

MATERION Corp
Form 10-K
February 27, 2015

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

Form 10-K

(Mark One)

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

For the Fiscal Year Ended December 31, 2014

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 1-15885

MATERION CORPORATION

(Exact name of Registrant as specified in its charter)

Ohio

(State or other jurisdiction of
incorporation or organization)

34-1919973

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

6070 Parkland Blvd.,
Mayfield Heights, Ohio

(Address of principal executive offices)

44124

(Zip Code)

Registrant's telephone number, including area code
216-486-4200

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

Title of Each Class

Common Stock, no par value

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

None

Name of Each Exchange on Which Registered
New York Stock Exchange

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

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Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

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 common shares, no par value, held by non-affiliates of the registrant (based upon the closing sale price on the New York Stock Exchange) on June 26, 2014 was \$753,171,599.

As of February 20, 2015, there were 20,100,633 common shares, no par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the proxy statement for the annual meeting of shareholders to be held on May 6, 2015 are incorporated by reference into Part III.

MATERION CORPORATION
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Forward-looking Statements

Portions of the narrative set forth in this document that are not statements of historical or current facts are forward-looking statements. Our actual future performance may materially differ from that contemplated by the forward-looking statements as a result of a variety of factors. These factors include, in addition to those mentioned elsewhere herein:

Actual net sales, operating rates, and margins for 2015;

Our ability to strengthen our internal control over financial reporting and disclosure controls and procedures;

The global economy;

The impact of any U.S. Federal Government shutdowns and sequestrations;

The condition of the markets which we serve, whether defined geographically or by segment, with the major market segments being: consumer electronics, industrial components, medical, automotive electronics, energy, telecommunications infrastructure, defense, and commercial aerospace;

Changes in product mix and the financial condition of customers;

Our success in developing and introducing new products and new product ramp-up rates;

Our success in passing through the costs of raw materials to customers or otherwise mitigating fluctuating prices for those materials, including the impact of fluctuating prices on inventory values;

Our success in integrating acquired businesses;

The impact of the results of acquisitions on our ability to achieve fully the strategic and financial objectives related to these acquisitions;

Our success in achieving the expected benefits from our facility consolidations;

Our success in implementing our strategic plans and the timely and successful completion and start-up of any capital projects, including the beryllium pebble facility in Elmore, Ohio;

The availability of adequate lines of credit and the associated interest rates;

Other financial factors, including the cost and availability of raw materials (both base and precious metals), physical inventory valuations, metal financing fees, tax rates, exchange rates, pension costs and required cash contributions and other employee benefit costs, energy costs, regulatory compliance costs, the cost and availability of insurance, and the impact of the Company's stock price on the cost of incentive compensation plans;

The uncertainties related to the impact of war, terrorist activities, and acts of God;

Changes in government regulatory requirements and the enactment of new legislation that impacts our obligations and operations;

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The conclusion of pending litigation matters in accordance with our expectation that there will be no material adverse effects;

•The success of the realignment of our businesses; and

•The risk factors set forth elsewhere in Item 1A of this Form 10-K.

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Item 1. BUSINESS

Materion Corporation, through its wholly owned subsidiaries, is an integrated producer of high performance advanced engineered materials used in a variety of electrical, electronic, thermal, and structural applications. Our products are sold into numerous end markets, including consumer electronics, industrial components, medical, automotive electronics, energy, telecommunications infrastructure, defense, and commercial aerospace. As of December 31, 2014, we had 2,671 employees.

Previously, we aggregated our businesses into four reportable segments: Performance Alloys, Advanced Materials Technologies, Beryllium and Composites, and Technical Materials. Beginning with the fourth quarter of 2014, we changed our segments to align with the way the business is managed. Organizing the businesses within three reportable segments allows Materion to more appropriately focus our resources to drive growth across our diversified customer base, while bringing better clarity to investors.

Prior year results have been recast to reflect the change. Our businesses are now organized under three reportable segments: Performance Alloys and Composites, Advanced Materials, and Other. The former Performance Alloys, Beryllium and Composites, and Technical Materials segments are now combined under the Performance Alloys and Composites segment. The former Advanced Materials and Technologies segment has been separated into the Advanced Materials segment and the Precision Coatings group. The Precision Coatings group, which includes the Precision Optics and Large Area Coatings businesses, is now included in the Other segment. The Other reportable segment also includes unallocated corporate costs.

The cost of gold, silver, platinum, palladium, and copper can be quite volatile. The Company's pricing policy is to directly pass the cost of these metals on to the customer in order to mitigate the impact of metal price volatility on the results from operations. Trends and comparisons of net sales are affected by movements in the market prices of these metals, but changes in net sales due to metal price movements may not directly impact our profitability.

Internally, management reviews net sales on a value-added basis. Value-added sales is a non-GAAP measure that removes the impact of pass-through metal costs from net sales. Value-added sales allows management to assess the impact of differences in net sales between periods, segments, or markets and analyze the resulting margins and profitability without the distortion of the movements in the pass-through metal values. The dollar amount of gross margin and operating profit is not affected by the value-added sales calculation. The Company sells other metals and materials that are not considered direct pass-throughs, and these costs are not deducted from net sales when calculating value-added sales.

Beginning with the first quarter of 2013, the Company reported value-added sales and margins externally. By presenting information on net sales and value-added sales, it is the Company's intention to allow users of its financial statements to review net sales with and without the impact of the pass-through metals. Refer to Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" for a reconciliation of net sales to value-added sales.

We use our Investor Relations web site, <http://materion.com>, as a channel for routine distribution of important information, including news releases, analyst presentations, and financial information. We post filings as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC, including our annual, quarterly, and current reports on Forms 10-K, 10-Q, and 8-K; our proxy statements; and any amendments to those reports or statements. All such postings and filings are available on our Investor Relations web site. In addition, this web site allows investors and other interested persons to sign up to automatically receive e-mail alerts when we post press releases and financial information on our web site. The SEC also maintains a web site, www.sec.gov, that contains reports, proxy, and information statements, and other information regarding issuers who file electronically with the SEC. The content on any web site referred to in this Form 10-K is not incorporated by reference into this Form 10-K unless expressly noted.

PERFORMANCE ALLOYS AND COMPOSITES

The Performance Alloys and Composites segment is comprised of the following operating units:

Performance Metals produces strip and bulk form alloy products, beryllium-based metals, beryllium and aluminum metal matrix composites, in rod, sheet, foil, and a variety of customized forms, beryllia ceramics, and bulk metallic glass materials at manufacturing facilities in the United States, Europe, and Asia. The segment also operates the

world's largest bertrandite ore mine and refinery in Utah, providing feedstock hydroxide for its beryllium business and external sale.

Strip products, the largest of the product families, include thin gauge precision strip and thin diameter rod and wire. These copper and nickel alloys provide a combination of high conductivity, high reliability, and formability for use as connectors, contacts, switches, relays, shielding, and bearings. Major end markets for strip products include consumer electronics, telecommunications infrastructure, automotive electronics, appliance, and medical. Performance Metals' primary direct competitor in strip form beryllium alloys is NGK Insulators, Ltd. of Nagoya, Japan, with subsidiaries

in the United States and Europe. Performance Metals also competes with alloy systems manufactured by Global Brass and Copper, Inc., Wieland Electric, Inc., Stolberger Metallwerke GmbH, Nippon Mining, and PMX Industries, Inc., as well as with other generally less expensive materials, including phosphor bronze, stainless steel, and other specialty copper and nickel alloys, which are produced by a variety of companies around the world;

Bulk products are copper and nickel-based alloys manufactured in plate, rod, bar, tube, and other customized forms that, depending upon the application, may provide superior strength, corrosion or wear resistance, thermal conductivity, or lubricity. While the majority of bulk products contain beryllium, a growing portion of bulk products' net sales is from non-beryllium-containing alloys as a result of product diversification efforts. Applications for bulk products include oil and gas drilling components, bearings, bushings, welding rods, plastic mold tooling, and undersea telecommunications housing equipment. Major end markets for bulk products include industrial components, commercial aerospace, energy, and telecommunications infrastructure. In the area of bulk products, in addition to NGK Insulators, Ltd., Performance Metals competes with several smaller regional producers such as International Beryllium Corp., Ningxia Orient Tantalum Industry Co., Ltd. in China, and LeBronze Industriel in Europe. Strip and bulk products are manufactured at facilities in Ohio and Pennsylvania and are distributed internationally through a network of company-owned service centers and outside distributors and agents. Additional facilities are located in California, Arizona, and England;

Beryllium hydroxide is produced at our milling operations in Utah from our bertrandite mine and purchased beryl ore. The hydroxide is used primarily as a raw material input for strip and bulk products and, to a lesser extent, for beryllium products. Net sales of beryllium hydroxide to NGK Insulators, Ltd. from the Utah operations were less than 4% of Performance Metals' total net sales in each of the three most recent years; and

Beryllium products manufactures beryllium and aluminum metal matrix composites (MMCs), beryllia ceramics, and bulk metallic glass materials. These materials are used in applications that require high stiffness and/or low density, and they tend to be premium-priced due to their unique combination of properties. Defense and science are the largest markets for beryllium products, while other end markets served include industrial components, commercial aerospace, medical, energy, and telecommunications infrastructure. Products are also sold for acoustics, optical scanning, and performance automotive applications. While Performance Metals is the only domestic producer of metallic beryllium, it competes primarily with designs utilizing other materials including metals, MMCs, and organic composites. Our aluminum powder metal MMCs compete with DWA Aluminum Composites and cast MMCs made by Duralcan USA. Electronic components utilizing beryllia and alumina ceramics are used in the telecommunications infrastructure, medical, industrial components, commercial aerospace, defense, and science end markets. Direct competitors include American Beryllia Inc., CBL Ceramics Limited, and CoorsTek, Inc. Manufacturing facilities for beryllium products are located in Ohio, California, Arizona, and England.

Technical Materials produces strip metal products with clad inlay and overlay metals, including precious and base metals electroplated systems, electron beam welded systems, contour profiled systems, and solder-coated metal systems. This operating unit is located in Lincoln, Rhode Island and shares service and distribution centers with Performance Metals in Europe and Asia. These specialty strip metal products provide a variety of thermal, electrical, or mechanical properties from a surface area or particular section of the material. Our cladding and plating capabilities allow for a precious metal or other base metal to be applied in continuous strip form only where it is needed, reducing the material cost to the customer as well as providing design flexibility and performance. Major applications for these products include connectors, contacts, power lead frames, and semiconductors, while the largest end markets are automotive electronics and consumer electronics. The energy and medical end markets are smaller but offer further growth opportunities. Technical Materials' products are manufactured at our Lincoln, Rhode Island facility and are sold directly and through its sales representatives. Technical Materials' major competitors include Heraeus Inc., AMI Doduco, Inc., and other North American continuous strip and plating companies.

Performance Alloys and Composites — Sales and Backlog

Net sales for this segment were \$433.3 million, or 38% of total net sales, in 2014; \$422.9 million, or 36% of total net sales, in 2013; and \$424.4 million, or 33% of total net sales, in 2012. Value-added sales were \$358.5 million, or 56% of total value-added sales, in 2014; \$339.9 million, or 56% of total value-added sales, in 2013; and \$337.0 million, or

55% of total value-added sales, in 2012. As of December 31, 2014, Performance Alloys and Composites had 1,405 employees.

Sales were made to over 2,600 customers in 2014. Government sales in 2014, 2013, and 2012 accounted for less than 1% of segment sales. Sales outside the United States, principally to Europe and Asia, accounted for approximately 46% of net segment sales in 2014 and 45% of net segment sales in 2013 and 2012. Other segment reporting and geographic information is contained in Note M to the Consolidated Financial Statements, which can be found in Item 8 of this Form 10-K and which is incorporated herein by reference.

The backlog of unshipped orders for Performance Alloys and Composites as of December 31, 2014, 2013, and 2012 was \$144.2 million, \$178.8 million, and \$111.9 million, respectively. Backlog is generally represented by purchase orders that may be terminated under certain conditions. We expect that substantially all the backlog of orders for this segment as of December 31, 2014 will be filled during 2015.

Performance Alloys and Composites — Research and Development

Active research and development programs seek new product compositions and designs as well as process innovations. Expenditures for research and development amounted to \$6.3 million in 2014, \$5.4 million in 2013, and \$4.5 million in 2012. A staff of 17 scientists, engineers, and technicians was employed in this effort as of December 31, 2014.

