ARMSTRONG WORLD INDUSTRIES INC
Form 10-Q
July 31, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 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 June 30, 2018

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)	23-0366390 (I.R.S. Employer Identification No.)
2500 Columbia Avenue, Lancaster, Pennsylvania (Address of principal executive offices)	17603 (Zip Code)

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter time period that the registrant was required to submit and post such files). Yes No

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

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

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

Indicate by check mark whether the registrant 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 July 25, 2018 – 51,663,627.

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

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this Quarterly Report on Form 10-Q and the documents incorporated by reference herein may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Those forward-looking statements are subject to various risks and uncertainties and include all statements that are not historical statements of fact and those regarding our intent, belief or expectations, including, but not limited to, our expectations concerning our residential and commercial markets and their effect on our operating results; our expectations regarding the payment of dividends; and our ability to increase revenues, earnings and EBITDA (as such terms are defined by documents incorporated by reference herein). Words such as "anticipate," "expect," "intend," "plan," "target," "project," "predict," "believe," "may," "will," "would," "could," "should," "seek," "estimate" and similar expressions 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:

- economic conditions;
- construction activity;
- the announced sale of our Europe, Middle East and Africa (including Russia) ("EMEA") and Pacific Rim businesses is subject to various risks and uncertainties and may not be completed in accordance with the expected plans or anticipated timeline, or at all, and will involve significant time and expense, which could disrupt or adversely affect our business;
- competition;
- key customers;
- availability and costs of raw materials and energy;
- Worthington Armstrong Venture ("WAVE"), our joint venture with Worthington Industries, Inc;
- environmental matters;
- covenants in our debt agreements;
- our indebtedness;
- our liquidity;
- international operations;
- strategic transactions;
- negative tax consequences;
- the tax consequences of the separation of our flooring business from our ceilings business;
- defined benefit plan obligations;
- cybersecurity breaches, claims and litigation;
- labor;
- intellectual property rights;
- costs savings and productivity initiatives; 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 and in the documents incorporated by reference.

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 forward-looking statement is based.

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Armstrong World Industries, Inc., and Subsidiaries

Condensed Consolidated Statements of Earnings and Comprehensive Income

(amounts in millions, except per share data)

Unaudited

	Three Months Ended June 30, 2018	Three Months Ended June 30, 2017	Six Months Ended June 30, 2018	Six Months Ended June 30, 2017
Net sales	$ 248.6	$ 225.6	$ 475.9	$ 445.4
Cost of goods sold	165.9	140.4	322.4	281.9
Gross profit	82.7	85.2	153.5	163.5
Selling, general and administrative expenses	40.9	35.7	78.4	75.0
Equity earnings from joint venture	(24.2)	(19.7)	(40.5)	(38.0)
Operating income	66.0	69.2	115.6	126.5
Interest expense	9.8	8.9	19.0	17.8
Other non-operating (income), net	(9.1)	(8.3)	(18.1)	(17.2)
Earnings from continuing operations before income taxes	65.3	68.6	114.7	125.9
Income tax expense	17.7	24.9	25.9	46.7
Earnings from continuing operations	47.6	43.7	88.8	79.2
Net earnings (loss) from discontinued operations, net of tax expense of $0.2, $3.7, $1.7 and $6.5	5.5	(2.2)	9.4	(6.9)
(Loss) from disposal of discontinued business, net of tax expense (benefit) of $0.1, $0.2, ($0.3) and $0.5	(5.8)	(0.2)	(23.1)	(0.6)
Net (loss) from discontinued operations	(0.3)	(2.4)	(13.7)	(7.5)
Net earnings	$ 47.3	$ 41.3	$ 75.1	$ 71.7
Other comprehensive income, net of tax:				
Foreign currency translation adjustments	(20.8)	2.8	(14.9)	13.9
Derivative gain (loss), net	2.0	(1.8)	5.8	(1.7)
Pension and postretirement adjustments	3.1	2.0	4.9	4.5
Total other comprehensive (loss) income	(15.7)	3.0	(4.2)	16.7
Total comprehensive income	$ 31.6	$ 44.3	$ 70.9	$ 88.4
Earnings per share of common stock, continuing operations:				
Basic	$ 0.91	$ 0.82	$ 1.69	$ 1.47
Diluted	$ 0.90	$ 0.81	$ 1.66	$ 1.46
(Loss) per share of common stock, discontinued operations:				
Basic	$ (0.01)	$ (0.05)	$ (0.26)	$ (0.14)
Diluted	$ (0.01)	$ (0.04)	$ (0.26)	$ (0.14)

