

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2023

OR

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

For the transition period from _____ to

Commission File Number: 1-2116

ARMSTRONG WORLD INDUSTRIES, INC.

(Exact Name of Registrant as Specified in its Charter)

Pennsylvania

(State or other jurisdiction of
incorporation or organization)

2500 Columbia Avenue, Lancaster, Pennsylvania

(Address of principal executive offices)

23-0366390

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

17603

(Zip Code)

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

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

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

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

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

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

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

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

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

Number of shares of Armstrong World Industries, Inc.'s common stock outstanding as of October 19, 2023 – 44,180,285.

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

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

Risks Related to Our Operations

- changes in key customer relationships;
- availability and costs of manufacturing inputs or sourced products;
- financial contribution of Worthington Armstrong Venture (“WAVE”), our joint venture with Worthington Industries, Inc;
- labor;
- cost savings and productivity initiatives;
- progress towards environmental, social and governance (“ESG”) and sustainability objectives and related compliance;

Risks Related to Our Strategy

- implementation of digitalization initiatives and product innovation;
- identification, completion and successful integration of strategic transactions;

Risks Related to Financial Matters

- unanticipated negative tax consequences;
- our indebtedness;
- our liquidity;
- covenants in our debt agreements;
- defined benefit plan obligations;

Risks Related to Legal and Regulatory Matters

- environmental liability exposure;
- claims and litigation;
- effectiveness of intellectual property rights protection;
- international operations;

Risks Related to General Economic and Other Factors

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

- information technology disruptions and cybersecurity breaches;
- dependence on third-party vendors and suppliers;
- geographic concentration;
- ability to make dividend payments and stock repurchases;
- public health epidemics or pandemics (like COVID-19); and
- other risks detailed from time to time in our filings with the Securities and Exchange Commission (the “SEC”), press releases and other communications, including those set forth under “Risk Factors” included in our Annual Report on Form 10-K for the year ended December 31, 2022.

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

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net sales	\$ 347.3	\$ 325.0	\$ 982.9	\$ 928.6
Cost of goods sold	205.9	207.5	605.4	591.0
Gross profit	141.4	117.5	377.5	337.6
Selling, general and administrative expenses	64.6	59.3	189.2	177.9
Loss related to change in fair value of contingent consideration	-	7.1	-	13.3
Equity (earnings) from joint venture	(23.4)	(22.2)	(69.1)	(61.7)
Operating income	100.2	73.3	257.4	208.1
Interest expense	8.8	7.0	26.7	17.9
Other non-operating (income), net	(2.3)	(1.4)	(6.9)	(4.1)
Earnings from continuing operations before income taxes	93.7	67.7	237.6	194.3
Income tax expense	24.2	13.2	60.6	43.2
Earnings from continuing operations	69.5	54.5	177.0	151.1
Earnings from disposal of discontinued businesses, net of tax (benefit) of \$-, (\$3.0), \$- and (\$3.0)	-	3.0	-	3.0
Net earnings from discontinued operations	-	3.0	-	3.0
Net earnings	\$ 69.5	\$ 57.5	\$ 177.0	\$ 154.1
Other comprehensive (loss) income, net of tax:				
Foreign currency translation adjustments	(0.5)	(2.1)	0.1	(2.3)
Derivative (loss) gain, net	(1.9)	4.9	(4.3)	18.5
Pension and postretirement adjustments	(0.2)	0.2	(0.1)	0.9
Total other comprehensive (loss) income	(2.6)	3.0	(4.3)	17.1
Total comprehensive income	\$ 66.9	\$ 60.5	\$ 172.7	\$ 171.2
Earnings per share of common stock, continuing operations:				
Basic	\$ 1.56	\$ 1.18	\$ 3.93	\$ 3.24
Diluted	\$ 1.56	\$ 1.18	\$ 3.93	\$ 3.23
Earnings per share of common stock, discontinued operations:				
Basic	\$ -	\$ 0.07	\$ -	\$ 0.06
Diluted	\$ -	\$ 0.07	\$ -	\$ 0.06
Net earnings per share of common stock:				
Basic	\$ 1.56	\$ 1.25	\$ 3.93	\$ 3.30
Diluted	\$ 1.56	\$ 1.25	\$ 3.93	\$ 3.29
Average number of common shares outstanding:				
Basic	44.5	46.1	45.0	46.6
Diluted	44.6	46.1	45.0	46.7

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 9.

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

<u>Assets</u>	Unaudited September 30, 2023	December 31, 2022
Current assets:		
Cash and cash equivalents	\$ 96.6	\$ 106.0
Accounts and notes receivable, net	116.7	112.4
Inventories, net	107.2	110.0
Income taxes receivable	2.0	1.8
Other current assets	27.6	26.3
Total current assets	350.1	356.5
Property, plant, and equipment, less accumulated depreciation and amortization of \$588.4 and \$549.5, respectively	559.1	554.4
Operating lease assets	27.9	18.8
Finance lease assets	26.1	16.0
Prepaid pension costs	88.3	83.2
Investment in joint venture	21.2	23.9
Goodwill	174.8	167.3
Intangible assets, net	413.8	407.7
Other non-current assets	52.5	59.4
Total assets	\$ 1,713.8	\$ 1,687.2
<u>Liabilities and Shareholders' Equity</u>		
Current liabilities:		
Current installments of long-term debt	\$ 16.9	\$ -
Accounts payable and accrued expenses	150.3	172.5
Operating lease liabilities	7.1	5.9
Finance lease liabilities	3.1	2.2
Income taxes payable	8.4	2.1
Total current liabilities	185.8	182.7
Long-term debt, less current installments	604.8	651.1
Operating lease liabilities	21.4	13.2
Finance lease liabilities	24.1	14.6
Postretirement benefit liabilities	52.8	54.8
Pension benefit liabilities	26.5	27.6
Other long-term liabilities	28.4	25.8
Income taxes payable	14.5	13.1
Deferred income taxes	170.0	169.3
Total non-current liabilities	942.5	969.5
Shareholders' equity:		
Common stock, \$0.01 par value per share, 200 million shares authorized, 63,014,515 shares issued and 44,304,517 shares outstanding as of September 30, 2023 and 62,936,820 shares issued and 45,572,185 shares outstanding as of December 31, 2022	0.6	0.6
Capital in excess of par value	584.1	573.6
Retained earnings	1,312.2	1,169.9
Treasury stock, at cost, 18,709,998 shares as of September 30, 2023 and 17,364,635 shares as of December 31, 2022	(1,207.0)	(1,109.0)
Accumulated other comprehensive loss	(104.4)	(100.1)
Total shareholders' equity	585.5	535.0
Total liabilities and shareholders' equity	\$ 1,713.8	\$ 1,687.2

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 9.

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

Three Months Ended September 30, 2023

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
June 30, 2023	44,823,285	\$ 0.6	\$ 580.4	\$ 1,254.1	18,175,262	(1,166.6)	\$ (101.8)	\$ 566.7
Stock issuance, net	15,968	-	-	-	-	-	-	-
Cash dividends - \$0.254 per common share	-	-	-	(11.4)	-	-	-	(11.4)
Share-based employee compensation	-	-	3.7	-	-	-	-	3.7
Net earnings	-	-	-	69.5	-	-	-	69.5
Other comprehensive loss	-	-	-	-	-	-	(2.6)	(2.6)
Acquisition of treasury stock	(534,736)	-	-	-	534,736	(40.4)	-	(40.4)
September 30, 2023	<u>44,304,517</u>	<u>\$ 0.6</u>	<u>\$ 584.1</u>	<u>\$ 1,312.2</u>	<u>18,709,998</u>	<u>\$ (1,207.0)</u>	<u>\$ (104.4)</u>	<u>\$ 585.5</u>

Nine Months Ended September 30, 2023

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
December 31, 2022	45,572,185	\$ 0.6	\$ 573.6	\$ 1,169.9	17,364,635	(1,109.0)	\$ (100.1)	\$ 535.0
Stock issuance, net	77,713	-	-	-	(18)	-	-	-
Cash dividends - \$0.762 per common share	-	-	-	(34.7)	-	-	-	(34.7)
Share-based employee compensation	-	-	10.5	-	-	-	-	10.5
Net earnings	-	-	-	177.0	-	-	-	177.0
Other comprehensive loss	-	-	-	-	-	-	(4.3)	(4.3)
Acquisition of treasury stock	(1,345,381)	-	-	-	1,345,381	(98.0)	-	(98.0)
September 30, 2023	<u>44,304,517</u>	<u>\$ 0.6</u>	<u>\$ 584.1</u>	<u>\$ 1,312.2</u>	<u>18,709,998</u>	<u>\$ (1,207.0)</u>	<u>\$ (104.4)</u>	<u>\$ 585.5</u>

Three Months Ended September 30, 2022

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
June 30, 2022	46,462,821	\$ 0.6	\$ 565.7	\$ 1,086.0	16,413,011	(1,029.0)	\$ (95.5)	\$ 527.8
Stock issuance, net	5,813	-	-	-	-	-	-	-
Cash dividends - \$0.231 per common share	-	-	-	(10.7)	-	-	-	(10.7)
Share-based employee compensation	-	-	3.6	-	-	-	-	3.6
Net earnings	-	-	-	57.5	-	-	-	57.5
Other comprehensive income	-	-	-	-	-	-	3.0	3.0
Acquisition of treasury stock	(696,795)	-	-	-	696,795	(60.0)	-	(60.0)
September 30, 2022	<u>45,771,839</u>	<u>\$ 0.6</u>	<u>\$ 569.3</u>	<u>\$ 1,132.8</u>	<u>17,109,806</u>	<u>\$ (1,089.0)</u>	<u>\$ (92.5)</u>	<u>\$ 521.2</u>

Nine Months Ended September 30, 2022

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
December 31, 2021	47,302,299	\$ 0.6	\$ 561.3	\$ 1,011.4	15,472,856	(944.0)	\$ (109.6)	\$ 519.7
Stock issuance, net	106,490	-	-	-	-	-	-	-
Cash dividends - \$0.693 per common share	-	-	-	(32.7)	-	-	-	(32.7)
Share-based employee compensation	-	-	8.0	-	-	-	-	8.0
Net earnings	-	-	-	154.1	-	-	-	154.1
Other comprehensive income	-	-	-	-	-	-	17.1	17.1
Acquisition of treasury stock	(1,636,950)	-	-	-	1,636,950	(145.0)	-	(145.0)
September 30, 2022	<u>45,771,839</u>	<u>\$ 0.6</u>	<u>\$ 569.3</u>	<u>\$ 1,132.8</u>	<u>17,109,806</u>	<u>\$ (1,089.0)</u>	<u>\$ (92.5)</u>	<u>\$ 521.2</u>

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 9.

