as President and Chief Executive Officer, satisfy these standards and do not have any direct or indirect material relationship with Rogers, [Act](#).

Item 14. Principal Accountant Fees and Services

Fees We are incorporating by reference the information with respect to accountant fees and services set forth under the caption "Independent Auditing Firm Fees" in our Definitive Proxy Statement for our 2023 Annual Meeting of [Independent Auditor](#)

The following table sets forth [Shareholders](#), which we intend to file within 120 days after the aggregate fees billed end of our fiscal year pursuant to [Rogers by PricewaterhouseCoopers LLP \(PwC\)](#) for the 2021 and 2020 fiscal years:

	2021	2020
Audit Fees ⁽¹⁾	\$ 3,078,500	\$ 2,791,750
Audit-Related Fees ⁽²⁾	18,550	15,255
Tax Fees ⁽³⁾	63,803	55,073
All Other Fees ⁽⁴⁾	7,900	6,900
Total	\$ 3,168,753	\$ 2,868,978

⁽¹⁾ Audit fees consist of fees billed for professional services rendered for the audit [Section 14\(a\)](#) of the Company's consolidated annual financial statements and review of the interim consolidated financial statements included in quarterly reports and services that are normally provided by the independent auditor in connection with statutory and regulatory filings, audit procedures related to acquisitions and system implementations or other services to comply with generally accepted auditing standards (GAAS). Amounts also include fees for the required audit of the Company's internal control over financial reporting.

⁽²⁾ Audit-related fees consist of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Company's consolidated financial statements that are not reported under "Audit Fees." This category includes fees related primarily to regulatory filings.

⁽³⁾ Tax fees consist of fees billed for professional services rendered for tax compliance, tax advice and tax planning (domestic and international).

⁽⁴⁾ All other fees consist of fees for products and services other than the services reported above, including subscriptions services to PwC's online resources for accounting and auditing technical research and disclosure requirements.

The Audit Committee's policy is to pre-approve all audit and non-audit services provided by the independent auditor. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year and any pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The Audit Committee has delegated pre-approval authority to its chair when expedition of services is necessary. The independent auditor and management are required to periodically report to the full Audit Committee regarding the extent of services provided by the independent auditor in accordance with this pre-approval, and the fees for the services performed to date. All of the audit, audit-related and tax services provided by PwC in fiscal year 2021 and related fees were approved in accordance with the Audit Committee's policy, [Exchange Act](#).

Part IV

Item 15. Exhibits, Financial Statement Schedules

(1) Financial Statements and Schedules.

The following consolidated financial statements of the Company are included in Item 8 of this Form 10-K:

Report of Independent Registered Public Accounting Firm
Consolidated Statements of Operations
Consolidated Statements of Comprehensive Income
Consolidated Statements of Financial Position
Consolidated Statements of Shareholders' Equity
Consolidated Statements of Cash Flows
Notes to Consolidated Financial Statements

(2) Financial Statement Schedules.

Schedule II - Valuation and Qualifying Accounts

Other than as set forth above, schedules are omitted because they are not applicable, or are not required, or because the information is included in the consolidated financial statements and notes thereto.

(3) Exhibits.

The following list of exhibits includes exhibits submitted with this Form 10-K as filed with the SEC and those incorporated by reference to other filings.

- 3.1 [Restated Articles of Organization of Rogers Corporation, as amended, incorporated by reference to Exhibit 3a to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2006.](#)
- 3.2 [Amended and Restated Bylaws of Rogers Corporation, effective February 11, 2016 December 7, 2022, incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on February 26, 2016, herewith.](#)
- 4.1 [Description of Capital Stock, incorporated by reference to Exhibit 4.1 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2019 \(the 2019 Form 10-K\).](#)
- 10.1 [The Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Non-Management Directors, incorporated by reference to Exhibit 10i to the Registrant's Quarterly Report on Form 10-Q filed November 8, 2007.**](#)
- 10.1.1 [First Amendment to the Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Non-Management Directors, incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed November 3, 2009.**](#)
- 10.1.2 [Second Amendment to the Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Non-Management Directors, incorporated by reference to Exhibit 10.5 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 \(the 2010 Form 10-K\).**](#)
- 10.2 [The Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Key Employees, incorporated by reference to Exhibit 10j to the Registrant's Quarterly Report on Form 10-Q filed November 8, 2007.**](#)
- 10.2.1 [First Amendment to the Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Key Employees, incorporated by reference to Exhibit 10j to the Registrant's Quarterly Report on Form 10-Q filed August 7, 2008.**](#)
- 10.2.2 [Second Amendment to the Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Key Employees, incorporated by reference to Exhibit 10.6 to the Registrant's Quarterly Report on Form 10-Q filed November 3, 2009.**](#)
- 10.2.3 [Third Amendment to the Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Key Employees, incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed February 17, 2010.**](#)
- 10.2.4 [Fourth Amendment to the Amended and Restated Rogers Corporation Voluntary Deferred Compensation Plan for Key Employees, incorporated by reference to Exhibit 10.6 to the 2010 Form 10-K.**](#)
- 10.3 [Rogers Corporation Amended and Restated Pension Restoration Plan, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed December 17, 2008.**](#)
- 10.3.1 [First Amendment to Rogers Corporation Amended and Restated Pension Restoration Plan, incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed November 3, 2009.**](#)
- 10.3.2 [Second Amendment to Rogers Corporation Amended and Restated Pension Restoration Plan, incorporated by reference to Exhibit 10.10 to the 2010 Form 10-K.**](#)
- 10.4 [Form of Indemnification Agreement between the Rogers Corporation and each of its executive officers, incorporated by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K on December 14, 2004.**](#)
- 10.5 [Form of Indemnification Agreement between the Rogers Corporation and each of its directors, incorporated by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K on December 14, 2004.**](#)

