

**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, 2021

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 21, 2021 – 47,475,717.

TABLE OF CONTENTS

	<u>PAGE</u>
<u>Cautionary Note Regarding Forward-Looking Statements</u>	3
<u>PART I - FINANCIAL INFORMATION</u>	
Item 1. <u>Financial Statements</u>	5
Item 2. <u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	27
Item 3. <u>Quantitative and Qualitative Disclosures About Market Risk</u>	35
Item 4. <u>Controls and Procedures</u>	35
<u>PART II - OTHER INFORMATION</u>	
Item 1. <u>Legal Proceedings</u>	36
Item 1A. <u>Risk Factors</u>	36
Item 2. <u>Unregistered Sales of Equity Securities and Use of Proceeds</u>	36
Item 3. <u>Defaults Upon Senior Securities</u>	36
Item 4. <u>Mine Safety Disclosures</u>	36
Item 5. <u>Other Information</u>	36
Item 6. <u>Exhibits</u>	37
<u>Signatures</u>	38

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 residential and commercial markets and their effect on our operating results; the impacts of COVID-19 on our business; our expectations regarding the payment of dividends; and our ability to increase revenues, earnings and earnings before interest, taxes, depreciation and amortization (“EBITDA”). Words such as “anticipate,” “expect,” “intend,” “plan,” “target,” “project,” “predict,” “believe,” “may,” “will,” “would,” “could,” “should,” “seek,” “estimate” 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

- key customers;
- availability and costs of raw materials and energy;
- Worthington Armstrong Venture (“WAVE”), our joint venture with Worthington Industries, Inc;
- costs savings and productivity initiatives;
- labor;

Risks Related to Our Strategy

- strategic transactions;
- digitalization initiatives and new technology;

Risks Related to Financial Matters

- negative tax consequences;
- covenants in our debt agreements;
- our indebtedness;
- our liquidity;
- defined benefit plan obligations;
- the tax consequences of the separation of our flooring business from our ceilings business;

Risks Related to Legal and Regulatory Matters

- environmental matters;
- litigation;
- claims;
- sustainability;
- intellectual property rights;
- international operations;

Risks Related to General Economic and Other Factors

- economic conditions;
- construction activity;
- competition;
- customer consolidation;
- geographic concentration;
- information technology disruptions and cybersecurity breaches;
- dividend payments;

- 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, 2020, and in the documents incorporated by reference herein and therein.

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 Operations and Comprehensive Income
(amounts in millions, except per share data)
Unaudited

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2021	2020	2021	2020
Net sales	\$ 292.2	\$ 246.3	\$ 824.1	\$ 698.2
Cost of goods sold	181.5	155.1	521.0	447.9
Gross profit	110.7	91.2	303.1	250.3
Selling, general and administrative expenses	62.3	41.0	176.5	108.8
Change in fair value of contingent consideration	(0.3)	-	(9.8)	-
(Gain) related to sale of fixed and intangible assets	-	(6.9)	-	(21.0)
Equity (earnings) from joint venture	(23.4)	(15.2)	(68.1)	(48.2)
Operating income	72.1	72.3	204.5	210.7
Interest expense	6.1	6.1	17.4	18.7
Other non-operating (income) expense, net	(1.4)	(3.2)	(4.3)	361.8
Earnings (loss) from continuing operations before income taxes	67.4	69.4	191.4	(169.8)
Income tax expense (benefit)	16.6	15.2	48.0	(50.9)
Earnings (loss) from continuing operations	50.8	54.2	143.4	(118.9)
(Loss) from disposal of discontinued businesses, net of tax expense (benefit) of \$ -, \$ -, \$1.7 and (\$1.4)	-	(0.2)	(2.1)	(3.0)
Net (loss) from discontinued operations	-	(0.2)	(2.1)	(3.0)
Net earnings (loss)	\$ 50.8	\$ 54.0	\$ 141.3	\$ (121.9)
Other comprehensive income, net of tax:				
Foreign currency translation adjustments	(0.8)	(6.2)	0.3	(8.2)
Derivative gain (loss), net	0.8	1.5	5.7	(12.3)
Pension and postretirement adjustments	0.1	(0.8)	0.5	286.8
Total other comprehensive income (loss)	0.1	(5.5)	6.5	266.3
Total comprehensive income	\$ 50.9	\$ 48.5	\$ 147.8	\$ 144.4
Earnings (loss) per share of common stock, continuing operations:				
Basic	\$ 1.07	\$ 1.13	\$ 3.00	\$ (2.48)
Diluted	\$ 1.06	\$ 1.13	\$ 2.98	\$ (2.48)
Earnings (loss) per share of common stock, discontinued operations:				
Basic	\$ -	\$ -	\$ (0.04)	\$ (0.06)
Diluted	\$ -	\$ -	\$ (0.04)	\$ (0.06)
Net earnings (loss) per share of common stock:				
Basic	\$ 1.07	\$ 1.13	\$ 2.96	\$ (2.54)
Diluted	\$ 1.06	\$ 1.13	\$ 2.94	\$ (2.54)
Average number of common shares outstanding:				
Basic	47.5	47.9	47.7	47.9
Diluted	47.8	48.0	48.0	47.9

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)

	Unaudited September 30, 2021	December 31, 2020
<u>Assets</u>		
Current assets:		
Cash and cash equivalents	\$ 94.3	\$ 136.9
Accounts and notes receivable, net	102.9	78.3
Inventories, net	89.6	81.5
Income taxes receivable	2.7	2.3
Other current assets	20.8	12.8
Total current assets	310.3	311.8
Property, plant, and equipment, less accumulated depreciation and amortization of \$481.8 and \$487.1, respectively	527.3	529.9
Operating lease assets	19.1	19.2
Finance lease assets	19.0	20.4
Prepaid pension costs	122.1	119.5
Investment in joint venture	54.0	41.2
Goodwill	166.6	160.7
Intangible assets, net	427.0	457.5
Income taxes receivable	-	0.6
Other non-current assets	59.5	57.7
Total assets	\$ 1,704.9	\$ 1,718.5
<u>Liabilities and Shareholders' Equity</u>		
Current liabilities:		
Current installments of long-term debt	25.0	25.0
Accounts payable and accrued expenses	156.8	136.5
Operating lease liabilities	5.0	4.8
Finance lease liabilities	2.2	2.0
Income taxes payable	5.3	4.0
Total current liabilities	194.3	172.3
Long-term debt, less current installments	602.4	690.5
Operating lease liabilities	14.3	14.6
Finance lease liabilities	17.4	18.8
Postretirement benefit liabilities	70.6	74.9
Pension benefit liabilities	38.7	40.4
Other long-term liabilities	55.2	76.5
Income taxes payable	22.4	21.2
Deferred income taxes	167.4	158.4
Total non-current liabilities	988.4	1,095.3
Shareholders' equity:		
Common stock, \$0.01 par value per share, 200 million shares authorized, 62,740,154 shares issued and 47,547,622 shares outstanding as of September 30, 2021 and 62,599,331 shares issued and 47,913,821 shares outstanding as of December 31, 2020	0.6	0.6
Capital in excess of par value	557.7	553.7
Retained earnings	980.6	869.8
Treasury stock, at cost, 15,192,532 shares as of September 30, 2021 and 14,685,510 shares as of December 31, 2020	(913.9)	(863.9)
Accumulated other comprehensive (loss)	(102.8)	(109.3)
Total shareholders' equity	522.2	450.9
Total liabilities and shareholders' equity	\$ 1,704.9	\$ 1,718.5

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 data)
Unaudited

Three Months Ended September 30, 2021

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
	June 30, 2021	47,732,943			\$ 0.6	\$ 554.7		
Stock issuance, net	1,608	-	-	-	-	-	-	-
Cash dividends - \$0.21 per common share	-	-	-	(10.0)	-	-	-	(10.0)
Share-based employee compensation	-	-	3.0	-	-	-	-	3.0
Net earnings	-	-	-	50.8	-	-	-	50.8
Other comprehensive income	-	-	-	-	-	-	0.1	0.1
Acquisition of treasury stock	(186,929)	-	-	-	186,929	(20.0)	-	(20.0)
September 30, 2021	47,547,622	\$ 0.6	\$ 557.7	\$ 980.6	15,192,532	\$ (913.9)	\$ (102.8)	\$ 522.2

Nine Months Ended September 30, 2021

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
	December 31, 2020	47,913,821			\$ 0.6	\$ 553.7		
Stock issuance, net	140,823	-	-	-	-	-	-	-
Cash dividends - \$0.63 per common share	-	-	-	(30.5)	-	-	-	(30.5)
Share-based employee compensation	-	-	4.0	-	-	-	-	4.0
Net earnings	-	-	-	141.3	-	-	-	141.3
Other comprehensive income	-	-	-	-	-	-	6.5	6.5
Acquisition of treasury stock	(507,022)	-	-	-	507,022	(50.0)	-	(50.0)
September 30, 2021	47,547,622	\$ 0.6	\$ 557.7	\$ 980.6	15,192,532	\$ (913.9)	\$ (102.8)	\$ 522.2

Three Months Ended September 30, 2020

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
	June 30, 2020	47,856,179			\$ 0.6	\$ 551.7		
Stock issuance, net	3,572	-	-	-	-	-	-	-
Cash dividends - \$0.20 per common share	-	-	-	(9.7)	-	-	-	(9.7)
Share-based employee compensation	-	-	0.9	-	-	-	-	0.9
Net earnings	-	-	-	54.0	-	-	-	54.0
Other comprehensive (loss)	-	-	-	-	-	-	(5.5)	(5.5)
September 30, 2020	47,859,751	\$ 0.6	\$ 552.6	\$ 857.1	14,653,217	\$ (857.9)	\$ (109.8)	\$ 442.6