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

	Nine Months Ended September 30,	
	2023	2022
Cash flows from operating activities:		
Net earnings	\$ 177.0	\$ 154.1
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	65.8	63.5
Deferred income taxes	2.1	1.5
Share-based compensation	12.0	10.9
Equity earnings from joint venture	(69.1)	(61.7)
Loss from change in fair value of contingent consideration	-	13.3
Payments of contingent consideration in excess of acquisition-date fair value	(5.0)	(1.9)
Other non-cash adjustments, net	(0.4)	0.1
Changes in operating assets and liabilities:		
Receivables	(8.8)	(18.9)
Inventories	2.8	(25.1)
Accounts payable and accrued expenses	1.1	4.2
Income taxes receivable and payable, net	7.5	(13.5)
Other assets and liabilities	(8.6)	(7.3)
Net cash provided by operating activities	176.4	119.2
Cash flows from investing activities:		
Purchases of property, plant and equipment	(60.1)	(46.5)
Cash paid for acquisition of co-ownership interest in software-related intellectual property	(10.0)	-
Cash paid for acquisitions	(13.8)	-
Return of investment from joint venture	72.4	54.1
Other investing activities	0.9	0.5
Net cash (used for) provided by investing activities	(10.6)	8.1
Cash flows from financing activities:		
Proceeds from revolving credit facility	30.0	130.0
Payments of revolving credit facility	(60.0)	(60.0)
Payments of long-term debt	-	(18.7)
Payments for finance leases	(2.0)	(1.7)
Dividends paid	(34.4)	(32.6)
Payments from share-based compensation plans, net of tax	(1.5)	(2.9)
Payments of acquisition-related contingent consideration	(10.2)	(6.7)
Payments for treasury stock acquired	(97.0)	(145.0)
Net cash (used for) financing activities	(175.1)	(137.6)
Effect of exchange rate changes on cash and cash equivalents	(0.1)	(1.0)
Net (decrease) in cash and cash equivalents	(9.4)	(11.3)
Cash and cash equivalents at beginning of year	106.0	98.1
Cash and cash equivalents at end of period	\$ 96.6	\$ 86.8
Supplemental Cash Flow Disclosures:		
Interest paid	\$ 25.9	\$ 17.0
Income tax payments, net	50.9	52.3
Amounts in accounts payable for capital expenditures	0.6	1.2

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 9.

Armstrong World Industries, Inc., and Subsidiaries
Notes to Condensed Consolidated Financial Statements (unaudited)
(dollar amounts in millions, except share data)

NOTE 1. BUSINESS AND BASIS OF PRESENTATION

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

Except as disclosed in this note, the accounting policies used in preparing the Condensed Consolidated Financial Statements in this Form 10-Q are the same as those used in preparing the Consolidated Financial Statements for the year ended December 31, 2022. These statements should therefore be read in conjunction with the Consolidated Financial Statements and notes that are included in the Annual Report on Form 10-K for the fiscal year ended December 31, 2022. In the opinion of management, all adjustments of a normal recurring nature have been included to provide a fair statement of the results for the reporting periods presented. Operating results for the third quarter and first nine months of 2023 and 2022 included in this report are unaudited. Quarterly results are not necessarily indicative of annual earnings, primarily due to the different level of sales in each quarter of the year and the possibility of changes in general economic conditions.

These Condensed Consolidated Financial Statements are prepared in accordance with U.S. generally accepted accounting principles (“U.S. GAAP”). The statements include management estimates and judgments, where appropriate. Management utilizes estimates to record many items, including certain asset values, contingent purchase price liabilities, allowances for bad debts, inventory obsolescence and lower of cost and net realizable value charges, warranty reserves, workers’ compensation, general liability and environmental claims, and income taxes. When preparing an estimate, management determines the amount based upon the consideration of relevant information and may confer with outside parties, including external counsel. Actual results may differ from these estimates.

Certain prior year amounts have been reclassified in the Condensed Consolidated Financial Statements to conform to the 2023 presentation.

Acquisitions

In July 2023, we acquired all of the issued and outstanding stock of BOK Modern, LLC (“BOK”), based in San Rafael, California. BOK is a designer of metal facade architectural solutions.

In November 2022, we acquired the business and assets of GC Products, Inc. (“GC Products”), based in Lincoln, CA. GC Products is a designer and manufacturer of glass-reinforced-gypsum, glass-reinforced-cement, molded ceiling and specialty wall products with one manufacturing facility.

The operations, assets and liabilities of these acquisitions are included in our Architectural Specialties segment. See Note 4 for further information on our recent acquisitions.

NOTE 2. SEGMENT RESULTS

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net sales				
Mineral Fiber	\$ 249.7	\$ 233.7	\$ 712.1	\$ 671.4
Architectural Specialties	97.6	91.3	270.8	257.2
Total net sales	<u>\$ 347.3</u>	<u>\$ 325.0</u>	<u>\$ 982.9</u>	<u>\$ 928.6</u>

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Segment operating income (loss)				
Mineral Fiber	\$ 85.5	\$ 70.8	\$ 224.8	\$ 199.8
Architectural Specialties	15.5	3.4	34.9	11.0
Unallocated Corporate	(0.8)	(0.9)	(2.3)	(2.7)
Total consolidated operating income	<u>\$ 100.2</u>	<u>\$ 73.3</u>	<u>\$ 257.4</u>	<u>\$ 208.1</u>

Armstrong World Industries, Inc., and Subsidiaries
Notes to Condensed Consolidated Financial Statements (unaudited)
(dollar amounts in millions, except share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Total consolidated operating income	\$ 100.2	\$ 73.3	\$ 257.4	\$ 208.1
Interest expense	8.8	7.0	26.7	17.9
Other non-operating (income), net	(2.3)	(1.4)	(6.9)	(4.1)
Earnings before income taxes	<u>\$ 93.7</u>	<u>\$ 67.7</u>	<u>\$ 237.6</u>	<u>\$ 194.3</u>

	September 30, 2023	December 31, 2022
<u>Segment assets</u>		
Mineral Fiber	\$ 1,107.9	\$ 1,096.9
Architectural Specialties	412.6	387.5
Unallocated Corporate	193.3	202.8
Total consolidated assets	<u>\$ 1,713.8</u>	<u>\$ 1,687.2</u>

NOTE 3. REVENUE

Disaggregation of Revenues

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

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

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

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

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

The following tables provide net sales by major customer channel within our Mineral Fiber and Architectural Specialties segments for the three and nine months ended September 30, 2023 and 2022:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
<u>Mineral Fiber</u>				
Distributors	\$ 182.0	\$ 173.8	\$ 516.4	\$ 495.0
Home centers	25.5	24.0	80.0	75.6
Direct customers	15.7	16.1	45.6	46.6
Other	26.5	19.8	70.1	54.2
Total	<u>\$ 249.7</u>	<u>\$ 233.7</u>	<u>\$ 712.1</u>	<u>\$ 671.4</u>

Armstrong World Industries, Inc., and Subsidiaries
Notes to Condensed Consolidated Financial Statements (unaudited)
(dollar amounts in millions, except share data)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
<u>Architectural Specialties</u>	2023	2022	2023	2022
Distributors	\$ 57.4	\$ 44.7	\$ 142.5	\$ 129.4
Direct customers	36.4	45.3	122.8	125.0
Other	3.8	1.3	5.5	2.8
Total	<u>\$ 97.6</u>	<u>\$ 91.3</u>	<u>\$ 270.8</u>	<u>\$ 257.2</u>

NOTE 4. ACQUISITIONS

We account for acquisitions under the acquisition method and the results of operations of acquired operations are included in the Condensed Consolidated Financial Statements from the acquisition date. Acquisition related costs are expensed as incurred. We allocate total consideration to the assets acquired and liabilities assumed based on their estimated fair values, with the remaining unallocated amount recorded as goodwill. The fair value of acquired intangible assets is estimated by applying discounted cash flow models based on significant level 3 inputs not observable in the market. Key assumptions are developed based on each acquiree's historical experience, future projections and comparable market data including future cash flows, long-term growth rates, implied royalty rates, attrition rates and discount rates. Acquisition-related contingent consideration that is classified as a liability is measured at fair value at the acquisition date. The fair value of contingent consideration will be remeasured at each reporting period, and any future changes in the fair value of contingent consideration recorded in reporting periods after the acquisition date are recorded within change in fair value of contingent consideration on our Condensed Consolidated Statements of Earnings and Comprehensive Income.

BOK

On July 17, 2023, we acquired all of the issued and outstanding stock of BOK for a purchase price of \$13.8 million and additional contingent consideration payable upon the achievement of certain future performance obligations in 2024 and 2025 not to exceed \$3.3 million. We, with the assistance of an independent, third-party valuation specialist, utilized a Monte Carlo simulation to determine the estimated fair value of the contingent consideration of \$0.8 million, resulting in a purchase price of \$14.6 million. The total fair value of tangible assets acquired less liabilities assumed was \$1.7 million. The total fair value of identifiable intangible assets acquired was \$5.4 million, resulting in \$7.5 million of goodwill. Acquired intangible assets were comprised of amortizable patents of \$1.9 million, amortizable trademarks of \$1.8 million, amortizable customer relationships of \$1.4 million, and non-compete agreements of \$0.3 million, that are being amortized on a straight-line basis over a weighted-average life of 18, 15, 2, and 3 years, respectively. All of the acquired goodwill is deductible for tax purposes. Valuations for assets acquired and liabilities assumed are based on preliminary estimates that are subject to revisions and may result in adjustments to preliminary values as valuations are finalized.