- 10.6 [Rogers Corporation 2009 Long-Term Equity Compensation Plan, as amended, incorporated by reference to Exhibit B to the Registrant's Definitive Proxy Statement filed on March 24, 2014.**](#)
- 10.7 [Form of Performance-Based Restricted Stock Award Agreement under the 2009 Plan, incorporated by reference to Exhibit 10.14 to the Registrant's 2015 Form 10-K.**](#)
- 10.8 [Form of Time-Based Restricted Stock Unit Award Agreement under the 2009 Plan, incorporated by reference to Exhibit 10.16 to the Registrant's 2015 Form 10-K.**](#)
- 10.9 [Rogers Corporation 2019 Long-Term Equity Compensation Plan, incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-8 filed on May 14, 2019.**](#)
- 10.10 [Form of Performance-Based Restricted Stock Unit Award Agreement under the 2019 Plan, incorporated by reference to Exhibit 10.10 to the 2019 Form 10-K.**](#)
- 10.11 [Form of Time-Based Restricted Stock Unit Award Agreement under the 2019 Plan, incorporated by reference to Exhibit 10.11 to the 2019 Form 10-K.**](#)
- 10.12 [Letter Agreement between the Registrant and Bruce D. Hoechner, dated September 15, 2011 and accepted on September 20, 2011, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed September 26, 2011.**](#)
- 10.13 [Rogers Corporation Deferred Compensation Plan, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed June 26, 2014.**](#)
- 10.14 [Rogers Corporation Severance Plan, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 13, 2019.**](#)
- 10.15 [Form of Participation Agreement for the Company's U.S.-based named executive officers under the Rogers Corporation Severance Plan, incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on February 13, 2019.**](#)
- 10.16 [Fourth Amended and Restated Credit Agreement dated as of October 16, 2020, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on October 16, 2020, herewith.](#)
- 10.17 [Form of Director Deferred Stock Unit Award Agreement under the 2019 Plan, incorporated by reference to Exhibit 10.20 to the 2019 Form 10-K.**](#)
- 10.18 [Letter Agreement between the Company and Peter Williams, dated June 11, 2019 and accepted on June 12, 2019, incorporated by reference to Exhibit 10.21 to the Registrant's Form 10-K for the fiscal year ended December 31, 2019.](#)
- 10.19 [Annual Incentive Compensation Plan, incorporated by reference to Exhibit A to the Registrant's Proxy Statement filed on March 24, 2014.**](#)
- 10.19 [Form of Time-Based Restricted Stock Unit Award Agreement for Bruce D. Hoechner, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 17, 2021.](#)
- 10.20 [Form of Performance-Based Restricted Stock Unit Award Agreement for Bruce D. Hoechner, incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on February 17, 2021.](#)
- 10.21 [Letter Agreement between the Company and Ramakumar Mayampurath, dated May 1, 2021, incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed November 8, 2021.**](#)
- 10.22 [Agreement and Form of 2019 Long-Term Equity Compensation Plan of Merger, dated as of November 1, 2021, among Rogers Corporation, DuPont de Nemours, Inc., and Cardinalis Merger Sub, Inc., Time-Based Restricted Stock Unit Award Agreement, incorporated by reference to Exhibit 2.1 to the Registrant's Current Report on Form 8-K filed on November 2, 2021 February 22, 2022.](#)
- 10.23 [Form of Gross-Up Settlement Agreement between the Company and Starboard Value LP, dated February 26, 2023, incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on December 2, 2021 February 27, 2023.](#)
- 10.24 [Letter Agreement between the Company and Colin Gouveia, dated April 2, 2019 and accepted on April 6, 2019, filed herewith.](#)
- 10.25 [Form of 2019 Long-Term Equity Compensation Plan Time-Based Restricted Stock Unit Award Agreement, filed herewith.](#)
- 21 [Subsidiaries of the Registrant, filed herewith.](#)
- 23.1 [Consent of PricewaterhouseCoopers, LLP, Independent Registered Public Accounting Firm, filed herewith.](#)
- 31.1 [Certification of President and Chief Executive Officer \(Principal Executive Officer\) Pursuant to Rule 13a-14\(a\) of the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.](#)
- 31.2 [Certification of Senior Vice President, Chief Financial Officer and Treasurer \(Principal Financial Officer\) Pursuant to Rule 13a-14\(a\) of the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, filed herewith.](#)
- 32 [Certification of President and Chief Executive Officer \(Principal Executive Officer\) and Senior Vice President, Chief Financial Officer and Treasurer \(Principal Financial Officer\) Pursuant to Rule 13a-14\(b\) of the Securities Exchange Act of 1934 and 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, filed herewith.](#)
- 101 The following materials from Rogers Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2021, December 31, 2022, formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) Consolidated Statements of Operations for the fiscal years ended December 31, 2021, December 31, 2022, 2020 and 2019; (ii) Consolidated Statements of Comprehensive Income for the fiscal years ended December 31, 2021, December 31, 2022, 2020 and 2019; (iii) Consolidated Statements of Financial Position for the fiscal years ended December 31, 2021, December 31, 2022 and 2020; (iv) Consolidated Statements of Shareholders' Equity for the fiscal years ended December 31, 2021, December 31, 2022, 2020 and 2019; (v) Consolidated Statements of Cash Flows for the fiscal years ended December 31, 2021, December 31, 2022, 2020 and 2019; (vi) Notes to Consolidated Financial Statements and (vii) Cover Page.