Nine Months Ended September 30, 2020

	Common Stock		Additional Paid-In Capital	Retained Earnings	Treasury Stock		Accumulated Other Comprehensive (Loss)	Total
	Shares	Amount			Shares	Amount		
	December 31, 2019	47,992,348			\$ 0.6	\$ 555.7		
Stock issuance, net	249,573	-	-	-	-	-	-	-
Cash dividends - \$0.60 per common share	-	-	-	(29.2)	-	-	-	(29.2)
Share-based employee compensation	-	-	(3.1)	-	-	-	-	(3.1)
Net (loss)	-	-	-	(121.9)	-	-	-	(121.9)
Other comprehensive income	-	-	-	-	-	-	266.3	266.3
Acquisition of treasury stock	(382,170)	-	-	-	382,170	(34.4)	-	(34.4)
September 30, 2020	47,859,751	\$ 0.6	\$ 552.6	\$ 857.1	14,653,217	\$ (857.9)	\$ (109.8)	\$ 442.6

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,	
	2021	2020
Cash flows from operating activities:		
Net earnings (loss)	\$ 141.3	\$ (121.9)
Adjustments to reconcile net earnings (loss) to net cash provided by operating activities:		
Depreciation and amortization	74.3	61.6
Deferred income taxes	6.8	(87.0)
Share-based compensation	8.5	4.7
Loss on disposal of discontinued operations	0.4	4.4
Gain related to sale of fixed and intangible assets	-	(21.0)
Equity earnings from joint venture	(68.1)	(48.2)
U.S. pension cost	0.1	369.7
Change in fair value of contingent consideration	(9.8)	-
Other non-cash adjustments, net	0.7	0.7
Changes in operating assets and liabilities:		
Receivables	(24.6)	0.2
Inventories	(9.8)	(7.8)
Accounts payable and accrued expenses	27.5	(20.7)
Income taxes receivable and payable, net	2.8	28.4
Other assets and liabilities	(12.2)	(14.7)
Net cash provided by operating activities	137.9	148.4
Cash flows from investing activities:		
Purchases of property, plant and equipment	(47.9)	(33.0)
Return of investment from joint venture	55.0	61.4
Cash paid for acquisitions	(0.8)	(74.2)
Proceeds from the sale of assets	0.1	19.1
Payments of proceeds from Knauf to investment in joint venture	-	(25.9)
Payments to Knauf upon disposal of discontinued operations	(11.8)	(6.4)
Other investing activities	-	6.8
Net cash (used for) investing activities	(5.4)	(52.2)
Cash flows from financing activities:		
Proceeds from short-term debt	-	30.0
Payments of short-term debt	-	(30.0)
Proceeds from revolving credit facility	75.0	170.0
Payments of revolving credit facility	(145.0)	(100.0)
Payments of long-term debt	(18.7)	-
Dividends paid	(30.4)	(29.1)
Payments from share-based compensation plans, net of tax	(4.5)	(7.8)
Payments for finance leases	(1.5)	(1.2)
Payments for treasury stock acquired	(50.0)	(34.4)
Net cash (used for) financing activities	(175.1)	(2.5)
Effect of exchange rate changes on cash and cash equivalents	-	(0.2)
Net (decrease) increase in cash and cash equivalents	(42.6)	93.5
Cash and cash equivalents at beginning of year	136.9	45.3
Cash and cash equivalents at end of period	\$ 94.3	\$ 138.8
Supplemental Cash Flow Disclosures:		
Interest paid	\$ 17.5	\$ 18.2
Income tax payments, net	40.1	6.3
Amounts in accounts payable for capital expenditures	0.3	-

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

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, 2020. 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, 2020. 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 2021 and 2020 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.

Acquisitions

In December 2020, we acquired all of the issued and outstanding equity of Arktura LLC (“Arktura”) and certain subsidiaries with operations in the United States and Argentina. Arktura is a designer and fabricator of metal and felt ceilings, walls, partitions, and facades with one manufacturing facility based in Los Angeles, California.

In August 2020, we acquired the business and assets of Moz Designs, Inc. (“Moz”), based in Oakland, California. Moz is a designer and fabricator of custom architectural metal ceilings, walls, dividers and column covers for interior and exterior applications with one manufacturing facility.

In July 2020, we acquired all the issued and outstanding capital stock of TURF Design, Inc. (“Turf”), with one manufacturing facility in Elgin, Illinois and a design center in Chicago, Illinois. Turf is a designer and manufacturer of acoustic felt ceilings and wall products.

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.

Discontinued Operations

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 (“Knauf”). In January 2021, we finalized post-closing adjustments to the purchase price related to certain pension liabilities assumed by Knauf in the Sale. During the first quarter of 2021, we paid \$11.8 million to Knauf related to this purchase price adjustment.

See Note 5 for additional information related to our discontinued operations.

Recently Adopted Accounting Standards

In December 2019, the FASB issued ASU 2019-12, “*Simplifying the Accounting for Income Taxes*,” which removes exceptions to the general principles in ASC Topic 740 – Income Taxes for allocating tax expense between financial statement components, accounting basis differences resulting from an ownership change in foreign investments and interim period income tax accounting for year-to-date losses that exceed projected losses. Effective January 1, 2021, we adopted this standard, which had no material impact on our financial condition or results of operations.

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

COVID-19 Considerations

The COVID-19 pandemic has created significant volatility and economic disruption and the impact on our future consolidated results of operations is uncertain. The extent to which COVID-19 impacts our employees, operations, customers, suppliers and financial results depends on numerous evolving factors that we are not be able to accurately predict, including: the duration and scope of the pandemic; government actions taken in response to the pandemic; the availability and distribution of vaccines; the impact on construction activity; the effect on our customers demand for our ceiling and wall systems; our ability to manufacture and sell our products; and the ability of our customers to pay for our products. While many of our products support life sustaining activities and essential construction, we, and certain of our customers or suppliers, may be impacted by state actions, orders and policies regarding the COVID-19 pandemic, including temporary closures of non-life sustaining businesses, shelter-in-place orders, and travel, social distancing and quarantine policies, the implementation and enforcement of which vary by individual U.S. states and by individual countries in the Americas. We did not record any asset impairments, inventory charges or material bad debt reserves related to COVID-19 during the third quarter and first nine months of 2021 and 2020 but future events may require such charges, which could have a material adverse effect on our financial condition, liquidity or results of operations.

NOTE 2. SEGMENT RESULTS

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
<u>Net sales</u>				
Mineral Fiber	\$ 214.5	\$ 187.3	\$ 611.3	\$ 542.9
Architectural Specialties	77.7	59.0	212.8	155.3
Total net sales	<u>\$ 292.2</u>	<u>\$ 246.3</u>	<u>\$ 824.1</u>	<u>\$ 698.2</u>

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
<u>Segment operating income (loss)</u>				
Mineral Fiber	\$ 68.5	\$ 58.1	\$ 201.2	\$ 173.7
Architectural Specialties	5.0	9.1	7.5	20.9
Unallocated Corporate	(1.4)	5.1	(4.2)	16.1
Total consolidated operating income	<u>\$ 72.1</u>	<u>\$ 72.3</u>	<u>\$ 204.5</u>	<u>\$ 210.7</u>

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Total consolidated operating income	\$ 72.1	\$ 72.3	\$ 204.5	\$ 210.7
Interest expense	6.1	6.1	17.4	18.7
Other non-operating (income) expense, net	(1.4)	(3.2)	(4.3)	361.8
Earnings (loss) from continuing operations before income taxes	<u>\$ 67.4</u>	<u>\$ 69.4</u>	<u>\$ 191.4</u>	<u>\$ (169.8)</u>

	September 30, 2021	December 31, 2020
	<u>Segment assets</u>	
Mineral Fiber	\$ 1,119.9	\$ 1,101.1
Architectural Specialties	365.4	357.7
Unallocated Corporate	219.6	259.7
Total consolidated assets	<u>\$ 1,704.9</u>	<u>\$ 1,718.5</u>

NOTE 3. REVENUE

Revenue Recognition

We recognize revenue upon transfer of control of our products to the customer, which typically occurs upon shipment. Our main performance obligation to our customers is the delivery of products in accordance with purchase orders. Each purchase order confirms the transaction price for the products purchased under the arrangement. Direct sales to building materials distributors, home centers, direct customers and retailers represent the majority of our sales. Our standard sales terms are Free On Board (“FOB”) shipping point. We have some sales terms that are FOB destination. At the point of shipment, the customer is required to pay under normal sales

terms. In most cases our normal payment terms are 45 days or less and our sales arrangements do not have any material financing components. In addition, our customer arrangements do not produce contract assets or liabilities that are material to our Condensed Consolidated Financial Statements. Within our Architectural Specialties segment, the majority of revenues are customer project driven, which includes a minority of revenues derived from the sale of customer specified customized products that have no alternative use to us. The manufacturing cycle for these custom products is typically short.

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

Our products are sold with normal and customary return provisions. We provide limited warranties for defects in materials or factory workmanship, sagging and warping, and certain other manufacturing defects. Warranties are not sold separately to customers. Our product warranties place certain requirements on the purchaser, including installation and maintenance in accordance with our written instructions. In addition to our warranty program, under certain limited circumstances, we will occasionally at our sole discretion provide a customer accommodation repair or replacement. Warranty repairs and replacements are most commonly made by professional installers employed by or affiliated with our independent distributors. Reimbursement for costs associated with warranty repairs are provided to our independent distributors through a credit against accounts receivable from the distributor to us. Sales returns and warranty claims have historically not been material and do not constitute separate performance obligations.

We often offer incentive programs to our customers, primarily volume rebates and promotions. The majority of our rebates are designated as a percentage of annual customer purchases. We estimate the amount of rebates based on actual sales for the period and accrue for the projected incentive programs' costs. We record the costs of rebate accruals as a reduction to the transaction price. Other sales discounts, including early pay promotions, are deducted immediately from the sales invoice.

Shipping and Handling

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

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, wood fiber, glass-reinforced-gypsum and felt) 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.

Retailers and 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 ("MRO") entities. Geographically, this category includes sales throughout the U.S. and Canada.