SOFTWARE-RELATED INTELLECTUAL PROPERTY

In May 2023, we acquired a co-ownership interest in certain software-related intellectual property for a total purchase price of \$11.0 million, of which \$10.0 million was paid in the second quarter of 2023 and an additional \$1.0 million will be paid in the first half of 2024. As a result of this transaction, the total fair value of identifiable intangible assets acquired was \$6.5 million of software and \$4.5 million of developed technology, which are being amortized over a weighted-average life of 5 and 17 years, respectively.

GC PRODUCTS

On November 4, 2022, we acquired the business and assets of GC Products for \$2.8 million of cash. The total fair value of tangible assets acquired, less liabilities assumed, was \$0.3 million. The total fair value of intangible assets acquired was \$1.8 million, resulting in goodwill of \$0.7 million. Identified intangible assets consist primarily of amortizable technologies of \$0.7 million, amortizable customer relationships of \$0.6 million, and a non-compete agreement of \$0.2 million. All of the acquired goodwill is deductible for tax purposes.

NOTE 5. DISCONTINUED OPERATIONS

Separation and Distribution of Armstrong Flooring, Inc.

On April 1, 2016, we completed our separation of Armstrong Flooring, Inc. ("AFI") by transferring the assets and liabilities related primarily to our Resilient and Wood Flooring segments to AFI and then distributing the common stock of AFI to our shareholders at a ratio of one share of AFI common stock for every two shares of AWI common stock. During the three and nine months ended September 30, 2022, we recorded a \$1.0 million tax benefit related to federal tax statute of limitation closures.

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EMEA and Pacific Rim Businesses

In 2019, we completed the sale of certain subsidiaries comprising our businesses and operations in Europe, the Middle East and Africa (including Russia) (“EMEA”) and the Pacific Rim, including the corresponding businesses and operations conducted by Worthington Armstrong Venture (“WAVE”), our joint venture with Worthington Industries, Inc. (“Worthington”) in which AWI holds a 50% interest (collectively, the “Sale”), to Knauf International GmbH. During the three and nine months ended September 30, 2022, we recorded a \$2.0 million tax benefit related to federal tax statute of limitation closures.

Summarized Financial Information of Discontinued Operations

The following table details the line items that comprise discontinued operations on the Condensed Consolidated Statements of Earnings and Comprehensive Income:

	EMEA and Pacific Rim Businesses	AFI	Total
<u>Three and Nine Months Ended September 30, 2022</u>			
Earnings from disposal of discontinued businesses, before income tax	\$ -	\$ -	\$ -
Income tax benefit	(2.0)	(1.0)	(3.0)
Earnings from disposal of discontinued businesses, net of tax	<u>\$ 2.0</u>	<u>\$ 1.0</u>	<u>\$ 3.0</u>
Net earnings from discontinued operations	<u>\$ 2.0</u>	<u>\$ 1.0</u>	<u>\$ 3.0</u>

NOTE 6. ACCOUNTS AND NOTES RECEIVABLE

	September 30, 2023	December 31, 2022
Customer receivables	\$ 112.8	\$ 107.4
Miscellaneous receivables	7.0	8.2
Less allowance for warranties, discounts and losses	(3.1)	(3.2)
Accounts and notes receivable, net	<u>\$ 116.7</u>	<u>\$ 112.4</u>

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

As of December 31, 2022, miscellaneous receivables included \$4.8 million of Employee Retention Credit (“ERC”) receivables representing a refundable payroll tax credit for eligible wages paid to our employees in 2020 and 2021 under the Coronavirus Aid, Relief, and Economic Recovery Act (“CARES Act”). During the first quarter of 2023, all outstanding ERC receivables were collected.

NOTE 7. INVENTORIES

	September 30, 2023	December 31, 2022
Finished goods	\$ 58.8	\$ 60.9
Goods in process	4.5	6.5
Raw materials and supplies	68.1	63.0
Less LIFO reserves	(24.2)	(20.4)
Total inventories, net	<u>\$ 107.2</u>	<u>\$ 110.0</u>

NOTE 8. OTHER CURRENT ASSETS

	September 30, 2023	December 31, 2022
Prepaid expenses	\$ 15.1	\$ 16.6
Assets held for sale	6.6	4.6
Fair value of derivative assets	3.2	3.7
Other	2.7	1.4
Total other current assets	<u>\$ 27.6</u>	<u>\$ 26.3</u>

As of September 30, 2023, assets held for sale included the land and property, plant and equipment of our idled Mineral Fiber plant in St. Helens, Oregon and the building and related land of an Architectural Specialties design center in Chicago, Illinois. As of December 31, 2022, assets held for sale included the land and property, plant and equipment of our idled Mineral Fiber plant in St. Helens, Oregon.

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NOTE 9. EQUITY INVESTMENT

Investment in joint venture reflects the equity interest in our 50% investment in our WAVE joint venture. The WAVE joint venture is reflected within the Mineral Fiber segment in our Condensed Consolidated Financial Statements using the equity method of accounting. Condensed financial statement data for WAVE is summarized below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Net sales	\$ 117.8	\$ 116.9	\$ 343.4	\$ 356.3
Gross profit	68.5	64.0	200.9	180.1
Net earnings	49.1	46.7	144.5	130.0

NOTE 10. LEASES

During the first quarter of 2023, we entered into a new operating lease for a manufacturing facility within our Architectural Specialties segment which commenced during the second quarter. Upon commencement, we recognized an initial right-of-use ("ROU") asset and lease liability of \$13.0 million based on an expected lease term of approximately 5 years. During the third quarter of 2023, we modified a lease for an existing manufacturing facility within our Architectural Specialties segment; upon modification we recognized an additional ROU asset and lease liability of \$8.6 million based on a modified expected lease term of 13 years.

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

	Nine Months Ended September 30,	
	2023	2022
ROU assets obtained in exchange for lease liabilities		
Operating leases	\$ 15.1	\$ 2.5
Finance leases ⁽¹⁾	12.3	-

(1) The nine months ended September 30, 2023 include increases in ROU assets of \$12.3 million resulting from modifications that did not involve obtaining a new ROU asset. Modifications resulted from contractual extensions of existing leases.

The following table presents the weighted-average discount rate assumption used to compute our ROU assets and lease liabilities:

	September 30, 2023	December 31, 2022
Weighted-average discount rate		
Operating leases	4.9%	3.8%
Finance leases	4.6%	3.7%

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Undiscounted future minimum lease payments as of September 2023, by year and in the aggregate, having non-cancelable lease terms in excess of one year are as follows:

	Operating Leases	Finance Leases
Maturity of lease liabilities		
2023 ⁽¹⁾	\$ 3.1	\$ 1.4
2024	7.8	4.2
2025	6.2	4.0
2026	5.1	4.2
2027	5.0	4.4
Thereafter	6.0	16.8
Total lease payments	33.2	35.0
Less interest	(4.7)	(7.8)
Present value of lease liabilities	<u>\$ 28.5</u>	<u>\$ 27.2</u>

(1) Scheduled maturities of lease liabilities represent the time period of October 1, 2023 to December 31, 2023.

NOTE 11. GOODWILL AND INTANGIBLE ASSETS

The following table details amounts related to our goodwill and intangible assets as of September 30, 2023 and December 31, 2022:

	Estimated Useful Life	September 30, 2023		December 31, 2022	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Amortizing intangible assets					
Customer relationships	2-20 years	\$ 183.5	\$ 149.4	\$ 182.1	\$ 142.0
Developed technology	13-20 years	100.8	84.1	93.8	83.3
Software	5-7 years	15.6	4.0	9.1	2.6
Trademarks and brand names	3-15 years	5.9	3.2	4.0	2.6
Non-compete agreements	3-5 years	6.1	3.5	5.8	2.6
Other	Various	1.1	0.2	1.1	0.1
Total		<u>\$ 313.0</u>	<u>\$ 244.4</u>	<u>\$ 295.9</u>	<u>\$ 233.2</u>
Non-amortizing intangible assets					
Trademarks and brand names	Indefinite	345.2		345.0	
Total intangible assets		<u>\$ 658.2</u>		<u>\$ 640.9</u>	
Goodwill	Indefinite	<u>\$ 174.8</u>		<u>\$ 167.3</u>	

The increase in goodwill as of September 30, 2023 compared to December 31, 2022 resulted from the acquisition of BOK. See Note 4 to the Condensed Consolidated Financial Statements for additional details.

	Nine Months Ended September 30,	
	2023	2022
Amortization expense	<u>\$ 11.0</u>	<u>\$ 12.8</u>

NOTE 12. OTHER NON-CURRENT ASSETS

	September 30, 2023	December 31, 2022
Cash surrender value of company-owned life insurance policies	\$ 40.7	\$ 42.8
Investment in employee deferred compensation plans	7.8	7.7
Fair value of derivative assets	3.0	7.7
Other	1.0	1.2
Total other non-current assets	<u>\$ 52.5</u>	<u>\$ 59.4</u>

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NOTE 13. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

	September 30, 2023	December 31, 2022
Payables, trade and other	\$ 95.3	\$ 105.0
Employment costs	20.8	20.0
Current portion of pension and postretirement liabilities	9.9	9.9
Acquisition-related contingent consideration	-	15.2
Other	24.3	22.4
Total accounts payable and accrued expenses	\$ 150.3	\$ 172.5

NOTE 14. INCOME TAX EXPENSE

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Earnings from continuing operations before income taxes	\$ 93.7	\$ 67.7	\$ 237.6	\$ 194.3
Income tax expense	24.2	13.2	60.6	43.2
Effective tax rate	25.8%	19.5%	25.5%	22.2%

The effective tax rate for the third quarter of 2023 was higher compared to the same period in 2022 primarily due to the benefits recognized from federal and state statute closures in the prior year. The effective tax rate for the first nine months of 2023 was higher compared to the same period in 2022 due primarily to the benefits recognized in the prior year from federal and state statute closures and the prior year reduction in our valuation allowance for capital loss carryforwards.

