

ARMSTRONG WORLD INDUSTRIES INC

Form 10-K

February 22, 2016

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**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 10-K**

(Mark One)

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

**For the fiscal year ended December 31, 2015**

**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**

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

**Title of each class**

**Common Stock (\$0.01 par value)**

**Securities registered pursuant to Section 12(g) of the Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months, 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

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Large accelerated filer  Accelerated filer   
Non-accelerated filer  Smaller reporting company   
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the  
Act). Yes  No

The aggregate market value of the Common Stock of Armstrong World Industries, Inc. held by non-affiliates based on the closing price (\$53.28 per share) on the New York Stock Exchange (trading symbol AWI) of June 30, 2015 was approximately \$2,941 million. As of February 16, 2016, the number of shares outstanding of registrant's Common Stock was 55,396,836.

Documents Incorporated by Reference

Certain sections of Armstrong World Industries, Inc.'s definitive Proxy Statement for use in connection with its 2016 annual meeting of shareholders, to be filed no later than April 29, 2016 (120 days after the last day of our 2015 fiscal year), are incorporated by reference into Part III of this Form 10-K Report where indicated.

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When we refer to we, our and us, we are referring to Armstrong World Industries, Inc. and its subsidiaries.

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Certain statements in this Annual Report on Form 10-K and the documents incorporated by reference 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:

global economic conditions;

construction activity;

our announced plan to separate our flooring business from our ceilings (buildings products) business, and our ability to successfully complete such separation;

competition;

key customers;

availability and costs of raw materials and energy;

international operations;

covenants in our debt agreements;

our indebtedness;

our liquidity;

our WAVE joint venture;

environmental matters;

strategic transactions;

plant construction projects;

negative tax consequences;

defined benefit plan obligations;

claims and litigation;

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labor;

our 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 elsewhere in this 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 statement is based.

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**PART I**

**ITEM 1. BUSINESS**

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

We are a leading global producer of flooring products and ceiling systems for use primarily in the construction and renovation of residential, commercial and institutional buildings. We design, manufacture and sell flooring products (primarily resilient and wood) and ceiling systems (primarily mineral fiber, fiberglass and metal) around the world.

On February 23, 2015, we announced that our board of directors unanimously approved a plan to separate our Resilient Flooring and Wood Flooring segments from our Building Products (Ceilings) segment. The separation will be effected by allocating the assets and liabilities related primarily to the Resilient Flooring and Wood Flooring segments to Armstrong Flooring, Inc. ( *AFI* ) and then distributing the common stock of *AFI* to *AWI*'s shareholders. The separation and distribution will result in *AWI* and *AFI* becoming two independent, publicly-traded companies, with *AFI* owning and operating the Resilient Flooring and Wood Flooring segments and *AWI* continuing to own and operate the Building Products (Ceilings) segment. In 2015, we recorded \$34.3 million of separation costs, primarily related to outside professional services and employee compensation and severance accruals. We expect the effective date of the separation to be near the end of the first quarter of 2016.

In October 2006, the Armstrong World Industries, Inc. Asbestos Personal Injury Settlement Trust ( *Asbestos PI Trust* ) was created to address *AWI*'s personal injury (including wrongful death) asbestos-related liability and received a distribution of 37,000,000 shares of our common stock. All present and future asbestos-related personal injury claims against *AWI*, including contribution claims of co-defendants but excluding certain foreign claims against subsidiaries, arising directly or indirectly out of *AWI*'s pre-filing use of, or other activities involving, asbestos are channeled to the *Asbestos PI Trust*.

From the fourth quarter of 2012 through the fourth quarter of 2014, the *Asbestos PI Trust* sold 20,448,362 shares of our common stock. In 2015, the *Asbestos Trust* sold 4,281,884 shares of our common stock. We did not sell any shares and did not receive any proceeds from these transactions. As a result of these transactions, the *Asbestos PI Trust* currently holds approximately 9% of our outstanding shares as of December 31, 2015.

**Reportable Segments**

We operate four business segments - Building Products, Resilient Flooring, Wood Flooring and Unallocated Corporate. See Note 3 to the Consolidated Financial Statements and Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K for additional financial information on our reportable segments.

**Markets**

We are well positioned in the industry segments and markets in which we operate - often holding a leadership or significant market share position. The major markets in which we compete are:

*North American Residential.* Our Building Products, Resilient Flooring and Wood Flooring segments sell products for use in single and multi-family housing. Our ceiling products compete against mineral fiber and fiberglass products



from other manufacturers, as well as drywall. Homeowners, builders, and property management firms can choose from our innovative resilient and wood flooring products, for which we are North America's largest provider, or from our laminate flooring products. We compete directly with other domestic and international suppliers of these products. Our flooring products also compete with carpet, stone and ceramic products, which we do not offer.

