Quanex Building Products CORP Form 10-K December 12, 2017

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the Fiscal Year Ended October 31, 2017

or

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

Commission file number 1-33913

QUANEX BUILDING PRODUCTS CORPORATION

(Exact name of registrant as specified in its charter)

Delaware 26-1561397

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

1800 West Loop South, Suite 1500, Houston, Texas 77027 (Address of principal executive offices) (Zip code) Registrant's telephone number, including area code: (713) 961-4600

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

Title of each class Name of each exchange on which registered

Common Stock, \$0.01 par value New York Stock Exchange, Inc. 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 x 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 x

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 x 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No "

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 definition of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filerx Accelerated filer

Non-accelerated filer o Smaller reporting company o

Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of April 30, 2017, computed by reference to the closing price for the Common Stock on the New York Stock Exchange, Inc. on that date, was \$693,911,141. Such calculation assumes only the registrant's officers and directors at such date were affiliates of the registrant.

At December 8, 2017 there were outstanding 34,850,034 shares of the registrant's Common Stock, \$0.01 par value.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement for its 2018 Annual Meeting of Stockholders to be filed with the Commission within 120 days of October 31, 2017 are incorporated herein by reference in Part III of this Annual Report on Form 10-K.

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Unless the context indicates otherwise, references to "Quanex", the "Company", "we", "us" and "our" refer to the consolidated business operations of Quanex Building Products Corporation and its subsidiaries.

Cautionary Note Regarding Forward-Looking Statements

Certain of the statements contained in this document and in documents incorporated by reference herein, including those made under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations" are "forward-looking" statements as defined under the Private Securities Litigation Reform Act of 1995. Generally, the words "expect," "believe," "intend," "estimate," "anticipate," "project," "will" and similar expressions identify forward-looking statements, which generally are not historical in nature. Forward looking statements are (1) all statements which address future operating performance, (2) events or developments that we expect or anticipate will occur in the future, including statements relating to volume, sales, operating income and earnings per share, and (3) statements expressing general outlook about future operating results. Forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from our historical experience and our current projections or expectations. As and when made, we believe that these forward-looking statements are reasonable. However, caution should be taken not to place undue reliance on any such forward-looking statements since such statements speak only as of the date when made and there can be no assurance that such forward-looking statements will occur. We are not obligated to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Factors that could cause actual results to differ materially from those expressed or implied by the forward-looking statements include, but are not limited to the following:

changes in market conditions, particularly in the new home construction, and residential remodeling and replacement (R&R) activity markets in the United States, United Kingdom and Germany;

- changes in non-pass-through raw
- material costs;

changes in domestic and international economic conditions;

changes in purchases by our principal customers;

fluctuations in foreign currency exchange rates;

our ability to maintain an effective system of internal controls;

our ability to successfully implement our internal operating plans and acquisition strategies;

our ability to successfully implement our plans with respect to information technology (IT) systems and processes;

our ability to control costs and increase profitability;

changes in environmental laws and regulations;

changes in warranty obligations;

changes in energy costs;

changes in tax laws, and interpretations thereof;

changes in interest rates;

our ability to service our debt facilities and remain in good standing with our lenders;

changes in the availability or applicability of our insurance coverage;

our ability to maintain good relationships with our suppliers, subcontractors, and key customers; and

the resolution of litigation and other legal proceedings.

Additional factors that could cause actual results to differ materially are discussed under "Item 1A. Risk Factors" included elsewhere in this Annual Report on Form 10-K.

About Third-Party Information

In this report, we rely on and refer to information regarding industry data obtained from market research, publicly available information, industry publications, United States government sources and other third parties. Although we believe this information is reliable, we cannot guarantee the accuracy or completeness of the information and have not independently verified it.

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PART I

Item 1. Business (Continuing Operations).

Our Company

Quanex was incorporated in Delaware on December 12, 2007, as Quanex Building Products Corporation. We manufacture components for original equipment manufacturers (OEM) in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We use low-cost production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the United Kingdom, and also serve customers in international markets through our operating plants in the United Kingdom and Germany, as well as through sales and marketing efforts in other countries.

Our History

Our predecessor company, Quanex Corporation, was organized in Michigan in 1927 as Michigan Seamless Tube Company, and was later reincorporated in Delaware in 1968. In 1977, Michigan Seamless Tube Company changed its name to Quanex Corporation. On December 12, 2007, Quanex Building Products Corporation was incorporated as a wholly-owned subsidiary in the state of Delaware, in order to facilitate the separation of Quanex Corporation's vehicular products and building products businesses. This separation became effective on April 23, 2008, through a spin-off of the building products business to Quanex Corporation's then-existing shareholders. Immediately following the spin-off, our former parent company, consisting principally of the vehicular products business and all non-building products related corporate accounts, merged with a wholly-owned subsidiary of Gerdau S.A. Since the spin-off in 2008, we have evolved our business by making investments in organic growth initiatives and

Since the spin-off in 2008, we have evolved our business by making investments in organic growth initiatives and taking a disciplined approach to new business and strategic acquisition opportunities, while disposing of non-core businesses.

Notable developments and transactions which occurred since the spin-off include the following: in March 2011, we acquired Edgetech, I.G. Inc. and its German subsidiary, which provided us with three manufacturing facilities, one each in the United States, United Kingdom and Germany, that produce and market a full line of flexible insulating glass spacer systems for window and door customers in North America and abroad. This acquisition complemented our then existing insulating glass products business in the United States and, as a result, we committed to a plan to consolidate these facilities in November 2011. This consolidation plan, in part, resulted in the closure of a plant in Barbourville, Kentucky, and the relocation of equipment that was used to manufacture the single seal, warm-edge spacer system to our facility in Cambridge, Ohio. This consolidation was substantially completed by August 2012, with minor residual cash payments and program costs incurred during fiscal 2013. We sold the facility in Barbourville in May 2014;

in December 2012, we acquired substantially all of the assets of Alumco Inc. and its subsidiaries (Alumco), an aluminum screen manufacturer, which allowed us to expand the scope of our fenestration business to include screens for vinyl window and door manufacturers and to expand our geographic reach throughout the United States; in April 2014, we sold our interest in a limited liability company which held the net assets of our Nichols Aluminum business to a privately held company that provides aluminum rolled products and extrusions, aluminum recycling and specification aluminum alloy production;

in June 2015, we acquired the outstanding ownership shares of Flamstead Holdings Limited, an extruder of vinyl lineal products and manufacturer of other plastic products incorporated and registered in England and Wales. Following a pre-sale reorganization and purchase, Flamstead Holdings Limited owned 100% of the ownership shares of the following subsidiaries: HL Plastics Limited, Vintage Windows Limited, Wegoma Machinery Sales Limited (renamed in 2016 as Avantek Machinery Company), and Liniar Limited (collectively referred to as "HLP"), each registered in England and Wales. This acquisition expanded our vinyl extrusion product offerings and expanded our

international presence in the global fenestration business;

in November 2015, we completed the merger of QWMS, Inc., a Delaware corporation which was a newly-formed and wholly-owned Quanex subsidiary, and WII Holding, Inc. (WII), a Delaware corporation. Upon satisfaction or waiver of

conditions set forth in the merger agreement, QWMS, Inc. merged with and into WII, and WII became our wholly-owned subsidiary, and, as a result, we acquired all the subsidiaries of WII (referred to collectively as Woodcraft). Woodcraft is a manufacturer of cabinet doors and other components for OEMs in the kitchen and bathroom cabinet industry, operating various plants in the United States and Mexico; and

In October 2016, we committed to a restructuring plan that includes the closure of two vinyl extrusion plants in the United States and our kitchen and bathroom cabinet door plant in Guadalajara, Mexico.

In September 2017, we closed a kitchen and bathroom cabinet door plant in Lansing, Kansas, and, in October 2017, sold a wood-flooring business in Shawano, Wisconsin.

As of October 31, 2017, we operated 34 manufacturing facilities located in 17 states in the United States, four facilities in the United Kingdom, and one in Germany. These facilities feature efficient plant design and flexible manufacturing processes, enabling us to produce a wide variety of custom engineered products and components primarily focused on the window and door segment of the residential building products markets. We are able to maintain minimal levels of finished goods inventories at most locations because we typically manufacture products upon order to customer specifications. We believe the primary drivers of our operating results are new home construction and residential remodeling and replacement activity in the markets we serve.

Our Industry

Our business is largely North American based and dependent upon the spending and growth activity levels of our customers which include national and regional residential window, door and cabinet manufacturers. Our international presence includes vinyl extruded lineals for house systems to smaller customers primarily in the United Kingdom, as well as our insulating glass business in the United Kingdom and Germany.

We use data related to housing starts and window shipments in the United States and United Kingdom, as published by or derived from third-party sources, to evaluate the fenestration market in these countries. We also use data related to cabinet demand in the United States to evaluate the residential cabinet market.

The following table presents calendar-year annual housing starts information, as published by the United States Census Bureau based on data collected from the National Association of Home Builders (NAHB), (units in thousands):

	Single-family		Multi-family		Manufactured			
	Units		Units		Units			
Period	Units	% Change	Units	% Change	Units	% Change	Total Units	
Annual Data								
2011	434	N/A	178	N/A	51	N/A	663	
2012	537	24%	247	39%	55	8%	839	
2013	620	15%	308	25%	60	9%	988	
2014	647	4%	355	15%	64	7%	1,066	
2015	712	10%	395	11%	71	11%	1,178	
2016	784	10%	393	(1)%	81	14%	1,258	
Annual Data - Forecast								
2017	840	7%	356	(9)%	86	6%	1,282	
2018	903	8%	350	(2)%	92	7%	1,345	
2019	966	7%	338	(3)%	98	7%	1,402	

The following table presents calendar-year annual window shipments information, derived from reports published by Ducker Worldwide LLC, a consulting and research firm, (units in thousands):

	New Construction				Remodeling & Replacement							
Period	Wood	Aluminum	Vinyl	Fiberglass	Other	Total	Wood	Aluminum	Vinyl	Fiberglass	Other	Total
Annual												
Data												
2011	2,601	1,820	6,623	514	182	11,740	5,071	717	19,086	730	516	26,120
2012	2,736	2,516	8,625	592	237	14,706	4,566	696	18,902	657	594	25,415
2013	2,989	3,077	10,585	668	264	17,583	4,739	658	19,588	685	658	26,328

2014 2015 2016	3,108 3,471 2,911 3,470 3,028 3,432	11,651 728 12,925 793 13,690 909	358	19,249 4,697 20,457 4,324 21,414 4,225	562	19,972 698 20,742 766 21,302 781	 26,762 27,134 27,640
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The following table presents calendar-year annual housing starts information in the United Kingdom, derived from reports published by D&G Consulting, a consulting and research firm, (units in thousands): Housing Construction

_	Private	Housing	Public Housing			
Period	Annual	% Change	Actual	% Change		
Actual Data						
2011	100	N/A	34	N/A		
2012	104	4%	32	(6)%		
2013	102	(2)%	32	— %		
2014	110	8%	29	(9)%		
2015	129	17%	37	28%		
2016	129	— %	31	(16)%		
Forecast Data						
2017	142	10%	27	(13)%		
2018	150	6%	25	(7)%		
2019	155	3%	25	<u></u> %		

According to Catalina Research, a consulting and research firm, total United States residential cabinet demand is expected to increase annually from 2014 to 2019. Projections include growth rates for the stock, semi-custom and custom cabinet markets, which are presented in the table below:

Cabinet Market Annual Growth Rates

Period	Stock	$Semi\text{-}Custom^{(1)}$	Custom	Overall
Annual Data				
2011	10.3%	(7.7)%	(10.4)%	0.4%
2012	(4.9)%	10.0%	5.3%	1.7%
2013	28.9%	5.7%	6.3%	17.0%
2014	16.6%	(15.6)%	(10.0)%	2.3%
2015	13.9%	11.5%	21.6%	14.0%
2016	10.0%	5.9%	14.3%	9.3%
Annual Data - Forecast				
2017	7.8%	3.9%	(1.0)%	5.7%
2018	8.1%	4.6%	2.1%	6.5%
2019	8.7%	5.6%	3.1%	7.3%
7.4				

⁽¹⁾We operate primarily in the semi-custom cabinet market.

We have noted the following trends which we believe affect our industry:

the number of housing starts and window shipments in the United States has increased in recent years following a dramatic decline from 2007 through 2011. The NAHB expects this trend to continue for the next several years, which should result in higher demand for our fenestration and kitchen and bathroom cabinet door products;

- the recent growth in the housing market has been predominately in new construction which has outpaced the growth in the residential remodeling and replacement sector; growth in the residential remodeling and
- replacement sector has been stagnated by uncertainty in the economy and the job market, although there have been favorable market indicators in the United States in recent months;
- the recovery of the housing market has been slowed due to predominant growth of multi-family homes compared to mid- and higher priced single family homes;

programs in the United States such as Energy Star have improved customer awareness of the technological advances in window and door energy-efficiency, but the government has been reluctant to enforce stricter energy standards; foreign currency rates in the United Kingdom and other European nations have changed significantly relative to the United States Dollar due in part to voter approval of a referendum in June 2016 for the United Kingdom to potentially exit the

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European Union, referred to as Brexit, a separation which will take several years to negotiate, if effected, as well as other international unrest or uncertainties;

commodity prices have fluctuated in recent years, and to the extent we cannot pass this cost to our customers, this impacts the cost of critical materials used in our manufacturing processes such as resin, which affects margins related to our vinyl extrusion products; oil products such as butyl, which affects our insulating glass products; and aluminum, wood and silicone products used by our other businesses; and

higher energy efficiency standards in Europe should favorably impact sales of our insulating glass spacer products in the short- to mid-term.

Strategy

Our vision is to be the preferred supplier to our customers in each market we serve. Our strategy to achieve this vision includes the following:

focus on organic growth with our current customer base and expand our market share with national and regional customers by providing: (1) a quality product; (2) a high level of customer service; (3) product choices at different price points; and (4) new products or enhancements to existing product offerings. These enhancements may include higher thermal efficiency, enhanced functionality, improved weatherability, better appearance and best-in-class quality for our fenestration and cabinet door products;

realize improved profitability in our manufacturing processes through: (1) ongoing preventive maintenance programs; (2) better utilization of our capacity by focusing on operational efficiencies and reducing scrap; (3) marketing our value added products; and (4) focusing on employee safety;

offer logistic solutions that provide our customers with just-in-time service which can reduce their processing costs; pursue targeted business acquisitions that allow us to expand our existing footprint, enhance our existing product offerings, acquire complementary technology, enhance our leadership position within the markets we serve, and expand into adjacent markets or service lines; and

exit unprofitable service lines or customer relationships.

Business Segments

We currently have three reportable business segments: (1) North American Engineered Components segment ("NA Engineered Components"), comprised of four operating segments primarily focused on the fenestration market in North America manufacturing vinyl profiles, insulating glass ("IG") spacers, screens & other fenestration components; (2) European Engineered Components segment ("EU Engineered Components"), comprised of our United Kingdom-based vinyl extrusion business, manufacturing vinyl profiles and conservatories, and the European insulating glass business manufacturing IG spacers; and (3) North American Cabinet Components segment ("NA Cabinet Components"), comprised of Woodcraft, our cabinet door and components business, and two wood plants transferred from the NA Engineered Components segment. We maintain a grouping called Unallocated Corporate & Other which includes transaction expenses, stock-based compensation, long-term incentive awards based on the performance of our common stock and other factors, certain severance and legal costs not deemed to be allocable to the segments, depreciation of corporate assets, interest expense, other, net, income taxes and inter-company eliminations. Other corporate office general and administrative costs are allocated to the reportable business segments, based upon a relative measure of profitability in order to more accurately reflect each reportable business segment's administrative costs. We allocate corporate expenses to businesses acquired mid-year from the date of acquisition. We did not change the presentation of our historical corporate expense allocations related to the plant moves in 2017 as the impact would not have been significant. The accounting policies of our operating segments are the same as those used to prepare our accompanying consolidated financial statements. Financial information specific to each segment is located in Note 18, "Segment Information" of the accompanying financial statements in this Annual Report on Form 10-K.