It is reasonably possible that the amount of unrecognized tax benefits could significantly increase or decrease within the next twelve months. However, an estimate of the range of reasonably possible outcomes cannot be reliably made at this time. Changes to unrecognized tax benefits could result from the expiration of statutes of limitations, the completion of ongoing examinations, or other unforeseen circumstances.

NOTE 15. DEBT

Our long-term debt is comprised of borrowings outstanding under our \$950.0 million variable rate senior credit facility, which is comprised of a \$500.0 million revolving credit facility (with a \$150.0 million sublimit for letters of credit) and a \$450.0 million Term Loan A. As of September 30, 2023 and December 31, 2022, the principal balance of our Term Loan A was \$450.0 million. As of September 30, 2023 and December 31, 2022, borrowings outstanding under our revolving credit facility were \$175.0 million and \$205.0 million, respectively. We also have a \$25.0 million bi-lateral letter of credit facility separate from the senior secured credit facility.

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

Financing Arrangements	September 30, 2023		
	Limit	Used	Available
Bi-lateral facility	\$ 25.0	\$ 7.7	\$ 17.3
Revolving credit facility	150.0	-	150.0
Total	\$ 175.0	\$ 7.7	\$ 167.3

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NOTE 16. PENSIONS AND OTHER BENEFIT PROGRAMS

Following are the components of net periodic benefit costs (credits):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
U.S. defined benefit plans:				
Pension benefits				
Service cost of benefits earned during the period	\$ 0.6	\$ 1.0	\$ 1.9	\$ 2.8
Interest cost on projected benefit obligation	4.3	2.6	12.8	7.9
Expected return on plan assets	(6.3)	(4.6)	(18.8)	(13.8)
Amortization of net actuarial loss	1.4	1.0	4.1	3.1
Net periodic pension credit	\$ -	\$ -	\$ -	\$ -
Retiree health and life insurance benefits				
Interest cost on projected benefit obligation	\$ 0.7	\$ 0.4	2.1	\$ 1.1
Amortization of prior service credit	(0.1)	(0.1)	(0.2)	(0.2)
Amortization of net actuarial gain	(1.4)	(0.7)	(4.3)	(2.1)
Net periodic postretirement credit	\$ (0.8)	\$ (0.4)	\$ (2.4)	\$ (1.2)

We also have an unfunded defined benefit pension plan in Germany, which was not included as part of prior dispositions. This plan is reported as a component of our Unallocated Corporate segment. Net periodic pension cost for this plan was immaterial for the three and nine months ended September 30, 2023 and 2022.

The service cost component of net benefit credit has been presented in the Condensed Consolidated Statements of Earnings and Comprehensive Income within cost of goods sold and selling, general and administrative ("SG&A") expenses for all periods presented, which are the same line items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit credit are presented in the Condensed Consolidated Statements of Earnings and Comprehensive Income separately from the service cost component within other non-operating income, net.

NOTE 17. FINANCIAL INSTRUMENTS AND CONTINGENT CONSIDERATION

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

	September 30, 2023		December 31, 2022	
	Carrying amount	Estimated fair value	Carrying amount	Estimated fair value
Assets (liabilities), net:				
Total long-term debt, including current portion	\$ (621.7)	\$ (616.2)	\$ (651.1)	\$ (645.3)
Interest rate swap contracts	6.2	6.2	11.4	11.4
Acquisition-related contingent consideration	(0.8)	(0.8)	(15.2)	(15.2)

The carrying amounts of cash and cash equivalents, receivables, accounts payable and accrued expenses approximate fair value because of the short-term maturity of these instruments. The fair value estimates of long-term debt are based on quotes from a major financial institution of recently observed trading levels of our Term Loan A debt. The fair value estimates for interest rate swap contracts are estimated by obtaining quotes from major financial institutions with verification by internal valuation models. We engage an independent, third-party valuation specialist to determine the fair value estimate for acquisition-related contingent consideration payable based on future performance, which is measured using a Monte Carlo simulation. As of December 31, 2022, \$15.2 million of the carrying amount of contingent consideration liabilities payable, related to final achievement of certain financial and performance milestones through December 31, 2022 for the acquisition of TURF Design, Inc ("Turf"), was equal to fair value as milestone achievements were known.

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

Level 1 — Quoted prices in active markets for identical assets or liabilities;

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

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

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

	September 30, 2023		December 31, 2022	
	Fair value based on		Fair value based on	
	Other observable inputs Level 2	Other unobservable inputs Level 3	Other observable inputs Level 2	Other observable inputs Level 2
Assets (liabilities), net:				
Interest rate swap contracts	\$ 6.2	\$ -	\$ 11.4	
Acquisition-related contingent consideration	-	(0.8)		-

As of September 30, 2023, the acquisition-related contingent consideration represents the estimated fair value of additional cash consideration payable related to our acquisition of BOK upon the achievement of certain financial and performance milestones through December 31, 2025 and is classified as a long-term liability.

Acquisition-related contingent consideration of \$0.8 million as of September 30, 2023 was measured at fair value based on a Monte Carlo simulation with the use of significant unobservable inputs, which included financial projections over the earn-out period, the volatility of the underlying financial metrics and estimated discount rates. All changes in the contingent consideration liability subsequent to the initial acquisition date measurement was recorded as a component of operating income on our Condensed Consolidated Statements of Earnings and Comprehensive Income.

The following table summarizes the weighted average of the significant unobservable inputs used to measure BOK's acquisition-related contingent consideration as of September 30, 2023:

<u>Unobservable input</u>	
Volatility	24.6%
Discount rates	5.0%

Unobservable inputs were weighted based on the relative fair value of the components of contingent consideration. See Note 4 for further information.

The changes in fair value of the acquisition-related contingent consideration liability for the three and nine months ended September 30, 2023 and 2022 were as follows:

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2023	2022	2023	2022
Fair value of contingent consideration as of beginning of period	\$ -	\$ 10.4	\$ 15.2	\$ 12.8
Cash consideration paid	-	-	(15.2)	(8.6)
Acquisition date fair value of contingent consideration	0.8	-	0.8	-
Loss related to change in fair value of contingent consideration	-	7.1	-	13.3
Fair value of contingent consideration as of end of period	<u>\$ 0.8</u>	<u>\$ 17.5</u>	<u>\$ 0.8</u>	<u>\$ 17.5</u>

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During the first quarter of 2023, we paid \$15.2 million of additional cash consideration, which represented the final achievement of certain financial and performance milestones through December 31, 2022 for the acquisition of Turf. During the first quarter of 2022, we paid \$8.6 million of additional cash consideration, which represented the final achievement of certain financial and performance milestones through December 31, 2021 for the acquisitions of Moz Designs, Inc. and Turf. The additional cash consideration paid was classified as cash flows from financing activities in our Condensed Consolidated Statements of Cash Flows, up to the acquisition date fair value. The portions of additional cash consideration paid in excess of the acquisition date fair value were classified as cash flows from operating activities in our Condensed Consolidated Statements of Cash Flows.

NOTE 18. DERIVATIVE FINANCIAL INSTRUMENTS

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

Counterparty Risk

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

Interest Rate Risk

We utilize interest rate swaps to minimize the fluctuations in earnings caused by interest rate volatility. These swaps are designated as cash flow hedges against changes in interest rates for a portion of our variable rate debt. In the second quarter 2020, we adopted Accounting Standards Update 2020-04, “Facilitation of the Effects of Reference Rate Reform on Financial Reporting,” (“ASU 2020-04”) which provides optional expedients and exceptions for applying U.S. GAAP to contracts, hedging relationships and other transactions affected by the discontinuation of the London Interbank Offered Rate (“LIBOR”). In March 2023, we amended our interest rate swaps in accordance with ASU 2020-04, changing our hedged interest rate from LIBOR to the Secured Overnight Financing Rate (“SOFR”).

The following tables summarize our interest rate swaps, including forward-starting interest rate swaps, as of September 30, 2023:

Coverage Period	Notional Amount	Risk Coverage	Trade Date
November 2018 to November 2023	\$ 200.0	USD-SOFR	November 28, 2018
September 2022 to December 2023	\$ 25.0	USD-SOFR	September 19, 2022
March 2021 to March 2024	\$ 50.0	USD-SOFR	March 10, 2020
March 2021 to March 2024	\$ 50.0	USD-SOFR	March 11, 2020
March 2021 to March 2025	\$ 100.0	USD-SOFR	November 28, 2018

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

Coverage Period	Notional Amount	Risk Coverage	Trade Date
November 2023 to June 2024	\$ 50.0	USD-SOFR	September 18, 2023
November 2023 to November 2027	\$ 50.0	USD-SOFR	September 29, 2023

Under the terms of our forward-starting interest rate swaps above, during the coverage period on a monthly basis, we will pay a fixed rate and receive a floating rate based on SOFR.

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In October 2023, we entered into two \$50 million notional forward-starting interest rate swaps. These swaps have coverage periods beginning on November 30, 2023, with one swap maturing on December 31, 2025 and another swap maturing on December 31, 2026. Under the terms of these interest rate swaps, we will pay a fixed rate monthly and receive a floating rate based on SOFR.

Financial Statement Impacts

The following tables detail amounts related to our derivatives as of September 30, 2023 and December 31, 2022. We did not have any derivative assets or liabilities not designated as hedging instruments as of September 30, 2023 or December 31, 2022. The derivative asset amounts below are shown gross and have not been netted.