Net earnings per share of common stock:				
Basic	$ 0.90	$ 0.77	$ 1.43	$ 1.33
Diluted	$ 0.89	$ 0.77	$ 1.40	$ 1.32
Average number of common shares outstanding:				
Basic	51.9	53.3	52.5	53.7
Diluted	52.6	53.7	53.2	54.1

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 8.

Armstrong World Industries, Inc., and Subsidiaries

Condensed Consolidated Balance Sheets

(amounts in millions, except share and per share data)

	Unaudited June 30, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$ 129.0	$ 159.6
Accounts and notes receivable, net	81.6	90.8
Inventories, net	61.7	53.8
Current assets of discontinued operations	297.9	306.1
Income tax receivable	5.9	30.7
Other current assets	6.9	7.9
Total current assets	583.0	648.9
Property, plant, and equipment, less accumulated depreciation and amortization of $396.0 and $361.4, respectively	484.8	499.9
Prepaid pension costs	111.2	88.3
Investment in joint venture	111.8	107.3
Goodwill and intangible assets, net	443.7	441.1
Deferred income taxes	16.6	19.6
Income taxes receivable	4.1	4.1
Other non-current assets	69.5	64.3
Total assets	$ 1,824.7	$ 1,873.5
Liabilities and Shareholders' Equity		
Current liabilities:		
Current installments of long-term debt	$ 40.0	$ 32.5
Accounts payable and accrued expenses	103.8	108.4
Current liabilities of discontinued operations	114.9	128.5
Income tax payable	1.2	0.5
Total current liabilities	259.9	269.9
Long-term debt, less current installments	795.0	817.7
Postretirement benefit liabilities	76.1	79.2
Pension benefit liabilities	56.0	57.2
Other long-term liabilities	33.0	35.5
Income taxes payable	55.2	53.0
Deferred income taxes	145.4	141.7
Total non-current liabilities	1,160.7	1,184.3
Shareholders' equity:		
Common stock, $0.01 par value per share, 200 million shares authorized, 61,434,462 shares issued and 51,638,049 shares outstanding as of June 30, 2018 and	0.6	0.6

60,782,736, shares issued and 52,772,139 shares outstanding as of December 31, 2017		
Additional paid-in capital	535.7	516.8
Retained earnings	762.8	633.4
Treasury stock, at cost, 9,796,413 shares as of June 30, 2018 and 8,010,597		
shares as of December 31, 2017	(490.6)	(385.6)
Accumulated other comprehensive (loss)	(404.4)	(345.9)
Total shareholders' equity	404.1	419.3
Total liabilities and shareholders' equity	$ 1,824.7	$ 1,873.5

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 8.

Armstrong World Industries, Inc., and Subsidiaries

Condensed Consolidated Statements of Shareholders' Equity

(amounts in millions, except share data)

Unaudited

Six Months Ended June 30, 2018

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Retained Earnings	Treasury Stock Shares	Treasury Stock Amount	Accumulated Other Comprehensive (Loss)	Total
Balance at beginning of period	52,772,139	$ 0.6	$ 516.8	$ 633.4	8,010,597	$ (385.6)	$ (345.9)	$ 419.3
Cumulative effect impact of ASU 2018-02 adoption				54.3			(54.3)	-
Stock issuance	651,726							
Share-based employee compensation			18.9					18.9
Net earnings				75.1				75.1
Other comprehensive (loss)							(4.2)	(4.2)
Acquisition of treasury stock	(1,785,816)				1,785,816	(105.0)		(105.0)
Balance at end of period	51,638,049	$ 0.6	$ 535.7	$ 762.8	9,796,413	$ (490.6)	$ (404.4)	$ 404.1