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

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, 2021 and 2020:

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2021	2020	2021	2020
<u>Mineral Fiber</u>				
Distributors	\$ 161.5	\$ 138.6	\$ 453.5	\$ 395.1
Home centers	20.2	22.5	68.4	67.6
Direct customers	16.3	13.8	44.3	41.9
Retailers and other	16.5	12.4	45.1	38.3
Total	\$ 214.5	\$ 187.3	\$ 611.3	\$ 542.9

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2021	2020	2021	2020
<u>Architectural Specialties</u>				
Distributors	\$ 41.4	\$ 36.0	\$ 116.0	\$ 103.9
Direct customers	35.7	23.0	94.6	49.8
Retailers and other	0.6	-	2.2	1.6
Total	\$ 77.7	\$ 59.0	\$ 212.8	\$ 155.3

NOTE 4. ACQUISITIONS

We account for acquisitions under the acquisition method and the results 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. Our definite-lived intangible assets, and adjustments to the fair value of assets acquired and/or liabilities assumed, are amortized over the estimated useful life on a straight-line basis and recorded as a component of operating income (expense). 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. Changes in the fair value of contingent consideration liabilities recorded in reporting periods after the acquisition date are recorded within change in fair value of contingent consideration on our Condensed Consolidated Statements of Operations and Comprehensive Income.

ARKTURA

On December 16, 2020, we acquired all the issued and outstanding equity of Arktura LLC ("Arktura") and its subsidiaries with operations in the United States and Argentina for \$91.3 million of cash paid at closing, net of \$0.1 million of cash acquired, subject to customary post-closing adjustments for working capital. A portion of the cash consideration paid at closing is being held in escrow to secure potential claims for indemnification under the agreement. Under the terms of the agreement, and contingent upon continued employment with AWI, we are obligated to pay the sellers an additional \$24.0 million in cash payments over a period of five years and issued an additional \$6.0 million of restricted stock which will vest over a period of five years. Contingent upon employment with AWI, we also issued an additional \$1.4 million of restricted stock to key Arktura employees which will vest over a period of three years. Compensation expense associated with these cash payments and restricted stock awards will be recorded over the required service and vesting periods. Customary post-closing adjustments for working capital may become known during the remainder of the measurement period. Changes to amounts recorded may result in a corresponding adjustment to acquired assets or liabilities, including goodwill.

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

The total fair value of tangible assets acquired, less liabilities assumed, was \$1.4 million. The acquisition resulted in \$57.0 million of goodwill. The following table summarizes the fair values of identifiable intangible assets acquired, and their estimated useful lives:

	Fair Value at Acquisition Date	Estimated Useful Life
Tradenames	\$ 12.1	Indefinite
Software	9.1	7 years
Backlog	5.5	1 year
Customer relationships	3.6	1 year
Non-compete agreements	2.1	5 years
Patents	0.6	13-19 years
Total identifiable intangible assets	\$ 33.0	

In connection with the Arktura acquisition, we formed Arktura Ventures LLC, an incubator entity for the development and commercialization of new products and solutions in the architecture, engineering and construction spaces. As of September 30, 2021, the venture entity had no funding or operations.

MOZ

On August 24, 2020, we acquired the business and assets of Moz for \$4.2 million of cash paid at closing and the potential for a contingent earn-out payable in 2022 not to exceed \$4.7 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 at the acquisition date of \$2.7 million, resulting in total acquisition consideration of \$6.9 million.

The contingent consideration is payable upon achievement of certain future performance objectives through December 31, 2021. See Note 15 for details related to the fair value of contingent consideration.

TURF

On July 27, 2020, we acquired all the issued and outstanding capital stock of Turf for a purchase price of \$70.0 million of cash paid at closing and the potential for a contingent earn-out payable in 2022 and 2023 not to exceed \$48.0 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 at the acquisition date of \$14.1 million, resulting in total acquisition consideration of \$84.1 million.

The contingent consideration is payable upon achievement of certain future performance objectives through 2022. The contingent consideration includes up to \$24.0 million in additional cash consideration for performance at certain revenue and earnings before interest, taxes, depreciation and amortization (“EBITDA”) growth targets. Full payout for target performance requires compounded annual growth rates in excess of 23% through December 31, 2022. The contingent consideration also includes up to \$24.0 million in additional cash consideration for performance over revenue and EBITDA growth targets. Full payout for achievement over target performance requires compounded annual growth rates in excess of 38% through December 31, 2022. See Note 15 for details related to the change in fair value of the contingent consideration.

PRO FORMA FINANCIAL INFORMATION

The following table summarizes aggregate unaudited pro forma information assuming the acquisitions of Arktura, Moz and Turf had occurred on January 1, 2020. The unaudited pro forma results include the depreciation and amortization associated with the acquired assets, compensation expense related to cash payments and equity awards granted to employees of the acquired companies and adjustments to net sales for the purchase accounting effects of recording deferred revenue at fair value. In addition, the unaudited pro forma results do not include any expected benefits of the acquisitions or adjustments to as reported changes in the fair value of the contingent consideration. Accordingly, the unaudited pro forma results are not necessarily indicative of either future results of operations or results that might have been achieved had the acquisitions been consummated as of January 1, 2020.

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2021	2020	2021	2020
Net sales from continuing operations, pro forma	\$ 292.2	\$ 258.4	\$ 824.8	\$ 743.6
Net sales from continuing operations, as reported	292.2	246.3	824.1	698.2
Net earnings (loss) from continuing operations before income taxes, pro forma	72.5	67.2	207.9	(185.3)
Net earnings (loss) from continuing operations before income taxes, as reported	67.4	69.4	191.4	(169.8)

The following table presents the net sales and pre-tax net (loss) income of Arktura, Moz and Turf included in our Condensed Consolidated Statements of Operations and Comprehensive Income:

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2021	2020	2021	2020
Net sales	\$ 23.5	\$ 7.7	\$ 57.5	\$ 7.7
Pre-tax net (loss) income	(1.0)	1.2	(3.0)	1.2

NOTE 5. DISCONTINUED OPERATIONS

EMEA and Pacific Rim Businesses

In 2019, we completed the sale of certain subsidiaries comprising our businesses in EMEA and the Pacific Rim to Knauf. During the nine months ended September 30, 2021, we recorded a pre-tax loss on sale of \$0.4 million for final purchase price adjustments related to certain pension liabilities included in the Sale. We did not record a gain or loss during the three months ended September 30, 2021. During the three and nine months ended September 30, 2020, we recorded a pre-tax loss on sale of \$0.2 and \$5.2 million, respectively, representing working capital and other adjustments.

See Note 1 for further discussion of the Sale.

European Resilient Flooring

During the second quarter of 2020, we recorded a gain of \$0.8 million related to Accumulated Other Comprehensive Income (“AOCI”) adjustments from a previously discontinued foreign flooring entity, which was dissolved in the second quarter of 2020. The AOCI adjustments related to accumulated foreign currency translation amounts.

Summarized Financial Information of Discontinued Operations

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

	EMEA and Pacific Rim Businesses	
<u>Nine Months Ended September 30, 2021</u>		
(Loss) from disposal of discontinued businesses, before income tax	\$	(0.4)
Income tax expense		1.7
(Loss) from disposal of discontinued businesses, net of tax	\$	(2.1)
Net (loss) from discontinued operations	\$	(2.1)

	EMEA and Pacific Rim Businesses	
<u>Three Months Ended September 30, 2020</u>		
(Loss) from disposal of discontinued businesses, before income tax	\$	(0.2)
Income tax (benefit)		-
(Loss) from disposal of discontinued business, net of tax	\$	(0.2)
Net (loss) from discontinued operations	\$	(0.2)

	EMEA and Pacific Rim Businesses	European Resilient Flooring	Total
<u>Nine Months Ended September 30, 2020</u>			
(Loss) gain from disposal of discontinued businesses, before income tax	\$ (5.2)	\$ 0.8	\$ (4.4)
Income tax (benefit)	(1.4)	-	(1.4)
(Loss) gain from disposal of discontinued businesses, net of tax	\$ (3.8)	\$ 0.8	\$ (3.0)
Net (loss) earnings from discontinued operations	\$ (3.8)	\$ 0.8	\$ (3.0)

NOTE 6. ACCOUNTS AND NOTES RECEIVABLE

	September 30, 2021	December 31, 2020
Customer receivables	\$ 101.4	\$ 77.9
Miscellaneous receivables	5.7	4.0
Less allowance for warranties, discounts and losses	(4.2)	(3.6)
Accounts and notes receivable, net	\$ 102.9	\$ 78.3

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 September 30, 2021, miscellaneous receivables included a \$4.5 million Employee Retention Credit (“ERC”), representing a refundable payroll tax credit for eligible wages paid to our employees in 2020 under the Coronavirus Aid, Relief, and Economic Recovery Act. Based on our evaluation we recognized the ERC benefit during the third quarter of 2021, primarily as an offset to payroll tax expenses within cost of goods sold and selling, general, and administrative (“SG&A”) expenses in our Condensed Consolidated Statements of Operations and Comprehensive Income.

NOTE 7. INVENTORIES

	September 30, 2021	December 31, 2020
Finished goods	\$ 49.8	\$ 44.6
Goods in process	6.4	5.5
Raw materials and supplies	46.2	42.3
Less LIFO reserves	(12.8)	(10.9)
Total inventories, net	\$ 89.6	\$ 81.5

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

NOTE 8. OTHER CURRENT ASSETS

	September 30, 2021	December 31, 2020
Prepaid expenses	\$ 14.9	\$ 12.0
Assets held for sale	4.6	-
Other	1.3	0.8
Total other current assets	<u>\$ 20.8</u>	<u>\$ 12.8</u>

As of September 30, 2021, assets held for sale included the property, plant and equipment of our idled mineral fiber plant in St. Helens, Oregon. We entered into a sale agreement for the property during the first quarter of 2021, with closing expected in the fourth quarter of 2021.