	Balance Sheet Location	Derivative Assets	
		Fair Value	
		September 30, 2023	December 31, 2022
Interest rate swap contracts	Other current assets	\$ 3.2	\$ 3.7
Interest rate swap contracts	Other non-current assets	3.0	7.7

	Amount of Gain Recognized in AOCI		Location of Gain Reclassified from AOCI into Net Earnings	Gain Reclassified from AOCI into Net Earnings			
	Nine Months Ended September 30,			Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022		2023	2022	2023	2022
Derivatives in cash flow hedging relationships							
Interest rate swap contracts	\$ 2.8	\$ 28.2	Interest expense	\$ 3.3	\$ -	\$ 8.6	\$ 3.5

As of September 30, 2023, the amount of existing gains in Accumulated Other Comprehensive Income (“AOCI”) expected to be recognized in net earnings over the next twelve months was \$6.3 million.

NOTE 19. SHAREHOLDERS’ EQUITY

Common Stock Repurchase Plan

In July 2016, our Board of Directors approved a share repurchase program authorizing us to repurchase up to \$150.0 million of our outstanding shares of common stock through July 2018 (the “Program”). Pursuant to additional authorizations and extensions of the Program approved by our Board of Directors, we are authorized to repurchase up to \$1,700.0 million of our outstanding shares of common stock through December 31, 2026. We had \$751.8 million remaining under the Board’s repurchase authorization as of September 30, 2023.

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

During the three months ended September 30, 2023, we repurchased 0.5 million shares under the Program for a total cost of \$40.0 million, excluding commissions and taxes, or an average price of \$74.80 per share. During the nine months ended September 30, 2023, we repurchased 1.3 million shares under the Program for a total cost of \$97.0 million, excluding commissions and taxes, or an average price of \$72.09 per share. Since inception and through September 30, 2023, we have repurchased 13.7 million shares under the Program for a total cost of \$948.2 million, excluding commissions and taxes, or an average price of \$69.00 per share.

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Dividends

In February, April and July 2023, our Board of Directors declared a \$0.254 per share quarterly dividend, which was paid to shareholders in March, May and August 2023. On October 18, 2023, our Board of Directors declared a \$0.28 per share quarterly dividend to be paid in November 2023.

Accumulated Other Comprehensive Loss

	Foreign Currency Translation Adjustments	Derivative Gain ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, June 30, 2023	\$ 1.1	\$ 7.1	\$ (110.0)	\$ (101.8)
Other comprehensive (loss) income before reclassifications, net of tax (expense) of \$-, (\$0.1), \$- and (\$0.1)	(0.5)	0.7	(0.1)	0.1
Amounts reclassified from accumulated other comprehensive (loss)	-	(2.6)	(0.1)	(2.7)
Net current period other comprehensive (loss)	(0.5)	(1.9)	(0.2)	(2.6)
Balance, September 30, 2023	<u>\$ 0.6</u>	<u>\$ 5.2</u>	<u>\$ (110.2)</u>	<u>\$ (104.4)</u>

	Foreign Currency Translation Adjustments	Derivative Gain ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, December 31, 2022	\$ 0.5	\$ 9.5	\$ (110.1)	\$ (100.1)
Other comprehensive income before reclassifications, net of tax (expense) of \$-, (\$0.4), (\$0.1) and (\$0.5)	0.1	2.5	0.2	2.8
Amounts reclassified from accumulated other comprehensive (loss)	-	(6.8)	(0.3)	(7.1)
Net current period other comprehensive income (loss)	0.1	(4.3)	(0.1)	(4.3)
Balance, September 30, 2023	<u>\$ 0.6</u>	<u>\$ 5.2</u>	<u>\$ (110.2)</u>	<u>\$ (104.4)</u>

	Foreign Currency Translation Adjustments	Derivative Gain ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, June 30, 2022	\$ 2.1	\$ 4.5	\$ (102.1)	\$ (95.5)
Other comprehensive (loss) income before reclassifications, net of tax (expense) of \$-, (\$1.6), \$- and (\$1.6)	(2.1)	4.9	-	2.8
Amounts reclassified from accumulated other comprehensive (loss)	-	-	0.2	0.2
Net current period other comprehensive (loss) income	(2.1)	4.9	0.2	3.0
Balance, September 30, 2022	<u>\$ -</u>	<u>\$ 9.4</u>	<u>\$ (101.9)</u>	<u>\$ (92.5)</u>

	Foreign Currency Translation Adjustments	Derivative (Loss) Gain ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, December 31, 2021	\$ 2.3	\$ (9.1)	\$ (102.8)	\$ (109.6)
Other comprehensive (loss) income before reclassifications, net of tax expense of \$ -, (\$6.9), (\$0.1) and (\$7.0)	(2.3)	21.3	0.3	19.3
Amounts reclassified from accumulated other comprehensive (loss)	-	(2.8)	0.6	(2.2)
Net current period other comprehensive (loss) income	(2.3)	18.5	0.9	17.1
Balance, September 30, 2022	<u>\$ -</u>	<u>\$ 9.4</u>	<u>\$ (101.9)</u>	<u>\$ (92.5)</u>

(1) Amounts are net of tax.

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	Amounts Reclassified from Accumulated Other Comprehensive (Loss)				Affected Line Item in the Condensed Consolidated Statements of Earnings and Comprehensive Income
	Three Months Ended September 30,		Nine Months Ended September 30,		
	2023	2022	2023	2022	
Derivative Adjustments:					
Interest rate swap contracts, before tax	\$ (3.3)	\$ -	\$ (8.6)	\$ (3.5)	Interest expense
Tax impact	0.7	-	1.8	0.7	Income tax expense
Total (income), net of tax	(2.6)	-	(6.8)	(2.8)	
Pension and Postretirement Adjustments:					
Amortization of prior service credit	(0.1)	(0.1)	(0.2)	(0.2)	Other non-operating (income), net
Amortization of net actuarial (gain) loss	-	0.3	(0.2)	1.0	Other non-operating (income), net
Total (income) loss, before tax	(0.1)	0.2	(0.4)	0.8	
Tax impact	-	-	0.1	(0.2)	Income tax expense
Total loss (income), net of tax	(0.1)	0.2	(0.3)	0.6	
Total reclassifications for the period	<u>\$ (2.7)</u>	<u>\$ 0.2</u>	<u>\$ (7.1)</u>	<u>\$ (2.2)</u>	

NOTE 20 OTHER LONG-TERM LIABILITIES

	September 30, 2023	December 31, 2022
Long-term deferred compensation arrangements	\$ 17.0	\$ 15.4
Environmental insurance recoveries received in excess of cumulative expenses incurred	2.7	3.5
Acquisition-related contingent consideration	0.8	-
Other	7.9	6.9
Total other long-term liabilities	<u>\$ 28.4</u>	<u>\$ 25.8</u>

NOTE 21. LITIGATION AND RELATED MATTERS

ENVIRONMENTAL MATTERS

Environmental Compliance

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

Environmental Sites

Summary

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

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

final share of investigation and remediation costs for these sites. Our final share of investigation and remediation costs may exceed any such recoveries, and such amounts net of insurance recoveries may be material.

Between 2017 and 2021, we entered settlement agreements totaling \$53.0 million with certain legacy insurance carriers to resolve ongoing litigation and recover fees and costs previously incurred by us in connection with certain environmental sites. These settlements were recorded as reductions to cost of goods sold and SG&A expenses, reflecting the same income statement categories where environmental expenditures were historically recorded. Beginning in 2020, cumulative insurance recoveries exceeded cumulative expenses to date related to the respective environmental sites and the excess was recorded within long-term liabilities on our Condensed Consolidated Balance Sheets. As of September 30, 2023 and December 31, 2022, insurance recoveries in excess of cumulative expenses were \$2.7 million and \$3.5 million, respectively. The excess recoveries will be released to offset any future expenses, including additional reserves for potential liabilities, incurred on the respective environmental sites. We may enter into additional settlement agreements in the future, which may or may not be material, with other legacy insurers to obtain reimbursement or contribution for environmental site expenses.

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

Specific Material Events

Macon, GA

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

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

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

In June 2021, the PRPs submitted the Site Characterization Summary Report (“SCSR”) for Operable Unit 2 to the EPA. The purpose of the SCSR is to demonstrate that the available data for Operable Unit 2 is adequate for the risk assessment and for the development of remedial action objectives. In August 2022, the PRPs submitted to the EPA a Human Health Baseline Risk Assessment, and in December 2022, the PRPs submitted to the EPA a final Baseline Ecological Risk Assessment for Operable Unit 2. Both risk assessments were approved by the EPA and are exhibits to the draft Remedial Investigation Report, which the PRPs finalized and submitted to the EPA in March 2023. The PRPs submitted a draft Feasibility Study to the EPA in August 2023, evaluating remedial alternatives for Operable Unit 2. Comments received from the EPA and the state of Georgia are being evaluated by the PRPs. We may ultimately incur costs in remediating any contamination discovered during the RI/FS. The current estimate of future liability at this site includes only our estimated share of the costs of the investigative work that the EPA is requiring the PRPs to perform at this time. We are unable to reasonably estimate our final share of the total costs associated with the investigation work or any resulting remediation

therefrom, although such amounts may be material to any one quarter's or year's results of operations in the future. We do not expect the total future costs to have a material adverse effect on our liquidity or financial condition as the cash payments may be made over many years.

Elizabeth City, NC

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

Summary of Financial Position

Total liabilities of \$0.8 million and \$0.5 million as of September 30, 2023 and December 31, 2022, respectively, reflected within other long-term liabilities on the Condensed Consolidated Balance Sheets, were recorded for environmental liabilities that we consider probable and for which a reasonable estimate of the probable liability could be made. During the three and nine months ended September 30, 2023, we recorded \$0.5 million of additional reserves for potential environmental liabilities. During the nine months ended September 30, 2022, we recorded \$0.6 million of additional reserves for potential environmental liabilities. As noted above, expenses associated with the additional reserves are offset through the release of a portion of the balance of insurance recoveries in excess of cumulative expenses. Where existing data is sufficient to estimate the liability, that estimate has been used; where only a range of probable liabilities is available and no amount within that range is more likely than any other, the lower end of the range has been used. As assessments and remediation activities progress at each site, these liabilities are reviewed to reflect new information as it becomes available and adjusted to reflect amounts actually incurred and paid. These liabilities are undiscounted.