ADVANCED MATERIALS

Advanced Materials produces advanced chemicals, microelectronics packaging, precious metal, non-precious metal and specialty metal products, including vapor deposition targets, frame lid assemblies, clad and precious metal pre-forms, high temperature braze materials, and ultra-fine wire. These products are used in semiconductor, wireless, LED, and data storage applications within the consumer electronics, industrial components, and telecommunications infrastructure end markets. Other key end markets for these products include energy, medical, defense, and science. Advanced Materials also has metal recovery operations and in-house refineries that allow for the reclaim of precious metals from internally generated or customers' scrap.

Advanced Materials products are sold directly from its facilities throughout the U.S., Asia, and Europe, as well as through direct sales offices and independent sales representatives throughout the world. Principal competition includes companies such as Eastman Chemical Company, Heraeus Inc., Honeywell International, Inc., Johnson Matthey plc, Praxair, Inc., Solar Applied Materials Technology Corp., Sumitomo Metals Industries, Ltd., and Tanaka Holding Co., Ltd., as well as a number of smaller regional and national suppliers.

The majority of the sales into the consumer electronics market from this segment are vapor deposition targets, lids, wire, other related precious and non-precious metal products, and advanced chemicals for semiconductors and other microelectronic applications. These materials are used in wireless, LED, handheld devices and other applications, as well as in a number of applications within the defense end market. Since we are an up-front material supplier, changes in our consumer electronics sales levels do not necessarily correspond to changes in the end-use consumer demand in the same period due to down-stream inventory positions, the time to develop and deploy new products, and manufacturing lead times and scheduling. While our product and market development efforts allow us to capture new applications, we may lose existing applications and customers from time to time due to the rapid change in technologies and other factors.

Advanced Materials — Sales and Backlog

Net sales for this segment were \$547.3 million, or 49% of total net sales, in 2014; \$592.0 million, or 51% of total net sales, in 2013; and \$694.8 million, or 55% of total net sales, in 2012. Value-added sales were \$181.0 million, or 28% of total value-added sales, in 2014; \$168.6 million, or 28% of total value-added sales, in 2013; and \$172.1 million, or 28% of total value-added sales, in 2012. As of December 31, 2014, Advanced Materials had 615 employees.

Sales were made to over 1,800 customers in 2014. Government sales accounted for less than 1% of the sales volume in 2014, 2013, and 2012. Sales outside the United States, principally to Europe and Asia, accounted for approximately 29% of net segment sales in 2014, 22% of net segment sales in 2013, and 24% of net segment sales in 2012. Other segment reporting and geographic information is contained in Note M to the Consolidated Financial Statements, which can be found in Item 8 of this Form 10-K and which is incorporated herein by reference.

The backlog of unshipped orders for Advanced Materials as of December 31, 2014, 2013, and 2012 was \$17.8 million, \$19.2 million, and \$17.6 million, respectively. Backlog is generally represented by purchase orders that may be terminated under certain conditions. We expect that substantially all of our backlog of orders for this segment at December 31, 2014 will be filled during 2015.

Advanced Materials — Research and Development

Active research and development programs seek new product compositions and designs as well as process innovations. Expenditures for research and development for Advanced Materials amounted to \$2.6 million in 2014 and \$3.3 million in 2013 and 2012. A staff of 18 scientists, engineers, and technicians was employed in this effort as

of December 31, 2014.

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OTHER

The Other segment is comprised of the Precision Coatings group and unallocated corporate costs. The Precision Coatings group includes the following operating units:

Precision Optics produces sputter-coated precision thin film coatings and optical filter materials. Based in Westford, Massachusetts, the group has manufacturing facilities in the United States and China.

Large Area Coatings produces sputter-coated and precision thin film materials. Based in Windsor, Connecticut, the business manufactures and distributes coated material primarily for medical testing and diagnosis applications. Precision Coatings products are sold directly from its facilities throughout the U.S. and Asia, as well as through direct sales offices and independent sales representatives throughout the world. Principal competition includes companies such as JDS Uniphase Corporation and Saint-Gobain S.A. and a number of smaller regional and national suppliers.

Other — Sales and Backlog

Net sales for this segment were \$146.3 million, or 13% of total net sales, in 2014; \$152.0 million, or 13% of total net sales, in 2013; and \$153.9 million, or 12% of total net sales, in 2012. Value-added sales were \$97.6 million, or 15% of total value-added sales, in 2014; \$100.6 million, or 17% of total value-added sales, in 2013; and \$106.5 million, or 17% of total value-added sales, in 2012. As of December 31, 2014, Other had 651 employees.

Sales were made to over 300 customers in 2014. Government sales accounted for less than 1% of the sales volume in 2014, 2013, and 2012. Sales outside the United States, principally to Europe and Asia, accounted for approximately 27% of net segment sales in 2014, 24% of net segment sales in 2013, and 22% of net segment sales in 2012. Other segment reporting and geographic information is contained in Note M to the Consolidated Financial Statements, which can be found in Item 8 of this Form 10-K and which is incorporated herein by reference.

The backlog of unshipped orders for Precision Coatings as of December 31, 2014, 2013, and 2012 was \$35.0 million, \$34.4 million, and \$36.7 million, respectively. Backlog is generally represented by purchase orders that may be terminated under certain conditions. We expect that substantially all of our backlog of orders for this segment at December 31, 2014 will be filled during 2015.

Other — Research and Development

Active research and development programs seek new product compositions and designs as well as process innovations. Expenditures for research and development for Precision Optics and Large Area Coatings amounted to \$4.0 million in 2014, \$4.7 million in 2013, and \$4.7 million in 2012.

GENERAL

Availability of Raw Materials

The principal raw materials we use are aluminum, beryllium, cobalt, copper, gold, nickel, palladium, platinum, ruthenium, silver, and tin. Ore reserve data can be found in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations". The availability of these raw materials, as well as other materials used by us, is adequate and generally not dependent on any one supplier.

Patents and Licenses

We own patents, patent applications, and licenses relating to certain of our products and processes. While our rights under the patents and licenses are of some importance to our operations, our business is not materially dependent on any one patent or license or on all of our patents and licenses as a group.

Regulatory Matters

We are subject to a variety of laws that regulate the manufacture, processing, use, handling, storage, transport, treatment, emission, release, and disposal of substances and wastes used or generated in manufacturing. For decades we have operated our facilities under applicable standards of inplant and outplant emissions and releases. The inhalation of airborne beryllium particulate may present a health hazard to certain individuals.

Standards for exposure to beryllium are under review by the United States Occupational Safety and Health Administration (OSHA) and by other governmental and private standard-setting organizations. One result of these reviews will likely be more

stringent worker safety standards. Some organizations, such as the California Occupational Health and Safety Administration and the American Conference of Governmental Industrial Hygienists, have adopted standards that are more stringent than the current standards of OSHA. The development, proposal, or adoption of more stringent standards may affect the buying decisions by the users of beryllium-containing products. If the standards are made more stringent and/or our customers or other downstream users decide to reduce their use of beryllium-containing products, our results of operations, liquidity, and financial condition could be materially adversely affected. The impact of this potential adverse effect would depend on the nature and extent of the changes to the standards, the cost and ability to meet the new standards, the extent of any reduction in customer use, and other factors. The magnitude of this potential adverse effect cannot be estimated.

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Executive Officers of the Registrant

As announced on December 3, 2014, John D. Grampa, age 67, former Senior Vice President Finance and Chief Financial Officer, plans to retire during 2015. Until Mr. Grampa's retirement, he will maintain his responsibilities for global procurement, information technology, and corporate communications as Senior Vice President, Administration. Effective January 1, 2015, Joseph P. Kelley was appointed Vice President, Finance and Chief Financial Officer.

Name	Age	Positions and Offices
Richard J. Hipple	62	<p>Chairman of the Board, President and Chief Executive Officer. In May 2006, Mr. Hipple was named Chairman of the Board and Chief Executive Officer of Materion Corporation. He had served as President since May 2005. He was Chief Operating Officer from May 2005 until May 2006. Mr. Hipple served as President of Performance Alloys from May 2002 until May 2005. He joined the Company in July 2001 as Vice President of Strip Products, Performance Alloys and served in that position until May 2002. Prior to joining Materion Corporation, Mr. Hipple was President of LTV Steel Company, a business unit of the LTV Corporation (integrated steel producer and metal fabricator). Prior to running LTV's steel business, Mr. Hipple held numerous leadership positions in engineering, operations, strategic planning, sales and marketing, and procurement since 1975 at LTV. Mr. Hipple has served on the Board of Directors of Ferro Corporation since 2007. Mr. Hipple has served on the Board of Directors of KeyCorp since July 2012.</p>
Joseph P. Kelley	42	<p>Vice President, Finance and Chief Financial Officer. Mr. Kelley was appointed Vice President, Finance and Chief Financial Officer effective January 2015. He had served as Vice President Finance since October 2013 and as Vice President, Finance for the Advanced Materials Group from December 2011 until October 2013. Prior to joining Materion, Mr. Kelley served as Vice President of Planning and Investor Relations at PolyOne Corporation (specialized polymer materials, services and solutions) since 2009. Earlier, he had served in progressively responsible financial management positions in North America and Europe with Lincoln Electric Holdings, Inc., CNH Global NV, Lante Corporation, and PricewaterhouseCoopers LLP.</p>
Gregory R. Chemnitz	57	<p>Vice President, General Counsel. Mr. Chemnitz joined Materion Corporation in September 2007 as its Vice President, General Counsel. Prior to that, he had served in various roles in the Law Department at Avery Dennison Corporation beginning in 1992, including most recently, as Assistant General Counsel, Americas, where he had responsibility for the legal affairs of Avery Dennison's business units in North and South America.</p>

Item 1A. RISK FACTORS

Our business, financial condition, results of operations, and cash flows can be affected by a number of factors, including, but not limited to, those set forth below and elsewhere in this Form 10-K, any one of which could cause our actual results to vary materially from recent results or from our anticipated future results. Therefore, an investment in us involves some risks, including the risks described below. The risks discussed below are not the only risks that we may experience. If any of the following risks occur, our business, results of operations, or financial condition could be negatively impacted.

The businesses of many of our customers are subject to significant fluctuations as a result of the cyclical nature of their industries and their sensitivity to general economic conditions, which could adversely affect their demand for our products and reduce our sales and profitability.

A substantial number of our customers are in the consumer electronics, industrial components, commercial aerospace, automotive electronics, defense, medical, energy, and telecommunications infrastructure industries. Each of these industries is cyclical in nature, influenced by a combination of factors which could have a negative impact on our business, including, among other things, periods of economic growth or recession, strength or weakness of the U.S. dollar, the strength of the consumer electronics, automotive electronics, and oil and gas industries, the rate of construction of telecommunications infrastructure equipment, and government spending on defense.

Also, in times when growth rates in our markets slow down, there may be temporary inventory adjustments by our customers that may negatively affect our business.

Because we experience seasonal fluctuations in our sales, our quarterly results will fluctuate, and our annual performance will be affected by the fluctuations.

We expect seasonal patterns to continue, which may cause our quarterly results to fluctuate. For example, the Christmas season generates increased demand from our customers that manufacture consumer products. If our revenue during any quarter were to fall below the expectations of investors or securities analysts, our share price could decline, perhaps significantly. Unfavorable economic conditions, lower than normal levels of demand, and other occurrences in any of the other quarters could also harm our results of operations. For example, we have experienced customers building inventory in anticipation of increased demand, whereas in previous periods, demand decreased because our customers had excess inventory.

A portion of our revenue is derived from the sale of defense-related products through various contracts and subcontracts. These contracts may be suspended, canceled, or delayed, which could have an adverse impact on our revenues.

In 2014, 6% of our value-added sales was derived from sales to customers in the defense market. A portion of these customers operate under contracts with the U.S. Government, which are vulnerable to termination at any time, for convenience or default. Some of the reasons for cancellation include, but are not limited to, budgetary constraints or re-appropriation of government funds, timing of contract awards, violations of legal or regulatory requirements, and changes in political agenda. If cancellations were to occur, it would result in a reduction in our revenue. For example, value-added sales to the defense market were approximately 23% lower in 2014 compared to 2013. The decline in value-added sales resulted from push-outs, largely due to government delays and spending cuts. Furthermore, significant additional reductions to defense spending could occur over the next decade, which could have a significant adverse impact on us. For example, high-margin defense application delays and/or push-outs may adversely impact our results of operations, including quarterly earnings.

The markets for our products are experiencing rapid changes in technology.

We operate in markets characterized by rapidly changing technology and evolving customer specifications and industry standards. New products may quickly render an existing product obsolete and unmarketable. For example, for many years thermal and mechanical performance have been at the forefront of device packaging for wireless communications infrastructure devices. In recent years, a tremendous effort has been put into developing simpler packaging solutions composed of copper and other similar components. Our growth and future results of operations depend in part upon our ability to enhance existing products and introduce newly developed products on a timely basis that conform to prevailing and evolving industry standards, meet or exceed technological advances in the marketplace, meet changing customer specifications, achieve market acceptance, and respond to our competitors' products.