NOTE 9. EQUITY INVESTMENT

Investment in joint venture reflects our 50% equity interest in WAVE. 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,	
	2021	2020	2021	2020
Net sales	\$ 114.2	\$ 86.3	\$ 321.5	\$ 257.0
Gross profit	64.5	49.4	188.0	145.7
Net earnings	49.1	33.4	143.2	103.3

NOTE 10. GOODWILL AND INTANGIBLE ASSETS

The following table details amounts related to our goodwill and intangible assets as of September 30, 2021 and December 31, 2020.

	Estimated Useful Life	September 30, 2021		December 31, 2020	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
<u>Amortizing intangible assets</u>					
Customer relationships	1-20 years	\$ 200.3	\$ 143.5	\$ 200.6	\$ 128.9
Developed technology	13-19 years	92.7	82.4	92.1	77.9
Software	7 years	9.1	1.0	9.1	-
Trademarks and brand names	5-10 years	4.0	1.8	4.0	1.3
Non-compete agreements	3-5 years	5.6	1.2	6.3	0.4
Other	Various	0.4	0.1	6.9	0.2
Total		<u>\$ 312.1</u>	<u>\$ 230.0</u>	<u>\$ 319.0</u>	<u>\$ 208.7</u>
<u>Non-amortizing intangible assets</u>					
Trademarks and brand names	Indefinite	344.9		347.2	
Total intangible assets		<u>\$ 657.0</u>		<u>\$ 666.2</u>	
Goodwill	Indefinite	<u>\$ 166.6</u>		<u>\$ 160.7</u>	

The increase in goodwill since December 31, 2020 resulted primarily from customary adjustments to valuations for Arktura assets acquired and liabilities assumed on December 16, 2020 and foreign exchange movements.

	Nine Months Ended September 30,	
	2021	2020
Amortization expense	<u>\$ 28.0</u>	<u>\$ 15.4</u>

NOTE 11. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

	September 30, 2021	December 31, 2020
Payables, trade and other	\$ 94.3	\$ 81.3
Employment costs	26.4	17.6
Current portion of pension and postretirement liabilities	9.6	9.5
Payable to Knauf for purchase price adjustments	-	11.4
Acquisition-related contingent consideration	5.3	-
Other	21.2	16.7
Total accounts payable and accrued expenses	\$ 156.8	\$ 136.5

NOTE 12. INCOME TAX EXPENSE

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Earnings (loss) from continuing operations before income taxes	\$ 67.4	\$ 69.4	\$ 191.4	\$ (169.8)
Income tax expense (benefit)	16.6	15.2	48.0	(50.9)
Effective tax rate	24.6 %	21.9 %	25.1 %	30.0 %

The effective tax rate for the third quarter of 2021 was higher compared to the same period in 2020, due primarily to the absence of a benefit related to the sale of our idled Mineral Fiber plant in China recognized in 2020. Excluding the impact of a pension settlement loss and the gain on sale of our idled Mineral Fiber plant in China recorded in the first nine months of 2020, the effective tax rate for the first nine months of 2021 was higher compared to the same period in 2020 due to state law changes enacted in 2021 and a reduction in favorable permanent adjustments.

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 completion of ongoing examinations, the expiration of statutes of limitations or other unforeseen circumstances.

NOTE 13. DEBT

As of September 30, 2021 and December 31, 2020, our long-term debt included borrowings outstanding under our \$1,000.0 million variable rate senior credit facility, which is composed of a \$500.0 million revolving credit facility (with a \$150.0 million sublimit for letters of credit) and a \$500.0 million Term Loan A. As of September 30, 2021 and December 31, 2020, borrowings outstanding under our revolving credit facility were \$155.0 million and \$225.0 million, respectively. As of September 30, 2021 and December 31, 2020, borrowings outstanding under our Term Loan A were \$475.0 million and \$493.7 million, respectively. Additionally, we have a \$25.0 million letter of credit facility, also known as our bi-lateral 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, 2021		
	Limit	Used	Available
Bi-lateral facility	\$ 25.0	\$ 8.4	\$ 16.6
Revolving credit facility	150.0	-	150.0
Total	\$ 175.0	\$ 8.4	\$ 166.6

NOTE 14. 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,	
	2021	2020	2021	2020
U.S. defined benefit plans:				
<u>Pension benefits</u>				
Service cost of benefits earned during the period	\$ 1.2	\$ 1.4	\$ 3.6	\$ 4.2
Interest cost on projected benefit obligation	2.2	2.8	6.7	12.7
Expected return on plan assets	(4.1)	(6.6)	(12.4)	(28.0)
Amortization of net actuarial loss	0.9	0.8	2.7	5.5
Settlement	-	-	-	374.4
Special termination benefits	-	2.0	-	2.0
Net periodic pension cost	<u>\$ 0.2</u>	<u>\$ 0.4</u>	<u>\$ 0.6</u>	<u>\$ 370.8</u>
<u>Retiree health and life insurance benefits</u>				
Interest cost on projected benefit obligation	0.3	0.4	0.9	1.4
Amortization of prior service credit	(0.1)	(0.1)	(0.2)	(0.2)
Amortization of net actuarial gain	(0.6)	(1.7)	(1.7)	(5.0)
Net periodic postretirement (credit)	<u>\$ (0.4)</u>	<u>\$ (1.4)</u>	<u>\$ (1.0)</u>	<u>\$ (3.8)</u>

We also have an unfunded defined benefit pension plan in Germany, which was not acquired by Knauf in connection with the Sale. 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, 2021 and 2020.

The service cost component of net benefit cost has been presented in the Condensed Consolidated Statements of Operations and Comprehensive Income within cost of goods sold and 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 cost are presented in the Condensed Consolidated Statements of Operations and Comprehensive Income separately from the service cost component within other non-operating income (expense), net.

In the first quarter of 2020, we entered into agreements with Athene Annuity and Life Company (“AAIA”) and Athene Annuity & Life Assurance Company of New York (“AANY”) to transfer certain benefit obligations and assets of our U.S. Retirement Income Plan (“RIP”) to AAIA and AANY. As a result of the transaction, we recorded a \$374.4 million settlement loss in the first quarter of 2020, which was reflected as a component of other non-operating income (expense), net.

During the third quarter of 2020, we offered an early retirement incentive benefit to employees at one of our manufacturing plants who met certain age and years of service criteria. The consideration period for eligible employees ended on September 30, 2020. Based on eligible employee elections to participate, we recorded a charge of \$2.0 million within other non-operating expense, which increased the projected benefit obligation of the RIP. The enhanced retirement benefits did not result in a curtailment.

NOTE 15. 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, 2021		December 31, 2020	
	Carrying amount	Estimated fair value	Carrying amount	Estimated fair value
(Liabilities), net:				
Total long-term debt, including current portion	\$ (627.4)	\$ (623.6)	\$ (715.5)	\$ (715.5)
Interest rate swap contracts	(20.3)	(20.3)	(28.9)	(28.9)
Acquisition-related contingent consideration	(7.1)	(7.1)	(16.9)	(16.9)

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

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

engage independent, third-party valuation specialists to determine the fair value estimates for contingent consideration, which are based on a Monte Carlo simulation.

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

	September 30, 2021		December 31, 2020	
	Fair value based on		Fair value based on	
	Other observable inputs	Other unobservable inputs	Other observable inputs	Other unobservable inputs
	Level 2	Level 3	Level 2	Level 3
(Liabilities), net:				
Interest rate swap contracts	\$ (20.3)	\$ -	\$ (28.9)	\$ -
Acquisition-related contingent consideration	-	(7.1)	-	(16.9)

The contingent consideration liability represents the estimated fair value of additional cash consideration payable related to the Moz and Turf acquisitions upon the achievement of certain financial and performance milestones. The contingent consideration is measured on a recurring basis and significant unobservable inputs used in the fair value measurement of the contingent consideration liability include the financial projections over the earn-out period, the volatility of the underlying financial metrics and estimated discount rates. All changes in the contingent consideration liability subsequent to the initial acquisition-date measurements were recorded as a component of operating income on our Condensed Consolidated Statements of Operations and Comprehensive Income.

The following table summarizes the weighted average of the significant unobservable inputs as of September 30, 2021:

<u>Unobservable input</u>	Moz	Turf
Volatility	19.0 %	17.8 %
Discount rates	2.6 %	2.6 %

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 months ended March 31, 2021, June 30, 2021 and September 30, 2021 were as follows:

	Fair Value of Contingent Consideration
Balance as of December 31, 2020	\$ 16.9
Change in fair value of contingent consideration	0.2
Balance as of March 31, 2021	\$ 17.1
Change in fair value of contingent consideration	(9.7)
Balance as of June 30, 2021	\$ 7.4
Change in fair value of contingent consideration	(0.3)
Balance as of September 30, 2021	\$ 7.1

During the three and nine months ended September 30, 2021, we recorded \$0.3 million and \$9.8 million of income from the change in fair value of acquisition-related contingent consideration. These changes in fair value were primarily due to changes in the Turf and Moz financial projections over each entity's respective earn-out period.

NOTE 16. 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 swaps to hedge interest rate exposures. 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 default swap levels and 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 the London Interbank Offered Rate ("LIBOR") for a portion of our variable rate debt. The following table summarizes our interest rate swaps as of September 30, 2021:

Trade Date	Notional Amount	Coverage Period	Risk Coverage
November 28, 2018	\$ 200.0	November 2018 to November 2023	USD-LIBOR
November 28, 2018	\$ 100.0	March 2021 to March 2025	USD-LIBOR
March 6, 2020	\$ 50.0	March 2020 to March 2022	USD-LIBOR
March 10, 2020	\$ 50.0	March 2021 to March 2024	USD-LIBOR
March 11, 2020	\$ 50.0	March 2021 to March 2024	USD-LIBOR

Under the terms of our interest rate swaps above, we pay a fixed rate monthly and receive 1-month LIBOR, inclusive of a 0% floor.