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

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

OTHER CLAIMS

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

NOTE 22. NET EARNINGS PER SHARE

The following table is a reconciliation of earnings from continuing operations to earnings from continuing operations attributable to common shares used in our basic and diluted net Earnings Per Share (“EPS”) calculations for the three and nine months ended September 30, 2023 and 2022. EPS components may not add due to rounding.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Earnings from continuing operations	\$ 69.5	\$ 54.5	\$ 177.0	\$ 151.1
Earnings allocated to participating vested share awards	-	(0.1)	(0.1)	(0.2)
Earnings from continuing operations attributable to common shares	<u>\$ 69.5</u>	<u>\$ 54.4</u>	<u>\$ 176.9</u>	<u>\$ 150.9</u>

The following table is a reconciliation of basic shares outstanding to diluted shares outstanding for the three and nine months ended September 30, 2023 and 2022 (shares in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Basic shares outstanding	44.5	46.1	45.0	46.6
Dilutive effect of common stock equivalents	0.1	-	-	0.1
Diluted shares outstanding	<u>44.6</u>	<u>46.1</u>	<u>45.0</u>	<u>46.7</u>

Anti-dilutive stock awards excluded from the computation of dilutive EPS for the three and nine months ended September 30, 2023 were 44,932 and 103,740, respectively. Anti-dilutive stock awards excluded from the computation of dilutive EPS for the three and nine months ended September 30, 2022 were 3,812 and 6,202, respectively.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This discussion should be read in conjunction with the financial statements, the accompanying notes, the cautionary note regarding forward-looking statements and risk factors included in this report and our Annual Report on Form 10-K for the year ended December 31, 2022.

OVERVIEW

AWI is a leader in the design, innovation and manufacture of ceiling and wall solutions in the Americas. We manufacture and source products made of numerous materials, including mineral fiber, fiberglass wool, metal, wood, felt, wood fiber, and glass-reinforced-gypsum. We also manufacture ceiling suspension system (grid) products through a joint venture with Worthington Industries, Inc. ("Worthington") called Worthington Armstrong Venture ("WAVE").

Acquisitions

In July 2023, we acquired all of the issued and outstanding stock of BOK Modern, LLC ("BOK"), based in San Rafael, California. BOK is a designer of metal facade architectural solutions.

In November 2022, we acquired the business and assets of GC Products, Inc. ("GC Products"), based in Lincoln, CA. GC Products is a designer and manufacturer of glass-reinforced-gypsum, glass-reinforced-cement, molded ceiling and specialty wall products with one manufacturing facility.

The operations, assets and liabilities of BOK and GC Products are included in our Architectural Specialties segment.

Manufacturing Plants

As of September 30, 2023, we operated 16 manufacturing plants, with 14 plants located within the U.S. and two plants in Canada. This excludes our St. Helens, Oregon mineral fiber manufacturing plant, which was closed in the second quarter of 2018, and was classified as an asset held for sale as of September 30, 2023.

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

Reportable Segments

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

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

Architectural Specialties – produces, designs and sources ceilings, walls and facades for use in commercial settings. Products are available in numerous materials, such as metal, wood and felt, in addition to various colors, shapes and designs. Products offer various performance attributes such as acoustical control, rated fire protection and aesthetic appeal. We sell standard, premium and customized products, a portion of which are derived from sourced products. Architectural Specialties products are sold primarily to resale distributors and direct customers, primarily ceiling systems contractors. The majority of this segment's revenues are project driven, which can lead to more volatile sales patterns due to project scheduling uncertainty. Operating results for the Architectural Specialties segment include a portion of allocated Corporate administrative expenses that represent a reasonable allocation of general services to support its operations.

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

Factors Affecting Revenues

For information on our 2023 net sales by segment, see Notes 2 and 3 to the Condensed Consolidated Financial Statements.

Markets. We compete in the building product markets of the Americas. We closely monitor publicly available macroeconomic trends that provide insight into commercial construction market activity, including, but not limited to, GDP, office vacancy rates, the Architecture Billings Index, new commercial construction starts, state and local government spending, corporate profits and retail sales. The Company continues to monitor the impacts of geopolitical events, including, but not limited to, the conflict in Ukraine and the impact of domestic and international bank failures. None of these events had a material direct impact on our financial condition or results of operations during the first nine months of 2023.

Several factors and trends within our markets affected our business performance during the third quarter of 2023 compared to the third quarter of 2022, notably increased interest rates and a lower rate of inflation on certain input costs and the lessening impact of supply chain and labor availability constraints, resulting in uneven demand. For the three months ended September 30, 2023, sales volumes increased \$2 million compared to the same period in 2022. For the nine months ended September 30, 2023, sales volumes increased \$11 million compared to the same period in 2022 primarily due to growth in our Architectural Specialties segment and the benefit of our growth initiatives. Also contributing to the increase in sales volumes were the acquisitions of GC Products and BOK, which collectively contributed \$3 million and \$4 million to net sales in the three and nine months ended September 30, 2023, respectively. These increases were partially offset by softer market demand in the first nine months of 2023 in comparison to the prior-year period.

Average Unit Value. We periodically modify sales prices of our products due to changes in costs for raw materials and energy, market conditions and the competitive environment. Typically, realized price increases are less than announced price increases because of project pricing, competitive adjustments and changing market conditions. We also offer a wide assortment of products that are differentiated by style, design and performance attributes. Pricing and margins for products within the assortment vary. In addition, changes in the relative quantity of products purchased at different price points can impact year-to-year comparisons of net sales and operating income. Within our Mineral Fiber segment, we focus on improving sales dollars per unit sold, or average unit value (“AUV”), as a measure that accounts for the varying assortment of products and like-for-like pricing impacting our revenues. Favorable AUV increased our total consolidated net sales for the three and nine months ended September 30, 2023 by approximately \$20 million and \$43 million, respectively, compared to the same periods in 2022. Our Architectural Specialties segment revenues are primarily earned based on individual contracts that include a mix of products, both manufactured by us and sourced from third parties, which varies by project. As such, we do not track AUV performance for this segment, but rather attribute most changes in sales to volume.

During the first half of 2023, we implemented price increases on Mineral Fiber ceiling products and grid products. In the third quarter of 2023, we implemented additional price increases on Mineral Fiber ceiling products. We may implement future pricing actions based on numerous factors, namely the rate and pace of inflation and its impact on our business.

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

Factors Affecting Operating Costs

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

Our largest raw material expenditures are primarily for fiberglass, perlite, recycled paper and starch. Other raw materials include clays, felt, pigment, wood and wood fiber. We manufacture most of our mineral wool at one of our manufacturing facilities. We use aluminum and steel in the production of metal ceilings by us and by WAVE. Finally, natural gas and packaging materials are also significant input costs. Fluctuations in the prices of these inputs impact our financial results. In the three months ended September 30, 2023, higher costs for raw materials were more than offset by lower costs for energy, resulting in a \$2 million benefit to operating income compared to the prior-year period. For the nine months ended September 30, 2023, higher costs for raw materials were partially offset by lower costs for energy, negatively impacting operating income by \$4 million compared to the same period in 2022.

Acquisition-Related Expenses and Losses

In connection with our acquisitions of TURF Design, Inc. (“Turf”) in July 2020, and Arktura LLC (“Arktura”) in December 2020, we recorded certain acquisition-related expenses and losses to operating income in the three and nine months ended September 30, 2023 and 2022, summarized as follows (dollar amounts in millions):

	<u>Three Months Ended</u> <u>September 30,</u>		<u>Nine Months Ended</u> <u>September 30,</u>		Affected Line Item in the Condensed Consolidated Statements of Earnings and Comprehensive Income
	2023	2022	2023	2022	
Loss related to change in fair value of contingent consideration	\$ -	\$ 7.1	\$ -	\$ 13.3	Loss related to change in fair value of contingent consideration
Deferred cash and restricted stock expenses	1.4	1.9	4.1	5.9	SG&A expenses
Net negative impact to operating income	<u>\$ 1.4</u>	<u>\$ 9.0</u>	<u>\$ 4.1</u>	<u>\$ 19.2</u>	

The change in fair value of contingent consideration was related to our Turf acquisition and was remeasured quarterly during the acquisition’s earn-out period, which was completed on December 31, 2022. See Note 17 to the Condensed Consolidated Financial Statements for further information. Expenses related to the deferred cash and restricted stock awards for Arktura’s former owners and employees are recorded over their respective service periods, as such payments are subject to the awardees’ continued employment with AWI. We did not record any similar acquisition-related expenses or losses related to BOK or GC Products for the three and nine months ended September 30, 2023. Depreciation of fixed assets acquired and amortization of intangible assets acquired have been excluded from the table above.

Employees

As of September 30, 2023 and December 31, 2022, we had approximately 3,100 and 3,000 full-time and part-time employees, respectively.

RESULTS OF OPERATIONS

Please refer to Note 2 to the Condensed Consolidated Financial Statements for a reconciliation of operating income to consolidated net earnings before income taxes.

CONSOLIDATED RESULTS

(dollar amounts in millions)

	<u>2023</u>	<u>2022</u>	<u>Change is Favorable</u>
<u>Three Months Ended September 30,</u>			
Total consolidated net sales	\$ 347.3	\$ 325.0	6.9%
Operating income	\$ 100.2	\$ 73.3	36.7%
<u>Nine Months Ended September 30,</u>			
Total consolidated net sales	\$ 982.9	\$ 928.6	5.8%
Operating income	\$ 257.4	\$ 208.1	23.7%

Consolidated net sales for the third quarter of 2023 increased 6.9% over the prior-year period driven by favorable AUV of \$20 million and higher sales volumes of \$2 million. Mineral Fiber net sales increased \$16 million, while Architectural Specialties net sales increased \$6 million compared to prior-year period results. The increase in Mineral Fiber net sales was primarily driven by improved AUV, partially offset by lower sales volumes. Architectural Specialties net sales improved primarily due to growth in metal product sales and contributions from the acquisitions of GC Products and BOK.