104 The cover page from Rogers Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 December 31, 2022, formatted in iXBRL and contained in Exhibit 101.

** Management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

Not Applicable.

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.

ROGERS CORPORATION

(Registrant)

/s/ Bruce D. Hoechner R. Colin Gouveia

Bruce D. Hoechner R. Colin Gouveia

President and Chief Executive Officer

Principal Executive Officer

February 22, 2022 March 1, 2023

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on February 22, 2022 March 1, 2023, by the following persons on behalf of the Registrant and in the capacities indicated.

/s/ Bruce D. Hoechner R. Colin Gouveia

Bruce D. Hoechner R. Colin Gouveia

President and Chief Executive Officer

Director

Principal Executive Officer

/s/ Keith L. Barnes

Keith L. Barnes

Director

/s/ Ramakumar Mayampurath

Ramakumar Mayampurath

Senior Vice President, and Chief Financial Officer and Treasurer

Principal Financial Officer

/s/ Carol R. Jensen

Carol R. Jensen

Director

/s/ Mark D. Weaver

Mark D. Weaver

Chief Accounting Officer and Corporate Controller

Principal Accounting Officer

/s/ Jeffrey J. Owens

Jeffrey J. Owens

Director

/s/ Megan Faust

Megan Faust

Director

/s/ Ganesh Moorthy

Ganesh Moorthy

Director

/s/ Helene Simonet

Helene Simonet

Director

/s/ Peter C. Wallace

Peter C. Wallace

Director

/s/ Keith R. Larson

Keith R. Larson

Director

/s/ Bruce D. Hoechner

Bruce D. Hoechner

Director

April 2, 2019

Dear Colin,

It is a pleasure to confirm Rogers' offer of employment to you for the position of Sr. Vice President and General Manager, Elastomeric Material Solutions (subject to the conditions described below). Rogers does not enter into employment contracts, and your employment will be "at will." Below is a general description of the terms we expect to apply to your employment:

Your employment is expected to commence on or before May 6, 2019.

The compensation package for this position is as follows and is subject to the usual payroll deductions such as income tax and Social Security:

- Your starting salary will be \$390,000.00 (three hundred ninety thousand) USD per year, which is paid at a bi-weekly rate of \$15,000.00. This is an exempt position, which means that your salary is intended to compensate you for all hours worked, and you will not be eligible to receive overtime pay.
- You will be eligible 4 weeks of vacation effective from your first day of employment.
- Effective for the 2019 fiscal year, you are eligible for an award under the Annual Incentive Compensation Plan (AICP) with a target of 55% of your base salary. Depending on actual performance against predetermined company performance metrics, your actual AICP award payout can be as high as 200% of your target incentive. Actual awards are prorated according to date of hire. Awards are subject to the terms of the AICP and approval by the Compensation and Organization Committee (the "Committee").
- You will be eligible for an annual long-term incentive grant with a target of 100% of your base salary. This grant will be comprised of:
 - 50% Time-Based Restricted Stock Units – (three-year ratable vesting)
 - 50% Performance-Based Restricted Stock Units – (three-year performance period)

The grant value and subsequent number of shares or units you would receive are determined annually and presented to the Board of Directors' Compensation Committee for review and approval.