Our Strengths

We believe our strengths include design expertise, new technology development capability, customer service, just-in-time delivery systems, high quality manufacturing, the ability to generate unique patented products and participation in industry and governmental advocacy.

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Raw Materials and Supplies

We purchase a diverse range of raw materials, which include PVC resin, epoxy resin, butyl, titanium dioxide (TiO₂) desiccant powder, silicone and EPDM rubber compounds, coated and uncoated aluminum sheet and wood (both hardwood and softwood). These raw materials are generally available from several suppliers at market prices. We may enter into sole sourcing arrangements with our suppliers from time to time if we believe we can realize beneficial savings, but only after we have determined that the vendor can reliably supply our raw material requirements. These sole sourcing arrangements generally have termination clauses to protect us if a sole sourced vendor could not provide raw materials timely and on economically feasible terms. We believe there are other qualified suppliers from which we could purchase raw materials and supplies.

Competition

Our products are sold under highly competitive conditions. We compete with a number of companies, some of which have greater financial resources than us. We believe the primary competitive factors in the markets we serve include price, product quality, delivery and the ability to manufacture to customer specifications. The volume of engineered building products that we manufacture represents a small percentage of annual domestic consumption. Similarly, our subsidiaries in the United Kingdom compete against some larger vinyl producers and smaller window manufacturers. For our kitchen and bathroom cabinet door business, we believe we are the largest supplier to OEMs in the United States, but we compete with other national and regional businesses, including OEMs who are vertically integrated. We compete against a range of small and mid-size metal, vinyl and wood products suppliers, wood molding companies, and the in-house operations of customers who have vertically integrated fenestration operations. We also compete against IG spacer manufacturing firms. IG systems are used in numerous end markets including residential housing, commercial construction, solar panels, appliances and transportation vehicles, but we primarily serve the residential housing market. Competition is largely based on regional presence, custom engineering, product development, quality, service and price. Primary competitors include, but are not limited to, Veka, Deceuninck, Energi, Vision Extrusions, GED Integrated Solutions, Technoform, Swiss Spacer, Thermix, RiteScreen, Allmetal, and Endura, Competitors in the vinyl extrusion business in the United Kingdom include Epwin, Veka, Synseal, Eurocell and others. Primary competitors in the cabinet door business in the United States include Conestoga, Decore-ative Specialties, Northern Contours and others.

Sales, Marketing, and Distribution

We sell our products to customers in various countries. Therefore, we have sales representatives whose territories essentially cover the United States, Canada, Europe, and to a lesser extent, the Middle East, Latin and South America, Australia and Asia. Our sales force is tasked with selling and marketing our complete range of components, products and systems to national and regional OEMs through a direct sales force in North America and Europe, supplemented with the limited use of distributors and independent sales agents.

Customers

Certain of our businesses or product lines are largely dependent on a relatively few large customers. See Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Concentration of Credit Risk and Allowance for Doubtful Accounts," of the accompanying financial statements in this Annual Report on Form 10-K for related disclosure.

Sales Backlog

Given the short lead times involved in our business, we have a relatively low backlog, approximately \$20 million as of October 31, 2017. The criteria for revenue recognition has not been met with regard to sales backlog, and therefore, we have not recorded revenue or deferred revenue pursuant to these sales orders. If these sales orders result in a sale, we will record revenue during fiscal 2018 in accordance with our revenue recognition accounting policy.

Seasonal Nature of Business

Our business is impacted by seasonality. We have historically experienced lower sales for our products during the first half of our fiscal year as winter weather reduces homebuilding and home improvement activity. Our operating income tends to decline during this period of lower sales because a higher percentage of our operating expenses are fixed overhead. We typically experience more favorable results in the third and fourth quarters of the fiscal year. Our exposure to seasonality was somewhat tempered with the entry into the kitchen and bathroom cabinet door industry, which is focused "inside the house" and less susceptible to inclement weather. Expenses for labor and other costs are generally semi-variable throughout the year.

Working Capital

We fund operations through a combination of available cash and cash equivalents, cash flow generated from our operations, and borrowings from our revolving credit facility. We extend credit to our domestic customers in the ordinary course of business generally for a term of 30 days, while the terms for our international customers vary from cash advances to 90 days. Inventories of raw materials are carried in quantities deemed necessary to ensure a smooth production process, some of which are governed by consignment agreements with suppliers. We strive to maintain minimal finished goods inventories, while ensuring an adequate supply on hand to service customer needs. Service Marks, Trademarks, Trade Names, and Patents

Our federally registered trademarks or service marks include QUANEX, QUANEX and design, "Q" design, TRUSEAL TECHNOLOGIES, DURASEAL, DURALITE, SOLARGAIN EDGE TAPE, ENVIROSEALED WINDOWS, EDGETHERM, COLONIAL CRAFT, EDGETECH, ECOBLEND, SUPER SPACER, TSS, TRUE WARM, E & Design, OUIET EDGE, HEALTH SMART WINDOWS, ENERGY WISE WINDOWS, DESI-ROPE, 360 and design, INTELLICLIP, SUSTAINAVIEW, MIKRON, MIKRONWOOD, MIKRONBLEND, MIKRON BLEND and design, ENERGYCORE, FUSION INSULATED SYSTEM, AIRCELL, SUPERCOAT, SUPERCAP, STYLELOCK, STYLELOCK and design, K2 MIKRON and design, HOMESHIELD, HOMESHIELD and design, STORM SEAL, and TENON. We consider the following marks, design marks and associated trade names to be valuable in the conduct of our business; HOMESHIELD, COLONIAL CRAFT, TRUSEAL TECHNOLOGIES, EDGETECH, MIKRON, WOODCRAFT and QUANEX. Through HLP, we hold a number of registered designs, patents and trademarks registered in the United Kingdom, which include: MODLOK, LINIAR, SUPERCUT, and various other trademarks and patents which are pending approval. Generally, our business does not depend on patent protection, but patents obtained with regard to our vinyl extrusion products and processes, fabricated metal components and IG spacer products business remain a valuable competitive advantage over other building products manufacturers. We obtain patent protection for various dies and other tooling created in connection with the production of customer-specific vinyl profile designs and vinyl extrusions. Our fabricated metal components business obtains patent protection for its thresholds. Our window sealant business unit relies on patents to protect the design of several of its window spacer products. Although we hold numerous patents, the proprietary process technology that has been developed is also considered a source of competitive advantage.

Research and Development

In general, we expense research and development costs as incurred. We devote time, effort and expense to: (1) custom- engineer products for specific customer applications; (2) develop superior, proprietary process technology; and (3) partner with customers to develop new products. In addition, we may acquire businesses with patented technology in order to expand our product offerings. Historically, we have partnered with several universities to help fund new product applications which may benefit our business.

Environmental and Employee Safety Matters

We are subject to extensive laws and regulations concerning worker safety, the discharge of materials into the environment and the remediation of chemical contamination. To satisfy such requirements, we must make capital and other expenditures on an on-going basis. The cost of worker safety and environmental matters has not had a material adverse effect on our operations or financial condition in the past, and we are not currently aware of any existing conditions that we believe are likely to have a material adverse effect on our operations, financial condition, or cash flows.

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Safety and Environmental Policies

For many years, we have maintained compliance policies that are designed to help protect our workforce, to identify and reduce the potential for job-related accidents, and to minimize liabilities and other financial impacts related to worker safety and environmental issues. These policies include extensive employee training and education, as well as internal policies embodied in our Code of Business Conduct and Ethics. We have a Director of Environmental, Health and Safety and maintain a company-wide committee, comprised of leaders from across the organization, which meets regularly to discuss safety issues and drive safety improvements. We plan to continue to focus on safety in particular as a core strategy to improve our operational efficiency and financial performance.

Remediation

Under applicable state and federal laws, we may be responsible for, among other things, all or part of the costs required to remove or remediate wastes or hazardous substances at locations we, or our predecessors, have owned or operated. From time to time, we also have been alleged to be liable for all or part of the costs incurred to clean up third-party sites where there might have been an alleged improper disposal of hazardous substances. At present, we are not involved in any such matters.

Environmental Compliance Costs

From time to time, we incur routine expenses and capital expenditures associated with compliance with existing environmental regulations, including control of air emissions and water discharges, and plant decommissioning costs. We have not incurred any material expenses or capital expenditures related to environmental matters during the past three fiscal years, and do not expect to incur a material amount of such costs in fiscal 2018. While we will continue to have future expenditures related to environmental matters, any such amounts are impossible to reasonably estimate at this time. Based upon our experience to date, we do not believe that our compliance with environmental requirements will have a material adverse effect on our operations, financial condition or cash flows.

Employees

As of October 31, 2017, we had 3,954 employees. Of these employees, 3,336 were domiciled in the United States, 548 in the United Kingdom, and 70 in Germany.

Geographic Information

Our manufacturing facilities and all long-lived assets are located in the United States, United Kingdom, and Germany. Financial information specific to each geographic area is included in Note 18, "Segment Information," to the accompanying financial statements contained elsewhere in this Annual Report on Form 10-K.

For Investors

We periodically file or furnish documents to the Securities and Exchange Commission (SEC), including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and other reports as required. These reports are also available free of charge from the Investor Relations Section of our website at http://www.quanex.com, as soon as reasonably practicable after we file such material or furnish it to the SEC. As permitted by the SEC rules, we post relevant information on our website. However, the information contained on our website is not incorporated by reference into this Annual Report on Form 10-K and should not be considered part of this report.

Item 1A. Risk Factors.

The following risk factors, along with other information contained elsewhere in this Annual Report on Form 10-K and our other public filings with the SEC, should be carefully considered before deciding to invest in our securities. Additional risks and uncertainties that are not currently known to us or that we may view as immaterial could impair our business if such risks were to develop into actual events. Therefore, any of these risks could have a material adverse effect on our financial condition, results of operations and cash flows. This listing of risk factors is not all-inclusive and is not necessarily presented in order of importance.

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Industry Risks

Any sustained decline in residential remodeling, replacement activities, or housing starts could have a material adverse effect on our business, financial condition and results of operations.

The primary drivers of our business are residential remodeling, replacement activities and housing starts. The home building and residential construction industry is cyclical and seasonal, and product demand is based on numerous factors such as interest rates, general economic conditions, consumer confidence and other factors beyond our control. Declines in the number of housing starts and remodeling expenditures resulting from such factors could have a material adverse effect on our business, results of operations and financial condition.

If the availability of critical raw materials were to become scarce or if the price of these items were to increase significantly, we might not be able to timely produce products for our customers or maintain our profit levels. We purchase from outside sources significant amounts of raw materials, such as butyl, titanium dioxide, vinyl resin, aluminum, steel, silicone and wood products for use in our manufacturing facilities. Because we do not have long-term contracts for the supply of many of our raw materials, their availability and price are subject to market fluctuation and may be subject to curtailment or change. Any of these factors could affect our ability to timely and cost-effectively manufacture products for our customers.

Compliance with, or liabilities under, existing or future environmental laws and regulations could significantly increase our costs of doing business.

We are subject to extensive federal, state and local laws and regulations concerning the discharge of materials into the environment and the remediation of chemical contamination. To satisfy such requirements, we must make capital and other expenditures on an on-going basis. Future expenditures relating to environmental matters will necessarily depend upon whether such regulations and future governmental decisions or interpretations of these regulations apply to us and our facilities. It is likely that we will be subject to increasingly stringent environmental standards, and we will incur additional expenditures to comply with such standards. Furthermore, if we fail to comply with applicable environmental regulations, we could be subject to substantial fines or penalties and to civil and criminal liability. Our goodwill and indefinite-lived intangible assets may become impaired and could result in a charge to income. We evaluate our goodwill and indefinite-lived intangible assets at least annually to determine whether we must test for impairment. In making this assessment, we must use judgment to make estimates of future operating results and appropriate residual values. Actual future operating results and residual values associated with our operations could differ significantly from these estimates, which may result in an impairment charge in a future period, resulting in a decrease in net income from operations in the year of the impairment, as well as a decline in our recorded net worth. We recorded a goodwill impairment charge in 2016 and could record future impairment charges. Goodwill totaled \$222.2 million at October 31, 2017. The results of goodwill impairment testing is described in the accompanying notes to the audited financial statements, Note 6, "Goodwill and Intangible Assets" included elsewhere in this Annual Report on Form 10-K.

We may not be able to protect our intellectual property.

We rely on a combination of copyright, patent, trade secrets, confidentiality procedures and contractual commitments to protect our proprietary information. However, these measures can only provide limited protection and unauthorized third parties may try to copy or reverse engineer portions of our products or may otherwise obtain and use our intellectual property. If we cannot protect our proprietary information against unauthorized use, we may not be able to retain a perceived competitive advantage and we may lose sales to the infringing sellers, which may have a material adverse effect on our financial condition, results of operations and cash flows.

We are subject to various existing and contemplated laws, regulations and government initiatives that may materially impact the demand for our products, our profitability or our costs of doing business.

Our business may be materially impacted by various governmental laws, regulations and initiatives that may artificially create, deflate, accelerate, or decelerate consumer demand for our products. For example, when the government issues tax credits designed to encourage increased homebuilding or energy-efficient window purchases, the credits may create a spike in demand that would not otherwise have occurred and our production capabilities may not be able to keep pace, which could materially impact our profitability. Likewise, when such laws, regulations or initiatives expire, our business may experience a material loss in sales volume or an increase in production costs as a

result of the decline in consumer demand.

Our operations outside the United States require us to comply with a number of United States and international anti-corruption regulations, violations of which could have a material adverse effect on our consolidated results of operations and consolidated financial condition.

Our international operations require us to comply with a number of United States and international regulations, including the Foreign Corrupt Practices Act (FCPA) and the United Kingdom Bribery Act 2010. While we have implemented appropriate training and compliance programs to prevent violations of these anti-bribery regulations, we cannot ensure that our policies, procedures and programs will always protect us from reckless or criminal acts committed by our employees or agents. Allegations of violations of applicable anti-corruption laws, may result in internal, independent, or government investigations, and violations of anti-corruption laws may result in severe criminal or civil sanctions or other liabilities which could have a material adverse effect on our business, consolidated results of operations and financial condition.

Because we have operations located within the United Kingdom (UK), our business and financial results may suffer as the UK works to implement its exit from the European Union (EU), resulting primarily from (a) continued depression in the value of the British Pound Sterling as compared to the United States Dollar; and (b) potential price increases for supplies purchased by our UK businesses from companies located in the EU or elsewhere.

Following the UK's vote to leave the EU, the value of the British Pound Sterling immediately declined and has remained at relatively low levels, stabilizing somewhat during 2017, although well below pre-Brexit levels. If the value of the British Pound Sterling remains at current levels, the resulting unfavorable exchange rate may negatively affect the value of our operations and businesses located in the UK, as translated to our reporting currency, the United States Dollar, in accordance with US GAAP, which may reduce the revenue and earnings we report. For more information with respect to Exchange Rate risk applicable to us, please see Part 2 Item 7A. "Market Risk Disclosures" elsewhere in this Annual Report on Form 10-K. Continued weakness in the British Pound Sterling may also result in the imposition of a price increase by EU-based suppliers to our UK businesses, as those suppliers seek to compensate for the diminished value of the British Pound Sterling as compared to the European Euro.

Failure to achieve and maintain effective internal controls could have a material adverse effect on our business and on our stock price.