Six Months Ended June 30, 2017

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Retained Earnings	Treasury Stock Shares	Treasury Stock Amount	Accumulated Other Comprehensive (Loss)	Total
Balance at beginning of period	54,428,233	$ 0.6	$ 504.9	$ 469.9	6,168,907	$ (305.2)	$ (403.8)	$ 266.4
Cumulative effect impact of ASU 2016-09 adoption				8.7				8.7
Stock issuance	112,176							
Share-based employee compensation			3.8					3.8
Net earnings				71.7				71.7
Separation of Armstrong Flooring, Inc.			0.9					0.9
							16.7	16.7

Other comprehensive income								
Acquisition of treasury stock	(1,659,452)				1,659,452	(70.9)		(70.9)
Balance at end of period	52,880,957	$ 0.6	$ 509.6	$ 550.3	7,828,359	$ (376.1)	$ (387.1)	$ 297.3

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 8.

Armstrong World Industries, Inc., and Subsidiaries

Condensed Consolidated Statements of Cash Flows

(amounts in millions)

Unaudited

	Six Months Ended June 30,	
	2018	2017
Cash flows from operating activities:		
Net earnings	$75.1	$71.7
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	44.3	38.6
Deferred income taxes	(1.0)	36.4
Share-based compensation	5.3	5.1
Loss on disposal of discontinued operations	23.4	0.1
Equity earnings from joint venture	(40.5)	(38.0)
U.S. pension (credit)	(13.1)	(12.4)
Other non-cash adjustments, net	1.1	(0.4)
Changes in operating assets and liabilities:		
Receivables	7.4	(26.5)
Inventories	(22.1)	(1.8)
Other current assets	4.6	2.2
Other non-current assets	(0.4)	(2.8)
Accounts payable and accrued expenses	(10.3)	(39.6)
Income taxes payable	26.9	15.2
Other long-term liabilities	(9.0)	(5.5)
Other, net	(2.7)	0.1
Net cash provided by operating activities	89.0	42.4
Cash flows from investing activities:		
Purchases of property, plant and equipment	(25.6)	(44.8)
Return of investment from joint venture	35.9	35.0
Cash paid for acquisitions	(11.6)	(31.4)
Other investing activities	-	0.5
Net cash (used for) investing activities	(1.3)	(40.7)
Cash flows from financing activities:		
Proceeds from revolving credit facility and other short-term debt	-	93.0
Payments of revolving credit facility and other short-term debt	-	(78.0)
Payments of long-term debt	(16.3)	(8.7)
Financing costs	-	(0.6)
Proceeds from exercised stock options	15.5	0.6
Payment for treasury stock acquired	(105.0)	(70.9)
Net cash (used for) financing activities	(105.8)	(64.6)
Effect of exchange rate changes on cash and cash equivalents	(2.5)	0.7
Net (decrease) in cash and cash equivalents	(20.6)	(62.2)

Cash and cash equivalents at beginning of year	159.6	141.9
Cash and cash equivalents at end of period	139.0	79.7
Cash and cash equivalents at end of period of discontinued operations	10.0	-
Cash and cash equivalents at end of period of continuing operations	$129.0	$79.7
Supplemental Cash Flow Disclosures:		
Interest paid	$15.3	$15.4
Income tax payments, net	1.4	2.2
Amounts in accounts payable for capital expenditures	0.8	2.8

See accompanying notes to Condensed Consolidated Financial Statements beginning on page 8.