Financial Statement Impacts

The following tables detail amounts related to our derivatives as of September 30, 2021 and December 31, 2020. We did not have any derivative assets or liabilities not designated as hedging instruments as of September 30, 2021 or December 31, 2020. The derivative liability amounts below are shown gross and have not been netted.

	Balance Sheet Location	Derivative Liabilities	
		Fair Value	
		September 30, 2021	December 31, 2020
Interest rate swap contracts	Accounts payable and accrued expenses	\$ 0.1	\$ 0.5
Interest rate swap contracts	Other long-term liabilities	20.2	28.4

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

	Amount of Gain (Loss) Recognized in AOCI		Location of Gain (Loss) Reclassified from AOCI into Net Earnings (Loss)	Gain Reclassified from AOCI into Net Earnings (Loss)			
	Nine Months Ended September 30,			Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020		2021	2020	2021	2020
Derivatives in cash flow hedging relationships							
Interest rate swap contracts	\$ 14.1	\$ (12.9)	Interest expense	\$ 2.2	\$ 1.9	\$ 6.3	\$ 3.7

As of September 30, 2021, the amount of existing losses in AOCI expected to be recognized in earnings over the next twelve months was \$8.5 million.

NOTE 17. OTHER LONG-TERM LIABILITIES

	September 30, 2021	December 31, 2020
Fair value of derivative liabilities	\$ 20.2	\$ 28.4
Acquisition-related contingent consideration	1.8	16.9
Long-term deferred compensation arrangements	18.8	14.8
Environmental insurance recoveries received in excess of cumulative expenses incurred	4.5	5.0
Other	9.9	11.4
Total other long-term liabilities	\$ 55.2	\$ 76.5

NOTE 18. SHAREHOLDERS' EQUITY

Common Stock Repurchase Plan

Since July 29, 2016, our Board of Directors has approved our share repurchase program pursuant to which we are currently authorized to repurchase up to \$1,200.0 million of our outstanding shares of common stock through December 31, 2023 (the "Program"). We currently have \$543.8 million remaining under the Board's repurchase authorization as of September 30, 2021.

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, 2021, we repurchased 0.2 million shares under the Program for a total cost of \$20.0 million, excluding commissions, or an average price of \$106.99 per share. During the nine months ended September 30, 2021, we repurchased 0.5 million shares under the Program for a total cost of \$50.0 million, excluding commissions, or an average price of \$98.61 per share. Since inception, through September 30, 2021, we have repurchased 10.2 million shares under the Program for a total cost of \$656.2 million, excluding commissions, or an average price of \$64.15 per share.

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

Dividends

In February, April and July 2021, our Board of Directors declared \$0.21 per share quarterly dividends, which were paid to shareholders in March, May and August 2021. On October 20, 2021, our Board of Directors declared a \$0.231 per share quarterly dividend to be paid in November 2021.

Accumulated Other Comprehensive (Loss)

	Foreign Currency Translation Adjustments	Derivative (Loss) ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, June 30, 2021	\$ 3.4	\$ (14.1)	\$ (92.2)	\$ (102.9)
Other comprehensive (loss) income before reclassifications, net of tax (expense) of \$ -, \$(0.9), \$ - and \$(0.9)	(0.8)	2.5	(0.1)	1.6
Amounts reclassified from accumulated other comprehensive (loss)	-	(1.7)	0.2	(1.5)
Net current period other comprehensive (loss) income	(0.8)	0.8	0.1	0.1
Balance, September 30, 2021	<u>\$ 2.6</u>	<u>\$ (13.3)</u>	<u>\$ (92.1)</u>	<u>\$ (102.8)</u>

	Foreign Currency Translation Adjustments	Derivative (Loss) ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, December 31, 2020	\$ 2.3	\$ (19.0)	\$ (92.6)	\$ (109.3)
Other comprehensive income (loss) before reclassifications, net of tax (expense) of \$ -, \$(3.5), \$ - and \$(3.5)	0.3	10.6	(0.1)	10.8
Amounts reclassified from accumulated other comprehensive (loss)	-	(4.9)	0.6	(4.3)
Net current period other comprehensive income	0.3	5.7	0.5	6.5
Balance, September 30, 2021	<u>\$ 2.6</u>	<u>\$ (13.3)</u>	<u>\$ (92.1)</u>	<u>\$ (102.8)</u>

	Foreign Currency Translation Adjustments	Derivative (Loss) ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, June 30, 2020	\$ 7.4	\$ (22.3)	\$ (89.4)	\$ (104.3)
Other comprehensive (loss) income before reclassifications, net of tax (expense) of \$ -, (\$0.9), (\$0.2) and (\$1.1)	(6.2)	3.0	(0.1)	(3.3)
Amounts reclassified from accumulated other comprehensive (loss)	-	(1.5)	(0.7)	(2.2)
Net current period other comprehensive (loss) income	(6.2)	1.5	(0.8)	(5.5)
Balance, September 30, 2020	<u>\$ 1.2</u>	<u>\$ (20.8)</u>	<u>\$ (90.2)</u>	<u>\$ (109.8)</u>

	Foreign Currency Translation Adjustments	Derivative (Loss) ⁽¹⁾	Pension and Postretirement Adjustments ⁽¹⁾	Total Accumulated Other Comprehensive (Loss) ⁽¹⁾
Balance, December 31, 2019	\$ 9.4	\$ (8.5)	\$ (377.0)	\$ (376.1)
Other comprehensive (loss) income before reclassifications, net of tax benefit (expense) of \$ -, \$3.5, (\$3.1) and \$0.4	(8.2)	(9.4)	8.5	(9.1)
Amounts reclassified from accumulated other comprehensive (loss)	-	(2.9)	278.3	275.4
Net current period other comprehensive (loss) income	(8.2)	(12.3)	286.8	266.3
Balance, September 30, 2020	<u>\$ 1.2</u>	<u>\$ (20.8)</u>	<u>\$ (90.2)</u>	<u>\$ (109.8)</u>

(1) Amounts are net of tax

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

	Amounts Reclassified from Accumulated Other Comprehensive (Loss)				Affected Line Item in the Condensed Consolidated Statements of Operations and Comprehensive Income
	Three Months Ended September 30,		Nine Months Ended September 30,		
	2021	2020	2021	2020	
Derivative Adjustments:					
Interest rate swap contracts, before tax	\$ (2.2)	\$ (1.9)	\$ (6.3)	\$ (3.7)	Interest expense
Tax impact	0.5	0.4	1.4	0.8	Income tax expense
Total (income), net of tax	(1.7)	(1.5)	(4.9)	(2.9)	
Pension and Postretirement Adjustments:					
Prior service credit amortization	(0.1)	(0.1)	(0.2)	(0.2)	Other non-operating (income) expense, net
Amortization of net actuarial loss (gain)	0.3	(0.9)	1.0	0.5	Other non-operating (income) expense, net
Settlement	-	-	-	374.4	Other non-operating (income) expense, net
Total loss (income), before tax	0.2	(1.0)	0.8	374.7	
Tax impact	-	0.3	(0.2)	(96.4)	Income tax expense
Total loss (income), net of tax	0.2	(0.7)	0.6	278.3	
Total reclassifications for the period	\$ (1.5)	\$ (2.2)	\$ (4.3)	\$ 275.4	

NOTE 19. 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 are currently pursuing coverage and recoveries under those 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. These efforts have included two active and independent litigation matters against legacy primary and excess policy insurance carriers for recovery of fees and costs incurred by us in connection with our investigation and remediation activities for such sites. Other than disclosed below, we are unable to predict the outcome of these matters or the timing of any 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 2020, we entered settlement agreements totaling \$52.5 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 a \$9.2 million reduction to cost of goods sold and a \$38.3 million reduction to SG&A expenses reflecting the same income statement categories where environmental expenditures were historically recorded. In 2020, cumulative insurance recoveries exceeded cumulative expenses to date related to the respective environmental sites and the excess \$5.0 million was recorded within our long-term liabilities as of December 31, 2020. The excess recoveries will be released to offset any future expenses incurred on the respective environmental sites. In the first nine months of 2021, we did not enter into any new settlement agreements and the balance of insurance recoveries in excess of cumulative expenses as of September 30, 2021 was \$4.5 million. We anticipate that 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 (the "WWTP Landfill," also known as "Operable Unit 1"). After completing an investigation of the WWTP Landfill 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 for the WWTP Landfill is complete and the final report was submitted to the EPA on October 11, 2016. The EPA approved the final report on November 28, 2016, and a Post-Removal Control Plan (the "Plan") was submitted to the EPA on March 28, 2017. That Plan required us to monitor the effectiveness of the WWTP Landfill response action over a five-year period.

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 (the "Remaining Site," also known as "Operable Unit 2"). On September 25, 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 18, 2018, in response to the Special Notice Letter to conduct the RI/FS. The PRPs submitted a complete RI/FS work plan in the second quarter of 2019, which the EPA approved on September 11, 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 baseline risk assessment and for the development of remedial action objectives. We anticipate that the EPA may require additional investigative work for Operable Unit 2. 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 was operated by Triangle Pacific Corporation, now known as Armstrong Wood Products, Inc. (“Triangle Pacific” or “AWP”), from 1977 until 1996. The site was formerly owned by the U.S. Navy (“Navy”) and Westinghouse, now CBS Corporation (“CBS”). We assumed ownership of the site when we acquired the stock of Triangle Pacific 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, Triangle Pacific 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, Triangle Pacific and CBS entered into an Administrative Order on Consent to conduct an RI/FS with the EPA for the site. In 2007, we and CBS 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 the 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 through June 7, 2018. The EPA evaluated comments, including ours, and has published its Interim Record Of Decision selecting an interim cleanup approach. On September 25, 2018, AWI and CBS received a Special Notice Letter from the EPA under CERCLA inviting AWI and CBS to enter into the negotiation of a settlement agreement to conduct or finance the response action at the site. During the third quarter of 2018, we increased our reserve for the cost of the interim cleanup, which we expect to be shared with CBS and the Navy. In response to the September 2018 Special Notice Letter, we and CBS submitted a good faith offer to the EPA on May 28, 2019. In June 2021, we entered into a negotiated Partial Consent Decree and Site Participation Agreement with the EPA and the PRPs for the remedial design and remedial action to be completed by the parties at the site. 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 final remediation 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.