Effective internal controls are necessary for us to effectively monitor our business, prevent fraud or theft, remain in compliance with our credit facility covenants, and provide reliable financial reports, both to the public and to our lenders. If we fail to maintain the adequacy of our internal controls, both in accordance with current standards and as standards are modified over time, we could trigger an event of default under our credit facilities or lose the confidence of the investing community, both of which could result in a material adverse effect on our stock price, limit our ability to borrow funds, or result in the application of unfavorable commercial terms to borrowings then outstanding. Company Risks

Our business will suffer if we are unable to adequately address potential supplier or customer pricing pressures, particularly with respect to OEMs that have significant pricing leverage over suppliers.

Our primary customers are OEMs, who have substantial leverage in setting purchasing and payment terms. We attempt to manage this pricing pressure and to preserve our business relationships with the OEMs by negotiating reasonable price concessions when needed, and by reducing our production costs through various measures, which may include managing our purchase process to control the cost of our raw materials and components, and implementing cost-effective process improvements. However, our efforts may not be successful and our operating margins could be negatively impacted.

Our revenues could decline or we may lose business if our customers vertically integrate their operations, diversify their supplier base, or transfer manufacturing capacity to other regions.

Certain of our businesses or product lines are largely dependent on a relatively few large customers. For example, the revenues of our United States vinyl business declined significantly in 2017 as a result of shedding less profitable business with one such OEM. Although we believe we have an extensive customer base, if we were to lose one of these large customers or if such customer were to materially reduce its purchases as a result of vertical integration, supplier diversification, or a shift in regional focus, our revenue, general financial condition and results of operations could be adversely affected.

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Our credit facility contains certain operational restrictions, reporting requirements, and financial covenants that limit the aggregate availability of funds.

Our credit facility is comprised of a revolving credit facility and a term loan, each of which contains certain financial covenants and other operating and reporting requirements that could present risk to our operating results or limit our ability to access capital for use in the business. For a full discussion of the various covenants and operating requirements imposed by our credit facility and information related to the potential limitations on our ability to access capital, see Item 7, Management's Discussion and Analysis of Financial Conditions and Results of Operations-Liquidity and Capital Resources, in this Annual Report on Form 10-K.

We may not be able to successfully manage or integrate acquisitions, and if we are unable to do so, then our profitability could be adversely affected.

We cannot provide assurance that we will successfully manage or integrate acquisition targets once we have purchased them. If we acquire a business for which we do not fully understand or appreciate the specific business risks, if we overvalue or fail to conduct effective due diligence on an acquisition, or if we fail to effectively and efficiently integrate a business that we acquire, then there could be a material adverse effect on our ability to achieve the projected growth and cash flow goals associated with the new business, which could result in an overall material adverse effect on our long-term profitability or revenue generation.

If our information technology systems fail, or if we experience an interruption in our operations due to an aging information system infrastructure, then our results of operations and financial condition could be materially adversely affected.

The failure of our information technology systems, our inability to successfully maintain, enhance and/or replace our information technology systems when necessary, or a significant compromise of the integrity or security of the data that is generated from our information technology systems, could adversely affect our results of operations and could disrupt business and prevent or severely limit our ability to respond to data requests from our customers, suppliers, auditors, shareholders, employees or government authorities.

We may not have the right personnel in place to achieve our operating goals and the rural location of some of our operations may make it difficult to locate or hire highly skilled employees.

We operate in some rural areas and small towns where the competition for labor can be fierce, and where the pool of qualified employees may be very small. If we are unable to obtain skilled workers and adequately trained professionals to conduct our business, we may not be able to manage our business to the necessary high standards. In addition, we may be forced to pay higher wages or offer other benefits that might impact our cost of labor and thereby negatively impact our profitability.

Equipment failures or catastrophic loss at any of our manufacturing facilities could prevent us from manufacturing our products.

An interruption in production capabilities at any of our facilities due to equipment failure, catastrophic loss, or other reasons could result in our inability to manufacture products, which could severely affect delivery times, return or cancellation rates, and future sales, any of which could result in lower sales and earnings or the loss of customers. Although we have a disaster recovery plan in place, we currently have one plant which is the sole source for our insulating spacer business in the United States. If that plant were to experience a catastrophic loss and our disaster recovery plan were to fail, it could have a material adverse effect on our results of operations or financial condition.

Product liability claims and product replacements could harm our reputation, revenue generation and financial condition, or could result in costs related to litigation, warranty claims, or customer accommodations. We have, on occasion, found flaws and deficiencies in the manufacturing, design, testing or installation of our products, which may result from a product defect, a defect in a component part provided by our suppliers, or as a result of the product being installed incorrectly by our customer or an end user. The failure of products before or after installation could result in litigation or claims by our customers or other users of the products, or in the expenditure of costs related to warranty coverage, claim settlement, or customer accommodation. In addition, we are currently party to certain legal claims related to a commercial sealant product, and there is no assurance that we will prevail on those claims. We may be required to expend legal fees, expert costs, and other costs associated with defending the claims

and/or lawsuits. We may elect to enter into legal settlements or be forced to pay any judgments that result from an adverse court decision. Any such settlements, judgments, fees and/or costs could negatively impact our profitability, results of operations, cash flows and financial condition.

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Our insurance coverage may be inapplicable or inadequate to cover certain liabilities, and our insurance policies may exclude coverage for certain products.

While we maintain a robust insurance program that is reasonably designed to cover our known and unknown risks, there is no assurance that our insurance carriers will voluntarily agree to cover every potential liability, or that our insurance policies include limits large enough to cover all liabilities associated with our business or products. In addition, coverage under our insurance policies may be unavailable in the future for certain products. For example, during the recent renewal of our insurance program, our insurance carriers excluded future coverage of a product line we no longer manufacture or sell. If our insurers refuse to cover claims, in whole or in part, or if we exhaust our available insurance coverage at some point in the future, then we might be forced to expend legal fees and settlement or judgement costs, which could negatively impact our profitability, results of operations, cash flows and financial condition.

Risks Associated with Investment in Quanex Securities

Our corporate governance documents or the provisions of Delaware law may delay or preclude a business acquisition or divestiture that stockholders may consider to be favorable, which might result in a decrease in the value of our common shares.

Our certificate of incorporation and bylaws and Delaware law contain provisions that could make it more difficult for a third party to acquire us without the consent of our Board of Directors. These provisions include restrictions on the ability of our stockholders to remove directors and supermajority voting requirements for stockholders to amend our organizational documents, a classified Board of Directors, and limitations on action by our stockholders by written consent. Shareholders ratified certain amendments, which were presented by our Board at our 2016 annual meeting, to our Certificate of Incorporation that are designed to declassify director elections and lower our supermajority voting thresholds. In addition, our Board of Directors has the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer. Although we believe these provisions protect our stockholders from coercive or otherwise unfair takeover tactics, and thereby provide for an opportunity for us to receive a higher bid by requiring potential acquirers to negotiate with our Board of Directors, these provisions apply even if the offer may be considered beneficial by some stockholders.

We have the ability to issue additional equity securities, which would lead to dilution of our issued and outstanding common stock.

We are authorized to issue, without stockholder approval, 1,000,000 shares of preferred stock, no par value, in one or more series, which may give other stockholders dividend, conversion, voting, and liquidation rights, among other rights, which may be superior to the rights of holders of our common stock. The issuance of additional equity securities or securities convertible into equity securities would result in dilution of existing stockholders' equity interests. Our Board of Directors has no present intention to issue any such preferred shares, but has the right to do so in the future. In addition, we were authorized, by prior stockholder approval, to issue up to 125,000,000 shares of our common stock, \$0.01 par value per share, of which 37,508,877 were issued at October 31, 2017. These authorized shares can be issued, without stockholder approval, as securities convertible into either common stock or preferred stock.

Item 1B. Unresolved Staff Comments. None.

Item 2. Properties.

The following table lists our principal properties by location, general character and use as of October 31, 2017. These

properties are owned by us, unless indicated otherwise.

Location Character & Use of Property

Executive Offices

Houston, Texas (Lease expires 2023) Executive corporate office

NA Engineered Components Segment

Rice Lake, Wisconsin Fenestration products Chatsworth, Illinois Fenestration products Richmond, Indiana Fenestration products

Adhesive research and administrative offices Akron, Ohio (Lease expires 2026)

Richmond, Kentucky Vinyl and composite extrusions

Winnebago, Illinois Vinyl extrusions

Kent, Washington (Lease expires 2020) Vinyl and composite extrusions

Dubuque, Iowa (Lease expires 2018) Fenestration products

Cambridge, Ohio (Lease expires 2021) Flexible spacer and solar adhesives Dallas, Texas (Lease expires 2022) Screens for windows and doors

Sacramento, California (Lease expires 2021) Screens for windows and doors Des Moines, Iowa (Lease expires 2019) Screens for windows and doors Phoenix, Arizona (Lease expires 2018) Screens for windows and doors Denver, Colorado (Lease expires 2020) Screens for windows and doors Paris, Illinois (Lease expires 2018) Screens for windows and doors

Parkersburg, West Virginia (Lease expires 2022) Screens for windows and doors Fontana, California (Lease expires 2019) Screens for windows and doors Perrysburg, Ohio (Lease expires 2019) Screens for windows and doors Olympia, Washington (Lease expires 2024) Division executive offices Chehalis, Washington (Lease expires 2019) Screens for windows and doors

Durham, North Carolina (Lease expires 2021) Division executive offices

EU Engineered Components Segment

Denby, United Kingdom (Leases expire 2027 & 2037) Vinyl and composite extrusions Alfreton, United Kingdom (Lease expires 2022) Vinyl and composite extrusions

Coventry, United Kingdom Flexible and rigid spacer

Heinsberg, Germany (Lease expires 2025) Flexible spacer

Burnley, United Kingdom (Lease expires 2018) Flexible and rigid spacer

NA Cabinet Components Segment

Bowling Green, Kentucky Hardwood components for kitchen and bath

Conover, North Carolina (Lease expires 2018) Hardwood doors for kitchen and bath

Foreston, Minnesota Hardwood components for kitchen and bath Greenville, Pennsylvania Hardwood components for kitchen and bath Middlefield, Ohio (Leases expire 2017 & 2019) Hardwood components for kitchen and bath

Orwell, Ohio

Hardwood doors for kitchen and bath St. Cloud, Minnesota Hardwood doors & components for kitchen and bath

Engineered wood products for kitchen and bath Bashor, Kansas (Lease expires 2018) Moorefield, West Virginia (Lease expires 2026) Engineered wood products for kitchen and bath

Engineered wood products for kitchen and bath Wahpeton, North Dakota

Molalla, Oregon Hardwood & engineered products for kitchen & bath

Wood products Luck, Wisconsin

Fenestration and wood products Mounds View, Minnesota (Lease expires 2021)

We maintain leases in Greenville, Texas; and Yakima, Washington; and Lansing, Kansas, which expire in 2020, 2021, and 2017, respectively, related to locations which were closed as a result of restructuring activities. See Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring" to the accompanying consolidated financial statements included elsewhere in this Annual Report on Form 10-K. We believe our operating properties are in good condition and well maintained, and are generally suitable and adequate to carry on our business. In fiscal 2017, our facilities operated at approximately 58% of capacity.

Item 3. Legal Proceedings.

From time to time, we, along with our subsidiaries, are involved in various litigation matters arising in the ordinary course of our business, including those arising from or related to contractual matters, commercial disputes, intellectual property, personal injury, environmental matters, product performance or warranties, product liability, insurance coverage and personnel and employment disputes.

We regularly review with legal counsel the status of all ongoing proceedings, and we maintain insurance against these risks to the extent deemed prudent by our management and to the extent such insurance is available. However, there is no assurance that we will prevail in these matters or that our insurers will accept full coverage of these matters, and we could, in the future, incur judgments, enter into settlements of claims, or revise our expectations regarding the outcome or insurability of matters we face, which could materially impact our results of operations.

We have been and are currently party to multiple claims, some of which are in litigation, relating to alleged defects in a commercial sealant product that was manufactured and sold during the 2000's. One such piece of litigation went to trial during fiscal 2017, with the parties ultimately settling the matter during trial, with no material impact to our business, financial condition, results of operations or cash flows. In addition, other claims related to this commercial sealant product have been filed and are proceeding. While we believe that our product was not defective and that we would prevail in these commercial sealant product claims if taken to trial, the timing, ultimate resolution and potential impact of these claims is not currently determinable. Nevertheless, after taking into account all currently available information, including our defenses, the advice of our counsel, and the extent and currently-expected availability of our existing insurance coverage, we believe that the eventual outcome of these commercial sealant claims will not have a material adverse effect on our overall financial condition, results of operations or cash flows, and we have not recorded any accrual with regard to these claims.

We reserve for litigation loss contingencies that are both probable and reasonably estimable. We do not expect that losses resulting from any current legal proceedings will have a material adverse effect on our consolidated financial statements if or when such losses are incurred.

For discussion of environmental issues, see Item 1, "Business - Environmental and Employee Safety Matters" discussed elsewhere in this Annual Report on Form 10-K.

Item 4. Mine Safety Disclosures. Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our common stock, \$0.01 par value, has been listed on the New York Stock Exchange under the ticker symbol NX since April 24, 2008. The following table sets forth, for the periods indicated, the high and low sales price per share of our common stock as reported, and the quarterly cash dividend declared per share on our common stock.

1		-	
	NX Sto	ck	Cash
	Price		Dividends
Period	High	Low	Declared
Quarter ended October 31, 2017	\$23.60	\$18.55	\$ 0.04
Quarter ended July 31, 2017	22.65	18.95	0.04
Quarter ended April 30, 2017	21.40	17.45	0.04
Quarter ended January 31, 2017	21.90	15.41	0.04
Quarter ended October 31, 2016	20.99	15.63	0.04
Quarter ended July 31, 2016	20.99	17.44	0.04
Quarter ended April 30, 2016	19.43	15.33	0.04
Quarter ended January 31, 2016	\$21.66	\$17.09	\$ 0.04

The terms of our credit facilities as of October 31, 2017 include a limitation on annual dividend payments of \$10.0 million.

There were approximately 2,097 holders of our common stock (excluding individual participants in securities positions listings) on record as of December 8, 2017.

Equity Compensation Plan Information

The following table summarizes certain information regarding equity compensation to our employees, officers and directors under equity compensation plans as of October 31, 2017:

	(a)	(b)	(c) Number of securities remaining available for
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights ⁽¹⁾	Weighted-average exercise price of outstanding options, warrants and rights ⁽²⁾	future issuance under equity compensation plans (excluding
Equity compensation plans approved by security holders	3,178,620	\$ 17.44	securities reflected in column (a)) 1,522,056

⁽¹⁾ Column (a) includes securities that may be issued upon future vesting of performance share awards that have been previously granted to key employees and officers. The number of securities reflected in this column includes the maximum number of shares that would be issued pursuant to these performance share awards assuming the performance measures are achieved. The performance measures may not be achieved.

The weighted-average exercise price in column (b) does not include the impacts of the performance share awards or any securities that may be issued thereunder. For additional details, see Note 15, "Stock-Based Compensation" included elsewhere within this Annual Report on Form 10-K.

Stock Performance Graph

The following chart represents a comparison of the five year total return of our common stock to the Standard & Poor's 500 Index (S&P 500), the Russell 2000 Index, and a peer group index selected by us, which includes companies offering similar products and services to ours. Following our execution of various strategic initiatives, we made changes to our peer group index for fiscal 2017 in order to ensure that it continues to reflect an appropriate comparison to our business. To that end, we eliminated three companies from the fiscal 2016 ("old") peer group (Builders FirstSource Inc., Eagle Materials Inc., and Nortek, Inc.), and added three companies to the fiscal 2017 ("new") peer group (AAON, Inc., Patrick Industries Inc., and PGT Innovations, Inc.). The "new" peer group includes AAON Inc., American Woodmark Corp, Apogee Enterprises Inc., Continental Building Products Inc., LCI Industries (formerly known as Drew Industries, Inc.), Gibraltar Industries Inc., Griffon Corporation, Louisiana-Pacific Corp., Masonite International, NCI Building Systems Inc., Patrick Industries Inc., PGT Innovations, Inc., Ply Gem Holdings Inc., Simpson Manufacturing Company Inc., Trex Company Inc., and Universal Forest Products Inc.