Our products are used in new home construction and existing home renovation work. We estimate that existing home renovation (also known as replacement / remodel) work represents the majority of the total North American residential market opportunity. Key U.S. statistics that indicate market opportunity include existing home sales (a key indicator for renovation opportunity), housing starts, housing completions, home prices, interest rates and consumer confidence. We believe there is some longer-term correlation between

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these statistics and our revenue after reflecting a lag period of several months between a change in construction activity and our operating results. However, we believe that consumers' preferences for product type, style, color, availability, affordability and ease of installation also significantly affect our revenue. Further, changes in inventory levels and/or product focus at national home centers and independent building materials distributors can significantly affect our revenue.

*North American Commercial.* Many of our products, primarily ceilings and resilient flooring, are used in commercial and institutional buildings. Our revenue opportunities come from new construction as well as renovation of existing buildings. Renovation work is estimated to represent the majority of the total North American commercial market opportunity. Most of our revenue comes from four major segments of commercial building—office, education, retail and healthcare. We monitor U.S. construction starts and follow project activity. Our revenue from new construction can lag behind construction starts by as much as 18 to 24 months. We also monitor office vacancy rates, gross domestic product (GDP) and general employment levels, which can indicate movement in renovation and new construction opportunities. We believe that these statistics, taking into account the time-lag effect, provide a reasonable indication of our future revenue opportunity from commercial renovation and new construction. However, we believe that consumers' preferences for product type, style, color, availability, affordability and ease of installation also affect our revenue.

*Outside of North America.* About 20% of our 2015 consolidated sales were in Europe and the Pacific Rim and almost all were commercial in nature. For the countries in which we have significant revenue, we monitor various national statistics (such as GDP) as well as construction data (starts and project-related information). Revenues come primarily from new construction and renovation work.

The following table provides an estimate of our segments' 2015 net sales, by major markets.

(Estimated

percentages of

individual

segment's sales)	North American Residential		North American Commercial		Outside of North America		Total
	New	Renovation	New	Renovation	New	Renovation	
Building Products		5%	10%	50%	20%	15%	100%
Resilient Flooring	5%	40%	5%	40%	5%	5%	100%
Wood Flooring	35%	65%					100%

Management has used estimates in creating the table above because the end-use of our products is not easily determinable.

**Geographic Areas**

See Note 3 to the Consolidated Financial Statements and Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K for additional financial information by geographic areas.

**Customers**

We use our reputation, capabilities, service and brand recognition to develop long-standing relationships with our customers. We principally sell products through independent building materials distributors, who re-sell our products to retailers, builders, contractors, installers and others. In the commercial sector, we also sell to several contractors and to subcontractors alliances, large architect and design firms, and major facility owners. In the North American retail channel, which sells to end-users in the residential and light commercial segments, we have important relationships with national home centers such as The Home Depot, Inc. and Lowe's Companies, Inc. In the North American residential sector, we have important relationships with major home builders and retail buying groups. Additionally, when market conditions and available capacity warrant, we also provide resilient and wood flooring products on an original equipment manufacturer ( OEM ) basis to other flooring companies.

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Approximately two-thirds of our consolidated net sales are to distributors. Sales to large home centers account for approximately 15% of our consolidated sales. Our remaining sales are to contractors and retailers.

No customer accounted for 10% or more of our total consolidated net sales during the last three years.

**Working Capital**

We produce goods for inventory and sell on credit to our customers. Generally, our distributors carry inventory as needed to meet local or rapid delivery requirements. We sell the vast majority of our products to select, pre-approved customers using customary trade terms that allow for payment in the future. These practices are typical within the industry. Our wood flooring business generally purchases green lumber which is held in inventory during the drying process for approximately three months.

**Competition**

We face strong competition in all of our businesses. Principal attributes of competition include product performance, product styling, service and price. Competition in North America comes from both domestic and international manufacturers. Additionally, some of our products compete with alternative products or finishing solutions. Our ceiling products compete with drywall and exposed structure (also known as open plenum) and our resilient, laminate and wood flooring products compete with carpet, stone and ceramic products. There is excess industry capacity for certain products in some geographies, which tends to increase price competition. The following companies are our primary competitors:

**Building Products** CertainTeed Corporation (a subsidiary of Saint-Gobain), Chicago Metallic Corporation (owned by Rockwool International), Georgia-Pacific Corporation, Knauf AMF GmbH & Co. KG, Lafarge SA, Odenwald Faserplattenwerk GmbH, Rockfon A/S (owned by Rockwool International), Saint-Gobain and USG Corporation.

**Flooring segments** Beaulieu International Group, N.V., Boa-Franc, Inc., Congoleum Corporation, Forbo Holding AG, Gerflor Group, IVC Group, Krono Holding AG, Lauzon Ltd, LG Floors, Mannington Mills, Inc., Mercier Wood Flooring, Inc., Metroflor Corporation, Mirage Hardwood Floors (a division of Boa-Franc Inc.), Mohawk Industries, Inc., Mullican Flooring, L.P., Nora Systems GmbH, Pfliederer AG, Shaw Industries, Inc., Somerset Hardwood Flooring, Tarkett AG and USFloors, Inc.