Armstrong World Industries, Inc., and Subsidiaries

Notes to Condensed Consolidated Financial Statements (unaudited)

(dollar amounts in millions, except share data)

NOTE 1. BUSINESS AND BASIS OF PRESENTATION

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

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, 2017. These statements should therefore be read in conjunction with the Consolidated Financial Statements and notes that are included in the Form 10-K for the fiscal year ended December 31, 2017. 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 second quarter and first six months of 2018 and 2017 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.

On May 31, 2018, we acquired the business and assets of Plasterform, Inc. ("Plasterform"), based in Mississauga, Ontario, Canada. Plasterform is a manufacturer of architectural cast ceilings, walls, facades, columns and moldings with one manufacturing facility. Plasterform's operations, and its assets and liabilities, are included as a component of our Architectural Specialties segment. See Note 4 for further information.

On November 17, 2017, we entered into a Share Purchase Agreement (the "Purchase Agreement") with Knauf International GmbH ("Knauf"), to sell certain subsidiaries comprising our business 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., in which AWI holds a 50% interest. The consideration to be paid by Knauf in connection with the sale is $330.0 million in cash, inclusive of amounts due to WAVE, subject to certain adjustments as provided in the Purchase Agreement, including adjustments based on the economic impact of any required regulatory remedies and a working capital adjustment. The transaction has been notified or is set to be notified for merger control clearance in the European Union ("EU"), Bosnia and Herzegovina, Macedonia, Montenegro, Russia and Serbia. It has so far been cleared unconditionally in Montenegro (February 2018), Serbia (February 2018), Russia (March 2018) and Macedonia (July 2018). Clearance in the remaining jurisdictions (EU and Bosnia and Herzegovina) is currently expected during 2018. On July 18, 2018, we entered into an amendment to the Purchase Agreement, pursuant to which Knauf agreed to irrevocably and unconditionally pay us (i) $250 million on August 1, 2018, and (ii) $80 million on September 15, 2018, if, prior to such date (A) any competition condition has not been satisfied, or (B) the closing has not yet occurred. The amendment also provided for the reduction (from a maximum of $35 million to a maximum of $20 million) of potential adjustments to the purchase price consideration for the transaction based on the impact of remedies required to satisfy competition conditions. We continue to work closely with Knauf towards closing and now expect the transaction to close prior to December 31, 2018. The EMEA and Pacific Rim segment historical financial results have been reflected in AWI's Consolidated Financial Statements as discontinued operations for all periods presented.

In January 2017, we acquired the business and assets of Tectum, Inc. ("Tectum"), based in Newark, Ohio. Tectum is a manufacturer of acoustical ceiling, wall and structural solutions for commercial building applications with two manufacturing facilities. Tectum's operations, and its assets and liabilities, are included as a component of our

Architectural Specialties segment. See Note 4 for additional information.

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, 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. Management may confer with outside parties, including outside counsel. Actual results may differ from these estimates.

Certain prior year amounts have been recast in the Condensed Consolidated Financial Statements to conform to the 2018 presentation.

Recently Adopted Accounting Standards

In May 2014, the Financial Accounting Standard Board (“FASB”) issued Accounting Standards Update (“ASU”) 2014-09, “Revenue from Contracts with Customers.” The guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to a customer. The ASU replaces most existing revenue recognition guidance in U.S. GAAP. In March 2016, the FASB issued ASU 2016-08, “Principal versus Agent Considerations (Reporting Gross versus Net),” which clarifies the implementation guidance relating to principle versus agent considerations. In April 2016, the FASB issued ASU

2016-10, "Identifying Performance Obligations and Licensing," which clarifies the implementation guidance relating to the identification of performance obligations in a contract, including how entities should account for shipping and handling services it provides after control of goods transfers to a customer. In May 2016, the FASB issued ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients," which clarifies the guidance related to the presentation of sales taxes, noncash consideration, and completed contracts and contract modifications. In December 2016, the FASB issued ASU 2016-20, "Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers," which clarifies the scope and application of the adoption of the new revenue recognition standard.