INDEXED RETURNS	For the Year	ars Ended				
Company Name / Index	10/31/2012	10/31/2013	10/31/2014	10/31/2015	10/31/2016	10/31/2017
Quanex Building Products Corporation	\$100	\$ 90.74	\$ 103.03	\$ 97.92	\$ 85.32	\$ 115.76
S&P 500 Index	\$100	\$ 127.18	\$ 149.14	\$ 156.89	\$ 163.97	\$ 202.72
Russell 2000 Index	\$100	\$ 136.28	\$ 145.05	\$ 145.53	\$ 151.52	\$ 193.72
New Peer Group	\$100	\$ 129.68	\$ 135.20	\$ 156.60	\$ 182.54	\$ 245.75
Old Peer Group	\$100	\$ 126.60	\$ 134.30	\$ 143.55	\$ 165.54	\$ 225.55

Item 6. Selected Financial Data.

The following table presents selected historical consolidated financial and operating data for the periods shown. The selected consolidated financial data as of October 31, 2017, 2016, 2015, 2014 and 2013 and for each of the fiscal years then ended was derived from our audited consolidated financial statements for those dates and periods, adjusted for discontinued operations, as indicated. The following information should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

	Fiscal Years Ended October 31,						
	$2017^{(1)}$	2016(1)(2)(3)	(4)	$2015^{(5)}$	$2014^{(6)(7)}$	2013(8)	
	(Dollars in	thousands,	exc	ept per sha	re data)		
Consolidated Statements of Income							
Net sales	\$866,555	\$ 928,184		\$645,528	\$595,384	\$554,867	7
Cost and expenses:							
Cost of sales (excluding depreciation and amortization)	672,162	710,644		499,097	464,584	419,733	
Selling, general and administrative	97,981	114,910		86,536	82,150	98,969	
Restructuring charges	4,550	529		_	_	_	
Depreciation and amortization	57,495	53,146		35,220	33,869	53,521	
Asset impairment charges	_	12,602		_	505	1,465	
Operating income (loss)	34,367	36,353		24,675	14,276	(18,821)
Non-operating income (expense):							
Interest expense	(9,595)	(36,498)	(991	(562)	(621)
Other, net	730	(5,479)	(531	92	170	
Income (loss) from continuing operations before income	25 502	(5.624	`	22 152	12 906	(10.272	`
taxes	25,502	(5,624)	23,153	13,806	(19,272)
Income tax (expense) benefit	(6,819)	3,765		(7,539	(5,468)	6,888	
Income (loss) from continuing operations	18,683	(1,859)	15,614	8,338	(12,384)
Income (loss) from discontinued operations, net of taxes		_		479	20,896	681	
Net income (loss)	\$18,683	\$ (1,859)	\$16,093	\$29,234	\$(11,703)
Basic earnings (loss) per common share:							
Basic earnings (loss) from continuing operations	\$0.55	\$ (0.05)	\$0.46	\$0.22	\$(0.34)
Basic earnings (loss) from discontinued operations	_	_		0.01	0.57	0.02	
Basic earnings (loss) per share	\$0.55	\$ (0.05)	\$0.47	\$0.79	\$(0.32)
Diluted earnings (loss) per common share:							
Diluted earnings (loss) from continuing operations	\$0.54	\$ (0.05)	\$0.46	\$0.22	\$(0.34)
Diluted earnings (loss) from discontinued operations	_	_		0.01	0.56	0.02	
Diluted earnings (loss) per share	\$0.54	\$ (0.05)	\$0.47	\$0.78	\$(0.32)
Cash dividends declared per share	\$0.16	\$ 0.16		\$0.16	\$0.16	\$0.16	
Other Financial & Operating Data							
Cash provided by operating activities	\$78,554	\$ 86,418		\$67,087	\$20,778	\$43,519	
Cash (used for) provided by investing activities	(41,124)	(282,103)	(160,144)	74,124	(59,687)
Cash (used for) provided by financing activities	(45,412)	196,371		(4,581	(24,459)	(4,869)
Acquisitions, net of cash acquired	8,497	245,904		131,689	5,161	22,096	
Capital expenditures	\$34,564	\$ 37,243		\$29,982	\$33,779	\$37,931	
Selected Consolidated Balance Sheet Data at Year End							
Cash and cash equivalents	\$17,455	\$ 25,526		\$23,125	\$120,384	\$49,734	
Total assets	773,879	780,353		565,516	517,113	571,815	
Long-term debt, excluding current portion	218,184	259,011		53,767	586	701	
Total liabilities	\$367,032	\$ 412,522		\$170,221	\$96,193	\$155,621	l

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- In 2017 and 2016, we incurred \$4.6 million and \$0.5 million, respectively, of restructuring costs associated with
- (1) the closure of several plant facilities. See Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring," included elsewhere in this Annual Report on Form 10-K.
 - In November 2015, we acquired Woodcraft, a manufacturer of cabinet doors and other components to OEMs in the
- kitchen and bathroom cabinet industry. The results of operations of Woodcraft including revenue of \$223.4 million and net income of \$4.1 million have been included in our consolidated operating results since the date of acquisition, November 2, 2015.
- In July 2016, we refinanced our credit facility resulting in a \$3.1 million prepayment call premium fee, a charge of \$8.1 million of unamortized deferred financing fees and a charge of \$5.5 million of unamortized original issuer's discount. See Note 8, "Debt and Capital Lease Obligations" included elsewhere in this Annual Report on Form 10-K.
- (4) In October 2016, we recorded a goodwill impairment charge of \$12.6 million associated with our United States vinyl extrusion business.
 - In June 2015, we acquired HLP, a vinyl profile extruder with operations located in the United Kingdom. The
- (5) results of operations of HLP include revenue of \$42.3 million and net income of \$1.5 million for the period June 15, 2015 through October 31, 2015.
- ⁽⁶⁾ In April 2014, we sold Nichols Aluminum, LLC. Accordingly, the related assets and liabilities were reported as discontinued operations in the consolidated balance sheets for the applicable periods presented, and the related operating results, including the gain on the sale, are reported as discontinued operations, net of tax, in the consolidated statements of income (loss) presented, as applicable.
- (7) In fiscal 2014, we decreased our warranty reserve and reduced expense by \$2.8 million (\$1.8 million net of tax) related to claims associated with a discontinued legacy product.
- ⁽⁸⁾In December 2012, we acquired substantially all the assets of Alumco, Inc. and its subsidiaries, a manufacturer of window screens, with multiple facilities within the United States. Alumco provided revenues of \$49.1 million and a net loss of approximately \$0.1 million for the period December 2012 through October 31, 2013.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis contains forward-looking statements based on our current assumptions, expectations, estimates and projections about our business and the homebuilding industry, and therefore, it should be read in conjunction with our consolidated financial statements and related notes thereto, as well as "Cautionary Note Regarding Forward-Looking Statements" discussed elsewhere within this Annual Report on Form 10-K. For a listing of potential risks and uncertainties which impact our business and industry, see "Item 1A. Risk Factors." Actual results could differ from our expectations due to several factors which include, but are not limited to: market price and demand for our products, economic and competitive conditions, capital expenditures, new technology, regulatory changes and other uncertainties. Unless otherwise required by law, we undertake no obligation to publicly update any forward-looking statements, even if new information becomes available or other events occur in the future.

Our Business

We manufacture components for original equipment manufacturers in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We use low-cost production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the United Kingdom, and also serve customers in international markets through our operating plants in the United Kingdom and Germany, as well as through sales and marketing efforts in other countries.

We continue to invest in organic growth initiatives and have completed several targeted business acquisitions in recent years. We intend to continue to pursue business acquisitions that allow us to expand our existing fenestration and cabinet component footprint, enhance our product offerings, provide new complementary technology, enhance our leadership position within the markets we serve, and expand into new markets or service lines. We have disposed of non-core businesses in the past, and continue to evaluate our business portfolio to ensure that we are investing in markets where we believe there is potential future growth.

We currently have three reportable business segments: (1) North American Engineered Components segment ("NA Engineered Components"), comprised of four operating segments primarily focused on the fenestration market in North America manufacturing vinyl profiles, IG spacers, screens & other fenestration components; (2) European Engineered Components segment ("EU Engineered Components"), comprised of our United Kingdom-based vinyl extrusion business, manufacturing vinyl profiles and conservatories, and the European insulating glass business manufacturing IG spacers; and (3) North American Cabinet Components segment ("NA Cabinet Components"), comprised of the North American cabinet door and components business acquired in November 2015, and two wood-manufacturing plants that were transferred from the NA Engineered Components segment during 2017 in order to better align our wood-related products under a common management team. The results of operations and net assets associated with the plant moves is reflected for all applicable periods presented in the accompanying discussion of "Results of Operations" and is further described at Note 18, "Segment Information", in the accompanying financial statements. We maintain a grouping called Unallocated Corporate & Other, which includes transaction expenses, stock-based compensation, long-term incentive awards based on performance of our common stock and other factors, certain severance and legal costs not allocable to our operating segments, depreciation of corporate assets, interest expense, other, net, income taxes and inter-segment eliminations. Other corporate general and administrative costs have been allocated to the reportable business segments, based upon a relative measure of profitability in order to more accurately reflect each reportable business segment's administrative costs. We allocate corporate expenses to businesses acquired mid-year from the date of acquisition. No change in historical corporate expense allocation has been made to reflect the plant moves noted above as the impact would not have been significant. The accounting policies of our operating segments are the same as those used to prepare our accompanying consolidated financial statements. The following table summarizes corporate general and administrative expense allocated during the years ended October 31, 2017, 2016

and 2015:

	Years ended October 31,			
	2017	2016	2015	
	(In thous	ands)		
NA Engineered Components	\$9,327	\$10,487	\$9,638	
EU Engineered Components	3,392	3,814	2,109	
NA Cabinet Components	4,239	4,767	_	
Unallocated Corporate & Other	_	_	5,776	
Allocable general and administrative expense	\$16,958	\$19,068	\$17,523	
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Notable Items

In an effort to focus on protecting margins and improving cash flows, we previously announced a strategy to stop manufacturing \$65.0 million to \$85.0 million of business, thereby reducing our sales volume with certain low-margin customers. During 2017, we have rationalized capacity and closed two United States vinyl plants and two cabinet door plants, relocating assets to improve overall operational efficiency. We have incurred \$4.6 million of expense associated with these restructuring efforts during fiscal 2017, and have recognized \$6.2 million of accelerated depreciation and amortization associated with related assets.

On October 31, 2017, we sold our interest in the net assets of a wood-flooring business to a private equity investor for \$0.6 million in cash, and a long-term receivable totaling \$1.2 million (payable over a five-year term). We recorded a loss on the transaction of \$1.8 million, including deal costs. The transaction is subject to a working capital adjustment. On February 20, 2017, we entered into a \$16.6 million capital lease arrangement with a related party to purchase a new manufacturing facility in the United Kingdom, as further described in Note 8, "Debt and Capital Lease Obligations," to the accompanying consolidated financial statements contained elsewhere herein.

On November 2, 2015, we acquired Woodcraft, a manufacturer of cabinet doors and other components to OEMs in the kitchen and bathroom cabinet industry. We paid \$245.9 million in cash, resulting in goodwill totaling \$113.7 million. For additional details of this acquisition, see Note 2, "Acquisitions and Dispositions," to the accompanying consolidated financial statements contained elsewhere herein.

On June 15, 2015, we acquired HLP, an extruder of vinyl lineal products and manufacturer of other plastic products incorporated and registered in England and Wales, for \$131.7 million in cash, net of cash acquired, \$7.7 million of debt assumed and contingent consideration of \$10.3 million, resulting in goodwill of approximately \$61.3 million. The agreement contains an earn-out provision which is calculated as a percentage of earnings before interest, tax and depreciation and amortization for a specified period, as defined in the purchase agreement. Pursuant to this earn-out provision, the former owner selected the twelve-month period ended July 31, 2016 as the measurement period for the earn-out calculation. On November 7, 2016, we paid \$8.5 million pursuant to this earn-out agreement, as further described in Note 2, "Acquisitions and Dispositions," to the accompanying consolidated financial statements contained elsewhere herein.

Market Overview and Outlook

We believe the primary drivers of our operating results continue to be North American new home construction and residential remodeling and replacement (R&R) activity. We believe that housing starts and window shipments are indicators of activity levels in the homebuilding and window industries, and we use this data, as published by or derived from third-party sources, to evaluate the market. We have historically evaluated the market using data from the National Association of Homebuilders (NAHB) with regard to housing starts, and published reports by Ducker Worldwide, LLC (Ducker), a consulting and research firm, with regard to window shipments. These sources generally provide information about activity levels in the United States.

Housing starts and window shipments in the United States have increased in recent years. The NAHB has forecasted calendar-year housing starts (excluding manufactured units) at 1.2 million units in 2016 and 2017; increasing to 1.3 million units in 2018, reflecting increasing consumer confidence and a healthier economy. Ducker indicated that window shipments in the R&R market are expected to increase to 27.6 million units in 2016, 28.1 million units in 2017, 28.8 million units in 2018 and 29.3 million units in 2019, and new construction window shipments are forecasted to increase at a higher pace. Derived from reports published by Ducker, the overall growth in window shipments for the trailing twelve-month period ended September 30, 2017 was 2.9%. During this period, growth in

new construction increased 5.2%, while growth in R&R activity increased 1.2%. Growth in new construction continues to outpace the growth in R&R, with a greater portion of the new construction growth associated with multi-family housing.

Our HLP business is largely focused on the sale of vinyl house systems under the trade name "Liniar" to smaller window manufacturers in the United Kingdom. HLP is one of the larger providers of vinyl extruded product in the United Kingdom in terms of volume shipped. Similar to our domestic business, management evaluates the fenestration market in the United Kingdom using published reports by D&G Consulting, a consulting and research firm, with regard to forecasts of housing starts in the public and private sectors and window shipments. Currently, the United Kingdom is experiencing a shortage in affordable housing, with rising demand due in part to a growing immigrant population. HLP's current primary customers are smaller window fabricators, as opposed to the larger OEMs that comprise a large portion of the North American market. These manufacturers seek the quality and technology of the specific products identified by the Liniar trade name. In addition, HLP services non-fenestration markets including the manufacture of roofing for conservatories, vinyl decking and vinyl water retention barriers used for landscaping. We believe there are growth opportunities within these markets in the United Kingdom and potential synergies which may enable us to sell complementary products.

Woodcraft manufactures kitchen and bathroom cabinet doors and components, amongst other products, using a variety of woods from traditional hardwoods to engineered wood products. Currently, Woodcraft sells all of its products in the United States, so domestic housing starts and R&R activity constitute the primary drivers of this business as well. We also utilize industry publications to evaluate the wood markets and commodity trends. Although NAHB forecasts indicate expected continued growth in the United States housing market, much of this anticipated growth is in new construction for multi-family dwellings, or rental properties, which is not the primary market for Woodcraft's products. In recent years, forecasts project increased growth in single family homes. The cabinet door market is stratified as follows: stock (low-cost, low-variations), semi-custom (more customized, just-in-time manufacturing, higher price point) and custom (precise customer specifications, just-in-time manufacturing, high-end price point). Woodcraft's primary market is semi-custom.

Our business is seasonal, particularly our fenestration business, as inclement weather during the winter months tends to slow down construction, particularly as related to "outside of the house" construction. To some extent, we believe our kitchen and bathroom cabinet door business lessens the impact of seasonality on our operating results, as the cabinet business is "inside of the house" and less susceptible to weather. However, significant weather events do disrupt the construction industry. Hurricanes Harvey and Irma impacted the Southern United States during August and September of 2017. Although our operating plants were not directly impacted, several of our customers were impacted directly, as well as indirectly, as some skilled laborers relocated to the region for construction jobs. From a longer-term perspective, the rebuilding efforts from these storms may spur additional growth in construction during fiscal 2018 and beyond.