The process of developing new products can be technologically challenging and requires the accurate anticipation of technological and market trends. We may not be able to introduce new products successfully or do so on a timely basis. If we fail to develop new products that are appealing to our customers or fail to develop products on time and within budgeted amounts, we may be unable to recover our research and development costs, which could adversely affect our margins and profitability.

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We are dependent on our beryllium pebble facility for our future supply of pure beryllium.

In 2008, we entered into an agreement with the Department of Defense to share in the cost of the beryllium pebble plant in Elmore, Ohio for primary beryllium feedstock. This beryllium pebble facility commenced operations in 2013. Manufacturing inefficiencies, start-up and maintenance costs, and inconsistent production levels resulted in disruptions to material flow and lower gross margins in 2013. While we believe that we addressed these issues in 2014, our earnings may be impacted by plant manufacturing inefficiencies in the future. Temporary interruptions to make necessary repairs and any delay in further transitioning the operation to run at required production levels could negatively impact our net sales and/or cost structure.

The availability of competitive substitute materials for beryllium-containing products may reduce our customers' demand for these products and reduce our net sales.

In certain product applications, we compete with manufacturers of non-beryllium-containing products, including organic composites, metal alloys or composites, titanium, and aluminum. Our customers may choose to use substitutes for beryllium-containing products in their products for a variety of reasons, including, among other things, the lower costs of those substitutes, the health and safety concerns relating to these products, and the risk of litigation relating to beryllium-containing products. If our customers use substitutes for beryllium-containing products in their products, the demand for our beryllium-containing products may decrease, which could reduce our net sales.

Our lengthy and variable sales and development cycle makes it difficult for us to predict if and when a new product will be sold to customers.

Our sales and development cycle, which is the period from the generation of a sales lead or new product idea through the development of the product and the recording of sales, may typically take up to two or three years, making it very difficult to forecast sales and results of operations. Our inability to accurately predict the timing and magnitude of sales of our products, especially newly introduced products, could affect our ability to meet our customers' product delivery requirements or cause our results of operations to suffer if we incur expenses in a particular period that do not translate into sales during that period, or at all. In addition, these failures would make it difficult to plan future capital expenditure needs and could cause us to fail to meet our cash flow requirements.

The availability and prices of some raw materials we use in our manufacturing operations fluctuate, and increases in raw material costs can adversely affect our operating results and our financial condition.

We manufacture advanced engineered materials using various precious and non-precious metals, including aluminum, beryllium, cobalt, copper, gold, nickel, palladium, platinum, ruthenium, silver, and tin. The availability of, and prices for, these raw materials are subject to volatility and are influenced by worldwide economic conditions, speculative action, world supply and demand balances, inventory levels, availability of substitute metals, the U.S. dollar exchange rate, production costs of United States and foreign competitors, anticipated or perceived shortages, and other factors. Precious metal prices, including prices for gold and silver, have fluctuated significantly in recent years. Higher prices can cause adjustments to our inventory carrying values, whether as a result of quantity discrepancies, normal manufacturing losses, differences in scrap rates, theft or other factors, which could have a greater impact on our profitability and cash flows. Also, the price of our products has increased in tandem with rising metal prices, as a result of changes in precious metal prices that are passed through to our customers, which could deter them from purchasing our products and adversely affect our net sales.

Further, we maintain some precious metals and copper on a consigned inventory basis. The owners of the precious metals and copper charge a fee that fluctuates based on the market price of those metals and other factors. A significant increase in the market price of precious metals or the consignment fee could increase our financing costs, which could increase our operating costs.

Utilizing precious metal in the manufacturing process creates challenges in physical inventory valuations that may impact earnings.

We manufacture precious, non-precious, and specialty metal products and also have metal cleaning operations and in-house refineries that allow for the reclaim of precious metals from internally generated or customer scrap. We refine that scrap through our internal operations and externally through outside vendors.

When taking periodic physical inventories in our refinery operations, we reconcile the actual precious metals to what was estimated prior to the physical inventory count. Those estimates are based on assays or samples of precious

metals taken during the refining process. If those estimates are inaccurate, we may have an inventory long (more physical precious metal than what we had estimated) or short (less physical precious metal than what we had estimated). These fluctuations could have a material

impact on our financial statements and may impact earnings. For example, our 2013 and 2012 gross margins were reduced by net quarterly physical inventory adjustments totaling \$2.2 million and \$7.4 million, respectively, at our Albuquerque, New Mexico facility within the Advanced Materials segment. Higher precious metal prices may magnify the value of any potential inventory long or short.

Our ability to maintain effective internal control over financial reporting may be insufficient to allow us to accurately report our financial results or prevent fraud, and this could cause our financial statements to become materially misleading and adversely affect the trading price of our common stock.

We are required to maintain effective internal control over financial reporting to provide reasonable assurance with respect to the reliability of financial reporting and the preparation of our consolidated financial statements in accordance with generally accepted accounting principles. Internal control over financial reporting may not prevent or detect misstatements because of its inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud. Therefore, even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. If we cannot provide reasonable assurance with respect to our financial statements and effectively prevent fraud, our financial statements could become materially misleading, which could adversely affect the trading price of our common stock. If we are not able to maintain the adequacy of our internal control over financial reporting, including any failure to implement required new or improved controls, or if we experience difficulties in their implementation, our business, financial condition, and operating results could be harmed. Any significant deficiency or material weakness in our internal control over financial reporting could affect investor confidence in the accuracy and completeness of our financial statements. As a result, our ability to obtain any additional financing, or additional financing on favorable terms, could be materially and adversely affected. This, in turn, could materially and adversely affect our business, financial condition, and the market value of our securities and require us to incur additional costs to improve our internal control systems and procedures.

Because we maintain a significant inventory of precious metals, we may experience losses due to employee error and theft.

Because we manufacture products that contain precious metals, we maintain a significant amount of precious metals at certain of our manufacturing facilities. Accordingly, we are subject to the risk of precious metal shortages resulting from employee error and theft. For example, in 2013, the Company filed a claim with its insurance carrier for a theft of approximately \$10 million of silver at its Albuquerque, New Mexico refinery, which was settled for \$6.8 million in the second quarter of 2014.

While we maintain controls to prevent theft, including physical security measures, if our controls do not operate effectively or are structured ineffectively, our profitability could be adversely affected, including any charges that we might incur as a result of the shortage of our inventory and by costs associated with increased security, preventative measures, and insurance.

We have a limited number of manufacturing facilities, and damage to those facilities could interrupt our operations, increase our costs of doing business, and impair our ability to deliver our products on a timely basis.

Some of our facilities are interdependent. For instance, our manufacturing facility in Elmore, Ohio relies on our mining operation for its supply of beryllium hydroxide used in production of most of its beryllium-containing materials. Additionally, our Reading, Pennsylvania; Fremont, California; and Tucson, Arizona manufacturing facilities are dependent on materials produced by our Elmore, Ohio manufacturing facility, and our Wheatfield, New York manufacturing facility is dependent on our Buffalo, New York manufacturing facility. The destruction or closure of any of our manufacturing facilities or our mine for a significant period of time as a result of fire, explosion, act of war or terrorism, or other natural disaster or unexpected event may interrupt our manufacturing capabilities, increase our capital expenditures and our costs of doing business, and impair our ability to deliver our products on a timely basis. In such an event, we may need to resort to an alternative source of manufacturing or to delay production, which could increase our costs of doing business. Our property damage and business interruption insurance may not cover all of our potential losses and may not continue to be available to us on acceptable terms, if at all.

Equipment failures and other unexpected events at our facilities may lead to manufacturing curtailments or shutdowns.

The manufacturing processes that take place in our mining operation, as well as in our manufacturing facilities, depend on critical pieces of equipment. This equipment may, on occasion, be out of service because of unanticipated failure, and some equipment is not readily available or replaceable. In addition to equipment failures, our facilities are also subject to the risk of loss due to unanticipated events such as fires, explosions, or other disasters. Material plant shutdowns or reductions in operations could harm our ability to fulfill our customers' demands, which could harm our net sales and cause our customers to find other suppliers. Further, remediation of any interruption in production capability may require us to make large capital expenditures, which may have a negative effect on our profitability and cash flows. Our business interruption insurance may not cover all of the lost revenues associated with interruptions in our manufacturing capabilities.

Many of our manufacturing facilities are dependent on single source energy suppliers, and interruption in energy services may cause manufacturing curtailments or shutdowns.

Many of our manufacturing facilities depend on one source for electric power and for natural gas. For example, Utah Power is the sole supplier of electric power to the processing facility for our mining operations in Utah. A significant interruption in service from our energy suppliers due to equipment failures, terrorism, or any other cause may result in substantial losses that are not fully covered by our business interruption insurance. Any substantial unmitigated interruption of our operations due to these conditions could harm our ability to meet our customers' demands and reduce our net sales.

If the price of electrical power, fuel, or other energy sources increases, our operating expenses could increase significantly.

We have numerous milling and manufacturing facilities and a mining operation, which depend on electrical power, fuel, or other energy sources. Our operating expenses are sensitive to changes in electricity prices and fuel prices, including natural gas prices. Prices for electricity and natural gas may increase and can fluctuate widely with availability and demand levels from other users. During periods of peak usage, supplies of energy may be curtailed, and we may not be able to purchase energy at historical market rates. While we have some long-term contracts with energy suppliers, we are exposed to fluctuations in energy costs that can affect our production costs. Although we enter into forward-fixed price supply contracts for natural gas and electricity for use in our operations, those contracts are of limited duration and do not cover all of our fuel or electricity needs. Additionally, price increases in fuel and electricity costs, such as those increases which may occur from climate change legislation or other environmental mandates, may increase our cost of operations.

Disruptions or volatility in global financial markets could adversely impact our financial performance.

Global economic conditions may cause volatility and disruptions in the capital and credit markets. Should global economic conditions deteriorate or access to credit markets be reduced, customers may experience difficulty in obtaining adequate financing, thereby impacting our net sales. Our exposure to bad debt losses may also increase if customers are unable to pay for products previously ordered. Negative or uncertain financial and macroeconomic conditions may have a significant adverse impact on our sales, profitability, and results of operations. If current global economic conditions deteriorate, it could trigger an economic downturn similar to the one experienced in 2008 and 2009. This could have a negative impact on our net sales.

A lower interest rate environment coupled with less than expected investment performance may require us to increase our pension liability and expense, which may require us to fund a portion of our pension obligations and divert funds from other potential uses.

We provide defined benefit pension plans to eligible employees. Our pension expense and our required contributions to our pension plans are directly affected by the value of plan assets, the projected rate of return on plan assets, the actual rate of return on plan assets, and the actuarial assumptions we use to measure our defined benefit pension plan obligations, including the rate at which future obligations are discounted to a present value, or the discount rate. Lower investment performance of our pension plan assets resulting from a decline in the stock market could significantly increase the unfunded liability of our plans. Should the pension asset return fall below our expectations, it is likely that future pension expenses would increase. The actual return on our plan assets for the year ended December 31, 2014 was a gain of approximately 3.7%. For pension accounting purposes in 2014, we assumed a 7.25% expected rate of return on pension assets.

We establish the discount rate used to determine the present value of the projected and accumulated benefit obligation at the end of each year based upon the available market rates for high quality, fixed income investments. An increase in the discount rate would reduce the future pension expense and, conversely, a lower discount rate would raise the future pension expense. As of December 31, 2014, for pension accounting purposes, we assumed a 4.0% discount rate for our domestic defined benefit plan compared to 4.875% as of December 31, 2013.

Based on current guidelines, assumptions, and estimates, including stock market prices and interest rates, we anticipate that we will make cash contributions of approximately \$16.0 million to our pension plan in 2015. If our current assumptions and estimates are not correct, contributions in 2015 and beyond may be greater than our current or future projections.

We cannot predict whether changing market or economic conditions, regulatory changes, or other factors will further increase our pension expenses or funding obligations, diverting funds we would otherwise apply to other uses. Our expenditures for post-employment health benefits could be materially higher than we have predicted if our underlying assumptions prove to be incorrect.

We provide post-employment health benefits to eligible employees. Our retiree health expense is directly affected by the assumptions we use to measure our retiree health plan obligations, including the assumed rate at which health care costs will increase and the discount rate used to calculate future obligations. For retiree health accounting purposes, we have used a graded assumption schedule to assume the rate at which health care costs will increase. At December 31, 2014 and December 31, 2013, we assumed rates of 7.0% and 7.5%, respectively, for each of the following years. We have assumed that this health care cost increase trend rate will decline in 0.5% increments to the ultimate trend rate of 5.0% by 2019.