Effective January 1, 2018, we adopted these standards using the modified retrospective transition method and have applied all practical expedients related to completed contracts upon adoption. Substantially all of our revenues from contracts with customers are recognized from the sale of products with standard shipping terms, sales discounts and warranties. This adoption did not have a material impact to our financial condition, results of operations or cash flows as the amount and timing of substantially all of our revenues will continue to be recognized at a point in time. As required by the revenue recognition Accounting Standards Codification ("ASC") updates, we have expanded our disclosure of revenues from contracts with customers. See Note 3 for additional information.

In January 2016, the FASB issued ASU 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities," which addresses certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. This new guidance requires equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. Effective January 1, 2018, our adoption of this standard had no material impact on our financial condition, results of operations or cash flows.

In August 2016, the FASB issued ASU 2016-15, "Classification of Certain Cash Receipts and Cash Payments." This guidance clarifies how entities should classify certain cash receipts and cash payments on the statement of cash flows. Effective January 1, 2018, our adoption of this guidance had no material impact on our cash flows.

In March 2017, the FASB issued ASU 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," which requires companies to report the service cost component of net benefit cost in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. Effective January 1, 2018, we have adopted this guidance for all periods presented. Upon adoption of this standard we reclassified all non-service cost components of net benefit costs for our defined benefit pension and health and welfare plans. For the first six months of 2017, this reclassification resulted in an increase of $10.2 million in cost of goods sold and $5.6 million in Selling General and Administrative ("SG&A") expenses, offset by an increase of $15.8 million in other non-operating income, net on the Condensed Consolidated Statement of Earnings. See Note 12 for details related to our components of net benefit costs.

In February 2018, the FASB issued ASU 2018-02, "Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." On December 22, 2017, the U.S. federal government enacted the Tax Cuts and Jobs Act of 2017 (the "Tax Act of 2017"), which, in addition to numerous other provisions, lowered the Corporate statutory tax rate

from 35% to 21%. Under U.S. GAAP, all deferred tax assets and liabilities are required to be adjusted for the effect of a change in tax laws or rates, with the effect included in income from continuing operations in the reporting period that includes the enactment date. This standard allows entities to record a reclassification from Accumulated Other Comprehensive Income ("AOCI") to retained earnings for the purpose of appropriately including the tax effect of items within AOCI at the newly enacted 21% U.S. federal tax rate. This new guidance is effective for annual periods beginning after December 15, 2018. Effective January 1, 2018 we early adopted the guidance and recorded a $54.3 million reduction to AOCI with a corresponding increase to retained earnings.

Recently Issued Accounting Standards

In February 2016, the FASB issued ASU 2016-02, "Leases," which amends accounting for leases, most notably by requiring a lessee to recognize the assets and liabilities that arise from a lease agreement. Specifically, this new guidance will require lessees to recognize a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term, with limited exceptions. The accounting applied by a lessor is largely unchanged from that applied under existing U.S. GAAP. This guidance is effective for annual reporting periods beginning after December 15, 2018 and must be adopted under a modified retrospective basis. We are currently evaluating the impact the adoption of this standard will have on our financial condition, results of operations and cash flows.

Armstrong World Industries, Inc., and Subsidiaries

Notes to Condensed Consolidated Financial Statements (unaudited)

(dollar amounts in millions, except share data)

In August 2017, the FASB issued ASU 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities," which amends the financial reporting of hedging relationships in order to better portray the economic results of an entity's risk management activities in its financial statements. In addition, the guidance simplifies the application of current hedge accounting guidance. This guidance is effective for annual periods beginning after December 15, 2018. We are currently evaluating the impact the adoption of this standard will have on our financial condition, results of operations and cash flows.