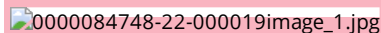
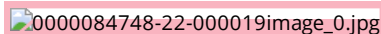


Exhibit 10.25



2225 W. Chandler Boulevard | Chandler, AZ 85226 | 480.917.6000

You will receive a special new hire stock award of restricted stock units with an initial grant value of \$430,000.00 (four hundred thirty thousand) USD comprised of Time-Based Restricted Stock Units, which will vest in three equal installments over a three year period beginning on the first anniversary of your date of hire.

The total number of stock units will be determined by dividing the initial grant value specified above by the average closing stock price for the 30 days prior to your date of hire. The terms of these awards are subject to the applicable award agreements and plan document.

You will be eligible for the retirement, health and other benefit programs provided to executives of Rogers, subject to the right of Rogers to amend or terminate such programs in accordance with their terms. Subject to Committee approval, you will also be eligible to

participate in the Rogers Corporation Executive Severance Pay Plan. For the avoidance of doubt, the Company reserves the right to modify these benefits to conform to any severance plan covering executives.

As a condition of employment, you must sign the enclosed agreement regarding confidentiality of trade secrets and confidential business information (Employment, Invention, Confidentiality and Non- Compete Agreement). Please review this agreement. You will need to sign it and deliver it to our Human Resources Director for Corporate Services, Sara Dionne, at the time you start work with Rogers.

As mentioned above, your employment is "at will," meaning that either you or Rogers may terminate your employment at any time and for any reason, with or without cause or notice, regardless of any representations that may have been made to you. This offer letter does not establish a contractual employment relationship. It is Rogers' policy not to enter into employment contracts.

You will be provided with relocation benefits as described in the Relocation Policy for Newly Hired Salaried Employees which will be sent to you separately. Please contact our Human Resources Director for Corporate Services, Sara Dionne at 860.779.4055, to begin the relocation process. If you voluntarily resign from Rogers within one year of your hire, you will be required to reimburse all monies paid under the Relocation Policy directly to you, or on your behalf. This letter authorizes Rogers to deduct any required reimbursement from your final paycheck or other post-employment compensation (to the extent permitted by law). You must arrange for repayment in full to Rogers of any remaining amount, with such repayment to be made within 30 days of your last day of work.

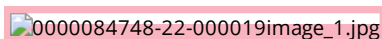
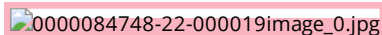
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Exhibit 10.25

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2225 W. Chandler Boulevard | Chandler, AZ 85226 | 480.917.6000

Our offer is contingent upon you passing our pre-employment drug screening. The information for the drug screen will be sent under separate cover. Our offer also is contingent upon a satisfactory reference check and satisfactory results of a background check.

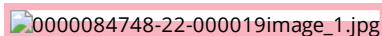
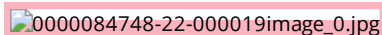
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Exhibit 10.25

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2225 W. Chandler Boulevard | Chandler, AZ 85226 | 480.917.6000

For purposes of US immigration law, you will be required to provide to Rogers documentary evidence of your identity and eligibility for employment in the United States. Such documentation must be provided within three (3) business days of your date of hire.

I look forward to having you join Rogers and working together. Sincerely,

Bruce Hoechner
President and Chief Executive Officer

Offer Accepted by

Date

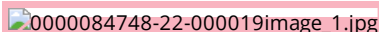


Exhibit 10.26

ROGERS CORPORATION
2019 LONG-TERM EQUITY COMPENSATION PLAN
TIME-BASED RESTRICTED STOCK UNIT AWARD AGREEMENT

Rogers Corporation hereby grants to <first_name> <last_name> (the "Grantee") <shares_awarded> Restricted Stock Units (this "Award") under Article 8 of the Rogers Corporation 2019 Long-Term Equity Compensation Plan, as amended (the "Plan"). This Time-Based Restricted Stock Unit Award Agreement (referred to below as the "Agreement") entitles the Grantee to payment in the form of Shares upon satisfying the vesting conditions described below. The number of Restricted Stock Units subject to this Agreement shall be subject to adjustment as provided under Section 2.2 of the Plan. This Award is granted as of <award_date> (the "Grant Date"). For purposes of this Agreement, "Company" means Rogers Corporation, its subsidiaries, successors, or Affiliates.