Summary of Financial Position

Total liabilities of \$1.0 million and \$1.2 million as of September 30, 2021 and December 31, 2020, respectively, were recorded for environmental liabilities that we consider probable and for which a reasonable estimate of the probable liability could be made. As of September 30, 2021 and December 31, 2020, \$0.5 million and \$0.3 million, respectively, of environmental liabilities were reflected within accounts payable and accrued expenses. During the three months ended September 30, 2021, we did not record any additional reserves for environmental liabilities. During the nine months ended September 30, 2021, we recorded \$0.2 million of additional reserves for potential environmental liabilities. As noted above, the expense associated with the additional reserves recorded in 2021 was offset through the release of a portion of the balance of insurance recoveries in excess of cumulative expenses. During the three and nine months ended September 30, 2020, we did not record any additional reserves for environmental liabilities. 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 probable. We incur costs to pursue environmental insurance recoveries, which reduce the balance of insurance recoveries in excess of cumulative expenses incurred and when exhausted, will be expensed as incurred.

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

OTHER CLAIMS

From time to time, we are involved in other various lawsuits, claims, investigations and other legal matters that arise in the ordinary course of business, including matters involving our products, intellectual property, relationships with suppliers, relationships with distributors, relationships with competitors, employees and other matters. In connection with those matters, we may have rights of

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

contribution or reimbursement from other parties or coverage under applicable insurance policies. When applicable and appropriate, we will pursue coverage and recoveries under those policies, but are unable to predict the outcome of those demands. While complete assurance cannot be given to the outcome of any proceedings relating to these matters, we do not believe that any current claims, individually or in the aggregate, will have a material adverse effect on our financial condition, liquidity or results of operations.

NOTE 20. EARNINGS PER SHARE

The following table is a reconciliation of earnings (loss) to earnings (loss) attributable to common shares used in our basic and diluted Earnings (Loss) Per Share (“EPS”) calculations for the three and nine months ended September 30, 2021 and 2020. EPS components may not add due to rounding.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Earnings (loss) from continuing operations	\$ 50.8	\$ 54.2	\$ 143.4	\$ (118.9)
(Earnings) allocated to participating vested share awards	(0.1)	(0.1)	(0.2)	(0.1)
Earnings (loss) from continuing operations attributable to common shares	<u>\$ 50.7</u>	<u>\$ 54.1</u>	<u>\$ 143.2</u>	<u>\$ (119.0)</u>

The following table is a reconciliation of basic shares outstanding to diluted shares outstanding for the three and nine months ended September 30, 2021 and 2020 (shares in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Basic shares outstanding	47.5	47.9	47.7	47.9
Dilutive effect of common stock equivalents	0.3	0.1	0.3	-
Diluted shares outstanding	<u>47.8</u>	<u>48.0</u>	<u>48.0</u>	<u>47.9</u>

There were no anti-dilutive stock awards excluded from the computation of diluted EPS for the three months ended September 30, 2021. Anti-dilutive stock awards excluded from the computation of diluted EPS for the nine months ended September 30, 2021, were 11,397. Due to the net loss for the nine months ended September 30, 2020, all common stock equivalents were considered anti-dilutive. Anti-dilutive stock awards excluded from the computation of diluted EPS for the three and nine months ended September 30, 2020 were 26,460 and 340,750, 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, 2020.

OVERVIEW

We are a leading producer of ceiling systems for use in the construction and renovation of commercial and residential buildings. We design, manufacture and sell ceiling and wall systems (primarily mineral fiber, fiberglass wool, metal, wood, wood fiber, glass-reinforced-gypsum and felt) throughout the Americas.

COVID-19

The impact of the COVID-19 pandemic on our future consolidated results of operations remains uncertain. In 2020, we experienced a significant decrease in customer demand throughout our business during the second through fourth quarters due to COVID-19. Specifically, we noted delays in construction driven by temporary closures of non-essential businesses, with the most significant impacts in the major metropolitan areas impacted by COVID-19. In response to COVID-19, we temporarily reduced capital expenditures and discretionary spending including compensation, travel and marketing expenses in 2020. Customer demand continued to improve in the first nine months of 2021 but remained lower than pre-pandemic levels. We continue to monitor and manage the impact of COVID-19 and its potential impacts to our business, most notably global supply chain and labor disruptions, which have contributed to raw material and transportation cost inflation, in addition to construction activity delays.

As of September 30, 2021, all of our manufacturing facilities were operational, excluding the St. Helens, Oregon facility which was idled in the second quarter of 2018. In an effort to operate safely and responsibly, we continue to follow guidelines from governmental health authorities across all our facilities and have implemented preventative measures that include working remotely, providing personal protective equipment, limiting group meetings, enhancing cleaning and sanitizing procedures, and social distancing.

We did not record any asset impairments, inventory charges or material bad debt reserves related to COVID-19 during the first nine months of 2021 or the full year of 2020, although future events may require such charges. We will continue to evaluate the nature and extent of the COVID-19 pandemic's impact on our financial condition, results of operations and cash flows.

Acquisitions

In December 2020, we acquired all issued and outstanding equity of Arktura LLC ("Arktura") and certain subsidiaries with operations in the United States and Argentina. Arktura is a designer and fabricator of metal and felt ceilings, walls, partitions and facades with one manufacturing facility based in Los Angeles, California.

In August 2020, we acquired the business and assets of Moz Designs, Inc. ("Moz"), based in Oakland, California. Moz is a designer and fabricator of custom architectural metal ceilings, walls, dividers and column covers for interior and exterior applications with one manufacturing facility.

In July 2020, we acquired all the issued and outstanding capital stock of TURF Design, Inc. ("Turf"), with one manufacturing facility in Elgin, Illinois and a design center in Chicago, Illinois. Turf is a designer and manufacturer of acoustic felt ceilings and wall products.

The operations, assets and liabilities of these acquisitions are included in our Architectural Specialties segment. See Note 4 to the Condensed Consolidated Financial Statements for additional information related to our acquisitions.

Discontinued Operations

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 ("Knauf"). In January 2021, we finalized post-closing adjustments to the purchase price related to certain pension liabilities assumed by Knauf in the Sale. During the first quarter of 2021, we paid \$11.8 million to Knauf as a result of this purchase price adjustment.

See Note 5 to the Condensed Consolidated Financial Statements for additional information related to our discontinued operations.

Manufacturing Plants

As of September 30, 2021, we operated 16 manufacturing plants in two countries, with 14 plants located within the U.S. and two plants in Canada. We closed our St. Helens, Oregon mineral fiber manufacturing plant in the second quarter of 2018, and the facility was classified as an asset held for sale as of September 30, 2021. We entered into a sale agreement for the property during the first quarter of 2021, with closing expected in the fourth quarter of 2021.

WAVE operates six 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 for use in commercial and residential settings. Our mineral fiber products offer various performance attributes such as acoustical control, rated fire protection, aesthetic appeal, and health and sustainability features. Commercial ceiling products are sold to resale distributors and to ceiling systems contractors. Residential ceiling products are sold primarily to 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 a limited number of geographies and 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 and walls for use in commercial settings. Products are available in numerous materials, such as metal, felt and wood, 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 ceiling systems contractors. The majority of 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 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 credit facility and income tax balances. Our Unallocated Corporate segment also includes all assets, liabilities, income and expenses formerly reported in our EMEA and Pacific Rim segments that were not included in the Sale.

Factors Affecting Revenues

For information on our 2021 net sales by segment, see Notes 2 and 3 to the Condensed Consolidated Financial Statements.

Markets. We compete in the commercial and residential construction markets of the Americas. We closely monitor publicly available macroeconomic trends that provide insight into commercial and residential market activity, including GDP, office vacancy rates, the Architecture Billings Index, new commercial construction starts, state and local government spending, corporate profits and retail sales.

We noted several factors and trends within our markets that directly affected our business performance during the third quarter of 2021 compared to the third quarter of 2020, most importantly an increase in demand as the negative financial impacts of the COVID-19 pandemic lessened. Although the magnitude of year-over-year volume growth lessened compared to the second quarter of 2021, it remains a key factor for the nine-month period ended September 30, 2021. For the three and nine months ended September 30, 2021, increases in sales volumes contributed \$4 million and \$28 million, respectively, to revenue growth from the 2020 periods. In addition, our 2020 acquisitions of Turf, Moz and Arktura (collectively, the “2020 Acquisitions”) benefited revenues by \$24 million and \$58 million, for the three and nine months ended September 30, 2021, respectively. The 2020 Acquisitions contributed \$8 million of revenues for the three and nine months ended September 30, 2020.

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. In certain cases, realized price increases are less than the announced price increases because of project pricing, competitive reactions 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 this measure accounts for the varying assortment of products impacting our revenues. We estimate that favorable AUV increased our total consolidated net sales for the three and nine months ended September 30, 2021, by approximately \$26 million and \$48 million, compared to the same periods in 2020. Our Architectural Specialties segment generates revenues that are generally earned based on individual contracts that include a mix of products, both manufactured by us and sourced from third parties that vary 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, second and third quarters of 2021, we implemented price increases on certain Mineral Fiber ceiling, grid products and certain Architectural Specialties products. We may implement future pricing actions based on numerous factors, namely the rate and pace of inflation 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.

Factors Affecting Operating Costs

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

Our largest raw material expenditures are primarily for fiberglass, perlite and starch. Other raw materials include aluminum, clays, felt, pigment, recycled paper, steel, wood and wood fiber. We manufacture most of the production needs for mineral wool at one of our manufacturing facilities. Natural gas and packaging materials are also significant input costs. Fluctuations in the prices of these inputs are generally beyond our control and have a direct impact on our financial results. For the three and nine months ended September 30, 2021, higher costs for raw materials and energy negatively impacted operating income by \$5 million and \$8 million, respectively, compared to the same periods in 2020.