NOTE 2. SEGMENT RESULTS

In connection with the announced sale of our EMEA and Pacific Rim businesses, our former EMEA and Pacific Rim segments have been excluded from our results of continuing operations and segment assets. As a result, our operating segments are as follows: Mineral Fiber, Architectural Specialties and Unallocated Corporate.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Net sales				
Mineral Fiber	$206.7	$190.1	$397.4	$379.9
Architectural Specialties	41.9	35.5	78.5	65.5
Total net sales	$248.6	$225.6	$475.9	$445.4

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Segment operating income (loss)				
Mineral Fiber	$59.5	$64.1	$103.2	$119.6
Architectural Specialties	8.6	8.1	16.9	12.9
Unallocated Corporate	(2.1)	(3.0)	(4.5)	(6.0)
Total consolidated operating income	$66.0	$69.2	$115.6	$126.5

	Three Months Ended June 30,	Six Months Ended June 30,

	2018	2017	2018	2017
Total consolidated operating income	$66.0	$69.2	$115.6	$126.5
Interest expense	9.8	8.9	19.0	17.8
Other non-operating (income), net	(9.1)	(8.3)	(18.1)	(17.2)
Earnings from continuing operations before income taxes	$65.3	$68.6	$114.7	$125.9

Segment assets	June 30, 2018	December 31, 2017
Mineral Fiber	$1,166.5	$ 1,193.5
Architectural Specialties	63.6	53.2
Unallocated Corporate	296.7	320.7
Total consolidated assets	$1,526.8	$ 1,567.4

In connection with the closing of our St. Helens, Oregon mineral fiber manufacturing facility in the second quarter of 2018, we recorded $4.3 million and $12.0 million in the three and six months ended June 30, 2018 in cost of goods sold related to accelerated depreciation of machinery and equipment. During the fourth quarter of 2017, we recorded $4.0 million in cost of goods sold related to accelerated depreciation of machinery and equipment.

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 defines the transaction price for the products purchased under the arrangement. Direct sales to 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. Our normal payment terms in most cases 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 consolidated financial statements. Within our Architectural Specialties segment, the majority of revenues are 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 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 and 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 and 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 cost 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 enter into agreements with our customers to offer incentive programs, primarily volume rebates and promotions. The majority of our rebates are designated as a percentage of annual customer purchases. We estimate the amount of rebate based on actual sales for the period and accrue for the projected incentive programs costs. We record the costs of the rebate accruals as a reduction to our revenue. In addition, 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 systems (primarily mineral fiber, fiberglass wool and metal) throughout the Americas. We disaggregate revenue based on our product-based segments and major customer grouping as these categories 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 group 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.

Direct customers – represents net sales sold directly to contractors, subcontractors' alliances, large architect and design firms, and major facility owners. Only sales to U.S. customers are reported within this customer group.

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. Geographically, this category includes sales throughout the U.S., Canada, and Latin America.

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Notes to Condensed Consolidated Financial Statements (unaudited)

(dollar amounts in millions, except share data)

The following tables provide net sales by major customer group within the Mineral Fiber and Architectural Specialties segments for the three and six months ended June 30, 2018 and 2017:

	Three months ended		Six months ended	
	June 30		June 30	
Mineral Fiber	2018	2017	2018	2017
Distributors	$156.7	$141.6	$294.4	$277.8
Home centers	20.5	18.7	44.5	44.4
Direct customers	16.8	16.8	30.5	31.7
Retailers and other	12.7	13.0	28.0	26.0
Total	$206.7	$190.1	$397.4	$379.9

	Three months ended		Six months ended	
	June 30		June 30	
Architectural Specialties	2018	2017	2018	2017
Distributors	$33.4	$28.0	$61.8	$51.4
Direct customers	7.5	6.5	15.4	12.1
Retailers and other	1.0	1.0	1.3	2.0
Total	$41.9	$35.5	$78.5	$65.5

The classification of 2017 customers within each group have been modified slightly from what was reported in our first quarter Form 10-Q.