We are impacted by regulation of energy standards. Although the United States government has been less aggressively pursuing higher energy efficiency standards in recent years, other countries have implemented higher energy efficiency standards which should bode well for our fenestration-related business in these markets, particularly our warm-edge spacer products.

We utilize several commodities in our business for which pricing can fluctuate, including polyvinyl resin (PVC), petroleum products, aluminum, TIO2, silicone and wood. For the majority of our customers and critical suppliers, we have price adjusters in place which effectively share the base pass-through price changes for these commodities with our customers commensurate with the market at large. Our long-term exposure to these price fluctuations is somewhat mitigated due to the contractual component of the adjuster program. However, these adjusters are not in place with all customers, and there is a level of exposure to such volatility due to the lag associated with the timing of price updates in accordance with our customer agreements.

In July 2016, the United Kingdom voted to exit the European Union (commonly referred to as "Brexit"), which has impacted the valuation of the British Pound Sterling relative to other currencies used in our business, including our reporting currency, the United States Dollar. Although the British Pound Sterling relative to the United States Dollar appears to have stabilized during fiscal 2017, the Pound remains well below the pre-Brexit level, and some general market uncertainty remains in the United Kingdom. Although we do not know the long-term effects of this change, there has been some impact on our results of operations to date (primarily foreign currency translation).

The global economy remains uncertain due to currency devaluations, political unrest, terror threats, and even the political landscape in the United States. These and other macro-economic factors have impacted the global financial markets, which may have contributed to significant changes in foreign currencies. We continue to monitor our exposure to changes in exchange rates.

We remain optimistic about our growth prospects in the near-term and believe our restructuring efforts in fiscal 2017 will enhance our financial performance and cash flow generation in fiscal 2018 and beyond.

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Comparison of the fiscal years ended October 31, 2017 and 2016

This table sets forth our consolidated results of operations for the twelve-month periods ended October 31, 2017 and 2016.

	For the Years Ended October 31,						
	2017		2016		2017 vs. 2016		
	Amount	Amounts% of Sales		s% of Sales	\$ Change	Variance %	
	(Dollars	in millions)					
Net sales	\$866.6	100%	\$928.2	100%	\$(61.6)	(7)%	
Cost of sales (excluding depreciation and amortization)672.2	78%	710.6	77%	(38.4)	5%	
Selling, general and administrative	98.0	11%	114.9	12%	(16.9)	15%	
Restructuring charges	4.5	1%	0.5	 %	4.0	(800)%	
Depreciation and amortization	57.5	7%	53.2	6%	4.3	(8)%	
Asset impairment charges		— %	12.6	1%	(12.6)	(100)%	
Operating income	34.4	4%	36.4	4%	(2.0)	(5)%	
Interest expense	(9.6)	(1)%	(36.5)	(4)%	26.9	74%	
Other, net	0.7	— %	(5.5)	(1)%	6.2	113%	
Income tax (expense) benefit	(6.8)	(1)%	3.7	 %	(10.5)	284%	
Net income (loss)	\$18.7	2%	\$(1.9)	<u></u> %	\$20.6	(1,084)%	

Our operating results for the twelve months ended October 31, 2017 and 2016 include the contributions of Woodcraft acquired on November 2, 2015. Our year-over-year results by reportable segment follow.

Changes Related to Operating Income by Reportable Segment:

NA Engineered Components

	For the Years Ended October 31,					
	2017	2016	\$ Variance %			
	(Dollars	in millions)			
Net sales	\$474.9	\$538.3	\$(63.4) (12)%			
Cost of sales (excluding depreciation and amortization)	357.8	399.2	(41.4) 10%			
Selling, general and administrative	52.9	62.1	(9.2) 15%			
Restructuring charges	3.6	0.4	3.2 (800)%			
Depreciation and amortization	34.3	29.8	4.5 (15)%			
Asset impairment charges	_	12.6	(12.6) (100)%			
Operating income	\$26.3	\$34.2	\$(7.9) (23)%			
Operating income margin	6 %	6 %				

Net Sales. Net sales decreased \$63.4 million, or 12%, for the twelve months ended October 31, 2017 compared to the same period in 2016. On a year-over-year basis, we experienced a \$66.4 million decrease in sales attributable to volume, an increase of \$5.4 million related to surcharges for commodities used in our business, primarily resin and aluminum, and a decrease of \$2.4 million attributable to price. The significant decrease in volume was anticipated with regard to our previously-announced plan to shed low-margin business associated with our United States vinyl business, although the transition of this volume to other suppliers was at a quicker pace than originally expected. In addition, \$2.4 million of the decrease was associated with poor performance of our wood-flooring business which was sold on October 31, 2017. The overall decrease in volume is significantly offset by a corresponding decrease in cost of goods sold including purchases of raw materials used in our manufacturing process and labor, thereby mitigating some of the negative impact on our operating margins. We continue to align our cost structure to counter the effects of the anticipated volume reduction.

Cost of Sales. The cost of sales decreased \$41.4 million, or 10%, for the twelve months ended October 31, 2017 compared to the same period in 2016. This decrease correlates with a 12% decrease in revenues for the respective period. Overall material and labor costs decreased year-over-year, directly related to the lower sales volume, and cost

saving measures to align the labor force in light of the decreased volume. In addition, freight and repair and maintenance costs declined, and fixed cost savings were realized due to restructuring efforts in 2017. Consolidated gross margin for the segment declined year-over-year primarily due to

the mix of products produced and sold during 2017 compared to 2016, particularly at our United States vinyl operations, and lower volume of solar edge tape sales for our insulating glass business.

Selling, General and Administrative. Our selling, general and administrative expenses decreased by \$9.2 million, or 15%, for the twelve months ended October 31, 2017 compared to the same period in 2016. Of this decrease, \$1.2 million represents a decline in the amount of corporate costs allocated to the segment year-over-year, reflecting an overall decline in such corporate office costs. The remainder of the difference is primarily associated with lower headcount following restructuring efforts at our United States vinyl operations, lower incentive accruals based on financial performance, and lower professional fees. Partially offsetting these declines in expense is a loss on the sale of our wood-flooring business of \$1.8 million in October 2017, and normal salary and employee benefit costs inflation.

Restructuring Charges. Restructuring charges of \$3.6 million represent equipment and inventory moving costs incurred in conjunction with the announced closure of two vinyl extrusion plants in the United States, and other related costs including facility lease expense, severance and employee benefit costs.

Depreciation and Amortization. Depreciation and amortization expense increased \$4.5 million for the twelve months ended October 31, 2017 compared to the same period in 2016 primarily due to a change in estimate regarding the remaining service lives for assets associated with the restructuring efforts noted above, resulting in incremental depreciation of \$3.2 million, and a change in estimate related to certain intangible assets resulting in incremental amortization of \$1.6 million. Incremental depreciation expense associated with property, plant and equipment placed in service during the twelve months ended October 31, 2017, was more than offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

Asset Impairment Charges. We recorded an asset impairment charge of \$12.6 million in 2016 which represents the write-off of the remaining goodwill asset associated with our United States vinyl extrusion business. We did not incur an asset impairment charge during 2017.

EU Engineered Components

	For the Years Ended October 31,						31,
	2017		2016		\$ Chang	e	Variance %
	(Dollar	s i	n millio	ns))		
Net sales	\$148.0)	\$150.2		\$ (2.2)	(1)%
Cost of sales (excluding depreciation and amortization)	104.9		104.5		0.4		 %
Selling, general and administrative	20.6		23.2		(2.6)	11%
Depreciation and amortization	8.8		9.3		(0.5))	5%
Operating income	\$13.7		\$13.2		\$ 0.5		4%
Operating income margin	9	%	9	%			

Net Sales. Net sales decreased \$2.2 million, or 1%, when comparing the twelve months ended October 31, 2017 to the same period in 2016. This decrease is entirely attributable to a \$10.7 million negative impact associated with changes in foreign exchange rates. Excluding the foreign exchange impact, revenue increased \$8.5 million, of which \$8.6 million related to volume, partially offset by a slight decrease in price of \$0.1 million. The volume improvement reflects favorable market growth despite the intentional shed of some lower margin customers at HLP.

Cost of Sales. The cost of sales increased \$0.4 million, year-over-year compared to a decrease in revenue for these periods. Excluding the impact of foreign exchange rate changes as noted above, the increase in cost of goods sold reflects higher material costs, due in part to volume, but also due to higher cost of commodities such as resin and silicone. In addition, margins were impacted during 2017 at HLP due to some inefficiencies caused by delays transitioning to the new warehouse.

Selling, General and Administrative. Our selling, general and administrative expense decreased \$2.6 million for the twelve months ended October 31, 2017 compared to the same period in 2016. The decrease reflects a \$0.4 million decline in costs allocated from corporate in 2017, as well as lower selling and marketing costs, lower incentive accruals based on earnings, and the impact of foreign exchange rate changes.

Depreciation and Amortization. Depreciation and amortization expense decreased \$0.5 million for the twelve months ended October 31, 2017 compared to the same period in 2016, primarily attributable to the effect of foreign exchange rate changes as well as the timing of new property, plant and equipment placed in service during the twelve months ended October 31, 2017, less the run-off of depreciation expense associated with existing assets and disposals during the period.

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NA Cabinet Components

	For the Years Ended October 31,					
	2017	2016	\$ Change	Variance %		
	(Dollars	in million	s)			
Net sales	\$248.8	\$248.1	\$ 0.7	%		
Cost of sales (excluding depreciation and amortization)	213.3	213.3		%		
Selling, general and administrative	16.6	15.8	0.8	(5)%		
Restructuring charges	0.9	0.1	0.8	(800)%		
Depreciation and amortization	13.9	13.5	0.4	(3)%		
Operating income	\$4.1	\$5.4	\$ (1.3)	(24)%		
Operating income margin	2	% 2 9	%			

Net Sales. Net sales increased \$0.7 million for the twelve months ended October 31, 2017 compared to the same period in 2016. On a year-over-year basis, we experienced a \$0.7 million increase in sales attributable to higher volume, an increase of \$2.4 million in revenues associated with pricing, offset by a \$2.4 million decrease in revenue associated with lower wood surcharges. The increase in volume reflects market growth of approximately 5%, some new customers, higher-than-expected spot sales, and incremental volume of \$1.1 million associated with the two plants transferred from the NA Engineered Components segments. These volume increases are partially offset by volume lost as a result of restructuring efforts that included the closure of a plant in Mexico in October 2016 and a plant in Kansas in September 2017, as well as the previously-announced plan to shed less profitable business. The decrease in revenue associated with wood surcharges represents the change in the price of wood used in our business and the timing lag associated with our contractual ability to pass this cost to our customers.

Cost of Sales. The cost of sales remained consistent at \$213.3 million for the years ended October 31, 2017 and 2016. However, the results for 2016 include a charge of \$2.3 million related to purchase accounting (step-up and turn of inventory acquired) which did not occur in 2017. Excluding this item, cost of sales increased \$2.3 million, or 1%, year-over-year. Margins in 2017 reflect a more favorable product mix, but were negatively impacted by some labor inefficiency, higher health insurance and benefit costs, less favorable material pricing and inventory adjustments and reserves. Overall, cost of sales reflects changes in sales volume and product mix.

Selling, General and Administrative. Our selling, general and administrative expense increased \$0.8 million, or 5%, for the twelve months ended October 31, 2017 as compared to the same period in 2016, despite a \$0.5 million decrease in allocated corporate costs during this period. The overall \$1.3 million increase reflects some additional administrative headcount, normal wage inflation, and higher medical insurance and employee benefit costs year-over-year.

Restructuring Charges. Restructuring charges of \$0.9 million represent equipment moving and other related costs associated with the Mexican plant closure effected in October 2016 and a Kansas plant closure effected in September 2017.

Depreciation and Amortization. Depreciation and amortization expense increased \$0.4 million for the twelve months ended October 31, 2017 compared to the same period in 2016. Of this increase, \$0.2 million was associated with accelerated depreciation of assets at the Kansas plant, closed in September 2017. The incremental depreciation and amortization expense associated with property, plant and equipment placed into service during the twelve months ended October 31, 2017, slightly exceeded the run-off of depreciation expense associated with existing assets and disposals during this period.

Unallocated Corporate & Other

enunocuted corporate & other							
-	For the Years Ended October 31,						
	2017 2016 \$ Va	ariance %					
	(Dollars in millions)						
Net sales	\$(5.1) \$(8.4) \$ 3.3 39	1%					
Cost of sales (excluding depreciation and amortization)	(3.8) (6.4) 2.6 (4	1)%					

Selling, general and administrative	7.9	13.8	(5.9) 4	13%
Depreciation and amortization	0.5	0.6	(0.1)) 1	7%
Operating loss	\$(9.7)	\$(16.4)	\$ 6.7	4	11%

Net Sales. Net sales for Unallocated Corporate & Other represents the elimination of inter-segment sales for the twelve months ended October 31, 2017 and 2016. The change between periods reflects the amount of inter-segment sales (primarily

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between NA Engineered Components and EU Engineered Components related to a change in the terms of a royalty agreement in 2017).

Cost of Sales. Cost of sales for Corporate & Other consists of the elimination of inter-segment profit in inventory and changes in the LIFO reserve adjustments and other costs. The change for the twelve-month periods ended October 31, 2017 and 2016 of \$2.6 million was primarily related to the elimination of inter-segment sales and a decrease in the LIFO reserve of \$0.3 million in 2016.

Selling, General and Administrative. Our selling, general and administrative expenses decreased \$5.9 million, for the twelve months ended October 31, 2017 compared to the same period in 2016, despite a \$2.1 million decrease in the amount of corporate expense allocated to the operating segments in 2017 compared to 2016. Therefore, the overall decrease in selling, general and administrative expenses is \$8.0 million. Of this amount, a net decrease of \$4.7 million relates to transaction costs, as the prior year included \$5.2 million associated with the Woodcraft acquisition. The remainder of the difference relates primarily to lower professional fees as we received \$4.0 million of insurance reimbursement in 2017 for legal fees incurred defending an alleged product defect claim. We also recorded lower incentive accruals based on financial performance. These decreases were partially offset by normal wage inflation and higher medical insurance and benefit costs.

Depreciation and Amortization. Depreciation and amortization expense decreased \$0.1 million, or 17%, for the twelve months ended October 31, 2017 compared to the same period in 2016, reflecting the run-off of depreciation during 2016 primarily related to computer software, hardware and licensing. Relatively few new assets were placed in service at corporate during the twelve months ended October 31, 2017.

Changes related to Non-Operating Items:

Interest Expense. Interest expense decreased \$26.9 million for the twelve months ended October 31, 2017 compared to the same period in 2016. Of this amount, \$16.7 million was attributable to the write-off of unamortized deferred financing fees, original issuer's discount and a 1% prepayment penalty associated with the July 2016 refinance and retirement of our Term Loan B and asset-based lending facilities. This facility was replaced with a Term Loan A and revolving credit facility with significantly lower interest rates. The relative outstanding balances under our credit facilities has decreased at October 31, 2017 compared to October 31, 2016 due to net repayments. The weighted average interest rate for borrowings outstanding for the twelve months ended October 31, 2017 was 2.95% compared with 5.26% for the twelve months ended October 31, 2016.

Other, net. The change in other net of \$6.2 million for the twelve months ended October 31, 2017 compared to the same period in 2016 relates to foreign exchange gains and losses. In 2017, we recorded a gain of \$0.7 million and for 2016 we recorded a loss of \$5.5 million, largely associated with an unhedged foreign currency position with regard to the borrowings to fund the HLP transaction, as well as net foreign exchange losses associated with our other foreign operations.