1. By clicking the applicable acceptance box on the Charles Schwab & Co., Inc. ("Charles Schwab") website, the Grantee agrees to all of the terms and conditions described in this Agreement and in the Plan. The Grantee acknowledges that the Grantee has carefully reviewed this Agreement and all materials incorporated herein by reference, including the Plan. Unless otherwise indicated below, capitalized terms used in this Agreement are defined in the Plan and have the meaning set forth in the Plan.

2. Acceptance of Award. The Grantee shall have no rights with respect to this Agreement unless he or she shall have accepted this Agreement in the manner described in the immediately preceding paragraph prior to the close of business on the ninetieth (90th) day after the Grant Date.

3. Vesting.

- (a) The total number of Restricted Stock Units subject to this Award shall vest in equal one-third increments on each of the first three (3) anniversaries of the Grant Date provided that the Grantee is then employed by the Company. Except to the extent provided in Section 3(b) and 3(c) below for special circumstances, Restricted Stock Units that are unvested as of the date of the Grantee's employment termination for any reason shall be forfeited. Each date on which Restricted Stock Units vest under this Section 3(a) is referred to below as a "Vesting Date."
- (b) In the event of the Grantee's separation from service on or after the date of the Merger (as defined in Appendix A) and prior to the first anniversary of the Grant Date due to the Grantee's Qualifying Termination (as defined in Appendix A), one-third of the total number Restricted Stock Units subject to this Award will be immediately vested as of the date of such Qualifying Termination.
- (c) In the event of the Grantee's separation from service on or after the first anniversary of the Grant Date and prior to the third Vesting Date due to the Grantee's death, Disability or Retirement (as such terms are defined below), a "Pro-Rata Percentage" (as defined below) of the total number of Restricted Stock Units subject to this Award will be immediately vested as of the date of such separation from service. For purposes of this Section 3(b), "Pro-Rata Percentage" is equal to one-third of the total number of Restricted Stock Units subject to this Award multiplied by a fraction, the numerator of which shall equal the number of days that the Grantee was employed by the Company since the Grant Date (if the Grantee's separation from service on account of death, Disability or Retirement occurs less than one year after the Grant Date) or since the most recent Vesting Date (if the Grantee's

separation from service on account of death, Disability or Retirement occurs more than one year but less than three years after the Grant Date), and the denominator of which shall equal 365.

For purposes of this Agreement, "Disability" shall mean that the Grantee is (i) unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, or (ii) by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under a Company employee accident and health plan, each of clauses (i) and as reasonably determined by the Committee. In addition, the Committee may determine that the Grantee has incurred a Disability if the Grantee is considered "totally disabled" by the Social Security Administration.

For purposes of this Agreement, "Retirement" means separation from service after the Grantee has attained sixty years of age and has completed at least five years of vesting service. For avoidance of doubt, it is not necessary to complete five years of vesting service prior to attaining age sixty in order to qualify for Retirement. For purposes of this Agreement, "years of vesting service" shall be determined in the same manner as provided for under the 401(k) plan maintained by the Company as in effect on the Grant Date.

4. Settlement of Restricted Stock Units. The Company shall deliver or cause to be delivered to or on the behalf of the Grantee a Share with respect to each Restricted Stock Unit that becomes vested upon a Vesting Date or the Grantee's separation from service pursuant to Section 3(b) or 3(c) above as soon as administratively practicable but in no event later than 60 days after the earlier of the Vesting Date applicable to such Restricted Stock Unit or the Grantee's separation from service pursuant to Section 3(b) or 3(c) above (subject to Section 6 and Section 17, below). The Grantee shall have no right to direct the Company as to when Shares shall be delivered under this Award. The Grantee shall have no rights of a shareholder with respect to any Shares subject to the Restricted Stock Units until such time, if any, as such Shares are actually delivered. Vested Shares to be delivered due to death shall be paid to the Grantee's Beneficiary designated in accordance with Section 16 below.

5. Dividends. The Grantee shall also be paid cash in an amount equal to (a) the dollar value of cash dividends paid per Share during the period starting on the Grant Date and ending on the date Shares are actually delivered to the Grantee under the terms of this Agreement, multiplied by (b) the number of Shares vested under this Agreement (but excluding any vested Shares that have been previously delivered to the Grantee). Any such dividends shall be paid to the Grantee, without interest, on the date such Shares are actually delivered to the Grantee under the terms of this Agreement.