NOTE 4. ACQUISITION AND DISCONTINUED OPERATIONS

Acquisition of Plasterform

On May 31, 2018, we acquired the business and assets of Plasterform. The $11.6 million purchase price, which is subject to customary working capital adjustments, was allocated to the assets acquired and the liabilities assumed based on their estimated fair values, with the remaining amount recorded as goodwill. The total fair value of tangible assets acquired, less liabilities assumed, was $2.0 million. The total fair value of identifiable intangible assets

acquired, comprised of amortizable customer relationships was $4.0 million, resulting in $5.6 million of goodwill. These amounts are subject to adjustment as our purchase accounting analysis is completed.

Acquisition of Tectum

In January 2017, we acquired the business and assets of Tectum. The $31.2 million purchase price was allocated to the tangible and intangible assets acquired and the liabilities assumed based on their estimated fair values, with the remaining unallocated amount recorded as goodwill. The total fair value of tangible assets acquired, less liabilities assumed, was $4.4 million. The total fair value of intangible assets acquired, comprised of amortizable customer relationships and non-amortizing brand names, was $16.0 million, resulting in $10.8 million of goodwill.

EMEA AND PACIFIC RIM BUSINESSES

On November 17, 2017, we agreed to sell certain subsidiaries comprising our businesses in EMEA and the Pacific Rim to Knauf. Pursuant to the Purchase Agreement, prior to the closing, we and Knauf will enter into (i) an agreement relating to the mutual supply of certain products after the closing, (ii) an agreement relating to the use of certain intellectual property by Knauf after the closing, including the Armstrong trade name and (iii) an agreement relating to certain transition services to be provided by AWI to Knauf after closing for a period of up to one year. WAVE and Knauf will also enter into similar agreements for such purposes.

As of June 30, 2018, based on anticipated net sales proceeds to be received from Knauf, the fair value of EMEA and Pacific Rim net assets are less than their carrying value. As a result, we recorded impairment charges of $5.7 million and $23.4 million during the three and six months ended June 30, 2018. Impairment charges for the three and six months ended June 30, 2018 included $19.1 million and $13.9 million, respectively, of unfavorable AOCI adjustments, in addition to increases in EMEA and Pacific Rim net assets since December 31, 2017. During the fourth quarter of 2017 we recorded an impairment charge of $74.0 million, which included $51.4 million of AOCI adjustments. These AOCI adjustments related to accumulated foreign currency translation amounts that will be subsequently reclassified to earnings from discontinued operations upon sale of our EMEA and Pacific Rim businesses.

FLOORING BUSINESSES

Separation and Distribution of AFI

On April 1, 2016, in connection with the separation and distribution of AFI, we entered into several agreements with AFI that, together with a plan of division, provide for the separation and allocation between AWI and AFI of the flooring assets, employees, liabilities and obligations of AWI and its subsidiaries attributable to periods prior to, at and after AFI's separation from AWI, and govern the relationship between AWI and AFI subsequent to the completion of the separation and distribution. These agreements include a Transition Services Agreement, a Tax Matters Agreement, an Employee Matters Agreement, a Trademark License Agreement, a Transition Trademark License Agreement and a Campus Lease Agreement. Under the Transition Services Agreement, AWI and AFI provided various services to each other during a transition period that expired on December 31, 2017.

European Resilient Flooring

On December 4, 2014, our Board of Directors approved the cessation of funding to our DLW subsidiary, which at that time was our European flooring business. As a result, DLW management filed for insolvency in Germany on December 11, 2014. The German insolvency court subsequently appointed an administrator (the "Administrator") to oversee DLW operations.

In April 2017, we entered into a settlement agreement and mutual release with the Administrator on behalf of the DLW estate to settle all claims of the Administrator related to the insolvency for a cash payment of $11.8 million.