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one percentage point increase in assumed health care cost trend rates would have increased the post-employment benefit obligation by \$0.4 million at December 31, 2014.

We cannot predict whether changing market or economic conditions, regulatory changes, or other factors will further increase our retiree health care expenses or obligations, diverting funds we would otherwise apply to other uses. Our financial results are likely to be negatively impacted by an impairment of goodwill should our shareholder equity exceed our market capitalization for a number of quarters.

A goodwill impairment charge may be triggered by a reduction in actual and projected cash flows, which could be negatively impacted by the market price of our common shares. Our goodwill balance at December 31, 2014 was \$86.7 million. Any required non-cash impairment charge could significantly reduce this balance and have a material adverse impact on our reported financial position and results of operations.

A major portion of our bank debt consists of variable-rate obligations, which subjects us to interest rate fluctuations. Our credit facilities are secured by substantially all of our assets (other than non-mining real property and certain other assets). Our working capital line of credit includes variable-rate obligations, which expose us to interest rate risks. If interest rates increase, our debt service obligations on our variable-rate indebtedness would increase even if the amount borrowed remained the same, resulting in a decrease in our net income. We have developed a hedging strategy to manage the risks associated with interest rate fluctuations, but our program may not effectively eliminate all of the financial exposure associated with interest rate fluctuations. Additional information regarding our market risks is contained in Item 7A "Quantitative and Qualitative Disclosures About Market Risk".

We may be unable to access the financial markets on favorable terms.

The inability to raise capital on favorable terms, particularly during times of uncertainty in the financial markets, could impact our ability to sustain and grow our business and would increase our capital costs. In particular, the substantial volatility in world capital markets due to the global economic crisis has had a significant negative impact on the global financial markets.

We rely on access to financial markets as a significant source of liquidity for capital requirements not satisfied by cash on hand or operating cash flow. Our access to the financial markets could be adversely impacted by various factors, including:

- changes in credit markets that reduce available credit or the ability to renew existing credit facilities on acceptable terms;

- a deterioration of our credit;

- a deterioration in the financial condition of the banks with which we do business;

- extreme volatility in our markets that increases margin or credit requirements; and

- the collateral pledge of substantially all of our assets in connection with our existing indebtedness, which limits our flexibility in raising additional capital.

These factors have adversely impacted our access to the financial markets from time to time. Negative or uncertain global economic conditions may make it difficult for us to access the credit market and to obtain financing or refinancing, as the case may be, to the extent necessary, on satisfactory terms or at all.

Our failure to comply with the covenants contained in the terms of our indebtedness could result in an event of default, which could materially and adversely affect our operating results and our financial condition.

The terms of our credit facilities require us to comply with various covenants, including financial covenants. In the event of a global economic downturn, it could have a material adverse impact on our earnings and cash flow, which

could adversely

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affect our ability to comply with our financial covenants and could limit our borrowing capacity. Our ability to comply with these covenants depends, in part, on factors over which we may have no control. A breach of any of these covenants could result in an event of default under one or more of the agreements governing our indebtedness which, if not cured or waived, could give the holders of the defaulted indebtedness the right to terminate commitments to lend and cause all amounts outstanding with respect to the indebtedness to be due and payable immediately. Acceleration of any of our indebtedness could result in cross defaults under our other debt instruments. Our assets and cash flow may be insufficient to fully repay borrowings under all of our outstanding debt instruments if some or all of these instruments are accelerated upon an event of default, in which case we may be required to seek legal protection from our creditors.

The terms of our indebtedness may restrict our operations, including our ability to pursue our growth and acquisition strategies.

The terms of our credit facilities contain a number of restrictive covenants, including restrictions in our ability to, among other things, borrow and make investments, acquire other businesses, and consign additional precious metals. These covenants could adversely affect our business by limiting our ability to plan for or react to market conditions or to meet our capital needs, as well as adversely affect our ability to pursue our growth, acquisition strategies, and other strategic initiatives.

We may not be able to complete our acquisition strategy or successfully integrate acquired businesses.

We have been active over the last several years in pursuing niche acquisitions. For example, we completed the acquisition of Aerospace Metal Composites Ltd. in 2012. We intend to continue to consider further growth opportunities through the acquisition of assets or companies and routinely review acquisition opportunities. We cannot predict whether we will be successful in pursuing any acquisition opportunities or what the consequences of any acquisition would be. Future acquisitions may involve the expenditure of significant funds and management time. Depending upon the nature, size, and timing of future acquisitions, we may be required to raise additional financing, which may not be available to us on acceptable terms. Further, we may not be able to successfully integrate any acquired business with our existing businesses or recognize any expected advantages from any completed acquisition. In addition, there may be liabilities that we fail, or are unable, to discover in the course of performing due diligence investigations on the assets or companies we have already acquired or may acquire in the future. We cannot assure that rights to indemnification by the sellers of these assets or companies to us, even if obtained, will be enforceable, collectible, or sufficient in amount, scope, or duration to fully offset the possible liabilities associated with the business or property acquired. Any such liabilities, individually or in the aggregate, could have a materially adverse effect on our business, financial condition, and results of operations.

Payment of dividends will depend on our future financial condition and performance.

Although our Board of Directors currently intends to continue the payment of regular quarterly cash dividends on shares of our common stock, the timing and amount of future dividends will depend on the Board's assessment of our operations, financial condition, projected liabilities, our compliance with contractual restrictions in our credit agreement, restrictions imposed by applicable laws, and other factors. We cannot guarantee that we will continue to declare dividends at the same or similar rates.

We are subject to fluctuations in currency exchange rates, which may negatively affect our financial performance.

A significant portion of our net sales is conducted in international markets and priced in currencies other than the U.S. dollar. Revenues from customers outside of the United States (principally Europe and Asia) amounted to 35% of net sales in 2014 and 31% in both 2013 and 2012. Significant fluctuations in currency values relative to the U.S. dollar may negatively affect our financial performance. In the past, fluctuations in currency exchange rates, particularly for the euro and the yen, have impacted our sales, margins, and profitability. The fair value of our net asset relating to outstanding foreign currency contracts was \$3.5 million at December 31, 2014, indicating that the average hedge rates were favorable compared to the actual year-end market exchange rates. While we may hedge our currency transactions to mitigate the impact of currency price volatility on our earnings, hedging activities may not be successful. For example, hedging activities may not cover the Company's complete exposure which could have an unfavorable impact on our results of operations.

Our products are deployed in complex applications and may have errors or defects that we find only after deployment.

Our products are highly complex, designed to be deployed in complicated applications, and may contain undetected defects, errors, or failures. Although our products are generally tested during manufacturing, prior to deployment, they can only be fully tested when deployed in specific applications. For example, we sell beryllium-copper alloy strip products in a coil form to some customers, who then stamp the alloy for its specific purpose. On occasion, it is not until such customer stamps the alloy that a defect in the alloy is detected. Consequently, our customers may discover errors after the products have been deployed. The occurrence of any defects, errors, or failures could result in installation delays, product returns, termination of contracts with our

customers, diversion of our resources, increased service and warranty costs, and other losses to our customers, end users, or to us. Any of these occurrences could also result in the loss of, or delay in, market acceptance of our products and could damage our reputation, which could reduce our net sales.

In addition to the risk of unanticipated warranty or recall expenses, our customer contracts may contain provisions that could cause us to incur penalties, be liable for damages, including liquidated damages, or incur other expenses, if we experience difficulties with respect to the functionality, deployment, operation, and availability of our products and services. In the event of late deliveries, late or improper installations or operations, failure to meet product or performance specifications or other product defects, or interruptions or delays in our managed service offerings, our customer contracts may expose us to penalties, liquidated damages, and other liabilities. In the event we were to incur contractual penalties, such as liquidated damages or other related costs that exceed our expectations, our business, financial condition, and operating results could be materially and adversely affected.

Our business could be adversely impacted if we fail to adequately address information security issues.

We have taken measures to protect the integrity of our technology infrastructure and the privacy of confidential information. However, our technology infrastructure is potentially vulnerable to physical or electronic break-ins, computer viruses, or similar problems. If a person or entity circumvents our security measures, they could jeopardize the security of confidential information stored on our systems, misappropriate proprietary information, or cause interruptions in our operations. Interruptions in our operations could adversely affect our results. Additionally, we may be required to make substantial additional investments and efforts to protect against or remedy security breaches. Security breaches that result in access to confidential information could damage our reputation and expose us to a risk of loss or liability.

We conduct our sales and distribution operations on a worldwide basis and are subject to the risks associated with doing business outside the United States.

We sell to customers outside of the United States from our United States and international operations. We have been and are continuing to expand our geographic reach in Europe and Asia. Shipments to customers outside of the United States accounted for approximately 35% in 2014 and 31% of our net sales in both 2013 and 2012. We anticipate that international shipments will account for a significant portion of our net sales for the foreseeable future. Revenue from international operations (principally Europe and Asia) amounted to approximately 22% of our net sales in 2014, 18% of our net sales in 2013, and 16% in 2012. There are a number of risks associated with international business activities, including:

• burdens to comply with multiple and potentially conflicting foreign laws and regulations, including export requirements, tariffs and other barriers, environmental health and safety requirements, and unexpected changes in any of these factors;

• difficulty in obtaining export licenses from the United States Government;

• political and economic instability and disruptions, including terrorist attacks;

• disadvantages of competing against companies from countries that are not subject to U.S. laws and regulations, including the Foreign Corrupt Practices Act (FCPA);

• potentially adverse tax consequences due to overlapping or differing tax structures; and

• fluctuations in currency exchange rates.

Any of these risks could have an adverse effect on our international operations by reducing the demand for our products or reducing the prices at which we can sell our products, which could result in an adverse effect on our business, financial position, results of operations, or cash flows.

In addition, we could be adversely affected by violations of the FCPA and similar worldwide anti-bribery laws. The FCPA and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to non-U.S. officials for the purpose of obtaining or retaining business. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances strict compliance with anti-bribery laws may conflict with local customs and practices. We cannot assure you that our internal controls and procedures always will protect us from the reckless or criminal acts committed by our employees or agents. If we are found to be liable for FCPA violations, we could suffer from criminal or civil penalties or other sanctions, which could have a material

adverse effect on our business.

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Changes in laws or regulations or the manner of their interpretation or enforcement could adversely impact our financial performance and restrict our ability to operate our business or execute our strategies.

New laws or regulations, or changes in existing laws or regulations, or the manner of their interpretation or enforcement, could increase our cost of doing business and restrict our ability to operate our business or execute our strategies. This includes, among other things, the possible taxation under U.S. law of certain income from foreign operations, compliance costs, and enforcement under the Dodd-Frank Wall Street Reform and Consumer Protection Act, and costs associated with complying with the Patient Protection and Affordable Care Act of 2010 and the regulations promulgated thereunder.

We are exposed to lawsuits in the normal course of business, which could harm our business.

During the ordinary conduct of our business, we may become involved in certain legal proceedings, including those involving product liability claims, third-party lawsuits relating to exposure to beryllium, and claims against us of infringement of intellectual property rights of third parties. Due to the uncertainties of litigation, we can give no assurance that we will prevail at the conclusion of future claims. Certain of these matters involve types of claims that, if they result in an adverse ruling to us, could give rise to substantial liability which could have a material adverse effect on our business, operating results, or financial condition.

We are presently uninsured for beryllium-related claims where the claimants' first exposure to beryllium occurred on or after January 1, 2008, and we have not undertaken to estimate the impact of any such claims, which have yet to be asserted. In addition, some jurisdictions preclude insurance coverage for punitive damage awards. Accordingly, our profitability could be adversely affected if any current or future claimants obtain judgments for any uninsured compensatory or punitive damages. Further, an unfavorable outcome or settlement of a pending beryllium case or adverse media coverage could encourage the commencement of additional similar litigation.

Health issues, litigation, and government regulations relating to our beryllium operations could significantly reduce demand for our products, limit our ability to operate, and adversely affect our profitability.

If exposed to respirable beryllium fumes, dusts, or powder, some individuals may demonstrate an allergic reaction to beryllium and may later develop a chronic lung disease known as chronic beryllium disease, or CBD. Some people who are diagnosed with CBD do not develop clinical symptoms at all. In others, the disease can lead to scarring and damage of lung tissue, causing clinical symptoms that include shortness of breath, wheezing, and coughing. Severe cases of CBD can cause disability or death.