Income Taxes. We recorded income tax expense of \$6.8 million for the twelve months ended October 31, 2017, an effective rate of 26.7%. The effective rate for 2017 was impacted by a \$1.0 million discrete benefit associated with a change in the statutory deferred tax rate in the United Kingdom from 19% to 17% over the next three years. We recorded an income tax benefit of \$3.7 million, an effective rate of 66.9%, for the twelve months ended October 31, 2016. The effective rate for 2016 was impacted by a discrete benefit of \$0.8 million for the R&D credit which was made permanent in December 2015. However, this rate was also impacted by permanent items, and the foreign tax rate differential, as a greater percentage of our taxable income for fiscal 2016 was derived from our foreign operations, primarily in the United Kingdom, a jurisdiction with a lower statutory tax rate than the United States.

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Comparison of the fiscal years ended October 31, 2016 and 2015

This table sets forth our consolidated results of operations for the twelve-month periods ended October 31, 2016 and 2015.

	For the Years Ended October 31,						
	2016		2015		2016 vs.	2015	
	Amount	s% of Sales	Amount	s% of Sales	\$ Change	Variance %	
	(Dollars	in millions))				
Net sales	\$928.2	100%	\$645.5	100%	\$282.7	44%	
Cost of sales (excluding depreciation and amortization)	710.6	77%	499.1	77%	211.5	(42)%	
Selling, general and administrative	114.9	12%	86.5	13%	28.4	(33)%	
Restructuring charges	0.5	%	_	<u></u> %	0.5	(100)%	
Depreciation and amortization	53.2	6%	35.2	5%	18.0	(51)%	
Asset impairment charges	12.6	1%	_	<u></u> %	12.6	(100)%	
Operating income	36.4	4%	24.7	4%	11.7	47%	
Interest expense	(36.5)	(4)%	(1.0)	<u></u> %	(35.5)	3,550%	
Other, net	(5.5)	(1)%	(0.5)	— %	(5.0)	1,000%	
Income tax benefit (expense)	3.7	— %	(7.6)	(1)%	11.3	149%	
(Loss) income from continuing operations	\$(1.9)	%	\$15.6	2%	\$(17.5)	(112)%	
Income from discontinued operations	\$—	 %	\$0.5	— %	\$(0.5)	(100)%	
Net (loss) income	\$(1.9)	—%	\$16.1	2%	\$(18.0)	(112)%	

Our operating results for the twelve months ended October 31, 2016 and 2015 include the contributions of HLP since the date acquired, June 15, 2015. Our operating results for the year ended October 31, 2016 include the contributions of Woodcraft acquired on November 2, 2015. Our year-over-year results by reportable segment follow.

Changes Related to Operating Income (Loss) by Reportable Segment: NA Engineered Components

	For the Years Ended October 31,					
	2016		2015		\$ Change	Variance %
	(Dollars	s in	million	ıs)		
Net sales	\$538.3		\$534.0		\$ 4.3	1%
Cost of sales (excluding depreciation and amortization)	399.2		411.2		(12.0)	3%
Selling, general and administrative	62.1		58.5		3.6	(6)%
Restructuring charges	0.4	-			0.4	(100)%
Depreciation and amortization	29.8		28.4		1.4	(5)%
Asset impairment charges	12.6	-			12.6	(100)%
Operating income	\$34.2		\$35.9		\$ (1.7)	(5)%
Operating income margin	6	%	7	%		

Net Sales. Net sales increased \$4.3 million, or 1%, for the twelve months ended October 31, 2016 compared to the same period in 2015. On a year-over-year basis, we experienced an \$11.9 million increase in sales attributable to higher volume, partially offset by a decrease of \$2.2 million in revenues associated with pricing and a decline of \$5.4 million associated with reduced surcharges for commodities used in our business, primarily oil and resin. To a large extent, the increased volume at lower pricing was related to our vinyl extrusion business, as we had lost volume during the first quarter of 2015 with certain profiles for a large customer, and although this volume was replaced during 2016, the mix of earnings was at a lower average price. Our results continue to be impacted by reduced oil surcharges on our butyl-based products due to a dramatic decline in oil prices throughout 2015, remaining relatively low in 2016, as well as reduced surcharges for other materials used in our business including aluminum. The decrease in revenue associated with these surcharges is significantly offset by the decrease in the cost of the raw material used in our manufacturing process, resulting in minimal impact on operating margins.

Cost of Sales. The cost of sales decreased \$12.0 million, or 3%, for the twelve months ended October 31, 2016 compared to the same period in 2015. Despite an increase in net sales for these periods, largely due to increased volume as discussed above, cost of sales decreased due to the following: lower year-over-year repair and maintenance costs for our vinyl extrusion business; reduced material costs attributable to lower commodity prices and renegotiated supplier agreements; more favorable inventory turns; and reduced freight cost. Labor costs were relatively flat on higher volume, reflecting some labor efficiencies, and lower worker's compensation insurance costs, partially offset by higher medical insurance costs.

Selling, General and Administrative. Our selling, general and administrative expenses increased by \$3.6 million, or 6%, for the twelve months ended October 31, 2016 compared to the same period in 2015. This increase was largely due to higher incentive accruals based on earnings, normal salary inflation and higher advertising costs, partially offset by a net gain on the sale of fixed assets of \$0.7 million and lower professional fees incurred.

Restructuring Charges. Restructuring charges of \$0.4 million represent severance amounts incurred in conjunction with the announced closure of two vinyl extrusion plants in the United States, and other related severance costs. We substantially completed the plant closures during fiscal 2017 but have not sublet the facilities.

Depreciation and Amortization. Depreciation and amortization expense increased \$1.4 million for the twelve months ended October 31, 2016 compared to the same period in 2015 primarily due to a change in estimate regarding the remaining service lives for assets associated with the restructuring efforts noted above, resulting in incremental depreciation of \$1.0 million, and a change in estimate related to certain intangible assets which provided incremental amortization of \$0.3 million. In addition, the incremental depreciation and amortization expense associated with property, plant and equipment and intangible assets placed into service during the trailing twelve months ended October 31, 2016, was offset by the run-off of depreciation expense associated with existing assets and disposals. Asset Impairment Charges. We recorded an asset impairment charge of \$12.6 million in 2016 which represents the write-off of the remaining goodwill asset associated with our United States vinyl extrusion business.

EU Engineered Components

	For the Years Ended October 31,						
	2016	2015	\$ Change	Variance %			
	(Dollars i	n millions	s)				
Net sales	\$150.2	\$93.6	\$ 56.6	60%			
Cost of sales (excluding depreciation and amortization)	104.5	72.3	32.2	(45)%			
Selling, general and administrative	23.2	13.1	10.1	(77)%			
Depreciation and amortization	9.3	5.0	4.3	(86)%			
Operating income	\$13.2	\$3.2	\$ 10.0	313%			
Operating income margin	9 %	3 %					

Net Sales. Net sales increased \$56.6 million, or 60%, primarily due to an incremental \$57.8 million contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015. Sales for the British and German IG spacer plants declined \$1.3 million for the respective periods, as an increase in sales of \$2.4 million associated with higher volume was more than offset by a decrease in sales of \$1.0 million related to price and a decrease in sales of \$2.7 million related to foreign exchange impact.

Cost of Sales. The cost of sales increased \$32.2 million, or 45%, primarily due to an incremental \$34.0 million contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015. Partially offsetting this increase in cost of sales was a decrease of \$1.8 million for the British and German plants for the respective periods related to lower material costs in Germany, as a new mixing plant was installed in 2015 which eliminated the cost associated with processing by outside vendors. Otherwise, consistent with the revenue discussion, cost of sales was impacted by the increase in volume in the United Kingdom and Germany, but was offset by lower pricing and the effect of exchange rate changes.

Selling, General and Administrative. Our selling, general and administrative expense increased \$10.1 million, reflecting an additional \$7.6 million contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015, with an increase of \$0.8 million at the insulating glass plants associated with labor inflation and other expenses, and an incremental corporate allocation of \$1.7 million, reflecting a full year allocation for 2016 associated with HLP compared to a 2015 allocation for the period from June 15, 2015 to October 31, 2015.

Depreciation and Amortization. Depreciation and amortization expense increased \$4.3 million, reflecting the \$4.2 million incremental contribution from HLP in 2016 when compared with the contribution during the period from June 15, 2015 to October 31, 2015. For the European IG Spacer business, incremental depreciation and amortization expense associated with property, plant and equipment placed into service during the trailing twelve months ended October 31, 2016, was offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

NA Cabinet Components

The NA Cabinet Components segment reflects the acquisition of Woodcraft as of November 2, 2015 (fiscal 2016), allocated corporate costs for 2016, and the activity of the two wood plants which were transferred from the NA Engineered Components segment, restated as operations of the NA Cabinet Component segment for the years ended October 31, 2016 and 2015.

For the Years Ended October 31,					
2016	2015	\$ Change	Variance %		
(Dollars in millions)					
\$248.1	\$26.4	\$221.7	840%		
213.3	21.8	191.5	(878)%		
15.8	0.8	15.0	(1,875)%		
0.1	_	0.1	(100)%		
13.5	0.5	13.0	(2,600)%		
	2016 (Dollars i \$248.1 213.3 15.8 0.1	2016 2015 (Dollars in million \$248.1 \$26.4 213.3 21.8 15.8 0.8 0.1 —	2016 2015 \$\frac{\\$Change}{Change}\$ (Dollars in millions) \$248.1 \$26.4 \$221.7 213.3 21.8 191.5 15.8 0.8 15.0 0.1 — 0.1		

Operating income	\$5.4	\$3.3	\$ 2.1	64%
Operating income margin	2.	% 13	%	

Net Sales. Net sales increased \$221.7 million in 2016 compared to 2015, primarily due to the contribution of Woodcraft of \$223.4 million in 2016, partially offset by a \$1.7 million decline in sales attributable to the transferred wood plants.

Cost of Sales. The cost of sales increased \$191.5 million in 2016 compared to 2015, of which \$193.6 million was contributed by Woodcraft, partially offset by a \$2.1 million decline in cost of sales attributable to the transferred wood plants. The margin improvement at the plants reflects the mix of third-party sales and inter-company sales between years, as the inter-company activity eliminates in consolidation and does not provide gross margin.

Selling, General and Administrative. Our selling, general and administrative expense increased \$15.0 million in 2016 compared to 2015, of which \$15.0 million was contributed by Woodcraft, with a slight increase in expense related to the transferred wood plants. The Woodcraft contribution includes \$4.8 million of allocated corporate costs.

Restructuring Charges. The restructuring costs reflect severance and profit-sharing expense accrued related to the Mexican plant which was closed effective October 31, 2016, excluding \$0.6 million of such profit-sharing costs included as a liability through purchase accounting.

Depreciation and Amortization. Depreciation and amortization expense increased \$13.0 million in 2016 compared to 2015, of which \$12.9 million was contributed by Woodcraft, with a slight increase in expense associated with the transferred plants based on the timing of investments in capital expenditures and the normal run-off of depreciation expense.

Unallocated Corporate & Other

	For the Years Ended October 31,					
	2016	2015	\$ Change	Variance %		
	(Dollars	in millio	ons)			
Net sales	\$(8.4)	\$(8.5)	\$ 0.1	1%		
Cost of sales (excluding depreciation and amortization)	(6.4)	(6.2)	(0.2)	3%		
Selling, general and administrative	13.8	14.1	(0.3)	2%		
Depreciation and amortization	0.6	1.3	(0.7)	54%		
Operating loss	\$(16.4)	\$(17.7)	\$ 1.3	7%		

Net Sales. Net sales for Unallocated Corporate & Other represents the elimination of inter-segment sales for the years ended October 31, 2016 and 2015. The change between periods reflects the amount of inter-segment sales (between NA Engineered Components and EU Engineered Components).

Cost of Sales. Cost of sales for Unallocated Corporate & Other consists of the elimination of inter-segment profit in inventory, changes in the LIFO reserve and other costs.

Selling, General and Administrative. Our selling, general and administrative expenses decreased \$0.3 million, for the twelve months ended October 31, 2016 compared to the same period in 2015. The incremental amount of corporate expense allocated to the divisions for the respective periods was \$7.3 million (based on the timing of the HLP and Woodcraft acquisitions, as expense related to HLP was only allocated for the period from June 15, 2015 to October 31, 2015, and no expense was allocated related to Woodcraft for the twelve months ended October 31, 2015). Adjusting for the incremental allocation, selling, general and administrative expense increased \$7.0 million for the respective periods. Of this change, \$2.8 million related to professional fees, \$3.0 million related to stock-based compensation and long-term incentive accruals (primarily related to compensation expense recognized pursuant to performance share awards), with the remainder largely attributable to severance costs.

Depreciation and Amortization. Depreciation and amortization expense decreased \$0.7 million, or 54%, for the twelve months ended October 31, 2016 compared to the same period in 2015, reflecting the run-off of depreciation during 2015 primarily related to computer software, hardware and licensing. Relatively few new assets were placed in service at corporate during the trailing twelve months ended October 31, 2016.

Changes Related to Non-Operating Items:

Interest Expense. Interest expense increased \$35.5 million for the twelve months ended October 31, 2016 compared to the same period in 2015 due to an increase in borrowings outstanding and fees associated with the refinancing of our debt. In conjunction with the acquisition of Woodcraft on November 2, 2015, we entered into a credit facility which contained a Term Loan B facility and an asset-based lending facility, each at variable interest rates. We borrowed \$320.5 million to acquire Woodcraft and to retire then-outstanding borrowings under a predecessor credit facility of \$50.0 million. The new credit facilities had higher interest rates, required loan commitment fees and were issued at a discount (resulting in additional interest expense as the discount was accreted over the term of the facilities). On July 29, 2016, we refinanced and retired this debt with a new Term Loan A and revolving credit facility with more favorable interest rates. We incurred a one-time charge of \$16.7 million associated with this refinancing which included the write-off of unamortized deferred financing fees of \$8.1 million, unamortized debt discount of \$5.5 million and a prepayment call premium of \$3.1 million. Also contributing to the increase in interest expense year-over-year is the expense associated with finance leases assumed with the acquisition of HLP. The interest expense incurred during the twelve months ended October 31, 2015 was significantly less due to the timing of debt incurred to acquire HLP in June 2015. Prior to the HLP acquisition, our debt outstanding was less than \$1.0 million. Other, net. The increase in other net expense of \$5.0 million for the twelve months ended October 31, 2016 compared to the same period in 2015 was primarily due to net foreign exchange transaction losses associated with an unhedged foreign currency position with regard to the borrowings to fund the HLP transaction, as well as net foreign exchange losses associated with our other foreign operations.

Income Taxes. We recorded an income tax benefit of \$3.7 million for the twelve months ended October 31, 2016, an effective rate of 66.9%. We recorded income tax expense from continuing operations of \$7.6 million, an effective rate of 32.6%, for the twelve months ended October 31, 2015, which included a discrete benefit of \$0.8 million associated with the reversal of a liability for the tax benefit associated with an uncertain tax position. Excluding this discrete item, the effective tax rate would have been 36.0% for the twelve months ended October 31, 2015. The difference in the effective rates between these periods is primarily due to the foreign and United States tax rate differential, as the foreign tax rate is generally lower than the United States tax rate and a greater percentage of our taxable income was generated by the foreign operations. The overall change in the effective rate was also impacted by transaction costs and a change in the deferred rate. For additional details, see Note 11, "Income Taxes" included elsewhere within this Annual Report on Form 10-K.

Income from Discontinued Operations, Net of Tax. During the twelve months ended October 31, 2015, we recorded a gain on involuntary conversion of \$0.5 million, net of tax, associated with the receipt of insurance proceeds from a fire experienced in 2013 at a facility of a discontinued operation.

Liquidity and Capital Resources

Overview

Historically, our principal sources of funds have been cash on hand, cash flow from operations, and borrowings under our credit facilities. As of October 31, 2017, we had \$17.5 million of cash and equivalents, \$220.7 million outstanding under our credit facilities, \$5.3 million of outstanding letters of credit and \$18.8 million outstanding under capital leases. We had \$210.7 million available for use under the Credit Agreement at October 31, 2017.