**Raw Materials**

We purchase raw materials from numerous suppliers worldwide in the ordinary course of business. The principal raw materials used in each business include the following:

Business	Principal Raw Materials
Building Products	Mineral fiber, fiberglass, perlite, waste paper, pigments, clays, starches and steel, which is used in the production of metal ceilings and by WAVE, our joint venture that manufactures ceiling grid
Resilient Flooring	Polyvinylchloride ( PVC ) resins and films, plasticizers, fiberglass and felt backings, limestone, pigments, inks and stabilizers
Wood Flooring	Hardwood lumber, veneer, coatings and stains

We also purchase significant amounts of packaging materials and consume substantial amounts of energy, such as electricity and natural gas, and water.

In general, adequate supplies of raw materials are available to all of our businesses. However, availability can change for a number of reasons, including environmental conditions, laws and regulations, shifts in demand by other industries competing for the same materials, transportation disruptions and/or business decisions made by, or events that affect, our suppliers. There is no assurance that these raw materials will remain in adequate supply to us.

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Prices for certain high usage raw materials can fluctuate dramatically. Cost increases for these materials can have a significant adverse impact on our manufacturing costs. Given the competitiveness of our markets, we may not be able to recover the increased manufacturing costs through increasing selling prices to our customers.

## **Sourced Products**

Some of the products that we sell are sourced from third parties. Our primary sourced products include various flooring products (laminated, wood, vinyl sheet, and luxury vinyl tile LVT products), specialty ceiling products and installation-related products, as well as accessories for some of our manufactured products. We purchase some of our sourced products from suppliers that are located outside of the U.S., primarily from the Pacific Rim and Europe. Sales of sourced products represented approximately 15% of our total consolidated revenue in each of 2015, 2014, and 2013.

In general, we believe we have adequate supplies of sourced products. However, we cannot guarantee that the supply will remain adequate.

## **Seasonality**

Generally, our sales in North America and Europe tend to be stronger in the second and third quarters of our fiscal year due to more favorable weather conditions, customer business cycles, the timing of renovation, home sales and new construction. We see similar patterns with respect to our sales in the Pacific Rim, though the timing of the Chinese New Year can affect buying behaviors.

## **Patent and Intellectual Property Rights**

Patent protection is important to our business. Our competitive position has been enhanced by U.S. and foreign patents on products and processes developed or perfected within AWI or obtained through acquisitions and licenses. In addition, we benefit from our trade secrets for certain products and processes.

Patent protection extends for varying periods according to the date of patent filing or grant and the legal term of a patent in the various countries where patent protection is obtained. The actual protection afforded by a patent, which can vary from country to country, depends upon the type of patent, the scope of its coverage and the availability of legal remedies. Although we consider that, in the aggregate, our patents, licenses and trade secrets constitute a valuable asset of material importance to our business, we do not regard any of our businesses as being materially dependent upon any single patent or trade secret, or any group of related patents or trade secrets.

Certain of our trademarks, including without limitation, , Armstrong®, Alterna®, American Scrape®, BBT®, BioBased Tile®, BioGuard®, Bruce®, Cirrus®, Cortega®, Diamond 10®, Dundee®, Dune®, Excelon®, Huiyi®, Humiguard®, Imperial®, Initiator®, Inspiring Great Spaces®, Laurel®, Lock & Fold®, Luxe Plank®, Manchester®, Medintech®, Memories®, MetalWorks®, Natural Creations®, Optima®, Perla®, Plan®, Stonetex®, Station Square®, StrataMax®, Timberline®, ToughGuard®, Ultima®, Vivero®, and WoodWorks®, are important to our business because of their significant brand name recognition. Trademark protection continues in some countries as long as the mark is used, and continues in other countries as long as the mark is registered. Registrations are generally for fixed, but renewable, terms.

We review the carrying value of trademarks annually for potential impairment. See the Critical Accounting Estimates section of Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 of this Form 10-K for further information.

**Employees**

As of December 31, 2015, we had approximately 7,600 full-time and part-time employees worldwide. Approximately 53% of our 3,500 production and maintenance employees in the U.S. are represented by labor unions. Outside the U.S., most of our production employees are covered by either industry-sponsored and/or state-sponsored collective bargaining mechanisms. We believe that our relations with our employees are satisfactory.

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### **Research & Development**

Research and development ( R&D ) activities are important and necessary in helping us improve our products competitiveness. Principal R&D functions include the development and improvement of products and manufacturing processes. We spent \$31.1 million in 2015, \$30.6 million in 2014 and \$29.3 million in 2013 on R&D activities worldwide.

### **Sustainability and Environmental Matters**

The adoption of environmentally responsible building codes and standards such as the Leadership in Energy and Environmental Design, or LEED, rating system established by the U.S. Green Building Council, has the potential to increase demand for products, systems and services that contribute to building sustainable spaces. Many of our products meet the requirements for the award of LEED credits, and we are continuing to develop new products, systems and services to address market demand for products that enable construction of buildings that require fewer natural resources to build, operate and maintain. Our competitors also have developed and introduced to the market products with an increased focus on sustainability.

We expect that there will be increased demand over time for products, systems and services that meet evolving regulatory and customer sustainability standards and preferences and decreased demand for products that produce significant greenhouse gas emissions. We also believe that our ability to continue to provide these products, systems and services to our customers will be necessary to maintain our competitive position in the marketplace. We are committed to complying with all environmental laws and regulations that are applicable to our operations.