Further, some scientists claim there is evidence of an association between beryllium exposure and lung cancer, and certain standard-setting organizations have classified beryllium and beryllium compounds as human carcinogens.

The health risks relating to exposure to beryllium have been, and will continue to be, a significant issue confronting the beryllium-containing products industry. The health risks associated with beryllium have resulted in product liability claims, employee, and third-party lawsuits. As of December 31, 2014, we had one CBD case outstanding.

The increased levels of scrutiny by federal, state, foreign, and international regulatory authorities could lead to regulatory decisions relating to the approval or prohibition of the use of beryllium-containing materials for various uses. Concerns over CBD and other potential adverse health effects relating to beryllium, as well as concerns regarding potential liability from the use of beryllium, may discourage our customers' use of our beryllium-containing products and significantly reduce demand for our products. In addition, adverse media coverage relating to our beryllium-containing products could damage our reputation or cause a decrease in demand for beryllium-containing products, which could adversely affect our profitability.

Our bertrandite ore mining and beryllium-related manufacturing operations and some of our customers' businesses are subject to extensive health and safety regulations that impose, and will continue to impose, significant costs and liabilities, and future regulation could increase those costs and liabilities, or effectively prohibit production or use of beryllium-containing products.

We, as well as our customers, are subject to laws regulating worker exposure to beryllium. Standards for exposure to beryllium are under review by OSHA, the Department of Energy, and by other U.S. and foreign governmental and private standard-setting organizations. One result of these reviews will likely be more stringent worker safety standards. Some organizations, such as the California Occupational Health and Safety Administration and the American Conference of Governmental Industrial Hygienists, have adopted standards that are more stringent than the

current standards of OSHA. The development, proposal, or adoption of more stringent standards may affect buying decisions by the users of beryllium-containing products. If the standards are made more stringent and/or our customers or other downstream users decide to reduce their use of beryllium-containing products, our results of operations, liquidity, and financial condition could be materially adversely affected. The impact of this potential adverse effect would depend on the nature and extent of the changes to the standards, the cost and ability to meet the

new standards, the extent of any reduction in customer use, and other factors. The magnitude of this potential adverse effect cannot be estimated.

Our bertrandite ore mining and manufacturing operations are subject to extensive environmental regulations that impose, and will continue to impose, significant costs and liabilities on us, and future regulation could increase these costs and liabilities or prevent production of beryllium-containing products.

We are subject to a variety of governmental regulations relating to the environment, including those relating to our handling of hazardous materials and air and wastewater emissions. Some environmental laws impose substantial penalties for non-compliance. Others, such as the federal Comprehensive Environmental Response, Compensation, and Liability Act, or CERCLA, impose strict, retroactive, and joint and several liability upon entities responsible for releases of hazardous substances. Bertrandite ore mining is also subject to extensive governmental regulation on matters such as permitting and licensing requirements, plant and wildlife protection, reclamation and restoration of mining properties, the discharge of materials into the environment, and the effects that mining has on groundwater quality and availability. Future requirements could impose on us significant additional costs or obligations with respect to our extraction, milling, and processing of ore. If we fail to comply with present and future environmental laws and regulations, we could be subject to liabilities or our operations could be interrupted. In addition, future environmental laws and regulations could restrict our ability to expand our facilities or extract our bertrandite ore deposits. These environmental laws and regulations could also require us to acquire costly equipment, obtain additional financial assurance, or incur other significant expenses in connection with our business, which would increase our costs of production.

Natural disasters, equipment failures, work stoppages, bankruptcies, and other unexpected events may lead our customers to curtail production or shut down their operations.

Our customers' manufacturing operations are subject to conditions beyond their control, including raw material shortages, natural disasters, interruptions in electrical power or other energy services, equipment failures, bankruptcies, work stoppages due to strikes or lockouts, including those affecting the automotive industry, which is one of our major markets, and other unexpected events. For example, the tsunami that hit Japan in March 2011 caused wide-scale destruction of the Tohoku region and led most manufacturers in the area, most notably those in the automotive and consumer electronics markets, to slow or halt production. Similar events could also affect other suppliers to our customers. Such events could cause our customers to curtail production or to shut down a portion or all of their operations, which could reduce their demand for our products and reduce our net sales.

Unexpected events and natural disasters at our mine could increase the cost of operating our business.

A portion of our production costs at our mine are fixed regardless of current operating levels. Our operating levels are subject to conditions beyond our control that may increase the cost of mining for varying lengths of time. These conditions include, among other things, fire, natural disasters, pit wall failures, and ore processing changes. Our mining operations also involve the handling and production of potentially explosive materials. It is possible that an explosion could result in death or injuries to employees and others and material property damage to third parties and us. Any explosion could expose us to adverse publicity or liability for damages and materially adversely affect our operations. Any of these events could increase our cost of operations.

Terrorist attacks and other acts of violence or war may directly harm our operations.

Terrorist attacks or other acts of violence or war may directly impact our facilities. For example, our Elmore, Ohio facility is located near, and derives power from, a nuclear power plant, which could be a target for a terrorist attack. In addition, terrorist attacks, related armed conflicts, or prolonged or increased tensions in the Middle East or other regions of the world could cause consumer confidence and spending to decrease, decreasing demand for consumer goods that contain our products. Further, when the United States armed forces are involved in active hostilities or large-scale deployments, defense spending tends to focus more on meeting the physical needs of the troops, and planned expenditures on weapons and other systems incorporating our products may be reduced or deferred. Any of these occurrences could also increase volatility in the United States and worldwide financial markets, which could negatively impact our net sales.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

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Item 2. PROPERTIES

We operate manufacturing plants, service and distribution centers, and other facilities throughout the world. During 2014, we made effective use of our productive capacities at our principal facilities. We believe that the quality and production capacity of our facilities is sufficient to maintain our competitive position for the foreseeable future. Information as of December 31, 2014, with respect to our significant facilities that are owned or leased, and the respective segments in which they are included, is set forth below:

Location	Owned or Leased	Approximate Number of Square Feet
Corporate and Administrative Offices		
Mayfield Heights, Ohio ⁽¹⁾⁽²⁾⁽³⁾	Leased	79,130
Manufacturing Facilities		
Albuquerque, New Mexico ⁽²⁾	Owned/Leased/Subleased	13,000/28,800/8,500
Bloomfield, Connecticut ⁽³⁾	Leased	23,400
Brewster, New York ⁽²⁾	Leased	75,000
Buffalo, New York ⁽²⁾	Owned	97,000
Delta, Utah ⁽¹⁾	Owned	100,836
Elmore, Ohio ⁽¹⁾	Owned/Leased	681,000/191,000
Farnborough, England ⁽¹⁾	Leased	10,000
Fremont, California ⁽¹⁾	Leased	40,000
Limerick, Ireland ⁽²⁾	Leased	18,000
Lincoln, Rhode Island ⁽¹⁾	Owned/Leased	130,000/28,000
Lorain, Ohio ⁽¹⁾	Owned	55,000
Milwaukee, Wisconsin ⁽²⁾	Owned	98,750
Reading, Pennsylvania ⁽¹⁾	Owned	128,863
Santa Clara, California ⁽²⁾	Leased	5,800
Shanghai, China ⁽³⁾	Leased	101,400
Singapore ⁽²⁾	Leased	35,000
Subic Bay, Philippines ⁽²⁾	Leased	5,000
Suzhou, China ⁽²⁾	Leased	22,400
Taipei, Taiwan ⁽²⁾	Leased	11,500
Tucson, Arizona ⁽¹⁾	Owned	53,000
Tyngsboro, Massachusetts ⁽³⁾	Leased	38,000
Westford, Massachusetts ⁽³⁾	Leased	78,000
Wheatfield, New York ⁽²⁾	Owned	35,000
Windsor, Connecticut ⁽³⁾	Leased	34,700
Service and Distribution Centers		
Elmhurst, Illinois ⁽¹⁾	Leased	28,500
Fukaya, Japan ⁽¹⁾	Owned	35,500
Singapore ⁽¹⁾	Leased	2,500
Stuttgart, Germany ⁽¹⁾	Leased	24,800
Tokyo, Japan ⁽¹⁾	Leased	7,200
Warren, Michigan ⁽¹⁾	Leased	34,500

⁽¹⁾ Performance Alloys and Composites

⁽²⁾ Advanced Materials

⁽³⁾ Other

In addition to the above, the Company holds certain mineral rights on 7,500 acres in Juab County, Utah, from which the beryllium-bearing ore, bertrandite, is mined by the open pit method. A portion of these mineral rights are held under lease. Ore reserve data can be found in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations".

Item 3. LEGAL PROCEEDINGS

Our subsidiaries and our holding company are subject, from time to time, to a variety of civil and administrative proceedings arising out of our normal operations, including, without limitation, product liability claims, health, safety and environmental claims, and employment-related actions. Among such proceedings are cases alleging that plaintiffs have contracted, or have been placed at risk of contracting, beryllium sensitization or chronic beryllium disease or other lung conditions as a result of exposure to beryllium (“beryllium cases”). The plaintiffs in beryllium cases seek recovery under negligence and various other legal theories and demand compensatory and often punitive damages, in many cases of an unspecified sum. Spouses of some plaintiffs claim loss of consortium.

Beryllium Claims

As of December 31, 2014, our subsidiary, Materion Brush Inc., was a defendant in one beryllium case (involving three plaintiffs), as described more fully below. During 2014, one beryllium case (involving two plaintiffs) was settled and dismissed. As of December 31, 2013, there were two pending beryllium cases (involving five plaintiffs).

The Company is one of five defendants in a case filed on October 4, 2013 in the Superior Court of the State of Arizona, Maricopa County, titled Parmar et al. v. Dolphin, Inc. et al., CV 2013-012980. One plaintiff alleges that he contracted chronic beryllium disease from exposures that resulted from his employment at manufacturing facilities of Karsten Manufacturing Corporation (“Karsten”) in Arizona, and asserts claims for negligence, strict liability, and fraudulent concealment. His wife claims a loss of consortium. Another plaintiff alleges that he has been diagnosed with beryllium sensitization that resulted from his employment at Karsten, and asserts a claim for medical monitoring. Plaintiffs seek compensatory and punitive damages and/or medical monitoring in unspecified sums.

The Company was one of two defendants in a case originally filed on September 25, 2012 in the Court of Common Pleas of Philadelphia County, Pennsylvania titled Schwartz v. Accuratus Corporation et al., and subsequently removed to the United States District Court for the Eastern District of Pennsylvania (No. 12-6189). Plaintiff alleged that she contracted chronic beryllium disease from “take-home” exposures resulting from her husband’s employment at facilities at the Company and of codefendant Accuratus Corporation, and asserted claims for negligence and strict liability. She sought compensatory and exemplary damages in unspecified amounts. Her husband claimed a loss of consortium. The Company entered into a settlement agreement with plaintiffs, and the court dismissed all claims against the Company with prejudice on September 22, 2014. (The case continues on appeal against Accuratus.)

The Company has some insurance coverage, subject to an annual deductible.

Item 4. MINE SAFETY DISCLOSURES

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104) is included in Exhibit 95 to this Form 10-K.

PART II

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

Market Information and Dividends

The Company's common shares are listed on the New York Stock Exchange under the symbol "MTRN". As of February 13, 2015, there were 997 shareholders of record. The table below is a summary of the range of market prices with respect to common shares during each quarter of fiscal years 2014 and 2013 and the dividends declared per common share.

Fiscal Quarters	Stock Price Range		Dividends
	High	Low	
2014			
First	\$35.19	\$25.21	\$0.080
Second	37.96	31.69	0.085
Third	39.38	30.88	0.085
Fourth	40.60	26.64	0.085
2013			
First	\$29.81	\$26.20	\$0.075
Second	31.49	24.58	0.080
Third	33.69	27.09	0.080
Fourth	32.73	25.75	0.080

We began paying dividends in June of 2012. We expect to pay cash dividends in the future, subject to the continuing determination by our Board of Directors that paying dividends remains in the best interest of our shareholders. The agreements governing our credit facilities restrict the amount of cash dividends that we can pay. Any determinations by our Board of Directors to pay cash dividends in the future will take into account various factors, including our financial condition, results of operations, current and anticipated cash needs, plans for expansion, and restrictions under the agreements governing our credit facilities, and any agreement governing our future debt. We cannot provide assurance that dividends will be paid in the future or that, if paid, the dividends will be at the same amount or frequency.