Consolidated net sales for the first nine months of 2023 increased 5.8% over the prior-year period as favorable AUV contributed \$43 million and higher volumes contributed \$11 million. Mineral Fiber net sales increased \$41 million and Architectural Specialties net sales increased \$13 million over the prior-year period. The increase in Mineral Fiber net sales was primarily driven by favorable AUV. Architectural Specialties net sales improved primarily due to growth in metal and felt product sales, and partially due to contributions from the acquisitions of GC Products and BOK.

Cost of goods sold in the third quarter of 2023 was 59.3% of net sales, compared to 63.8% for the same period in 2022. The year-over-year decrease in cost of goods sold as a percentage of net sales for the third quarter of 2023 was driven primarily by favorable AUV margin and lower input costs, including favorable inventory valuation impacts, in addition to current-year improved manufacturing productivity and improved Architectural Specialties project margins.

Cost of goods sold in the first nine months of 2023 was 61.6% of net sales, compared to 63.6% for the same period in 2022. The year-over-year decrease in cost of goods sold as a percentage of net sales for the first nine months of 2023 was driven primarily by favorable AUV margin, improved manufacturing productivity and improved Architectural Specialties project margins, partially offset by higher input costs, including unfavorable inventory valuation impacts.

SG&A expenses in the third quarter of 2023 were \$64.6 million, or 18.6% of net sales, compared to \$59.3 million, or 18.2% of net sales, for the same period in 2022. The year-over-year increase in SG&A expenses was driven primarily by a \$5 million increase in selling expenses, primarily related to advertising expense and higher costs in our Architectural Specialties segment and an increase in incentive compensation, partially offset by a benefit from current cost savings initiatives implemented in the first quarter of 2023.

SG&A expenses in the first nine months of 2023 were \$189.2 million, or 19.2% of net sales, compared to \$177.9 million or 19.2% of net sales, for the same period in 2022. The year-over-year increase in SG&A expenses was driven primarily by a \$13 million increase in selling expenses, primarily related to higher costs in our Architectural Specialties segment, investments in support of our digital initiatives and advertising expense, \$3 million in severance costs related to current-year cost savings initiatives and a \$2 million increase in incentive compensation. These increased costs were partially offset by savings from current year cost savings initiatives and lower acquisition-related expenses.

Equity earnings from our WAVE joint venture were \$23.4 million in the third quarter of 2023, compared to \$22.2 million in the third quarter of 2022 and were \$69.1 million in the first nine months of 2023 compared to \$61.7 million in the same period of 2022. The increase in WAVE earnings during the third quarter of 2023 compared to the same period in 2022 was primarily driven by the benefits of lower steel costs and higher volumes, partially offset by unfavorable AUV. The increase in WAVE earnings during the first nine months of 2023 compared to the same period in 2022 was primarily due to the benefits of lower steel costs, partially offset by unfavorable AUV. See Note 9 to the Condensed Consolidated Financial Statements for further information.

Interest expense was \$8.8 million in the third quarter of 2023 compared to \$7.0 million in the third quarter of 2022. Interest expense was \$26.7 million in the first nine months of 2023 compared to \$17.9 million in the first nine months of 2022. The increases for the third quarter and first nine months of 2023 in comparison to the same periods in 2022 were due to higher interest rates on floating rate debt, partially offset by lower average debt balances.

Other non-operating income, net, was \$2.3 million in the third quarter of 2023 compared to \$1.4 million in the third quarter of 2022. Other non-operating income, net was \$6.9 million in the first nine months of 2023 compared to \$4.1 million in the first nine months of 2022. Other non-operating income, net, is primarily comprised of the non-service cost components of pension and postretirement net periodic benefit costs.

Income tax expense was \$24.2 million in the third quarter of 2023 compared to \$13.2 million in the third quarter of 2022. The effective tax rate for the third quarter of 2023 was 25.8% compared to 19.5% for the same period of 2022. The effective tax rate for the third quarter of 2023 was higher compared to the same period in 2022 primarily due to the benefits recognized from federal and state statute closures in the prior year.

Income tax expense was \$60.6 million in the first nine months of 2023 compared to \$43.2 million in the first nine months of 2022. The effective tax rate was 25.5% in the first nine months of 2023 compared to 22.2% in the same period of 2022. The effective tax rate for the first nine months of 2023 was higher compared to the same period in 2022 primarily due to the benefits recognized in the prior year from federal and state statute closures and the prior year reduction in our valuation allowance for capital loss carryforwards.

Total Other Comprehensive Loss ("OCL") was \$2.6 million in the third quarter of 2023 compared to Other Comprehensive Income ("OCI") of \$3.0 million in the third quarter of 2022. Total OCL was \$4.3 million for the first nine months of 2023 compared to OCI of \$17.1 million in the first nine months of 2022. The change in OCI in the third quarter and first nine months of 2023 compared to the same periods in 2022 were primarily driven by derivative gains/losses, partially offset by foreign currency translation adjustments. Derivative gain/loss represents the mark-to-market value adjustments of our derivative assets and liabilities, and the recognition of gains and losses previously deferred in OCI. Foreign currency translation adjustments represent the change in the U.S. dollar value of assets and liabilities denominated in foreign currencies. Amounts in the third quarter and first nine months of 2023 and 2022 were driven primarily by changes in the Canadian dollar. Also impacting the change in OCI were pension and postretirement adjustments, which represented the amortization of actuarial gains and losses related to our defined benefit pension and postretirement plans.

REPORTABLE SEGMENT RESULTS

Mineral Fiber

(dollar amounts in millions)

	<u>2023</u>	<u>2022</u>	<u>Change is Favorable</u>
<u>Three Months Ended September 30,</u>			
Total segment net sales	\$ 249.7	\$ 233.7	6.8 %
Operating income	\$ 85.5	\$ 70.8	20.8 %
<u>Nine Months Ended September 30,</u>			
Total segment net sales	\$ 712.1	\$ 671.4	6.1 %
Operating income	\$ 224.8	\$ 199.8	12.5 %

Mineral Fiber net sales increased \$16 million in the third quarter of 2023 due to \$18 million of favorable AUV, partially offset by \$2 million of lower sales volumes. The increase in AUV in the third quarter was driven primarily by favorable price, and to a lesser extent, favorable mix, that resulted largely from positive customer channel mix. The decrease in sales volumes was primarily due to softer market demand and lower sales within our Latin America channel, partially offset by the benefit from our growth initiatives.

For the first nine months of 2023, net sales improved by \$41 million from the prior-year, primarily due to \$40 million of favorable AUV and \$1 million of increased sales volumes. The favorable AUV was driven primarily by favorable price, partially offset by unfavorable mix. The increase in volumes primarily resulted from current-year inventory level increases at our home center customers during the first quarter of 2023 and the benefit of our growth initiatives, partially offset by softer market demand.

Third-quarter 2023 operating income increased primarily due to an \$11 million benefit from favorable AUV and a \$6 million benefit from lower input costs, including favorable inventory valuation impacts. These increases were partially offset by a \$3 million increase in selling expenses, primarily due to advertising expense, and an increase in incentive compensation.

Operating income for the first nine months of 2023 increased primarily due to a \$29 million benefit from favorable AUV, an \$8 million increase in WAVE equity earnings and a benefit from current year cost savings initiatives. These benefits were partially offset by an \$8 million increase in selling expenses, primarily driven by increased advertising expense and investments in support of our digital initiatives, \$3 million in severance costs related to current-year cost savings initiatives and a \$3 million increase from higher manufacturing and input costs, primarily driven by negative impacts from inventory valuations, partially offset by improved manufacturing productivity.

Architectural Specialties

(dollar amounts in millions)

	<u>2023</u>	<u>2022</u>	<u>Change is Favorable</u>
<u>Three Months Ended September 30,</u>			
Total segment net sales	\$ 97.6	\$ 91.3	6.9 %
Operating income	\$ 15.5	\$ 3.4	355.9 %
<u>Nine Months Ended September 30,</u>			
Total segment net sales	\$ 270.8	\$ 257.2	5.3 %
Operating income	\$ 34.9	\$ 11.0	217.3 %

Net sales increased \$6 million in the third quarter of 2023 compared to the same period in 2022 driven primarily by growth in metal product sales and contributions from the acquisitions of GC Products and BOK. Net sales increased \$13 million in the first nine months of 2023 compared to the same period in 2022, driven by growth in metal and felt product sales and contributions from the acquisitions of GC Products and BOK.

Operating income increased in the third quarter of 2023 due to an \$8 million benefit from increased sales and improved custom project margins and an \$8 million reduction in acquisition-related expenses, primarily due to the absence of the change in fair value of contingent consideration related to the acquisition of Turf that was recorded in the prior-year period. These benefits were partially offset by a \$2 million increase in manufacturing costs and a \$2 million increase in selling expenses.

Operating income for the first nine months of 2023 compared to the same period in 2022 was positively impacted by an \$18 million benefit from increased sales and improved custom project margins, in addition to a \$15 million reduction in acquisition-related expenses, primarily due to the absence of the change in fair value of contingent consideration related to the acquisition of Turf that

was recorded in the prior-year period. These benefits were partially offset by a \$5 million increase in manufacturing costs and a \$4 million increase in selling expenses.

Unallocated Corporate

Unallocated Corporate operating loss was \$1 million in both the third quarter of 2023 and 2022. Unallocated Corporate operating loss was \$2 million in the first nine months of 2023 and \$3 million in the first nine months of 2022.

FINANCIAL CONDITION AND LIQUIDITY

Cash Flow

Operating activities for the first nine months of 2023 provided \$176.4 million of cash, compared to \$119.2 million in the first nine months of 2022. The increase was primarily due to favorable working capital changes, most notably in inventories and accounts receivable, and a favorable change in net income taxes payable.

Net cash used in investing activities was \$10.6 million in the first nine months of 2023, compared to net cash provided from investing activities of \$8.1 million in the first nine months of 2022. The unfavorable change in cash in the first nine months of 2023 compared to the same period in 2022 was primarily due to cash paid for acquisitions and increased purchases of property, plant and equipment, partially offset by an increase in dividends from WAVE.