### **Legal and Regulatory Proceedings**

Regulatory activities of particular importance to our operations include proceedings under the Comprehensive Environmental Response, Compensation and Liability Act ( CERCLA ), and state or international Superfund and similar type environmental laws governing several domestically- and internationally owned, formerly owned and non-owned locations allegedly resulting from past industrial activity. In a few cases, we are one of several potentially responsible parties ( PRPs ) 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. Most of our manufacturing and certain of our research facilities are affected by various federal, state and local environmental requirements relating to the discharge of materials or the protection of the environment. We make expenditures necessary for compliance with applicable environmental requirements at each of our operating facilities.

We are involved in various lawsuits, claims, investigations and other legal matters from time to time that arise in the ordinary course of conducting business, including matters involving our products, intellectual property, relationships with suppliers, distributors, relationships with competitors, employees and other matters. For example, we are currently a party to various litigation matters that involve product liability, tort liability and other claims under a wide range of allegations, including illness due to exposure to certain chemicals used in the workplace; or medical conditions arising from exposure to product ingredients or the presence of trace contaminants. In some cases, these allegations involve multiple defendants and relate to legacy products that we and other defendants purportedly manufactured or sold. We believe these claims and allegations to be without merit and intend to defend them vigorously. While complete assurance cannot be given to the outcome of these proceedings, we do not believe that any of these matters, individually or in the aggregate, will have a material adverse effect on our financial condition, liquidity or results of operations.



We have not experienced a material adverse effect upon our capital expenditures or competitive position as a result of environmental control legislation and regulations. Liabilities of \$6.0 million and \$4.4 million at December 31, 2015 and December 31, 2014, respectively, were recorded for potential environmental liabilities, on a global basis, that we consider probable and for which a reasonable estimate of the probable liability could be made. See Note 27 to the Consolidated Financial Statements and Risk Factors in Item 1A of this Form 10-K, for information regarding the possible effects that compliance with environmental laws and regulations may have on our businesses and operating results.

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**Website**

We maintain a website at <http://www.armstrong.com>. Information contained on our website is not incorporated into this document. Reference in this Form 10-K to our website is an inactive text reference only. Annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, all amendments to those reports and other information about us are available free of charge through this website as soon as reasonably practicable after the reports are electronically filed with the SEC. These materials are also available from the SEC's website at [www.sec.gov](http://www.sec.gov).

**ITEM 1A. RISK FACTORS**

*Worldwide economic conditions could have a material adverse impact on our financial condition, liquidity or results of operations.*

Our business is influenced by conditions in domestic and foreign economies, including inflation, deflation, interest rates, availability and cost of capital, consumer spending rates, energy availability and the effects of governmental initiatives to manage economic conditions. Volatility in financial markets and the continued softness or further deterioration of national and global economic conditions could have a material adverse effect on our financial condition, liquidity or results of operations, including as follows:

the financial stability of our customers or suppliers may be compromised, which could result in additional bad debts for us or non-performance by suppliers;

commercial and residential consumers of our products may postpone spending in response to tighter credit, negative financial news and/or stagnation or further declines in income or asset values, which could have a material adverse impact on the demand for our product;

the net asset value of the investment funds underlying our defined benefit pension plans may decline, which could result in negative plan investment performance and additional charges which may involve significant cash contributions to such plans, to meet obligations or regulatory requirements; and

our asset impairment assessments and underlying valuation assumptions may change, which could result from changes to estimates of future sales and cash flows that may lead to substantial impairment charges. Continued or sustained deterioration of economic conditions would likely exacerbate and prolong these adverse effects.

*Our business is dependent on construction activity. Downturns in construction activity could adversely affect our financial condition, liquidity or results of operations.*

Our businesses have greater sales opportunities when construction activity is strong and, conversely, have fewer opportunities when such activity declines. The cyclical nature of commercial and residential construction activity, including construction activity funded by the public sector, tends to be influenced by prevailing economic conditions,

including the rate of growth in gross domestic product, prevailing interest rates, government spending patterns, business, investor and consumer confidence and other factors beyond our control. Prolonged downturns in construction activity could have a material adverse effect on our financial condition, liquidity or results of operations.

***Our plan to separate into two independent publicly-traded companies 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.***

On February 23, 2015, we announced that our board of directors unanimously approved a plan to separate our Resilient Flooring and Wood Flooring segments from our Building Products (Ceilings) segment. The separation will be effected by allocating the assets and liabilities related primarily to the Resilient Flooring and Wood Flooring segments to Armstrong Flooring, Inc. ( AFI ) and then distributing the common stock of AFI to AWI s shareholders. The separation and distribution will result in AWI and AFI becoming two independent, publicly-traded companies, with AFI owning and operating the Resilient Flooring and Wood Flooring segments and AWI continuing to own and operate the Building Products (Ceilings) segment. Completion of the separation will be contingent upon customary closing conditions, including, among other things, authorization and approval of our board of directors of the final terms of the separation, receipt of a

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legal opinion regarding the tax-free status of the transaction, execution of intercompany agreements, the effectiveness of a registration statement on Form 10 with the SEC, and market and certain other conditions. For these and other reasons, the separation may not be completed during the first quarter of 2016, as currently anticipated, if at all.