During the three months ended December 31, 2014, we repurchased 210,785 shares under our share buyback authorization of \$50.0 million.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value that may yet be Purchased Under the Plans or Programs (1)
September 27 through October 31, 2014	176,469	\$30.59	176,469	\$28,965,941
November 1 through November 28, 2014	16,682	37.99	16,682	28,332,238
November 29 through December 31, 2014	17,634	34.86	17,634	27,717,575
Total	210,785	\$31.53	210,785	\$27,717,575

(1) On January 14, 2014, we announced that our Board of Directors had authorized the repurchase of up to \$50.0 million of our common shares. In 2014, we purchased an aggregate of 690,339 shares at an average price of \$32.28

totaling \$22.3 million. As of December 31, 2014, \$27.7 million may still be purchased under the program.

Performance Graph

The following graph sets forth the cumulative shareholder return on our common shares as compared to the cumulative total return of the Russell 2000 Index and the S&P SmallCap 600 Index, as Materion Corporation is a component of these indices.

	2009	2010	2011	2012	2013	2014
Materion Corporation	\$100	\$208	\$131	\$141	\$170	\$196
Russell 2000	100	127	122	141	196	206
S&P SmallCap 600	100	126	128	148	210	222

The above graph assumes that the value of our common shares and each index was \$100 on December 31, 2009 and that all applicable dividends were reinvested.

Item 6. SELECTED FINANCIAL DATA

Materion Corporation and Subsidiaries

(Thousands except per share data)	2014	2013	2012	2011	2010
For the year					
Net sales	\$1,126,890	\$1,166,882	\$1,273,078	\$1,526,730	\$1,302,314
Cost of sales	920,987	978,904	1,074,295	1,311,409	1,079,666
Gross margin	205,903	187,978	198,783	215,321	222,648
Operating profit	56,957	26,831	36,776	57,078	73,633
Interest expense - net	2,787	3,036	3,134	2,812	2,665
Income before income taxes	54,170	23,795	33,642	54,266	70,968
Income taxes	12,449	4,088	8,978	14,287	24,541
Net income	41,721	19,707	24,664	39,979	46,427
Earnings per share of common stock:					
Basic	2.04	0.96	1.21	1.96	2.29
Diluted	2.00	0.94	1.19	1.93	2.25
Dividends per share of common stock	0.335	0.315	0.225	—	—
Depreciation and amortization	43,516	42,328	37,695	44,194	35,932
Capital expenditures	29,312	27,848	34,088	28,187	42,314
Mine development expenditures	1,247	4,776	10,573	560	11,348
Year-end position					
Net current assets	282,628	266,248	251,922	231,230	208,365
Ratio of current assets to current liabilities	3.7 to 1	3.1 to 1	2.7 to 1	2.7 to 1	2.4 to 1
Property, plant, and equipment:					
At cost	\$800,671	\$782,879	\$779,785	\$752,726	\$719,953
Cost less depreciation, depletion, and amortization	247,588	261,893	272,542	263,398	265,868
Total assets	762,069	777,945	814,917	772,103	735,410
Long-term liabilities	173,890	153,296	203,335	184,143	157,571
Long-term debt	23,613	29,267	44,880	40,463	38,305
Shareholders' equity	458,133	463,321	414,995	405,982	384,356
Weighted-average number of shares of common stock outstanding:					
Basic	20,461	20,571	20,418	20,365	20,282
Diluted	20,810	20,895	20,679	20,754	20,590

Capital expenditures shown above include amounts spent under government contracts for which reimbursements were received from the government in the amounts of \$1.0 million in 2012, \$5.4 million in 2011, and \$21.9 million in 2010.

Refer to Notes to Consolidated Financial Statements.

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

OVERVIEW

We are an integrated producer of high-performance advanced engineered materials used in a variety of electrical, electronic, thermal, and structural applications. Our products are sold into numerous end markets, including consumer electronics, industrial components, medical, automotive electronics, energy, telecommunications infrastructure, defense, commercial aerospace, science, services, and appliance.

Net sales for 2014 of \$1.1 billion were 3% lower than net sales of \$1.2 billion in 2013 due primarily to a decrease in precious metal prices. The net sales comparison between years was affected by the pass-through of lower metal prices. The costs of gold, silver, platinum, palladium, and copper are typically passed through to customers and, therefore, movements in the prices of these metals will affect net sales, but may not have a proportionate impact on gross margin.

Lower pass-through metal costs were partially offset by an increase in value-added sales. Value-added sales were \$637.1 million in 2014, an increase of 5% as compared to 2013 value-added sales of \$609.1 million. Value-added sales is a non-GAAP measure that removes the impact of pass-through metal costs and allows for analysis without the distortion of the movement or volatility in metal prices. Internally, we manage our business on this basis, and a reconciliation of net sales to value-added sales is included herein.

Gross margin was \$205.9 million in 2014 compared to \$188.0 million in 2013. The increased gross margin represents an approximate 150 basis point margin expansion as a percentage of value-added sales associated with improved sales volume, better product mix, and facility consolidation savings.

Operating profit was \$57.0 million in 2014 compared to \$26.8 million in 2013. The increased operating profit was driven by the gross margin improvement and favorable one-time items including a \$6.8 million insurance settlement related to a precious metal theft claim, a \$4.0 million settlement of a legal claim related to our beryllium pebble facility, and a \$2.4 million gain on the sale of used equipment.

As a result of the aforementioned items, overall diluted earnings per share increased to \$2.00 in 2014 versus \$0.94 in 2013, an increase in excess of 100%.

We also repurchased 690,339 shares of common stock during 2014 for \$22.3 million in the aggregate.

RESULTS OF OPERATIONS

(Millions except per share data)

	2014	2013	2012
Net sales	\$1,126.9	\$1,166.9	\$1,273.1
Value-added sales	637.1	609.1	615.6
Operating profit	57.0	26.8	36.8
Income before income taxes	54.2	23.8	33.6
Net income	41.7	19.7	24.7
Diluted earnings per share	2.00	0.94	1.19

2014 Compared to 2013

Net sales were \$1.1 billion in 2014, a decline of \$40.0 million, or 3%, from net sales of \$1.2 billion in 2013. The net sales comparisons between years were primarily affected by the pass-through of lower metal prices. The costs of gold, silver, platinum, palladium, and copper are typically passed through to customers and, therefore, movements in the prices of these metals will affect net sales, but may not have a proportionate impact on margins. The average prices for the metals we purchased in 2014 were lower than 2013. The net change in metal prices resulted in an estimated \$58.7 million decrease in net sales in 2014 from 2013 and accounted for the reduction in net sales for the year.

Value-added sales of \$637.1 million in 2014 increased \$28.0 million or 5% compared to 2013. The year-over-year improvement in value-added sales was primarily driven by increases in value-added sales to the consumer electronics and medical end markets, partially offset by a decrease in sales to the defense end market.

Value-added sales to the consumer electronics end market, our largest market accounting for approximately 28% of our total value-added sales in 2014, were 8% higher in 2014 versus 2013. The increase in value-added sales to the consumer electronics end market in 2014 was due to higher shipments for semiconductor, hand-held devices, and other applications.

Value-added sales to the medical end market, which accounted for 12% of total value-added sales in 2014, increased 17% in 2014 as compared to 2013. The increase in medical end market value-added sales was due to higher sales for nuclear medicine applications and higher shipments related to life science and medical research.

Defense end market sales, which accounted for 6% of total value-added sales in 2014, decreased 23% versus 2013.

There was a decline in value-added sales largely due to government project delays and spending cuts.

Gross margin was \$205.9 million in 2014, or 10% above the \$188.0 gross margin recorded in 2013. Expressed as a percentage of value-added sales, gross margin improved approximately 150 basis points from 31% in 2013 to 32% in 2014. The increased gross margin was a combination of improved leverage on value-added sales volume growth, improved yields at our Buffalo, New York facility, and facility consolidation and savings of approximately \$4.9 million in 2014 related to product line rationalization initiatives undertaken late in 2013. In addition, gross margin in 2013 was negatively impacted by net quarterly physical inventory adjustments totaling \$2.2 million at our Albuquerque, New Mexico facility.

Selling, general, and administrative (SG&A) expenses totaled \$137.1 million in 2014, or an increase of \$3.9 million as compared to 2013. SG&A increased in 2014 due to higher cash-based incentive compensation expense versus 2013, partially offset by a decrease in stock-based compensation expense. Stock-based compensation expense, including the expense for stock appreciation rights, restricted stock, and performance restricted shares, was \$5.4 million in 2014 and \$5.7 million in 2013. The comparison of stock-based compensation expense between years may be affected by changes in plan design, the number of grants in a given year, actual performance relative to the plan objectives, movement in our stock price, forfeitures, vesting schedules, and other factors.

Expressed as a percentage of value-added sales, SG&A remained consistent at 22% in 2014 and 2013. Despite the higher incentive compensation expense in 2014, we leveraged our existing SG&A structure to handle value-added sales growth and continued to realize benefits of approximately \$5.4 million in 2014 from recent rationalization actions in the Advanced Materials segment and Precision Coatings group taken in the fourth quarter of 2013.

Corporate costs in 2013 also included legal and investigation expenses associated with the Albuquerque, New Mexico inventory loss and the related insurance claim and totaled \$1.3 million.

Research and development (R&D) expenses were \$12.9 million in 2014, a 4% decrease from the expense of \$13.4 million in 2013. R&D expenses as a percentage of value-added sales remained consistent in 2014 versus 2013 at 2%.

Other - net totaled \$1.0 million of income in 2014 and \$14.5 million of expense in 2013. Refer to Note N in the Consolidated Financial Statements for the details of the major components of other-net. The reduction in other-net in 2014 was primarily due

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to several one-time items consisting of a \$6.8 million favorable insurance settlement related to a precious metal theft claim, \$4.0 million favorable legal settlement related to our beryllium pebble facility, and \$2.4 million net gain on the sale of used equipment. Other-net in 2013 also included \$1.4 million of expense related to costs associated with our facility consolidation projects and one-time bank fees of \$0.9 million associated with the renewal of metal consignment facilities.

Operating profit was \$57.0 million, or 9% of value-added sales, in 2014 compared to \$26.8 million, or 4% of value-added sales, in 2013. The higher operating profit in 2014 was due to improved gross margin from our businesses and other one-time gains included in other-net. Operating profit also benefited from lower expense on our domestic defined benefit pension plan and retiree medical plan. The decrease in pension expense from \$13.3 million in 2013 to \$9.4 million in 2014 was primarily due to changes in the discount rate. We recognized \$0.7 million of income related to our retiree medical plan in 2014 as compared to \$1.7 million of expense in 2013 due to a modification of the benefit formula for plan participants designed to lower costs for us and plan participants. Refer to Note I to the Consolidated Financial Statements.

Interest expense - net was \$2.8 million in 2014 and \$3.0 million in 2013. The lower expense in 2014 resulted from lower average outstanding debt levels.

Income tax expense for 2014 and 2013 was \$12.4 million and \$4.1 million, respectively. The effective tax rates for 2014 and 2013 were 23% and 17%, respectively. The effects of percentage depletion (a tax benefit resulting from our mining operations), foreign source income and deductions, the production deduction, the R&D tax credit, discrete events, and other items were major causes of the differences between the effective and statutory rates in 2014 and 2013.

The research and experimentation credit provided a tax benefit of \$0.7 million in 2014 and \$1.8 million in 2013. The difference between years is due to the fact that the 2013 benefit includes amounts related to both 2013 and 2012. The federal government did not extend the benefit of the tax credit for 2012 until January of 2013. U.S. generally accepted accounting principles require us to record tax expense based upon the laws in effect at the end of the year. The effective tax rate in 2013 includes the benefit for 2013 and 2012.

Tax expense included net favorable discrete items totaling \$1.5 million in 2014 and \$1.4 million in 2013. Discrete items included reductions to tax reserves due to the lapse of the statute of limitations and adjustments to the respective prior-year's tax returns in each year.

Refer to Note Q to the Consolidated Financial Statements for a reconciliation of the statutory and effective tax rates.

Net income was \$41.7 million, or \$2.00 per share diluted, in 2014, compared to \$19.7 million, or \$0.94 per share diluted, in 2013.

2013 Compared to 2012

Net sales were \$1.2 billion in 2013, a decline of \$106.2 million, or 8%, from net sales of \$1.3 billion in 2012. The net sales comparisons between years were affected by the pass-through of lower metal prices, the discontinuation of a non-strategic product line, changes in the use of customer-supplied metal, new product development, and changes in market demand. The costs of gold, silver, platinum, palladium and copper are typically passed through to customers and, therefore, movements in the prices of these metals will affect net sales, but may not have a proportionate impact on margins. The average prices for the metals we purchased in 2013 were lower than 2012. The net change in metal prices resulted in an estimated \$92.3 million decrease in net sales in 2013 from 2012 and accounted for the majority of the reduction in net sales for the year.