2020 Acquisition-Related Impacts

In connection with the 2020 Acquisitions, we recorded certain acquisition-related gains and losses to operating income in the three and nine months ended September 30, 2021, summarized as follows (dollar amounts in millions):

	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2021	Affected Line Item in the Condensed Consolidated Statement of Operations and Comprehensive Income
Deferred revenue	\$ -	\$ 0.7	Net sales
Change in fair value of contingent consideration	(0.3)	(9.8)	Change in fair value of contingent consideration
Deferred cash and restricted stock expenses	3.3	9.8	SG&A expenses
Inventory	-	0.3	Cost of goods sold
Net negative (positive) impact to operating income	<u>\$ 3.0</u>	<u>\$ 1.0</u>	

The deferred revenue and inventory amounts above reflect the post-acquisition charges associated with recording these liabilities and assets at fair value as part of purchase accounting. The estimated fair value of contingent consideration is related to our Moz and Turf acquisitions and is remeasured and recorded quarterly during each acquisition's respective earn-out period. See Note 15 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 former awardees' continued employment with AWI. Purchase accounting expenses related to depreciation of fixed asset fair value adjustments and intangible asset amortization expenses have been excluded from the table above. See Note 4 to the Condensed Consolidated Financial Statements for further information.

Employees

As of September 30, 2021 and December 31, 2020, we had approximately 2,800 and 2,700 full-time and part-time employees, respectively.

RESULTS OF CONTINUING OPERATIONS

Please refer to Notes 2 and 5 to the Condensed Consolidated Financial Statements for a reconciliation of operating income to consolidated earnings from continuing operations before income taxes and additional financial information related to discontinued operations.

CONSOLIDATED RESULTS FROM CONTINUING OPERATIONS

(dollar amounts in millions)

	2021	2020	Change is Favorable/(Unfavorable)
<u>Three Months Ended September 30,</u>			
Total consolidated net sales	\$ 292.2	\$ 246.3	18.6%
Operating income	\$ 72.1	\$ 72.3	(0.3)%
<u>Nine Months Ended September 30,</u>			
Total consolidated net sales	\$ 824.1	\$ 698.2	18.0%
Operating income	\$ 204.5	\$ 210.7	(2.9)%

Consolidated net sales for the third quarter of 2021 increased 18.6% over the prior-year period. Improved AUV contributed \$26 million of favorability and higher volumes, primarily due to the impact of the 2020 Acquisitions, contributed \$20 million. Mineral Fiber net sales increased \$27 million and Architectural Specialties net sales increased \$19 million from the third-quarter 2020 results. The increase in Mineral Fiber segment net sales was primarily driven by positive like-for-like pricing and favorable customer channel mix. The increase in Architectural Specialties net sales was driven by a \$16 million contribution from our 2020 Acquisitions and a lower COVID-19 impact when compared to the prior period.

Consolidated net sales for the first nine months of 2021 increased 18.0% as higher volumes, including the impact of the 2020 Acquisitions, contributed \$78 million and favorable AUV contributed \$48 million. Mineral Fiber net sales increased \$68 million year-over-year and Architectural Specialties net sales increased \$58 million. The increase in Mineral Fiber segment net sales was driven by improved AUV and both segments experienced improved sales volumes as market demand continued to recover from COVID-19 impacts. The Architectural Specialties segment net sales also benefited \$50 million from the 2020 Acquisitions.

Cost of goods sold in the third quarter of 2021 was 62.1% of net sales, compared to 63.0% for the same period in 2020. Cost of goods sold in the first nine months of 2021 was 63.2% compared to 64.2% for the same period in 2020. The decrease in cost of goods sold as a percent of net sales for the third quarter of 2021 resulted from favorable AUV performance, which more than offset higher raw material, energy and freight inflation and the impact of cost increases that were curtailed in 2020 at the height of the COVID-19 pandemic. For the first nine months of 2021, the decrease in cost of goods sold as a percent of net sales was due to favorable AUV performance and improved manufacturing productivity, which was partially offset by higher inflation and the impact of cost increases that we reduced in 2020 at the height of the COVID-19 pandemic.

SG&A expenses in the third quarter of 2021 were \$62.3 million, or 21.3% of net sales, compared to \$41.0 million, or 16.6% of net sales, for the same period in 2020. SG&A expenses in the first nine months of 2021 were \$176.5 million, or 21.4% of net sales, compared to \$108.8 million, or 15.6% of net sales, for the 2020 period. The third-quarter 2021 increase in SG&A expenses was driven primarily by an \$8 million increase in SG&A expenses due to the impact of the 2020 Acquisitions, a \$5 million increase in incentive and deferred compensation expenses and a \$2 million increase in spending related to continued digital growth initiatives. Also contributing to the increase in SG&A expenses was a resumption of more normalized spending that was curtailed in 2020 at the height of the COVID-19 pandemic.

The increase in SG&A expenses for the first nine months of 2021 compared to the same period in 2020 was driven by a \$33 million increase in SG&A expenses due to the 2020 Acquisitions, including intangible asset amortization of \$13 million, a \$15 million increase in incentive and deferred compensation expenses, a \$6 million decrease in cost reimbursements, net of related expenses, earned under our Transition Services Agreement with Knauf ("Knauf TSA") in 2020 and a \$3 million increase in spending related to digital growth initiatives. Also contributing to the increase in SG&A expenses was an increase in discretionary spending.

During the third quarter and nine months ended September 30, 2021, we recorded \$0.3 million and \$9.8 million, respectively, of income from a change in the fair value of contingent consideration related to the acquisitions of Turf and Moz. See Note 15 to the Condensed Consolidated Financial Statements for further information.

During the third quarter and nine months ended September 30, 2020, we recorded \$6.9 million and \$21.0 million of gains, respectively, related to the sale of fixed and intangible assets from the sale of our idled Mineral Fiber plant in China, which was reported as a component of our Unallocated Corporate segment. There was no similar activity in 2021.

Equity earnings from our WAVE joint venture were \$23.4 million in the third quarter of 2021, compared to \$15.2 million in the third quarter of 2020. Equity earnings from our WAVE joint venture were \$68.1 million in the first nine months of 2021 compared to \$48.2 million in the first nine months of 2020. The increase in WAVE earnings for the third quarter of 2021 compared to the same period in 2020 was primarily related to favorable AUV which was partially offset by increased steel costs. The increase in WAVE earnings for the first nine months of 2021 compared to the same period in 2020 was related to favorable AUV and higher volumes, which was partially offset by increased steel costs and SG&A expenses. See Note 9 to the Condensed Consolidated Financial Statements for further information.

Interest expense was \$6.1 million in both the third quarter of 2021 and the third quarter of 2020. Interest expense was \$17.4 million in the first nine months of 2021 compared to \$18.7 million in the first nine months of 2020. The decrease in interest expense in the first nine months of 2021 compared to the prior period was due to lower interest rates, partially offset by an increase in average borrowings.

Other non-operating income, net, was \$1.4 million in the third quarter of 2021 compared to \$3.2 million in the third quarter of 2020. Other non-operating income, net, was \$4.3 million in the first nine months of 2021, compared to \$361.8 million of expense, net, in the first nine months of 2020. The decrease in income for the third quarter of 2021 compared to the same period in 2020 was primarily due to lower credits from non-service cost components of pension and postretirement net period benefit costs. The change in other non-operating income, net, for the first nine months of 2021 compared to the same period in 2020 was primarily related to a \$374.4 million settlement loss related to our RIP that was recorded in the first quarter of 2020, partially offset by lower credits from non-service cost components of pension and postretirement net period benefit costs. See Note 14 to the Condensed Consolidated Financial Statements for further information.

Income tax expense was \$16.6 million in the third quarter of 2021 compared to \$15.2 million in the third quarter of 2020. The effective tax rate for the third quarter of 2021 was 24.6% compared to 21.9% for the same period of 2020. The effective tax rate for the third quarter of 2021 was higher compared to the same period in 2020, due primarily to the absence of a benefit related to the sale of our idled Mineral Fiber plant in China recognized in 2020.

Income tax expense was \$48.0 million in the first nine months of 2021 compared to \$50.9 million of income tax benefit in the first nine months of 2020. The effective tax rate was 25.1% in the first nine months of 2021 compared to 30.0% in the same period of 2020. Excluding the impact of our pension settlement and the gain on sale of our idled Mineral Fiber plant in China recorded in the first nine months of 2020, the effective tax rate for the first nine months of 2021 was higher compared to the same period in 2020 due to state law changes enacted in 2021 and a reduction in favorable permanent adjustments.

Total Other Comprehensive Income ("OCI") was \$0.1 million in the third quarter of 2021 compared to Total Other Comprehensive Loss ("OCL") of \$5.5 million in the third quarter of 2020. OCI was \$6.5 million in the first nine months of 2021 compared to OCI of \$266.3 million in the first nine months of 2020. The change in OCI in the third quarter of 2021 compared to the same period in 2020 was primarily driven by foreign currency translation adjustments. Foreign currency translation adjustments represent the change in the U.S. dollar value of assets and liabilities denominated in foreign currencies. The change in OCI in the first nine months of 2021 compared to the same period in 2020 was driven by pension and postretirement adjustments, primarily related to the absence of the \$278.6 settlement loss, net of taxes, related to our RIP. Pension and postretirement adjustments represent the amortization of actuarial gains and losses related to our defined benefit pension and postretirement plans. Also impacting the change in OCI in both periods were derivative gains/losses. 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.