Regardless of whether or not the separation is completed, our ongoing businesses may be adversely affected and we may be subject to certain risks and consequences, including, among others, the following:

execution of the separation will require significant time and attention from management, which may distract management from the operation of our businesses and the execution of other initiatives that may have been beneficial to us;

we may experience unanticipated competitive developments, including changes in the conditions of our flooring and ceilings business's respective markets;

we may experience increased difficulties in attracting, retaining and motivating employees during the pendency of the separation and following its completion;

we will be required to pay certain costs and expenses relating to the transaction, such as legal, accounting and other professional fees, and may be required to pay certain non-U.S. tax costs resulting from internal restructurings whether or not the spinoff is completed; and

we may experience negative reactions from the financial markets if we fail to complete the transaction. Any of these factors could have a material adverse effect on our business, financial condition, results of operations and the price of our common stock.

***The separation may not be beneficial.***

We may not realize strategic, financial, operational or other benefits from the separation. As independent publicly-traded companies, the Company and AFI will be smaller, less diversified companies with a narrower business focus and may be more vulnerable to changing market conditions, which could materially and adversely affect their respective business, financial condition and results of operations.

Further, there can be no assurance that the combined value of the common stock of the two publicly-traded companies will be equal to or greater than what the value of our common stock would have been had the separation not occurred.

***The separation may result in disruptions to, and negatively impact our relationships with, our customers and other business partners and the relationships with the customers and other business partners of AFI.***

Uncertainty related to the separation may lead customers and other parties with which we currently do business or with which we and AFI may do business in the future to terminate or attempt to negotiate changes in existing business relationships, or consider entering into business relationships with parties other than us or AFI. These disruptions could have a material and adverse effect on our or AFI's businesses, financial condition, results of operations and

prospects. The effect of such disruptions could be exacerbated by any delays in the completion of the separation.

***If the separation and distribution fails to qualify as a tax-free transaction for U.S. federal income tax purposes, then AFI, AWI and AWI s shareholders could be subject to significant tax liability or tax indemnity obligations.***

It is a condition to the distribution that we receive an opinion from our special tax counsel, on the basis of certain facts, representations, covenants and assumptions set forth in such opinion, substantially to the effect that, for U.S. federal income tax purposes, the separation and distribution should qualify as a transaction that generally is tax-free to us and our shareholders, for U.S. federal income tax purposes, under Sections 355 and 368(a)(1)(D) of the Code.

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Notwithstanding the tax opinion, the Internal Revenue Service ( IRS ) could determine on audit that the distribution should be treated as a taxable transaction if it determines that any of the facts, assumptions, representations or covenants set forth in the tax opinion is not correct or has been violated, or that the distribution should be taxable for other reasons, including as a result of a significant change in stock or asset ownership after the distribution, or if the IRS were to disagree with the conclusions of the tax opinion. If the distribution is ultimately determined to be taxable, the distribution could be treated as a taxable dividend to each U.S. holder of our common shares who receives shares of AFI in connection with the spinoff for U.S. federal income tax purposes, and such shareholders could incur significant U.S. federal income tax liabilities. In addition, we and/or AFI could incur significant U.S. federal income tax liabilities or tax indemnification obligations, whether under applicable law or the tax matters agreement that we will enter into with AFI, if it is ultimately determined that certain related transactions undertaken in anticipation of the distribution are taxable.

***Our markets are highly competitive. Competition can reduce demand for our products or cause us to lower prices. Failure to compete effectively by meeting consumer preferences and maintaining market share could adversely affect our results.***

Our markets are highly competitive. Competition can reduce demand for our products, negatively affect our product sales mix or cause us to lower prices. Failure to compete effectively by meeting consumer preferences and maintaining market share could have a material adverse effect on our financial condition, liquidity or results of operations. Our customers consider our products' performance, product styling, customer service and price when deciding whether to purchase our products. Shifting consumer preference in our highly competitive markets, from residential resilient products to other flooring products, for example, whether for performance or styling preferences or our inability to develop and offer new competitive performance features could have an adverse effect on our sales. In addition, excess industry capacity for certain products in several geographic markets could lead to industry consolidation and/or increased price competition. We are also subject to potential increased price competition from overseas competitors which may have lower cost structures.

***Sales fluctuations to and changes in our relationships with key customers could have a material adverse effect on our financial condition, liquidity or results of operations.***

Some of our business lines and markets are dependent on a few key customers, including independent distributors. We generally do not enter into written or long-term agreements with our independent distributors. The loss, reduction, or fluctuation of sales to one of these major customers, or any adverse change in our business relationship with any one of them, could have a material adverse effect on our financial condition, liquidity or results of operations.