6. Change in Control. Restricted Stock Units shall not automatically vest upon a Change in Control; instead, accelerated vesting of all or part of this Award in connection with a Change in Control shall only apply as provided in Section 11.10 of the Plan. Any Restricted Stock Units that vest in connection with a Change in Control (including on account of a separation from service after a Change in Control) shall be paid within 60 days after the earlier of the Vesting Date on which the Restricted Stock Units otherwise would vest or the Grantee's separation from service (subject to Section 17, below). In the event that the Restricted Stock Units vest upon a Change in Control and Shares cease to exist before the Award is settled, the payment shall be made in cash in an amount equal to the payment that would have been made if the Grantee separated from service and the Award had been settled on the date of the Change in Control.

7. Compensation Recovery. This Award shall be subject to recovery under the Company's Compensation Recovery Policy, as may be amended or otherwise modified from time to time, or any similar policy that the Company may adopt from time to time. For avoidance of doubt, compensation recovery rights with respect to Shares delivered under this Agreement shall extend to any proceeds realized by the Grantee upon the sale or other transfer of such Shares.

8. **Tax Withholding.** The Grantee hereby agrees to make appropriate arrangements with the Company for such income and employment tax withholding as may be required of the Company under applicable United States federal, state, local or foreign law on account of the Grantee's rights under this Agreement. The Grantee may satisfy any withholding obligation, in whole or in part, by electing (i) to make a payment to the Company in cash, by check, electronic funds transfer or by other instrument acceptable to the Company, (ii) to deliver to the Company a number of already-owned Shares having a value not greater than the amount required to be withheld (such number may be rounded up to the next whole share), as may be permitted pursuant to written policies or rules adopted by the Committee in effect at the time of exercise, or (iii) by any combination of (i) and (ii). In addition, the Committee may also permit, in its sole discretion and in accordance with such policies and rules as it deems appropriate, the Grantee to have the Company withhold a number of Shares which would otherwise be issued pursuant to this Agreement having a value not greater than the amount required to be withheld (such number may be rounded up to the next whole share). The value of Shares to be withheld or delivered (as may be permitted by the Committee) shall be based on the Fair Market Value of a Share as of the date the amount of tax withholding is determined. For avoidance of doubt, the Committee may change its policies and rules for tax withholding in its sole discretion from time to time for any reason.

9. **The Plan.** This Agreement is subject in all respects to the terms, conditions, limitations, and definitions contained in the Plan. In the event of any discrepancy or inconsistency between this Agreement and the Plan, the terms and conditions of the Plan shall control.

10. **No Obligation to Continue Employment.** Nothing in this Agreement or the Plan shall be construed as constituting a commitment, guarantee, agreement or understanding of any kind or nature that the Company shall continue to retain the services of the Grantee, nor shall this Agreement or the Plan affect in any way the right of the Company to terminate the services of the Grantee as an employee or otherwise at any time and for any reason. By executing this Agreement, Grantee acknowledges and agrees that Grantee's service relationship with the Company is "at will." No change of Grantee's duties to the Company shall result in, or be deemed to be, a modification of any of the terms of this Agreement or the Plan.

11. **Notices.** Notices hereunder shall be mailed or delivered to the Company at its principal place of business and, except as otherwise provided in Section 14 below, shall be mailed or delivered to the Grantee at the address on file with the Company or, in either case, at such other address as one party may subsequently furnish to the other party in writing.

12. **Purchase Only for Investment.** To ensure the Company's compliance with the Securities Act of 1933, as amended (the "Act"), the Grantee agrees for himself or herself, the Grantee's legal representatives and estate, and any other persons who acquire or may obtain the rights under this Agreement upon the Grantee's death, that Shares will be acquired hereunder for investment purposes only and not with a view to their distribution, as that term is used in the Act, unless in the opinion of counsel to the Company such distribution is in compliance with, or exempt from, the registration and prospectus requirements of the Act.

13. **Governing Law.** This Agreement shall be governed by the laws of the Commonwealth of Massachusetts, United States of America without regard to any choice of law rules thereunder.

14. **Consent to Electronic Delivery.** In lieu of receiving documents in paper format, the Grantee agrees, to the fullest extent permitted by law, to accept electronic delivery of any

documents that the Company may be required to deliver (including, but not limited to, the Plan, prospectuses, prospectus supplements, grant or award notifications and agreements, account statements, annual and quarterly reports, and all other agreements, forms, notices and other communications) in connection with this and any other prior or future incentive award or program made or offered by the Company or its predecessors or successors. Electronic delivery of a document to the Grantee may be made via a Company e-mail system, by reference to a location on a Company intranet site to which the Grantee has access, or by a website maintained by a third party engaged to provide administrative services related to the Plan.