REPORTABLE SEGMENT RESULTS

Mineral Fiber

(dollar amounts in millions)

	2021		2020	Change is Favorable
<u>Three Months Ended September 30,</u>				
Total segment net sales	\$ 214.5		\$ 187.3	14.5 %
Operating income	\$ 68.5		\$ 58.1	17.9 %
<u>Nine Months Ended September 30,</u>				
Total segment net sales	\$ 611.3		\$ 542.9	12.6 %
Operating income	\$ 201.2		\$ 173.7	15.8 %

Third-quarter 2021 net sales increased \$27 million primarily due to favorable AUV. The improvement in AUV was driven by favorable price and customer channel mix. For the first nine months of 2021, net sales improved \$68 million from the prior-year period due to \$47 million of favorable AUV and \$21 million due to higher sales volumes. For the nine-month period, increased volumes were driven by comparison against a prior-year period that was negatively impacted by the pandemic.

Third-quarter 2021 operating income increased 17.9% year-over-year primarily due to a \$20 million benefit from favorable AUV, an \$8 million increase in WAVE equity earnings and a \$4 million benefit related to a 2020 Coronavirus Aid, Relief, and Economic Recovery Act Employee Retention Credit ("ERC benefit"), partially offset by a \$10 million increase in manufacturing costs, a \$4 million increase in incentive and deferred compensation expenses and a \$2 million increase in spending related to digital growth initiatives. In addition, operating income was impacted by more normalized discretionary spending that had been curtailed in 2020 at the height of the COVID-19 pandemic.

Operating income increased in the first nine months of 2021 primarily due to a \$35 million benefit from favorable AUV, a \$20 million increase in WAVE equity earnings, a \$12 million benefit from higher volumes and a \$4 million ERC benefit, partially offset by a \$14 million increase in manufacturing costs, a \$13 million increase in incentive and deferred compensation expenses, a \$6 million decrease related to our Knauf TSA, a \$3 million increase in spending related to digital growth initiatives and an increase in discretionary spending.

Architectural Specialties

(dollar amounts in millions)

	2021		2020	Change is Favorable/(Unfavorable)
<u>Three Months Ended September 30,</u>				
Total segment net sales	\$ 77.7		\$ 59.0	31.7 %
Operating income	\$ 5.0		\$ 9.1	(45.1)%
<u>Nine Months Ended September 30,</u>				
Total segment net sales	\$ 212.8		\$ 155.3	37.0 %
Operating income	\$ 7.5		\$ 20.9	(64.1)%

Net sales increased \$19 million and \$58 million in the third quarter and the first nine months of 2021, respectively. Net sales from 2020 Acquisitions in the third quarter and the first nine months of 2021 contributed \$16 million and \$50 million to these increases, respectively. An improvement in sales volumes due to a rebound in economic activity compared to the prior year when negative COVID-19 impacts were significantly higher contributed to year-over-year net sales growth for both periods.

Third-quarter 2021 operating income decreased primarily due to an \$8 million increase in SG&A expenses, including a \$1 million increase in amortization expense, related to the 2020 Acquisitions and the negative margin impact of delays from custom project driven revenues, partially offset by the positive impact of increased sales.

Operating income decreased in the first nine months of 2021 primarily due to a \$13 million increase in amortization expense related to the 2020 Acquisitions, an \$11 million increase in acquisition-related charges, an increase in manufacturing costs and SG&A expenses resulting primarily from additional investments in manufacturing capacity and selling and design capabilities and the negative margin impact of delays from custom project driven revenues. These costs were partially offset by the positive impact of higher sales volumes and a \$10 million gain due to a change in the fair value of contingent consideration related to Moz and Turf.

Unallocated Corporate

Unallocated Corporate operating loss was \$1 million in the third quarter of 2021, compared to income of \$5 million in the third quarter of 2020. Unallocated Corporate operating loss was \$4 million in the first nine months of 2021, compared to income of \$16 million in the first nine months of 2020. The change in Unallocated Corporate operating loss in both periods was primarily related to the absence of the gain on the sale of our idled Mineral Fiber plant in China.

FINANCIAL CONDITION AND LIQUIDITY

Cash Flow

Operating activities for the first nine months of 2021 provided \$137.9 million of cash, compared to \$148.4 million in the first nine months of 2020. The decrease was primarily due to lower cash earnings and an increase in income tax payments, partially offset by positive working capital changes.

Net cash used for investing activities was \$5.4 million in the first nine months of 2021, compared to \$52.2 million of cash used in the first nine months of 2020. The favorable change in cash used in 2021 compared to 2020 was primarily due to a decrease in cash paid for acquisitions and the absence of the remittance of Knauf proceeds to WAVE, partially offset by a decrease in proceeds from the sale of fixed assets and an increase in purchases of property, plant and equipment.

Net cash used for financing activities was \$175.1 million in the first nine months of 2021, compared to \$2.5 million in the first nine months of 2020. The unfavorable change of cash was primarily due to a decrease in proceeds from borrowings, higher debt payments in 2021 and higher repurchases of outstanding common stock.

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 \$1,000.0 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 \$500.0 million Term Loan A. The \$1,000.0 million senior credit facility is secured by the capital stock of material U.S. subsidiaries and a pledge of 65% of the stock of our material first-tier foreign subsidiary in Canada. The unpaid balances of the revolving credit facility and Term Loan A may be prepaid without penalty at the maturity of their respective interest reset periods. Any principal amounts paid on the Term Loan A may not be re-borrowed. As of September 30, 2021, total borrowings outstanding under our senior credit facility were \$155.0 million under the revolving credit facility and \$475.0 million under Term Loan A. Additionally, we have a \$25.0 million letter of credit facility, also known as our bi-lateral 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 cash consolidated interest income to be greater than or equal to 3.0 to 1.0 and requires the ratio of consolidated funded indebtedness, minus AWI and domestic subsidiary unrestricted cash and cash equivalents up to \$100 million, to EBITDA to be less than or equal to 3.75 to 1.0. As of September 30, 2021, we were in compliance with all covenants of the senior credit facility.

The Term Loan A is currently priced on a variable interest rate basis. The following table summarizes our interest rate swaps (dollar amounts in millions):

Trade Date	Notional Amount	Coverage Period	Risk Coverage
November 28, 2018	\$ 200.0	November 2018 to November 2023	USD-LIBOR
November 28, 2018	\$ 100.0	March 2021 to March 2025	USD-LIBOR
March 6, 2020	\$ 50.0	March 2020 to March 2022	USD-LIBOR
March 10, 2020	\$ 50.0	March 2021 to March 2024	USD-LIBOR
March 11, 2020	\$ 50.0	March 2021 to March 2024	USD-LIBOR

Under the terms of our interest rate swaps above, we pay a fixed rate monthly and receive 1-month LIBOR, inclusive of a 0% floor.

These swaps are designated as cash flow hedges against changes in LIBOR for a portion of our variable rate debt.

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

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, 2021		
	Limit	Used	Available
Bi-lateral facility	\$ 25.0	\$ 8.4	\$ 16.6
Revolving credit facility	150.0	-	150.0
Total	\$ 175.0	\$ 8.4	\$ 166.6

As of September 30, 2021, we had \$94.3 million of cash and cash equivalents, \$80.4 million in the U.S. and \$13.9 million in various foreign jurisdictions, primarily Canada. As of September 30, 2021, we also had \$345.0 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. The impacts of COVID-19 could create volatility in financial markets which may impact the terms under which we access capital. We continue to evaluate our discretionary spending, capital expenditures and other costs in light of the uncertainty related to the COVID-19 pandemic.

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, 2020.

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, 2021, 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, 2021 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 19 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 2020 Annual Report on Form 10-K.

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, 2021	186,929	\$ 106.99	186,929	\$ 543,779,472
August 1 – 31, 2021	157	\$ 106.84	-	\$ 543,779,472
September 1 – 30, 2021	144	\$ 100.72	-	\$ 543,779,472
Total	<u>187,230</u>		<u>186,929</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.

Since July 29, 2016, our Board of Directors has approved our share repurchase program pursuant to which we are currently authorized to repurchase up to \$1,200.0 million of our outstanding shares of common stock through December 31, 2023 (the "Program").

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, 2021, we repurchased 0.2 million shares under the Program for a total cost of \$20.0 million, excluding commissions, or an average price of \$106.99 per share. During the nine months ended September 30, 2021, we repurchased 0.5 million shares under the Program for a total cost of \$50.0 million, excluding commissions, or an average price of \$98.61 per share. Since inception, through September 30, 2021, we have repurchased 10.2 million shares under the Program for a total cost of \$656.2 million, excluding commissions, or an average price of \$64.15 per share.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

ITEM 5. OTHER INFORMATION

None.

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>
3.1	Amended and Restated Articles of Incorporation of Armstrong World Industries, Inc. is incorporated by reference from the Current Report on Form 10-Q filed on May 1, 2017, wherein it appeared as Exhibit 3.1.
3.2	Amended and Restated Bylaws of Armstrong World Industries, Inc., are incorporated by reference from the Current Report on Form 8-K filed on April 17, 2020, wherein it appeared as Exhibit 3.1.
10.1	Form of Indemnification Agreement for Officers and Directors of Armstrong World Industries, Inc. is incorporated by reference from the Report on Form 8-K filed on July 27, 2021, wherein it appeared as Exhibit 10.1.
31.1	Certification of Chief Executive Officer required by Rule 13a-15(e) or 15d-15(e) of the Securities Exchange Act. †
31.2	Certification of Chief Financial Officer required by Rule 13a-15(e) or 15d-15(e) 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, 2021 has been formatted in Inline XBRL.

† Filed 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/ Brian L. MacNeal
Brian L. MacNeal, 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 26, 2021

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 26, 2021

/s/ Victor D. Grizzle

Victor D. Grizzle

Director, President and Chief Executive Officer

I, Brian L. MacNeal, 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 26, 2021

/s/ Brian L. MacNeal

Brian L. MacNeal

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, 2021 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 26, 2021

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, 2021 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/ Brian L. MacNeal

Brian L. MacNeal

Senior Vice President and Chief Financial Officer

Armstrong World Industries, Inc.

Dated: October 26, 2021

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.