***If the availability of raw materials or energy decreases, or the costs increase, and we are unable to pass along increased costs, our financial condition, liquidity or results of operations could be adversely affected.***

The availability and cost of raw materials, packaging materials, energy and sourced products are critical to our operations. For example, we use substantial quantities of natural gas, petroleum-based raw materials and hardwood lumber in our manufacturing operations. The cost of some of these items has been volatile in recent years and availability has been limited at times. We source some materials from a limited number of suppliers, which, among other things, increases the risk of unavailability. Limited availability could cause us to reformulate products or limit our production. Decreased access to raw materials and energy or significant increased cost to purchase these items and any corresponding inability to pass along such costs through price increases could have a material adverse effect on our financial condition, liquidity or results of operations.

***We are subject to risks associated with our international operations in both established and emerging markets. Legislative, political, regulatory and economic volatility, as well as vulnerability to infrastructure and labor disruptions, could have an adverse effect on our financial condition, liquidity or results of operations.***

A significant portion of our products move in international trade, with approximately 20% of our revenues from operations outside the United States and Canada in 2015. See Note 3 to the Consolidated Financial Statements for further information. Our international trade is subject to currency exchange fluctuations, trade regulations, import duties, logistics costs, delays and other related risks. Our international operations are also subject to various tax rates, credit risks in emerging markets, political risks, uncertain legal

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systems, high costs in repatriating profits to the United States from some countries, and loss of sales to local competitors following currency devaluations in countries where we import products for sale. In addition, our international growth strategy depends in part on our ability to expand our operations in certain emerging markets. However, some emerging markets have greater political and economic volatility and greater vulnerability to infrastructure and labor disruptions than established markets.

In addition, in many countries outside of the United States, particularly in those with developing economies, it may be common for others to engage in business practices prohibited by laws and regulations applicable to us, such as the Foreign Corrupt Practices Act or similar local anti-corruption or anti-bribery laws. These laws generally prohibit companies and their employees, contractors or agents from making improper payments to government officials for the purpose of obtaining or retaining business. Failure to comply with these laws, as well as U.S. and foreign export and trading laws, could subject us to civil and criminal penalties. As we continue to expand our business globally, including in emerging markets, we may have difficulty anticipating and effectively managing these and other risks that our international operations may face, which may adversely affect our business outside the United States and our financial condition, liquidity or results of operations.

***The agreements that govern our indebtedness contain a number of covenants that impose significant operating and financial restrictions, including restrictions on our ability to engage in activities that may be in our best long-term interests.***

The agreements that govern our indebtedness include covenants that, among other things, may impose significant operating and financial restrictions, including restrictions on our ability to engage in activities that may be in our best long-term interests. These covenants may restrict our ability to:

incur additional debt;

pay dividends on or make other distributions in respect of our capital stock or redeem, repurchase or retire our capital stock or subordinated debt or make certain other restricted payments;

make certain acquisitions;

sell certain assets;

consolidate, merge, sell or otherwise dispose of all or substantially all of our assets; and

create liens on certain assets to secure debt.

Under the terms of our senior secured credit facility, we are required to maintain specified leverage and interest coverage ratios. Our ability to meet these ratios could be affected by events beyond our control, and we cannot assure that we will meet them. A breach of any of the restrictive covenants or ratios would result in a default under the senior secured credit facility. If any such default occurs, the lenders under the senior secured credit facility may be able to elect to declare all outstanding borrowings under our facilities, together with accrued interest and other fees, to be



immediately due and payable, or enforce their security interest. The lenders may also have the right in these circumstances to terminate commitments to provide further borrowings.

***Our indebtedness may adversely affect our cash flow and our ability to operate our business, make payments on our indebtedness and declare dividends on our capital stock.***

Our level of indebtedness and degree of leverage could:

make it more difficult for us to satisfy our obligations with respect to our indebtedness;

make us more vulnerable to adverse changes in general economic, industry and competitive conditions and adverse changes in government regulation;

limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate;

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place us at a competitive disadvantage compared to our competitors that are less leveraged and, therefore, more able to take advantage of opportunities that our leverage prevents us from exploiting;

limit our ability to refinance existing indebtedness or borrow additional amounts for working capital, capital expenditures, acquisitions, debt service requirements, execution of our business strategy or other purposes;

restrict our ability to pay dividends on our capital stock; and

adversely affect our credit ratings.

We may also incur additional indebtedness, which could exacerbate the risks described above. In addition, to the extent that our indebtedness bears interest at floating rates, our sensitivity to interest rate fluctuations will increase.

Any of the above listed factors could materially adversely affect our financial condition, liquidity or results of operations.

***We require a significant amount of liquidity to fund our operations, and borrowing has increased our vulnerability to negative unforeseen events.***

Our liquidity needs vary throughout the year. If our business experiences materially negative unforeseen events, we may be unable to generate sufficient cash flow from operations to fund our needs or maintain sufficient liquidity to operate and remain in compliance with our debt covenants, which could result in reduced or delayed planned capital expenditures and other investments and adversely affect our financial condition or results of operations.