Summarized Financial Information of Discontinued Operations

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

	EMEA and Pacific Rim Businesses	Flooring Businesses	Total
Three months ended June 30, 2018:			
Net sales	$ 114.6	$ -	$114.6
Cost of goods sold	87.3	-	87.3
Gross profit	27.3	-	27.3
Selling, general and administrative expenses	19.7	-	19.7
Operating income	7.6	-	7.6

Interest expense	0.5	-	0.5
Other non-operating expense, net	1.4	-	1.4
Earnings from discontinued operations before income tax	5.7	-	5.7
Income tax expense	0.2	-	0.2
Net earnings from discontinued operations, net of tax	$ 5.5	$ -	$5.5
(Loss) on disposal of discontinued businesses, before income tax	$ (5.7)	$ -	$(5.7)
Income tax expense	-	0.1	0.1
(Loss) on disposal of discontinued businesses, net of tax	$ (5.7)	$ (0.1)	$(5.8)
Net (loss) from discontinued operations	$ (0.2)	$ (0.1)	$(0.3)

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(dollar amounts in millions, except share data)

	EMEA and Pacific Rim Businesses	Flooring Businesses	Total
Six months ended June 30, 2018:			
Net sales	$ 219.0	$ -	$219.0
Cost of goods sold	165.1	-	165.1
Gross profit	53.9	-	53.9
Selling, general and administrative expenses	41.7	-	41.7
Operating income	12.2	-	12.2
Interest expense	0.9	-	0.9
Other non-operating expense, net	0.2	-	0.2
Earnings from discontinued operations before income tax	11.1	-	11.1
Income tax expense	1.7	-	1.7
Net earnings from discontinued operations, net of tax	$ 9.4	$ -	$9.4
(Loss) on disposal of discontinued businesses, before income tax	$ (23.4)	$ -	$(23.4)
Income tax (benefit)	-	(0.3)	(0.3)
(Loss) on disposal of discontinued businesses, net of tax	$ (23.4)	$ 0.3	$(23.1)
Net (loss) income from discontinued operations	$ (14.0)	$ 0.3	$(13.7)

	EMEA and Pacific Rim Businesses	Flooring Businesses	Total
Three months ended June 30, 2017:			
Net sales	$ 105.2	$ -	$105.2
Cost of goods sold	84.4	-	84.4
Gross profit	20.8	-	20.8
Selling, general and administrative expenses	19.5	-	19.5
Operating income	1.3	-	1.3
Interest expense	0.3	-	0.3
Other non-operating (income), net	(0.5)	-	(0.5)
Earnings from discontinued operations before income tax	1.5	-	1.5
Income tax expense	3.7	-	3.7

(Loss) from discontinued operations, net of tax	$ (2.2)	$ -	$(2.2)
(Loss) on disposal of discontinued businesses, before income tax	$ -	$ -	$-
Income tax expense	-	0.2	0.2
(Loss) on disposal of discontinued business, net of tax	$ -	$ (0.2)	$(0.2)
Net (loss) from discontinued operations	$ (2.2)	$ (0.2)	$(2.4)

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Armstrong World Industries, Inc., and Subsidiaries

Notes to Condensed Consolidated Financial Statements (unaudited)

(dollar amounts in millions, except share data)

	EMEA and Pacific Rim Businesses	Flooring Businesses	Total
Six months ended June 30, 2017:			
Net sales	$ 200.8	$ -	$ 200.8
Cost of goods sold	164.1	-	164.1
Gross profit	36.7	-	36.7
Selling, general and administrative expenses	37.6	-	37.6
Operating (loss)	(0.9)	-	(0.9)
Interest expense	0.6	-	0.6
Other non-operating (income), net	(1.1)	-	(1.1)
(Loss) from discontinued operations before income tax	(0.4)	-	(0.4)
Income tax expense	6.5	-	6.5
(Loss) from discontinued operations, net of tax	$ (6.9)	$ -	$ (6.9)
(Loss) on disposal of discontinued businesses, before income tax	$ -	$ (0.1)	$ (0.1)
Income tax expense	-	0.5	