15. **Electronic Signature.** The parties may execute and deliver this Agreement and any documents now or hereafter executed and delivered in connection with this Agreement using procedures now or hereafter established by the Company for electronic signature and document delivery. The Grantee's electronic signature shall be the same as, and shall have the same force and effect as, the

Grantee's manual signature. For the avoidance of doubt, the Grantee's clicking on the applicable acceptance box on the Charles Schwab website shall be deemed to constitute the Grantee's electronic execution and delivery of this Agreement. Any procedures for electronic signature and delivery may be effected by a third party engaged by the Company to provide administrative services related to the Plan.

16. **Beneficiary Designation.** The Grantee may designate Beneficiary(ies) to whom shall be transferred any rights under this Agreement which survive the Grantee's death. The beneficiary designation form can be found at the Charles Schwab Equity Award Center website (<https://www.schwab.com/public/eac/home>) or obtained by contacting the Company's Director, Compensation and Benefits. In the absence of an effective beneficiary designation in accordance with the terms of the Plan and this Agreement, the Grantee acknowledges that any rights under this Agreement that survive the Grantee's death shall be rights of his or her estate notwithstanding any other agreements or documents (including the Grantee's will) to the contrary.

17. **Section 409A.** Payments under this Agreement are intended to comply with Section 409A of the Code ("Section 409A"). To the maximum extent permitted, this Agreement shall be limited, construed and interpreted in accordance with such intent. For purposes of Section 409A, each payment under this Agreement shall be treated as a separate payment. If, upon separation from service, the Grantee is a "specified employee" within the meaning of Section 409A, any payment under this Agreement that is subject to Section 409A and would otherwise be paid within six months after the Grantee's separation from service will instead be paid in the seventh month following the Grantee's separation from service (to the extent required by Section 409A(a)(2)(B)(i)). The Company shall have no liability to the Grantee or otherwise if any amounts paid or payable hereunder are subject to Section 409A or the additional tax thereunder.

18. **Amendment.** The Committee shall have the exclusive authority to amend this Agreement, provided that no amendment of this Agreement shall, without the written consent of the Grantee, adversely affect, as shall be determined by the Committee, the rights of the Grantee hereunder. Any amendment to this Agreement shall not be valid unless made in writing and signed by the person or persons to be bound thereby.

19. **Personal Information.** The Grantee hereby acknowledges and agrees that the personal data necessary to administer the Plan may be transferred from any direct or indirect subsidiary of the Company to the Company, and/or a securities brokerage firm and/or any other entity responsible for administering the accounts of participants of the Plan. Some of these entities may be located in countries whose privacy and data protection laws may not be equivalent to those in the Grantee's country of residence. Such data may include the Grantee's name, position, address, date of birth and all other data necessary to prove the Grantee's eligibility to receive Shares and the data necessary to calculate any tax withholdings. Grantee may request access to and, where shown to be incorrect, correct the personal data.

[signature page follows]

ROGERS CORPORATION

By: _____

/s/ Ramakumar Mayampurath

Name: Ramakumar Mayampurath

Title: SVP and Chief Financial Officer

Accepted and Agreed by:

GRANTEE

Name: <first_name> <last_name>

By clicking the applicable acceptance box on the Charles Schwab & Co., Inc. website, the Grantee acknowledges receipt of this Agreement and agrees to its terms and conditions.

Appendix A

Qualifying Termination

1. **Qualifying Termination.** A “Qualifying Termination” means a Grantee’s separation from service due to death, Qualifying Disability (as defined below), involuntary termination by the Company without Cause (as defined below), or resignation for Good Reason (as defined below).

2. **Definitions.**

- (a) “Cause” shall mean, as determined by the Company, a Grantee’s (i) conviction of (or a plea of guilty or nolo contendere to) a felony or any other crime involving perjury, fraud or theft; (ii) willful and continuous failure to perform substantially the Grantee’s duties (other than any such failure resulting from the Grantee’s Qualifying Disability), after a written demand for substantial performance is delivered to the Grantee identifying how such failure reasonably may be cured and the Employee is given at least thirty (30) days to cure such failure; or (iii) willful violation of a material requirement of the Company’s code of conduct or the Grantee’s fiduciary duty to the Company. No act or failure to act on the Grantee’s part shall be considered “willful” unless it is done, or omitted to be done, by the Grantee in bad faith and without reasonable belief that the Grantee’s action or omission was in, or not opposed to, the best interests of the Company.
- (b) “Good Reason” means (i) any material diminution in the Grantee’s base pay; (ii) a material diminution in the Grantee’s authority, duties or responsibilities (excluding any change solely on account of the Company ceasing to be a publicly traded company); or (iii) a material change in the Grantee’s primary office location (which, for this purpose, means a change of more than 100 miles).
- (c) “Merger” means the acquisition of Rogers Corporation by DuPont de Nemours, Inc.
- (d) “Qualifying Disability” means that the Grantee has been determined to be disabled under the long-term disability plan sponsored by the Company under which the Grantee is covered at the time of the Grantee’s termination. If the Grantee is not covered under such a plan at the time of the Grantee’s termination, “Qualifying Disability” means the Company’s reasonable determination that the Grantee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months.