In addition, as part of our product rationalization actions, we exited the silver investment bar business in 2012. This non-strategic product line generated extremely low margins that could not support the associated level of working capital and overhead. This action resulted in a reduction of net sales of approximately \$9.3 million in 2013 from 2012 with an immaterial impact on value-added sales and profitability.

Value-added sales were \$609.1 million in 2013 compared to \$615.6 million in 2012. Value-added sales to the consumer electronics end market, our largest end market accounting for approximately 27% of our total value-added sales in 2013, were 3% lower in 2013 than in 2012. The decline in value-added sales in 2013 was due to lower shipments of precious metal products offset in part by increased shipments of various products for gaming systems and advanced chemicals for LED applications.

Industrial components end market value-added sales also softened in 2013 as compared to 2012. Value-added sales for certain industrial applications, including x-ray windows, declined in 2013 from 2012 levels. Value-added sales to the industrial components end market accounted for approximately 14% of our total value-added sales in 2013.

Medical end market value-added sales improved in 2013 versus 2012 due to increased sales for blood glucose strip applications. Medical end market value-added sales were 11% of our total value-added sales in 2013.

Energy end market value-added sales grew in 2013 as compared to 2012. The growth in 2013 was largely due to higher value-added sales for oil and gas applications in the second half of the year from improved market conditions as the rig count increased. The energy end market represented 8% of our total value-added sales in 2013.

Value-added sales to the automotive electronics end market grew at a double-digit rate in 2013 over 2012. The growth in 2013 was due to a combination of improved market conditions in the U.S. and Europe, new product development, and other factors. Value-added sales to this end market accounted for 10% of our total value-added sales in 2013.

Value-added sales to the defense end market were lower in 2013 versus 2012. The fall-off resulted from a decline in value-added sales of optics, largely due to government project delays and spending cuts, offset in part by an increase in value-added sales of beryllium materials. Value-added sales to the defense end market accounted for approximately 8% of our total value-added sales in 2013.

Gross margin was \$188.0 million, or 31% of value-added sales, in 2013, as compared to \$198.8 million, or 32% of value-added sales, in 2012. Lower manufacturing and precious metal yields and an unfavorable change in product mix within our precious metal operations accounted for the majority of the gross margin decline in 2013 as a percentage of value-added sales. Manufacturing inefficiencies in our Elmore, Ohio strip manufacturing operations also contributed to the decline. Inefficiencies and inconsistent production output continued from the new beryllium facility in 2013 as it did in 2012, but improvements were made throughout the year. We also made manufacturing improvements at our Lincoln, Rhode Island facility in 2013.

Improved pricing and product mix in portions of our business provided a margin benefit in 2013, while the lower value-added sales volume had a negative impact on margins as compared to 2012. The cost of bertrandite ore was higher and had a negative impact on gross margin in 2013 versus 2012.

The 2013 gross margin was reduced by net quarterly physical inventory adjustments totaling \$2.2 million at the Albuquerque, New Mexico facility within the Advanced Materials segment. The majority of this loss was recorded in the first quarter of 2013. The gross margin in 2012 was also reduced by a net physical inventory adjustment of \$7.4 million recorded in the fourth quarter at the Albuquerque facility. Physical inventories were taken at this facility in the first and second quarters in 2012 that resulted in a combined net short of \$0.2 million.

We believe that a significant portion of the inventory loss at Albuquerque was due to theft. We filed a claim with our insurance company and reached a settlement in the second quarter of 2014 which resulted in the recognition of a \$6.8 million gain in connection with the receipt of insurance proceeds. Shipments to customers were not affected by the physical inventory losses.

During 2013 and 2012, we took steps to consolidate several of our smaller operations, rationalize our product lines, and reduce overhead costs. Specifically:

We shut down our microelectronics packaging business in Massachusetts and transferred the operations to Singapore in order to more effectively serve our customer base in Asia. The relocation and customer qualifications were completed in the third quarter of 2013;

We shut down the precision cleaning facility in the Czech Republic in the fourth quarter 2012. The existing customer base is now serviced from our Irish operations. The Czech operation had been unprofitable;

The majority of the ongoing operations at our optics facility in Buellton, California were transferred to our Westford, Massachusetts operations in the fourth quarter of 2013. Buellton's business had declined due to changes in market conditions, and we had excess capacity. The Buellton operations remained open on a reduced basis to service a key application with one customer. Manpower reductions were also made at the Westford and Shanghai, China facilities in an effort to right-size the optics operations;

The Albuquerque operations were consolidated from four leased facilities into two in the fourth quarter of 2013 in order to improve work flow and manufacturing efficiencies. Portions of the operations were also transferred to our Wheatfield, New York facility; and

Manpower reductions were made in the management group of the Advanced Materials segment in the fourth quarter of 2013 in order to reduce costs and streamline operations.

Costs associated with these actions, including severance, equipment write-offs, equipment relocations, and other related items, totaled \$6.0 million in 2013, with \$1.8 million recorded in cost of sales, \$2.8 million recorded in selling, general, and administrative expense, and \$1.4 million in other-net. Related costs for these actions totaled \$4.8 million

in 2012 with \$1.6 million recorded in cost of sales, \$1.6 million recorded in selling, general, and administrative expense, and \$1.6 million recorded in other-net expense. These actions resulted in a reduction in excess of 200 employees, or approximately 7% of our total workforce.

SG&A expenses totaled \$133.3 million in 2013 and \$133.9 million in 2012, or approximately 22% of value-added sales in both years. The incentive compensation expense on plans that pay in cash was slightly lower in 2013 versus 2012. The changes

in the annual expense between years were caused primarily by the performance of the individual operations relative to plan objectives. Stock-based compensation expense, including the expense for stock appreciation rights, restricted stock, and performance restricted shares, was \$5.7 million in 2013 and \$5.9 million in 2012. The comparison of stock-based compensation expense between years may be affected by changes in plan design, the number of grants in a given year, actual performance relative to the plan objectives, movement in our stock price, forfeitures, vesting schedules, and other factors.

Various corporate costs increased in 2013 over 2012. A portion of the higher costs was due to various initiatives, including a new centralized procurement function, that are designed to produce long-term savings and improve profitability across the organization. Other costs increased in 2013, including administration, legal, information technology, and business development, in order to support a more diverse organization. Corporate costs also included legal and investigation expenses associated with the Albuquerque inventory loss and the related insurance claim totaling \$1.3 million in 2013.

SG&A savings in 2013 from the plant consolidations and related efforts totaled an estimated \$2.9 million.

R&D expenses were \$13.4 million in 2013, a 7% increase from the expense of \$12.5 million in 2012. R&D expenses were 2% of value-added sales for 2013 and 2012. Our R&D staff works closely with production engineers, sales engineers, and marketing to support the development of new products and applications as well as to make improvements in the current product portfolio.

Other - net totaled \$14.5 million of expense in 2013 and \$15.6 million of expense in 2012. Refer to Note N to the Consolidated Financial Statements for the details of the major components of other-net. In addition to the previously discussed charges recorded in conjunction with the plant consolidation efforts, the major differences in other-net between the years include the following:

- The metal consignment fee was \$1.8 million lower in 2013 than in 2012, mainly due to differences in the rate charged by the financial institutions and the value of the metal on hand;

- There were one-time bank fees of \$0.9 million in 2013 associated with the renewal of the metal consignment facilities; and

- The net foreign currency exchange gains totaled \$1.5 million in both 2013 and 2012. The gains and losses result from movements in the value of the U.S. dollar versus other currencies, primarily the euro and yen, and the related impact on certain foreign currency denominated assets, liabilities, and transactions and the maturity of foreign currency hedge contracts.

Operating profit was \$26.8 million (4% of value-added sales) in 2013 compared to \$36.8 million (6% of value-added sales) in 2012. The lower profit in 2013 was largely due to the decline in gross margin as a result of manufacturing inefficiencies and other operating factors. In addition, the annual expense on the domestic defined benefit pension plan was \$13.3 million in 2013 and \$9.8 million in 2012. The increase in pension expense was due to changes in the discount rate, the performance of plan assets, and other factors and affected cost of sales, selling, general, and administrative expenses and, to a lesser extent, research and development expenses. Refer to Note I to the Consolidated Financial Statements.

Interest expense - net was \$3.0 million in 2013 and \$3.1 million in 2012. The lower expense in 2013 resulted from lower average outstanding debt levels offset in part by a higher average borrowing rate.

Income tax expense was \$4.1 million for 2013 and \$9.0 million for 2012, respectively. The effective tax rates for 2013 and 2012 were 17% and 27%, respectively. The effects of percentage depletion (a tax benefit resulting from our mining operations), foreign source income and deductions, the production deduction, discrete events, and other items were major causes of the differences between the effective and statutory rates in 2013 and 2012.

The research and experimentation credit provided a tax benefit in 2011, but this credit was not extended by the federal government for 2012 until January 2013. U.S. generally accepted accounting principles require us to record tax expense based upon the laws in effect at the end of the year and even though the research and experimentation credit was used to determine our actual liability on our 2012 tax return, the 2012 benefit of this credit was not recorded in our Consolidated Statement of Income until 2013. The effective tax rate in 2013 also includes the benefit of this credit for 2013 activity.

Tax expense included net favorable discrete items totaling \$1.4 million in 2013 and \$0.3 million in 2012. Discrete items included reductions to tax reserves due to the lapse of the statute of limitations and adjustments to the respective prior year's tax returns in each year. Discrete items in 2013 also included the favorable impact from filing an amended return for a prior period, while 2012 discrete items included the impact of a change in Japanese tax rates on the carrying value of certain deferred tax assets.

Refer to Note Q to the Consolidated Financial Statements for a reconciliation of the statutory and effective tax rates. Net income was \$19.7 million, or \$0.94 per share diluted, in 2013, compared to \$24.7 million, or \$1.19 per share diluted, in 2012.

Segment Disclosures

As further described in Item 1 and Note M to the Consolidated Financial Statements, the Company changed its operating segments in the fourth quarter of 2014 to more appropriately focus our resources to drive new product development and growth across our diversified customer base. The Company now consists of three reportable segments: Performance Alloys and Composites, Advanced Materials, and Other. The Other reportable segment includes the results of our Precision Optics and Large Area Coatings operating segments, which do not meet the quantitative thresholds for separate disclosure and are collectively referred to as our Precision Coatings group. The Other reportable segment also includes unallocated corporate costs. The Company also changed its methodology for allocating certain general corporate and shared services expenses. The Company reclassified a portion of these expenses from its operating segments to corporate to better align with our management of these costs.

Performance Alloys and Composites

(Millions)	2014	2013	2012
Net sales	\$433.3	\$422.9	\$424.4
Value-added sales	358.5	339.9	337.0
Operating profit	33.3	30.8	29.3

2014 Compared to 2013

Net sales from the Performance Alloys and Composites segment of \$433.3 million in 2014 were 2% higher than net sales of \$422.9 million in 2013. Net sales were higher due to improved product mix and an increase in sales volume, partially offset by lower copper prices on average in 2014 as compared to 2013, which lowered metal pass-through prices by an estimated \$3.1 million.

Value-added sales of \$358.5 million in 2014 were 5% higher than value-added sales of \$339.9 million in 2013. The increase in value-added sales was primarily driven by improved product mix and higher value-added sales into the medical and energy end markets, partially offset by lower value-added sales to the defense end market. Shipments of ToughMet products in 2014 increased 19% as compared to 2013.

Value-added sales to the energy end market, which accounted for 12% of Performance Alloys and Composites total value-added sales in 2014, increased 12% in 2014 as compared to 2013. The increase in energy end market value-added sales was due to higher sales to the oil and gas industry.

Value-added sales to the medical end market, which accounted for 5% of Performance Alloys and Composites total value-added sales in 2014, increased 77% in 2014 as compared to 2013. The increase in medical end market value-added sales was due primarily to higher sales for nuclear medicine applications and the growth of oncology and imaging in emerging markets.

Defense end market sales, which accounted for 6% of total value-added sales in 2014, decreased 22% versus 2013.

There was a decline in value-added sales largely due to government project delays and spending cuts.

Performance Alloys and Composites generated a gross margin of \$100.9 million in 2014, or 28% of value-added sales, as compared to \$94.8 million in 2013, or 28% of value added sales. The \$6.1 million increase in gross margin in 2014 compared to 2013 resulted from higher sales volume, and improvements in manufacturing efficiencies.

Production of beryllium pebbles increased 18% in 2014 as compared to 2013.