***Our WAVE joint venture is important to our financial results, and if there is a change with respect to our partner that adversely impacts its relationship with us, WAVE's performance could be adversely impacted.***

Our equity investment in our WAVE joint venture remains important to our financial results. We believe an important element in the success of this joint venture is the relationship with our partner, Worthington Industries, Inc. If there is a change in ownership, a change of control, a change in management or management philosophy, a change in business strategy or another event with respect to our partner that adversely impacts our relationship, WAVE's performance could be adversely impacted. In addition, our partner may have economic or business interests or goals that are different from or inconsistent with our interests or goals, which may impact our ability to influence or align WAVE's strategy and operations.

***We may be subject to liability under and may make substantial future expenditures to comply with environmental laws and regulations, which could materially adversely affect our financial condition, liquidity or results of operations.***

We are involved with environmental investigation and remediation activities for which our ultimate liability may exceed the currently estimated and accrued amounts. It is possible that we could become subject to additional environmental matters and corresponding liabilities in the future. See Note 27 to the Consolidated Financial Statements for further information related to our environmental matters.

The building materials industry has been subject to claims relating to raw materials such as silicates, polychlorinated biphenyl ( PCB ), PVC, formaldehyde, fire-retardants and claims relating to other issues such as mold and toxic fumes,

as well as claims for incidents of catastrophic loss, such as building fires. We have not received any significant claims involving our raw materials or our product performance; however, product liability insurance coverage may not be available or adequate in all circumstances to cover claims that may arise in the future.

In addition, our operations are subject to various domestic and foreign environmental, health, and safety laws and regulations. These laws and regulations not only govern our current operations and products, but also impose potential liability on us for our past operations. Our costs to comply with these laws and regulations may increase as these requirements become more stringent in the future, and these increased costs may materially adversely affect our financial condition, liquidity or results of operations.

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***We may pursue strategic transactions that could create risks and present unforeseen integration obstacles or costs, any of which could materially adversely affect our financial condition, liquidity or results of operations.***

We have evaluated, and expect to continue to evaluate, potential strategic transactions as opportunities arise. We routinely engage in discussions with third parties regarding potential transactions, including joint ventures, which could be significant. Any such strategic transaction involves a number of risks, including potential disruption of our ongoing business and distraction of management, difficulty with integrating or separating personnel and business operations and infrastructure, and increasing or decreasing the scope, geographic diversity and complexity of our operations. Strategic transactions could involve payment by us of a substantial amount of cash, assumption of liabilities and indemnification obligations, regulatory requirements, incurrence of a substantial amount of debt or issuance of a substantial amount of equity. Certain strategic opportunities may not result in the consummation of a transaction or may fail to realize the intended benefits and synergies. If we fail to consummate and integrate our strategic transactions in a timely and cost-effective manner, our financial condition, liquidity or results of operation could be materially and adversely affected.

***Our plant construction projects may adversely impact our results.***

We recently completed several large plant construction projects, including two resilient flooring plants and one mineral fiber ceilings plant in China and, in the first quarter of 2015, a mineral fiber ceilings plant in Russia. In addition, we are adding manufacturing capability to our Lancaster, PA flooring plant to manufacture LVT in North America. Economic and competitive advantages and returns expected from these projects may not fully materialize as a result of changes in market conditions. In addition, there can be no assurance that the actual cost of building and operating our LVT plant in North America will not exceed our projections, and we may experience delays in this project for many reasons, including unavailability of raw materials, labor or equipment or regulatory matters.

***Negative tax consequences can have an unanticipated effect on our financial results.***

We are subject to the tax laws of the many jurisdictions in which we operate. The tax laws are complex, and the manner in which they apply to our operations and results is sometimes open to interpretation. Because our income tax expense for any period depends heavily on the mix of income derived from the various taxing jurisdictions, our income tax expense and reported net income may fluctuate significantly, and may be materially different than forecasted or experienced in the past. Our financial condition, liquidity, results of operations or tax liability could be adversely affected by changes in the effective tax rate as a result of a change in the mix of earnings in countries with differing statutory tax rates, changes in our overall profitability, changes in tax legislation and rates, changes in the amount of earnings permanently reinvested offshore, the results of examinations of previously filed tax returns, and ongoing assessments of our tax exposures.

Our financial condition, liquidity, results of operations or tax liability could also be adversely affected by changes in the valuation of deferred tax assets and liabilities. We have substantial deferred tax assets related to United States domestic foreign tax credits, or FTCs, and state net operating losses, or NOLs, which are available to reduce our U.S. income tax liability and to offset future state taxable income. However, our ability to utilize the current carrying value of these deferred tax assets may be impacted as a result of certain future events, such as changes in tax legislation and insufficient future taxable income prior to expiration of the FTCs and NOLs.

***Significant changes in factors and assumptions used to measure our defined benefit plan obligations, actual investment returns on pension assets and other factors could negatively impact our operating results and cash flows.***

We maintain pension and postretirement plans throughout the world, with the most significant plans located in the U.S. The recognition of costs and liabilities associated with these plans for financial reporting purposes is affected by assumptions made by management and used by actuaries engaged by us to calculate the benefit obligations and the expenses recognized for these plans.