On November 2, 2015, we acquired Woodcraft for \$245.9 million in cash, net of cash acquired, subject to a working capital true-up and including certain holdbacks with regard to potential indemnity claims, as more fully described in the accompanying notes to consolidated financial statements (Note 2, "Acquisitions and Dispositions").

In order to fund this acquisition, we entered into senior secured credit facilities of \$410.0 million consisting of an asset-based lending (ABL) revolving credit facility of \$100.0 million (for which the borrowing base was determined monthly) and a Term Loan B facility of \$310.0 million. On November 2, 2015, we borrowed \$310.0 million under the term loan facility and \$10.5 million under the ABL facility to fund the Woodcraft acquisition, to refinance and retire outstanding debt of \$50.0 million under a predecessor credit facility and to pay fees associated with these borrowings. The proceeds were reduced by a debt discount of \$6.2 million, which was being recognized on the effective interest method over the term of the facility. We recorded expense of \$0.5 million in November 2015 to write off the unamortized deferred financing fees associated with the predecessor facility.

On July 29, 2016, we refinanced and retired our Term Loan B and ABL credit facilities and entered into a \$450.0 million credit agreement comprised of a \$150.0 million Term Loan A and a \$300.0 million revolving credit facility (collectively, the "Credit Agreement"), under which we borrowed \$150.0 million and \$150.0 million, respectively. The proceeds from the Credit Agreement, along with additional funding of \$16.4 million of cash on hand, were used to repay outstanding borrowings under the Term Loan B and ABL credit facilities of \$309.2 million, to pay a 1% prepayment call premium under the Term Loan B facility, to settle

outstanding interest accrued under the prior facility, and to pay loan fees which totaled \$2.8 million. In addition, we expensed \$8.1 million to write-off unamortized deferred financing fees and \$5.5 million of unamortized original issuer's discount associated with the Term Loan B and ABL credit facilities. The Credit Agreement matures in 2021 (5-year term) and requires interest payments calculated, at our election and depending upon our Consolidated Leverage Ratio, at either a Base Rate plus an applicable margin (0.50% to 1.25%) or the LIBOR Rate plus an applicable margin (1.50% to 2.25%). We have included deferred financing fees of \$2.8 million as a contra-liability account, and we are amortizing this balance straight-line over the term of the facility.

The weighted average interest rate of borrowings outstanding for the twelve-month periods ended October 31, 2017 and 2016 was 2.95% and 5.26%, respectively. We were in compliance with our debt covenants as of October 31, 2017. For additional details of the Credit Agreement, see "Item 1A. Risk Factors" included elsewhere within this Annual Report on Form 10-K.

Analysis of Cash Flow

The following table summarizes our cash flow results for the years ended October 31, 2017, 2016 and 2015:

Year Ended October 31, 2017 2016 2015 (In millions) \$78.6 \$86.4 \$67.1 \$(41.1) \$(282.1) \$(160.1) \$(45.4) \$196.4 \$(4.6)

Cash flows provided by operating activities \$78.6 \$86.4 \$67.1 Cash flows used for investing activities \$(41.1) \$(282.1) \$(160.1) Cash flows (used for) provided by financing activities \$(45.4) \$196.4 \$(4.6)

Operating Activities

Cash provided by operating activities decreased \$7.8 million for the year ended October 31, 2017 compared to the year ended October 31, 2016. Despite an increase in net income, cash receipts and disbursements declined as a result of lower activity levels, primarily within our United States vinyl business. Although collection of receivables was favorable, investment in inventory levels grew due to a slower-than-expected busy season, which was exacerbated by the impact of the hurricanes in late 2017. Partially offsetting this decline was the collection of a tax receivable of \$1.2 million and lower interest costs under our debt facilities. For the year ended October 31, 2016 compared to the year ended October 31, 2015, cash provided by operating activities increased \$19.3 million. A portion of this increase is attributable to the activities of HLP and Woodcraft, acquired in June 2015 and November 2015, respectively. Excluding these acquisitions, our cash receipts increased due to an increase in sales, year-over-year, and more timely collection of receivables. In addition, we invested more in an inventory build in 2015 than in 2016 and we managed our inventory levels more efficiently in 2016. Partially offsetting the favorable operating cash flow derived from these items is a cash outflow related to interest on our debt.

Working capital was \$85.3 million, \$89.8 million and \$70.0 million as of October 31, 2017, 2016 and 2015, respectively. Working capital remained fairly consistent despite the decrease in activity levels in 2017. For 2016, working capital was impacted by recent acquisitions, notably the Woodcraft acquisition in 2016, as funds were borrowed to complete the transaction and to pay interest associated with the debt, offsetting favorable cash flow from operations. A decrease in cash on hand in 2015 reflected the use of cash to purchase HLP and to acquire our own treasury stock through our share repurchase program.

Investing Activities

Cash used for investing activities decreased \$241.0 million in 2017 compared to 2016, as the 2016 results included an incremental \$237.4 million greater investment in acquisitions, as \$245.9 million was incurred in 2016 related to the Woodcraft acquisition and only \$8.5 million was paid in 2017 associated with the HLP earn-out. In addition, we invested an incremental \$2.7 million in capital equipment in 2016 relative to 2017. For 2016, cash used for investing activities increased \$122.0 million compared to 2015. Of this amount, cash used for acquisitions increased \$114.2 million reflecting the Woodcraft acquisition in 2016 compared with \$131.7 million used in 2015 to acquire HLP. An incremental increase in cash used to invest in capital expenditures year-over-year was \$7.3 million, partially offset by a net decrease of \$1.3 million associated with the receipt of insurance proceeds, and a net inflow of \$0.8 million of proceeds from the sale of capital assets for these periods.

At October 31, 2017, we had firm purchase commitments of approximately \$1.2 million for the purchase or construction of capital assets. We plan to fund these capital expenditures through cash from operations or borrowings under our revolving credit facility.

Financing Activities

Our cash used for financing activities for 2017 was \$45.4 million and related primarily to repayment of borrowings under our Credit Agreement, payment of dividends of \$5.5 million, partially offset by funds received from the issuance of common stock in settlement of stock option exercises of \$8.0 million. For 2016, funds provided by financing activities included net debt borrowings of \$209.7 million and cash received of \$3.4 million from stock issuances, partially offset by cash paid for debt issuance costs of \$11.4 million, cash paid for dividends of \$5.5 million, and an incremental \$0.2 million provided by other financing activities. For 2015, the net use of cash of \$4.6 million reflected the use of \$52.7 million to purchase treasury shares, and \$5.5 million used to pay dividends, partially offset by net debt borrowings of \$49.0 million and cash received of \$5.1 million from stock issuances, with a remaining change of \$0.5 million attributable to other financing activities.

Liquidity Requirements

Our strategy for deploying cash is to invest in organic growth opportunities, develop our infrastructure, make strategic acquisitions and pay cash dividends to our shareholders. We have historically invested cash and cash equivalents in commercial paper with terms of three months or less. To the extent we have excess cash which has not been applied to reduce our outstanding borrowings under our credit facilities, we intend to remain in commercial paper, highly rated money market funds, financial institutions and treasuries following a prudent investment philosophy. From time to time, to prepare for potential disruption in the money markets, we may temporarily move funds into operating bank accounts of highly-rated financial institutions to meet on-going operational liquidity requirements. We did not have any investments during the years ended October 31, 2017 and 2016. We maintain cash balances in foreign countries which totaled \$9.0 million and \$16.3 million as of October 31, 2017 and 2016. We do not intend to repatriate earnings of our foreign subsidiaries. However, we capitalized HLP with funds on hand and borrowings under our prior credit facility. We utilize cash flow from HLP to fund the operation in the United Kingdom and to repay a note arrangement implemented as part of the initial capitalization of the acquisition.

We believe that we have sufficient funds and adequate financial resources available to meet our anticipated liquidity needs. Our cash position has changed due to the acquisitions of HLP and Woodcraft. We expect to use our cash flow from operations to fund operations for the next twelve months and the foreseeable future. We believe these funds should be adequate to provide for our working capital requirements, capital expenditures, and dividends, while continuing to meet our debt service requirements.

Senior Credit Facility

We maintain our \$450.0 million Credit Agreement, comprised of a \$150.0 million Term Loan A and a \$300.0 million revolving credit facility, with Wells Fargo Bank, National Association, as Agent, Swingline Lender and Issuing Lender, and Bank of America, N.A. serving as Syndication Agent. The Credit Agreement has a five-year term, maturing on July 29, 2021, and requires interest payments calculated, at our election and depending upon our Consolidated Leverage Ratio, at either a Base Rate plus an applicable margin or the LIBOR Rate plus an applicable margin. At the time of the initial borrowing, the applicable rate was LIBOR + 2.00%. In addition, we are subject to commitment fees for the unused portion of the Credit Agreement. The applicable margin and commitment fees range from 0.70% to 2.55%, depending upon the type of loan and consolidated leverage ratio.

The term loan portion of the Credit Agreement requires quarterly principal payments on the last business day of each fiscal quarter in accordance with a stated repayment schedule. Required aggregate principal repayments totaling \$15.0 million for the succeeding twelve-month period have been included in the accompanying consolidated balance sheet under the caption "Current Maturities of Long-term Debt." No stated principal payments are required under the revolving credit portion of the Credit Agreement, except upon maturity. If our Consolidated Leverage Ratio is less than 2.25 to 1.00, then we are required to make mandatory prepayments of "excess cash flow" as defined in the agreement.

The Credit Agreement provides for incremental term loan or revolving credit commitments for a minimum principal amount of \$10.0 million, up to an aggregate amount of \$150.0 million, subject to the lender's discretion to elect or decline the incremental increase. We can also borrow up to the lesser of \$15.0 million or the revolving credit commitment, as defined, under a Swingline feature of the Credit Agreement. We are permitted to prepay the term loan under the Credit Agreement, without premium or penalty, in aggregate principal amounts of \$1.0 million or whole

multiples of \$0.5 million in excess thereof.

The Credit Agreement contains a: (1) Consolidated Fixed Charge Coverage Ratio requirement whereby we must not permit the Consolidated Fixed Charge Coverage Ratio, as defined, to be less than 1.10 to 1.00, and (2) Consolidated Leverage Ratio requirement, as summarized by period in the following table:

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Period	Maximum Ratio
Closing Date through January 30, 2017	3.50 to 1.00
January 31, 2017 through January 30, 2018	3.25 to 1.00
January 31, 2018 and thereafter	3.00 to 1.00

In addition to maintaining these financial covenants, the Credit Agreement also limits our ability to enter into certain business transactions, such as to incur indebtedness or liens, to acquire businesses or dispose of material assets, make restricted payments, pay dividends (limited to \$10.0 million per year) and to conduct other transactions as further defined in the Credit Agreement. Substantially all of our domestic assets, with the exception of real property, are pledged as collateral for the Credit Agreement.

Contractual Obligations and Commercial Commitments

The following table summarizes our known contractual obligations and commitments as of October 31, 2017:

	Payments Due by Period				
	Total	2018	2019-2020	2021-2022	Thereafter
Contractual Obligations:	(In thousands)				
Long-term debt, including interest ⁽¹⁾⁽²⁾	\$245,926	\$26,873	\$ 44,163	\$ 174,890	\$ <i>—</i>
Capital leases ⁽³⁾	18,764	1,798	2,393	1,473	13,100
Operating leases ⁽⁴⁾	56,113	9,331	15,235	8,980	22,567
Unconditional purchase obligations ⁽⁵⁾	11,929	11,929			_
Total contractual cash obligations ⁽⁶⁾	\$332,732	\$49,931	\$ 61,791	\$ 185,343	\$ 35,667
(1) Interest on our long term debt was computed using rates in affect at October 21, 2017					

- (1) Interest on our long-term debt was computed using rates in effect at October 31, 2017.
 - Outstanding borrowings under the term loan A portion of the Credit Agreement requires quarterly principal
- ⁽²⁾ payments with a balloon payment due in July 2021. Outstanding borrowings under the revolving credit facility portion of the Credit Agreement matures in July 2021 with no minimum principal payments due until maturity.
- (3) Capital leases include several related party capital lease arrangements at HLP, including the new warehouse acquired in February 2017.
- (4) Operating leases include facilities, light vehicles, forklifts, office equipment and other operating equipment.
- (5) The unconditional purchase obligations consist of commitments to buy miscellaneous parts, inventory, and expenditures related to capital projects in progress.
- (6) This table excludes tax reserves recorded in accordance with ASC Topic 740 "Income Taxes," as we are unable to reasonably estimate the timing of future cash flows related to these reserves.

During fiscal 2018, we expect to contribute approximately \$3.6 million to our pension plan to maintain our 100% funding threshold and meet our minimum contribution requirements. Pension contributions beyond 2018 cannot be determined since the amount of any contribution is heavily dependent on the future economic environment and investment returns on pension plan assets. Obligations are based on current and projected obligations of the plans, performance of the plan assets, if applicable, and the timing and amount of funding contributions. At October 31, 2017, we have recorded a long-term liability for deferred pension and postretirement benefits totaling \$4.4 million. We believe the effect of the plans on liquidity is not significant to our overall financial condition.

Our supplemental benefit plan and deferred compensation plan liabilities fluctuate based on changes in the market value of certain equity securities, including our common stock. As of October 31, 2017, our liability under the supplemental benefit plan and the deferred compensation plan was approximately \$3.4 million and \$4.0 million, respectively.

The following table reflects other commercial commitments or potential cash outflows that may result from a contingent event.

Amount of Commitment Expiration per Period
Total 2018 2019-2020 2021-2022 Thereafter
Other Commercial Commitments: (In thousands)
Standby letters of credit \$5,300 \$5,300 \$ —\$ —\$ —

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Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements, as such term is defined in the rules promulgated by the SEC, that we believe would be material to investors and for which it is reasonably likely to have a current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Effects of Inflation

Although inflation does impact the cost of raw materials, labor and overhead, we are generally able to recover this cost through pricing. The effect of price inflation in the United States in recent years has remained relatively low. Furthermore, inflation on labor rates has been relatively consistent when comparing 2017 to 2016. Therefore, we believe inflation has not had a significant effect on our earnings or financial position.

Critical Accounting Policies and Estimates

The preparation of our financial statements in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) requires us to make estimates and assumptions that affect the reported amount of assets, liabilities, revenues and expenses and related disclosures of contingent assets and liabilities. Estimates and assumptions about future events and their effects cannot be perceived with certainty. Estimates may change as new events occur, as more experience is acquired, as additional information becomes available and as our operating environment changes. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, and that we believe provide a basis for making judgments about the carrying value of assets and liabilities that are not readily available through open market quotes. We must use our judgment with regard to uncertainties in order to make these estimates. Actual results could differ from these estimates.

We believe the following are the most critical accounting policies used in the preparation of our consolidated financial statements as well as the significant judgments and uncertainties affecting the application of these policies. We consider an estimate to be critical if it is subjective and if changes in the estimate using different assumptions would result in a material impact to our financial position or results of operations.

Revenue Recognition

We recognize revenue when products are shipped and title has passed to the customer. Revenue is deemed to be realized or earned when the following criteria is met: (a) persuasive evidence that a contractual sales arrangement exists; (b) delivery has occurred; (c) the price to the buyer is fixed or determinable; and (d) collection is reasonably assured. Sales allowances and customer incentives are treated as reductions to revenue and are provided for based on historical experience and current estimates.