SG&A, R&D, and other-net expenses were \$54.5 million in 2014, an increase of 4% from the expense total of \$52.1 million in 2013. The increase was due primarily to higher R&D expense tied to new product development efforts.

Performance Alloys and Composites generated operating profit of \$33.3 million, or 9% of value-added sales, in 2014 as compared to \$30.8 million, or 9% of value-added sales, in 2013 due to the reasons mentioned above.

2013 Compared to 2012

Net sales from the Performance Alloys and Composites segment in 2013 of \$422.9 million were relatively flat as compared to net sales of \$424.4 million in 2012. Net sales reflect a \$3.0 million decrease related to declining metal market pricing, partially offset by volume growth and improvements in product mix.

Value-added sales of \$339.9 million in 2013 were 1% higher than value-added sales of \$337.0 million in 2012. The increase in value-added sales was primarily driven by higher sales to the automotive electronics end market, partially offset by a decline in sales to the consumer electronics end market. Value-added sales to the automotive electronics market grew as a result of improved market conditions both domestically and internationally and the development of new applications. The decline in value-added sales to the consumer electronics market was largely due to changes in technologies and the phase out of the current design of a disk drive arm application.

Performance Alloys and Composites generated a gross margin of \$94.8 million in 2013, or 28% of value-added sales, as compared to \$95.5 million in 2012, or 28% of value-added sales. The \$0.7 million reduction in gross margin in 2013 compared to 2012 resulted in part from lower yields and manufacturing performance that affected strip production at our Elmore, Ohio facility. Performance had stabilized by year-end 2013 and yields returned to historical levels by the end of the first quarter 2014. Gross margin was also negatively affected in 2013 by an increase of approximately \$0.8 million in the bertrandite ore cost in 2013 over 2012 due to the higher cost to remove the overburden during the construction of our most recent open pit mine.

The impact of the above items on gross margins was partially offset by pricing improvements and favorable product mix, as well as improved yields and efficiencies in our beryllium pebble facility in Elmore, Ohio.

Progress was made with the beryllium pebble plant at our Elmore, Ohio facility during 2013. This operation is designed to produce pure beryllium metal from beryllium hydroxide that is mined by our Utah operations allowing us to significantly reduce our dependency upon external sources for pure beryllium metal. In prior periods, manufacturing inefficiencies, start-up and maintenance costs, and inconsistent production levels resulted in disruptions to the material flow and lower gross margins. A number of these issues continued into 2013, but manufacturing efficiencies improved and the productive output increased sequentially each quarter during the year. While the plant did not operate for the full year at the designed level of output and cost, it operated at a level during the fourth quarter of 2013 that was sufficient to satisfy 2014 demand.

SG&A, R&D, and other-net expenses were \$52.1 million in 2013, a decrease of 4% from the expense total of \$54.5 million in 2012. The decrease was due to a reduction in incentive compensation expense, differences in currency exchange gains and losses, and lower selling expenses. The decrease was partially offset by increased spending on R&D projects, including bulk metallic glass, amorphous metals, and investment casting technology projects.

Performance Alloys and Composites generated operating profit of \$30.8 million, or 9% of value-added sales, in 2013 as compared to \$29.3 million, or 9% of value-added sales, in 2012 due to the reasons mentioned above.

Advanced Materials

(Millions)	2014	2013	2012
Net sales	\$547.3	\$592.0	\$694.8
Value-added sales	181.0	168.6	172.1
Operating profit	32.7	8.4	21.8

2014 Compared to 2013

Net sales from the Advanced Materials segment of \$547.3 million in 2014 were 8% lower than net sales of \$592.0 million in 2013. Metal prices on average were lower in 2014 than 2013, and we estimate that lower pass-through metal prices reduced net sales by \$51.4 million in 2014.

Value-added sales of \$181.0 million were 7% higher than value-added sales of \$168.6 million in 2013, which partially offset lower pass-through metal prices. The increase in value-added sales was primarily driven by higher value-added sales to the consumer electronics end market and increased volumes into the semiconductor industry and related precious metal cleaning services.

Value-added sales to the consumer electronics end market, which represents the largest end market segment for Advanced Materials and accounted for 48% of total segment value-added sales in 2014, increased 11% in 2014 as compared to 2013. The increase in consumer electronics end market value-added sales in 2014 as compared to 2013 was due to higher volume of our products used in hand-held devices.

Value-added sales to the services end market, which accounted for 16% of Advanced Materials total value-added sales in 2014, increased 11% in 2014 as compared to 2013. The increase in services end market value-added sales was due in part to higher refine and chamber cleaning volume tied directly to the increased shipments into the semiconductor end market.

Advanced Materials generated a gross margin of \$73.6 million in 2014, or 41% of value-added sales, as compared to \$60.1 million in 2013, or 36% of value-added sales. The \$13.5 million increase in gross margin in 2014 compared to 2013 resulted from higher value-added sales volumes, improvement in manufacturing yields in our precious metal operations, and manufacturing efficiencies resulting from facility consolidation and manufacturing rationalization efforts completed in late 2013. Manufacturing cost savings realized in 2014 related to the 2013 restructuring actions totaled \$3.7 million.

SG&A, R&D, and other-net expenses were \$34.9 million in 2014, a decrease of 24% from the expense total of \$46.2 million in 2013. SG&A expense in 2014 included a benefit of approximately \$3.6 million related to savings associated with restructuring actions. Other-net for 2014 was positively impacted by a \$6.8 million favorable insurance settlement. The results for 2013 also included an unfavorable net impact of \$1.3 million related to charges recorded for plant consolidation costs, offset by rationalization savings related to the program.

Advanced Materials generated operating profit of \$32.7 million, or 18% of value-added sales, in 2014 as compared to \$8.4 million, or 5% of value-added sales, in 2013 due to the aforementioned reasons, including total restructuring savings of \$7.3 million.

2013 Compared to 2012

Net sales from the Advanced Materials segment in 2013 of \$592.0 million were \$102.8 million, or 15%, lower than net sales of \$694.8 million in 2012.

Metal prices on average were lower in 2013 than 2012, and we estimate that the lower metal price pass-through accounted for approximately \$83.0 million of the decline in net sales in 2013.

Value-added sales of \$168.6 million in 2013 were 2% lower than value-added sales of \$172.1 million in 2012.

Value-added sales to the consumer electronics end market decreased in 2013 from 2012. Consumer electronics represents this segment's largest end market, accounting for 47% of total value-added sales in 2013.

Value-added sales of precious metal products into the consumer electronics end market were down slightly in 2013 compared to 2012, primarily for LED, data storage, and semiconductor applications. The decline in precious metal value-added sales to the consumer electronics market was partially offset by increased sales of advanced chemicals in 2013. Value-added sales of our advanced chemicals for LEDs increased in 2013 over 2012 due to changes in technology and product development activities.

Refine and chamber cleaning value-added sales declined slightly in 2013 from 2012 partially as a result of the lower precious metal prices reducing the value of the metal that we retained as part of the standard pricing arrangements with our refine customers.

Advanced Materials generated a gross margin of \$60.1 million in 2013 and \$71.9 million in 2012. Expressed as a percentage of value-added sales, gross margin was 36% in 2013 and 42% of value-added sales in 2012. The \$11.8 million decline in gross margins in 2013 from 2012 was due in part to lower value-added sales in 2013. The decline in gross margin in 2013 was also caused in part by physical inventory losses and lower manufacturing yields in our precious metal operations, including the refining and shield kit cleaning operations. The change in product mix was unfavorable in 2013 compared to 2012 and also contributed to the lower gross margin dollars.

SG&A, R&D, and other-net expenses were \$46.2 million in 2013 compared to \$44.8 million in 2012. The increase is due to higher incentive compensation expense and higher SG&A due to various projects, inflation, and other factors. Expense totals included \$4.2 million of plant consolidation costs in 2013 and \$3.2 million in 2012 and the resulting savings of \$2.9 million in 2013.

Advanced Materials generated operating profit of \$8.4 million, or 5% of value-added sales, in 2013 versus \$21.8 million, or 13% of value-added sales, in 2012 due to the factors mentioned previously.

Other

(Millions)	2014	2013	2012
Net sales	\$146.3	\$152.0	\$153.9
Value-added sales	97.6	100.6	106.5
Operating loss	(9.0) (12.4) (14.3

2014 Compared to 2013

The Other reportable segment in total includes the operating results of the Precision Coatings group and unallocated corporate costs.

Net sales for the Other reportable segment totaled \$146.3 million in 2014 and \$152.0 million in 2013. Including unallocated corporate costs, the Other reportable segment had an operating loss of \$9.0 million in 2014 compared to an operating loss of \$12.4 million in 2013.

Within the Other reportable segment, net sales for the Precision Coatings group were \$147.7 million in 2014 as compared to \$152.3 million in 2013, and value-added sales were \$102.4 million in 2014 versus \$104.2 million in 2013. The slight decrease in value-added sales was primarily driven by lower sales to the defense end market, partially offset by higher sales to the consumer electronics and medical end markets. Lower sales to the defense end market were due to a reduction in sales of optics as a result of government spending patterns and cutbacks. Consumer electronics sales were up due to higher sales in projector display product applications. Medical end market sales were up slightly due to an increase in shipments for life science applications.

Gross margin for the Precision Coatings group included within the Other reportable segment was \$33.3 million, or 33% of value-added sales, in 2014 versus gross margin of \$33.5 million, or 32% of value-added sales, in 2013.

Despite slightly lower value-added sales, gross margin as a percentage of value-added sales improved slightly due to a reduction in manufacturing costs related to the closure of our Buellton, California facility and manpower reductions at our Westford, Massachusetts and Shanghai, China facilities in an effort to right-size our optic operations.

SG&A, R&D, and other-net expenses for the Precision Coatings group within the Other reportable segment were \$21.7 million in 2014 compared to \$27.0 million in 2013. The reduction in expense is due to restructuring savings in 2014 and other factors.

Within the Other reportable segment, the Precision Coatings group reported an operating profit of \$9.3 million, or 9% of value-added sales, in 2014 versus \$4.2 million, or 4% of value-added sales, in 2013 based on the aforementioned factors.

The Other reportable segment also contains unallocated corporate costs. Corporate costs of \$18.3 million in 2014 increased \$1.7 million as compared to \$16.6 million in 2013. The increase in corporate costs was due primarily to an increase in incentive compensation expense as a result of improved financial performance.

2013 Compared to 2012

The Other reportable segment in total includes the operating results of the Precision Coatings group and unallocated corporate costs.

Net sales for the Other reportable segment totaled \$152.0 million in 2013 and \$153.9 million in 2012. Including unallocated corporate costs, the Other reportable segment had an operating loss of \$12.4 million in 2013 versus an operating loss of \$14.3 million in 2012.

Within the Other reportable segment, net sales for the Precision Coatings group were \$152.3 million in 2013 as compared to \$153.0 million in 2012, and value-added sales were \$104.2 million in 2013 versus \$106.4 million in 2012. The decrease in value-added sales was primarily driven by lower sales to the defense end market, combined with smaller decreases in other end markets, partially offset by higher sales to the medical end market. Lower sales to the defense end market were due to a reduction in sales of optics as a result of government spending patterns and cutbacks. Medical end market sales were up due to an increase in sales of precision precious metal-coated polymer films for blood glucose test strip applications.

Gross margin for the Precision Coatings group included within the Other reportable segment was \$33.5 million, or 32% of value-added sales, in 2013 and \$32.5 million, or 31% of value-added sales, in 2012.

SG&A, R&D, and other-net expenses for the Precision Coatings group within the Other reportable segment were \$27.0 million in 2013 compared to \$28.7 million in 2012.

Within the Other reportable segment, the Precision Coatings group reported an operating profit of \$4.2 million, or 4% of value-added sales, in 2013 versus \$1.8 million, or 2% of value-added sales, in 2012 based on the aforementioned factors.

The Other reportable segment also contains unallocated corporate costs. Corporate costs of \$16.6 million in 2013 were relatively comparable to \$16.1 million in 2012.

International Sales and Operations

We operate in worldwide markets and our international customer base continues to expand geographically. In Asia, we have strategically located our facilities in Japan, Singapore, China, Korea, Taiwan, and the Philippines, while our European facilities are in Germany, the United Kingdom, and Ireland.

Our international operations provide a combination of manufacturing, finishing operations, local sales support, and distribution services and are designed to provide a cost-effective method of capturing the growing overseas demand for our products over the long term. We also augment our sales and distribution efforts with an established network of independent distributors and agents throughout the world.

The following table summarizes total international sales by region for the last three years:

(Millions)	2014	2013	2012
Asia	\$238.7	\$196.0	\$217.4
Europe	136.6		