ROGERS CORPORATION AND CONSOLIDATED SUBSIDIARIES

Subsidiaries of the Registrant

Company	Percentage of Voting Securities Owned	Jurisdiction of Incorporation or Organization
World Properties, Inc.	100%	Illinois
Chandler Holdings IV, LLC	100%	Delaware
Rogers Japan, Inc.	100%	Delaware
Rogers Southeast Asia, Inc.	100%	Delaware
Rogers Taiwan, Inc.	100%	Delaware
Rogers Technologies Singapore, Inc.	100%	Singapore
Rogers KF, Inc.	100%	Delaware
Rogers Korea, Inc.	100%	Korea
Arlon MED International, LLC.	100%	Delaware
Rogers Material Technologies (Suzhou) Co., Ltd.	100%	China
Rogers Technologies (Suzhou) Co., Ltd.	100%	China
Rogers Advanced Materials Technology (Suzhou) Co., Ltd.	100%	China
Uti Co., Ltd.	100%	South Korea
Rogers New Territories Corporation, Ltd.	100%	Hong Kong
Rogers Asia Holding Company, Ltd.	100%	Hong Kong
Rogers Pacific, Ltd.	100%	Hong Kong
Rogers BV	100%	Belgium
Rogers GmbH	100%	Germany
Rogers Germany GmbH	100%	Germany
Rogers Hungary Kft	100%	Hungary
Rogers U.K., Ltd.	100%	England
Silicone Holdings, Ltd.	100%	England
Silicone Engineering, Ltd.	100%	England
Rogers Finance (Luxembourg) Sarl	100%	Luxembourg
Rogers Luxembourg Sarl	100%	Luxembourg
Rogers Benelux Sarl	100%	Luxembourg
Rogers Finance (Ireland) Unlimited Company	100%	Ireland
Rogers Investment (Singapore) Pte., Ltd.	100%	Singapore
Rogers Worldwide, LLC.	100%	Delaware
Rogers Inoac Corporation *	50%	Japan
Rogers Inoac Suzhou Corporation *	50%	China

* These entities are unconsolidated joint ventures and accordingly are not included in the consolidated financial statements of Rogers Corporation, except to the extent required by the equity method of accounting.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (Nos. 333-231459, 333-198038, 333-181199, 333-174195, 333-159063) of Rogers Corporation of our report dated February 22, 2022 March 1, 2023 relating to the financial statements and financial statement schedules and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

Phoenix, Arizona

February 22, 2022 March 1, 2023

Exhibit 31.1

CERTIFICATIONS

I, Bruce D. Hoechner, R. Colin Gouveia, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rogers Corporation;
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(s) 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 fourth fiscal quarter 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(s) 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 control over financial reporting.

Dated: February 22, 2022 March 1, 2023

/s/ Bruce D. Hoechner R. Colin Gouveia

Bruce D. Hoechner R. Colin Gouveia

President and Chief Executive Officer

Principal Executive Officer

CERTIFICATIONS

I, Ramakumar Mayampurath, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rogers Corporation;
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(s) 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 fourth fiscal quarter 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(s) 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 control over financial reporting.

Dated: February 22, 2022 March 1, 2023

/s/ Ramakumar Mayampurath

Ramakumar Mayampurath

Senior Vice President, and Chief Financial Officer and Treasurer

Principal Financial Officer

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned officers of Rogers Corporation, a Massachusetts corporation (the "Corporation"), does hereby certify that:

The Annual Report on Form 10-K for the year ended December 31, 2021 December 31, 2022 (the "Form 10-K") of the Corporation fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

/s/ Bruce D. Hoechner R. Colin Gouveia

Bruce D. Hoechner R. Colin Gouveia

President and Chief Executive Officer

Principal Executive Officer

February 22, 2022 March 1, 2023

/s/ Ramakumar Mayampurath

Ramakumar Mayampurath

Senior Vice President, and Chief Financial Officer and Treasurer

Principal Financial Officer

February 22, 2022 March 1, 2023

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