Net cash used for financing activities was \$175.1 million in the first nine months of 2023, compared to \$137.6 million in the first nine months of 2022. The unfavorable change in cash was primarily due to lower proceeds from borrowings under our revolving credit facility, partially offset by a decrease in repurchases of outstanding common stock and a decrease in long-term debt payments.

Liquidity

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

We have a \$950.0 million variable rate senior credit facility, which is comprised of a \$500.0 million revolving credit facility (with a \$150.0 million sublimit for letters of credit) and a \$450.0 million Term Loan A. As of September 30, 2023, the revolving credit facility and Term Loan A were priced at 1.375% over the Secured Overnight Financing Rate ("SOFR"), plus a 10-basis point adjustment. The revolving credit facility and Term Loan A mature in December 2027. We also have a \$25.0 million bi-lateral letter of credit facility separate from the senior secured credit facility.

As of September 30, 2023, total borrowings outstanding under our senior credit facility were \$450.0 million under Term Loan A and \$175.0 million under the revolving credit facility.

The senior credit facility includes two financial covenants that require the ratio of consolidated earnings before interest, taxes, depreciation and amortization ("EBITDA") to consolidated cash interest expense minus consolidated cash interest income to be greater than or equal to 3.0 to 1.0, and requires the ratio of consolidated funded indebtedness, minus AWI and domestic subsidiary unrestricted cash and cash equivalents up to \$100 million, to EBITDA to be less than or equal to 3.75 to 1.0 (subject to certain exceptions for certain acquisitions). As of September 30, 2023, we were in compliance with all covenants of the senior credit facility.

In July 2017, the Financial Conduct Authority (the authority that regulates the London Interbank Offered Rate ("LIBOR")) announced its intent to replace LIBOR rates with the SOFR effective in mid-2023. The Alternative Reference Rates Committee ("ARRC") proposed that the SOFR rate represented best practice as the alternative to USD-LIBOR for use in derivatives and other financial contracts that were currently indexed to USD-LIBOR. ARRC proposed a paced market transition plan to SOFR from USD-LIBOR. In the second quarter of 2020, we adopted ASU 2020-04 which provided optional expedients and exceptions for applying U.S. GAAP to contracts, hedging relationships and other transactions affected by the discontinuation of LIBOR. In March 2023, we amended our interest rate swaps in accordance with ASU 2020-04, changing our hedged interest rate from LIBOR to SOFR.

Management's Discussion and Analysis of Financial Condition and Results of Operations

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

Coverage Period	Notional Amount	Risk Coverage	Trade Date
November 2018 to November 2023	\$ 200.0	USD-SOFR	November 28, 2018
September 2022 to December 2023	\$ 25.0	USD-SOFR	September 19, 2022
March 2021 to March 2024	\$ 50.0	USD-SOFR	March 10, 2020
March 2021 to March 2024	\$ 50.0	USD-SOFR	March 11, 2020
March 2021 to March 2025	\$ 100.0	USD-SOFR	November 28, 2018

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

Coverage Period	Notional Amount	Risk Coverage	Trade Date
November 2023 to June 2024	\$ 50.0	USD-SOFR	September 18, 2023
November 2023 to November 2027	\$ 50.0	USD-SOFR	September 29, 2023

Under the terms of our forward-starting interest rate swaps above, during the coverage period on a monthly basis, we will pay a fixed rate and receive a floating rate based on SOFR.

As of September 30, 2023, all of the swaps are designated as cash flow hedges against changes in SOFR for a portion of our variable rate debt.

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

Financing Arrangements	September 30, 2023		
	Limit	Used	Available
Bi-lateral facility	\$ 25.0	\$ 7.7	\$ 17.3
Revolving credit facility	150.0	-	150.0
Total	\$ 175.0	\$ 7.7	\$ 167.3

As of September 30, 2023, we had \$96.6 million of cash and cash equivalents, \$77.6 million in the U.S. and \$19.0 million in foreign jurisdictions, primarily Canada. As of September 30, 2023, we also had \$325.0 million available under our revolving credit facility. We believe cash on hand and cash generated from operations, together with borrowing capacity under our credit facility, will be adequate to address our near-term liquidity needs based on current expectations of our business operations, capital expenditures and scheduled payments of debt obligations.

CRITICAL ACCOUNTING ESTIMATES

There have been no material changes to our critical accounting estimates disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

For information regarding our exposure to certain market risks, see Item 7A, “Quantitative and Qualitative Disclosures About Market Risk,” in our Annual Report on Form 10-K for the year ended December 31, 2022.

ITEM 4. CONTROLS AND PROCEDURES

- (a) **Evaluation of Disclosure Controls and Procedures.** The Securities and Exchange Commission defines the term “disclosure controls and procedures” to mean a company’s controls and other procedures that are designed to ensure that information required to be disclosed in the reports that it files or submits under the Securities Exchange Act of 1934, as amended (the “Act”), is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms. Based on the evaluation of the effectiveness of our disclosure controls and procedures by our management, with the participation of our principal executive officer and our chief financial officer, as of September 30, 2023, our principal executive officer and our chief financial officer have concluded that our disclosure controls and procedures were effective to ensure that information required to be disclosed in the reports that we file or submit under the Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms.
- (b) **Changes in Internal Control Over Financial Reporting.** There have been no material changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Act) during the fiscal quarter ended September 30, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

See Note 21 to the Condensed Consolidated Financial Statements, which is incorporated herein by reference.

ITEM 1A. RISK FACTORS

There have been no material changes to the risk factors disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

(c) Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased ⁽¹⁾	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Approximate Value of Shares that may yet be Purchased under the Plans or Programs
July 1-31, 2023	163,016	\$ 74.36	161,437	\$ 779,790,737
August 1-31, 2023	240,561	\$ 75.53	238,263	\$ 761,791,607
September 1-30, 2023	135,849	\$ 74.02	135,036	\$ 751,794,087
Total	<u>539,426</u>		<u>534,736</u>	

(1) Includes shares reacquired through the withholding of shares to pay employee tax obligations upon the exercise of options or vesting of restricted shares previously granted under our long-term incentive plans.

In July 2016, our Board of Directors approved a share repurchase program authorizing us to repurchase up to \$150.0 million of our outstanding shares of common stock through July 2018 (the "Program"). Pursuant to additional authorizations and extensions of the Program approved by our Board of Directors, we are authorized to repurchase up to \$1,700.0 million of our outstanding shares of common stock through December 31, 2026.

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

During the three months ended September 30, 2023, we repurchased 0.5 million shares under the Program for a total cost of \$40.0 million, excluding commissions and taxes, or an average price of \$74.80 per share. During the nine months ended September 30, 2023, we repurchased 1.3 million shares under the Program for a total cost of \$97.0 million, excluding commissions and taxes, or an average price of \$72.09 per share. Since inception and through September 30, 2023, we have repurchased 13.7 million shares under the Program for a total cost of \$948.2 million, excluding commissions and taxes, or an average price of \$69.00 per share.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

ITEM 5. OTHER INFORMATION

Trading Arrangements of Directors and Executive Officers

On August 31, 2023, Victor D. Grizzle, our President and Chief Executive Officer, entered into a new 10b5-1 plan intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Securities and Exchange Act of 1934, as amended. This plan provides for the exercise and sale of 22,914 stock options at market price on December 28, 2023. The stock options subject to this plan have a ten-year exercise term limit and are scheduled to expire on February 25, 2024.

ITEM 6. EXHIBITS

The following exhibits are filed as part of this Quarterly Report on Form 10-Q:

<u>Exhibit No.</u>	<u>Description</u>
31.1	Certification of Chief Executive Officer required by Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act. †
31.2	Certification of Chief Financial Officer required by Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act. †
32.1	Certification of Chief Executive Officer required by Rule 13a and 18 U.S.C. Section 1350. ††
32.2	Certification of Chief Financial Officer required by Rule 13a and 18 U.S.C. Section 1350. ††
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document. †
101.SCH	Inline XBRL Taxonomy Extension Schema. †
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase. †
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase. †
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase. †
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase. †
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023 has been formatted in Inline XBRL.
†	Filed herewith.
††	Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Armstrong World Industries, Inc.

By: /s/ Christopher P. Calzaretta
Christopher P. Calzaretta, Senior Vice President and
Chief Financial Officer (Principal Financial Officer)

By: /s/ James T. Burge
James T. Burge, Vice President and
Controller (Principal Accounting Officer)

Date: October 24, 2023

I, Victor D. Grizzle, certify that:

- 1) I have reviewed this quarterly report on Form 10-Q of Armstrong World Industries, Inc.;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: October 24, 2023

/s/ Victor D. Grizzle

Victor D. Grizzle

Director, President and Chief Executive Officer

I, Christopher P. Calzaretta, certify that:

- 1) I have reviewed this quarterly report on Form 10-Q of Armstrong World Industries, Inc.;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: October 24, 2023

/s/ Christopher P. Calzaretta

Christopher P. Calzaretta

Senior Vice President and Chief Financial Officer

Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

I certify to the best of my knowledge and belief that the periodic report on Form 10-Q of Armstrong World Industries, Inc. (the "Company") containing its financial statements for the fiscal quarter ended September 30, 2023 fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934, and that information contained in that report fairly presents, in all material respects, the financial condition and results of operations of the Company as of that date.

/s/ Victor D. Grizzle

Victor D. Grizzle

Director, President and Chief Executive Officer

Armstrong World Industries, Inc.

Dated: October 24, 2023

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

I certify to the best of my knowledge and belief that the periodic report on Form 10-Q of Armstrong World Industries, Inc. (the "Company") containing its financial statements for the fiscal quarter ended September 30, 2023 fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934, and that information contained in that report fairly presents, in all material respects, the financial condition and results of operations of the Company as of that date.

/s/ Christopher P. Calzaretta

Christopher P. Calzaretta

Senior Vice President and Chief Financial Officer

Armstrong World Industries, Inc.

Dated: October 24, 2023

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.