The inputs used in developing the required estimates are calculated using a number of assumptions, which represent management's best estimate of the future. The assumptions that have the most significant impact on reported results are the discount rate, the estimated long-term return on plan assets for the funded plans, retirement rates, and mortality rates and, for postretirement plans, the estimated inflation in health care costs. These assumptions are generally updated annually.

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Our pension plans were underfunded by approximately \$104.0 million as of December 31, 2015. Our unfunded postretirement plan liabilities were approximately \$190.3 million as of December 31, 2015. In recent years, the declining interest rates and changes to mortality assumptions have negatively impacted the funded status of our pension and postretirement plans. In addition, volatile asset performance, most notably since 2008, has also negatively impacted the funded status of our pension plans. Funding requirements for our pension plans may become more significant. If our cash flows and capital resources are insufficient to fund our pension and postretirement plans obligations, we could be forced to reduce or delay investments and capital expenditures, seek additional capital, or restructure or refinance our indebtedness.

***Adverse judgments in regulatory actions, product claims, environmental claims and other litigation could be costly. Insurance coverage may not be available or adequate in all circumstances.***

In the ordinary course of business, we are subject to various claims and litigation. Any such claims, whether with or without merit, could be time consuming and expensive to defend and could divert management's attention and resources. While we strive to ensure that our products comply with applicable government regulatory standards and internal requirements, and that our products perform effectively and safely, customers from time to time could claim that our products do not meet warranty or contractual requirements, and users could claim to be harmed by use or misuse of our products. These claims could give rise to breach of contract, warranty or recall claims, or claims for negligence, product liability, strict liability, personal injury or property damage. They could also result in negative publicity.

In addition, claims and investigations may arise related to patent infringement, distributor relationships, commercial contracts, antitrust or competition law requirements, employment matters, employee benefits issues, and other compliance and regulatory matters, including anti-corruption and anti-bribery matters. For example, we are currently a party to various litigation matters that involve product liability, tort liability and other claims under a wide range of allegations, including illness due to exposure to certain chemicals used in the workplace; or medical conditions arising from exposure to product ingredients or the presence of trace contaminants. In some cases, these allegations involve multiple defendants and relate to legacy products that we and other defendants purportedly manufactured or sold. While we have processes and policies designed to mitigate these risks and to investigate and address such claims as they arise, we cannot predict or, in some cases, control the costs to defend or resolve such claims.

We currently maintain insurance against some, but not all, of these potential claims. In the future, we may not be able to maintain insurance at commercially acceptable premium levels. In addition, the levels of insurance we maintain may not be adequate to fully cover any and all losses or liabilities. If any significant judgment or claim is not fully insured or indemnified against, it could have a material adverse impact. We cannot assure that the outcome of all current or future litigation will not have a material adverse effect on our financial condition, liquidity or results of operations.

***Increased costs of labor, labor disputes, work stoppages or union organizing activity could delay or impede production and could have a material adverse effect on our financial condition, liquidity or results of operations.***

Increased costs of U.S. and international labor, including the costs of employee benefits plans, labor disputes, work stoppages or union organizing activity could delay or impede production and have a material adverse effect on our financial condition, liquidity or results of operations. As the majority of our manufacturing employees are represented by unions and covered by collective bargaining or similar agreements, we often incur costs attributable to periodic renegotiation of those agreements, which may be difficult to project. We are also subject to the risk that strikes or other conflicts with organized personnel may arise or that we may become the subject of union organizing activity at our facilities that do not currently have union representation. Prolonged negotiations, conflicts or related activities

could also lead to costly work stoppages and loss of productivity.

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***Our intellectual property rights may not provide meaningful commercial protection for our products or brands, which could adversely impact our financial condition, liquidity or results of operations.***

We rely on our proprietary intellectual property, including numerous patents and registered trademarks, as well as our licensed intellectual property to market, promote and sell our products. We monitor and protect against activities that might infringe, dilute, or otherwise harm our patents, trademarks and other intellectual property and rely on the patent, trademark and other laws of the United States and other countries. However, we may be unable to prevent third parties from using our intellectual property without our authorization. In addition, the laws of some non-United States jurisdictions, particularly those of certain emerging markets, provide less protection for our proprietary rights than the laws of the United States and present greater risks of counterfeiting and other infringement. To the extent we cannot protect our intellectual property, unauthorized use and misuse of our intellectual property could harm our competitive position and have a material adverse effect on our financial condition, liquidity or results of operations.

***Our cost saving initiatives may not achieve expected savings in our operating costs or improved operating results.***

We aggressively look for ways to make our operations more efficient and effective. We reduce, move and expand our plants and operations as needed. Such actions involve substantial planning, often require capital investments and may result in charges for fixed asset impairments or obsolescence and substantial severance costs. Our ability to achieve cost savings and other benefits within expected time frames is subject to many estimates and assumptions. These estimates and assumptions are subject to significant economic, competitive and other uncertainties, some of which are beyond our control. If these estimates and assumptions are incorrect, if we experience delays, or if other unforeseen events occur, our financial condition, liquidity or results of operations could be materially and adversely affected.