Allowance for Doubtful Accounts

We record trade accounts receivable at billed amounts, less an allowance for doubtful accounts. This allowance is established to estimate the risk of loss associated with our trade receivables which may arise due to the inability of our customers to pay or due to changes in circumstances. The allowance is maintained at a level that we consider appropriate based on factors that affect collectability, including: (a) historical trends of write-offs, recoveries and credit losses; (b) the credit quality of our customers; and (c) projected economic and market conditions. Different assumptions or changes in economic circumstances could result in changes to the allowance. Our historical bad debt expense has approximated 0.1% of sales for the years ended October 31, 2017, 2016 and 2015. If bad debt expense increased by 1% of net sales, the impact on operating results for these years would have been a decrease in net income of \$6.4 million, an increase in net loss of \$3.1 million, and a decrease in net income of \$4.4 million, respectively.

Business Combinations - Contingencies We apply the acquisition method of accounting for business combinations in accordance with U.S. GAAP, which requires us to make use of estimates and judgments to allocate the purchase price paid for acquisitions to the fair value of the net assets and liabilities acquired. We use established valuation techniques and engage reputable valuation specialists to assist us with these valuations. However, there is a risk that we may not identify all pre-acquisition contingencies or that our estimates may not reflect the actual results when realized. We utilize a reasonable measurement period to record any adjustment related to the opening balance sheet (generally, less than one year). After the measurement period, changes to the opening balance sheet can result in the recognition of income or expense as period costs. To the extent these items stem from contingencies that existed at the balance sheet date, but are contingent upon the realization of future events, the cost is charged to expense at the time the future event becomes known. In November 2016, we settled an earn-out provision related to the HLP acquisition for \$8.5 million. We used a probability-weighted estimate to value this liability, discounted using our incremental borrowing rate. We recognized the change in this liability as income/expense over time to reflect the time value of money and changes in the probability weighting as to when the former owner would elect a measurement period pay-out. If our purchase accounting estimates are not correct, or if we do not recognize contingent assets or liabilities accurately, we may incur losses.

Impairment or Disposal of Long-Lived Assets

from royalty and excess current year earnings methods.

Property, Plant and Equipment and Intangible Assets with Defined Lives

We make judgments and estimates in conjunction with the carrying value of our long-term assets, including property, plant and equipment, and identifiable intangibles. These judgments may include the basis for capitalization, depreciation and amortization methods and the useful lives of the underlying assets. In accordance with U.S. GAAP, we review the carrying values of these assets for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. We determine that the carrying amount is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If the carrying value exceeds the sum of the undiscounted cash flows and after considering alternate uses for the asset, an impairment charge would be recorded in the period in which such review is performed. We measure the impairment loss as the amount by which the carrying amount of the long-lived asset exceeds its fair value. Fair value is determined by reference to quoted market prices in active markets, if available, or by calculating the discounted cash flows associated with the use and eventual disposition of the asset. Therefore, if there are indicators of impairment, we are required to make long-term forecasts of our future revenues and costs related to the assets subject to review. Forecasts require assumptions about demand for our products and future market conditions. Although there may be no indicators of impairment in the current period, unanticipated changes to assumptions or circumstances in future periods could result in an impairment charge in the period of the change. No impairment charges were incurred with regard to our property, plant and equipment for the years ended October 31, 2017, 2016 and 2015. We monitor relevant circumstances, including industry trends, general economic conditions, and the potential impact that such circumstances might have on the valuation of our identifiable intangibles. Events and changes in circumstances that may cause a triggering event and necessitate such a review include, but are not limited to: a decrease in sales for certain customers, improvements or changes in technology, and/or a decision to phase-out a trademark or trade name. Such events could negatively impact the carrying value of our identifiable intangibles. It is possible that changes in such circumstances or in the numerous variables associated with the judgments, assumptions, and estimates made by us in assessing the appropriate valuation of our identifiable intangibles could require us to further write down a portion of our identifiable intangibles and record related non-cash impairment charges in the

During October 2016 and continuing throughout 2017, we determined that a triggering event occurred which necessitated a review of our long-term assets as prescribed above (expected reduction in volume for our United States vinyl business and results below our forecasts for Woodcraft). Based on an undiscounted cash flow analysis, we determined that our property, plant and equipment and defined-lived intangible assets were not impaired. However, with regard to our United States vinyl business, we recorded a change in accounting estimate associated with shortening the remaining useful lives of certain property, plant and equipment to be retired as part of the announced

future. We apply a variety of techniques to establish the carrying value of our intangible assets, including the relief

closures of several plants. We recognized incremental depreciation expense of \$4.4 million in 2017 as a result of the change in estimates. In addition, we shortened the life of several defined-lived intangible assets, which resulted in the recognition of incremental amortization expense of \$1.9 million for the year ended October 31, 2017.

Goodwill

In accordance with U.S. GAAP, we review various qualitative factors to determine whether we believe there are indicators of impairment associated with goodwill or other indefinite lived intangible assets. If no impairment is indicated, no additional testing is required. Otherwise, we perform a goodwill impairment test annually as of August 31, or more often if there are indicators of impairment due to changes in circumstances or the occurrence of certain events. The test for impairment of goodwill requires a two-step approach as prescribed in ASC Topic 350 "Intangibles - Goodwill and Other" (ASC 350). The first step of the impairment test is to compare the carrying value of each reportable unit, including goodwill, to the fair value as determined using various valuation methods or a weighting of several such methods. If the fair value exceeds the carrying value, no further testing is required and there is no impairment charge. If the carrying value exceeds the fair value, a second step of the goodwill impairment test is required, whereby we compare the implied fair value of goodwill to its carrying value. The implied fair value of goodwill is determined by allocating the fair value of a reporting unit to the assets and liabilities of that unit as if the reporting unit had been acquired in a business combination under which the consideration paid equals the calculated fair value of the reporting unit. The excess of the fair value of a reporting unit over the amounts assigned to its assets and liabilities is the implied fair value of goodwill. An impairment loss is recorded to the extent that the carrying amount of the goodwill exceeds the implied fair value of that goodwill for the particular reporting unit. We use the present value of future cash flows, discounted at our weighted average cost of capital, to determine fair value in combination with the market approach. Future cash flows are projected based upon our long-term forecasts by reportable unit and an estimated residual value. Our judgment is required in the estimation of future operating results and in determining the appropriate residual values of our reportable units. The residual values are determined by reference to an exchange transaction in an existing market for similar assets. Future operating results and residual values could reasonably differ from our estimates and a provision for impairment may be required in a future period depending upon such a change in circumstances or the occurrence of future events.

As of our annual testing date, August 31, 2017, we had five reporting units with goodwill balances: two reporting units included in our NA Engineered Components operating segment, two reporting units included in our EU Engineered Components operating segment. For the reporting units in our NA Engineered Components and our EU Engineered Components operating segments, we performed a qualitative assessment and determined that there were no indicators of impairment. Therefore, no additional goodwill impairment testing was deemed necessary for those units. For the reporting unit included in our NA Cabinet Components operating segment, we performed the first step of the goodwill impairment test at July 31, 2017, as actual results for this unit were below forecasts, a potential indicator of impairment. We determined the fair value of this reportable unit exceeded its carrying value by approximately 6%. The test included the contribution of the two plants transferred from NA Engineered Components during 2017. At August 31, 2017, additional qualitative factors were considered and the step-one analysis was updated. The determined fair value of this reportable unit continued to exceed the carrying value by 5%.

Restructuring

We account for restructuring costs in accordance with U.S. GAAP, whereby we accrue for one-time severance benefits pursuant to an approved plan of restructuring at the communication date, when affected employees have been notified of the potential severance and sufficient information has been provided for the employee to calculate severance benefits, in the event the employee is involuntarily terminated. In addition, we accrue costs associated with the termination of contractual commitments including operating leases at the time the lease is terminated pursuant to the lease provisions or in accordance with another agreement with the landlord. Otherwise, we continue to recognize operating lease expense through the cease-use date. After the cease-use date, we determine if our operating lease payments are at market. We assume sublet of the facility at the market rate. To the extent our lease obligations exceed the fair value rentals, we discount to arrive at the present value and record a liability. If the facility is not sublet, we expense the amount of the sublet in the current period until sublet. For other costs directly related to the restructuring effort, such as equipment moving costs, we expense in the period incurred.

In October 2016, we announced the closure of three operating plants, two related to our United States vinyl operations, and one related to our kitchen and bathroom cabinet door business in Mexico. We expensed \$0.5 million

pursuant to these restructuring efforts as of October 31, 2016, including an accrual for one-time severance cost of \$0.4 million included in accrued liabilities in the accompanying consolidated balance sheet. Our facility lease obligations were deemed to be at fair market value. In 2017, we incurred costs related to these plant closures including equipment moving costs, additional employee termination and severance costs, retirements and inventory adjustments, operating lease costs, accelerated amortization and depreciation costs, and equipment lease termination costs. In addition, we incurred costs related to the closure of a kitchen and bathroom cabinet door plant in Lansing, Kansas. Restructuring costs totaled \$4.6 million for the year ended October 31, 2017. We continue to incur operating lease costs associated with the vinyl extrusion plants, and the Lansing, Kansas plant as we have not yet negotiated exit from these lease obligations.

Income Taxes

We operate in various jurisdictions and therefore our income tax expense relates to income taxes in the United States, United Kingdom, Canada, and Germany, as well as local and state income taxes. We recognize the effect of a change in tax rates in the period of the change. We record the estimated future tax effects of temporary differences between the tax basis of assets and liabilities and the amounts reported in our consolidated balance sheets, as well as net operating losses and tax credit carry forward. We evaluate the carrying value of our net deferred tax assets and determine if our business will generate sufficient future taxable income to realize the net deferred tax assets. We perform this review for recoverability on a jurisdictional basis, whereby we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets. The weight given to the positive and negative evidence is commensurate with the extent to which the evidence can be objectively verified. We evaluate recoverability based on an estimate of future taxable income using the long-term forecasts we use to evaluate long-lived assets, goodwill and intangible assets for impairment, taking into consideration the future reversal of existing taxable temporary differences and reviewing our current financial operations. In the event that our estimates and assumptions indicate we will not generate sufficient future taxable income to realize our deferred tax assets, we will record a valuation allowance, to the extent indicated, to reduce our deferred tax assets to their realizable value. Annually, we evaluate our tax positions to determine if there have been any changes in uncertain tax positions or if there has been a lapse in the statute of limitations with regards to such positions. During 2015, we reassessed and recognized our uncertain tax position with regard to our spin-off from our former parent in 2008, as a result of a no change letter received from the Internal Revenue Service in conjunction with an audit of our tax filings for the years ended October 31, 2012 and 2011. This recognition reduced the liability for uncertain tax positions by \$4.1 million. Our liability for uncertain tax positions at October 31, 2017 and 2016 totaled \$0.6 million and related to certain state tax items regarding the interpretation of tax laws and regulations.

We believe we will have sufficient taxable income in the future to fully utilize our unreserved deferred tax assets recorded as of October 31, 2017. There is a risk that our estimates related to the future use of loss carry forwards and our ability to realize our deferred tax assets may not come to fruition, and that the results could materially impact our financial position and results of operations. We have recorded the benefit associated with the "patent box" deduction in the United Kingdom with regard to our operations at HLP. We believe that it is more likely than not that our deduction with regard to this position would be sustained upon examination. In addition, we recorded the effect of a statutory change in the deferred tax rate from 19% to 17% in the United Kingdom in 2017 results, which provided a discrete tax benefit of \$1.0 million during the period. Our deferred tax assets at October 31, 2017 and 2016 totaled \$28.0 million and \$35.3 million, respectively, against which we had recorded a valuation allowance of \$1.3 million and \$1.3 million, respectively.

Insurance

We manage our costs of workers' compensation, group medical, property, casualty and other liability exposures through a combination of self-insurance retentions and insurance coverage with third-party carriers. Liabilities associated with our portion of this exposure are not discounted. We estimate our exposure by considering various factors which may include: (1) historical claims experience, (2) severity factors, (3) estimated claims incurred but not reported and (4) loss development factors, which are used to estimate how claims will develop over time until settled or closed. While we consider a number of factors in preparing our estimate of risk exposure, we must use our judgment to determine the amounts to accrue in our financial statements. Actual claims can differ significantly from estimated liabilities if future claims experience differs from historical experience, and if we determine that our assumptions used for analysis or our development factors are flawed. We do not recognize insurance recoveries until any contingencies relating to the claim have been resolved.

Inventory

We record inventory at the lower of cost or market value. Inventories are valued using the first-in first-out (FIFO) and last-in first-out (LIFO) methods. We use the dollar-value link chain LIFO method, and the LIFO reserve is calculated on a consolidated basis in a single consolidated pool. We recorded a benefit associated with the change in the LIFO reserve of approximately \$0.3 million for the year ended October 31, 2016 and less than \$0.1 million for the year ended October 31, 2015. We did not record a LIFO reserve adjustment for the year ended October 31, 2017. When we integrate acquisitions into our business we may value inventory utilizing either the LIFO or FIFO basis. Fixed costs related to excess manufacturing capacity have been expensed in the period, and therefore, are not capitalized into inventory. Inventory quantities are regularly reviewed and provisions for excess or obsolete inventory are recorded primarily based on our forecast of future demand and market conditions. Significant unanticipated changes to our forecasts or changes in the net realizable value of our inventory would require a change in the provision for excess or obsolete inventory. For the years ended October 31, 2017, 2016 and 2015, our inventory reserves excluding the LIFO reserve, are approximately 5%, 6%, and 10% of gross inventory, respectively. Assuming an increase in obsolescence equal to 1% of gross inventory, net income would have been reduced by \$0.7 million for the year ended October 31, 2017, net loss from continuing operations would have been increased by \$0.3 million in 2016, and net income would have been reduced by \$0.5 million for the year ended October 31, 2015.

Retirement Plans

We sponsor a defined benefit pension plan and an unfunded postretirement plan that provides health care and life insurance benefits for a limited pool of eligible retirees and dependents. The measurement of liabilities related to these plans is based on our assumptions related to future events, including expected return on plan assets, rate of compensation increases, and healthcare cost trend rates. The discount rate reflects the rate at which benefits could be effectively settled on the measurement date. We determine our discount rate using a RATE: Link Model whereby target yields are developed from bonds across a range of maturity points, and a curve is fitted to those targets. Spot rates (zero coupon bond yields) are developed from the curve and used to discount benefit payments associated with each future year. This model assumes spot rates will remain level beyond the 30-year point. We determine the present value of plan benefits by applying the discount rates to projected benefit cash flows. Actual pension plan asset investment performance, as well as other economic experience such as discount rate and demographic experience, will either reduce or increase unamortized pension losses at the end of any fiscal year, which ultimately affects future pension costs.

The effects of the decrease in selected assumptions, assuming no changes in benefit levels and no amortization of gains or losses for the pension plans in fiscal 2017, is shown below:

Increase Increase in Net Projected Periodic Benefit Benefit Obligation Cost

(Dollar amounts in thousands)

Changes in Assumptions:

1% decrease in discount rate

1% decrease in expected long-term rate of return on plan assets

\$5,169 \$ 699 N/A \$ 337

As of October 31, 2017, our projected benefit obligation (PBO) and accumulated benefit obligation (ABO) exceeded the fair value of the plan assets by \$4.0 million and \$3.1 million, respectively. As a comparison, our PBO and ABO exceeded the fair value of plan assets by \$7.7 million and \$6.5 million, respectively, as of October 31, 2016. During fiscal 2017, we contributed \$3.6 million to the pension plan to continue to target a 100% funding threshold and to meet minimum contribution requirements. We expect to continue to fund at this level for fiscal 2018. Expected contributions are dependent on many variables, including the variability of the market value of the assets as compared to the obligation and other market or regulatory conditions. In addition, we take into consideration our business investment opportunities and our cash requirements. Accordingly, actual funding may differ greatly from current estimates.

Under U.S. GAAP, we are not required to immediately recognize the effects of a deviation between actual and assumed experience under our pension plan, or to revise our estimate as a result. This approach allows the favorable and unfavorable effects that fall within an acceptable range to be netted and disclosed as an unrecognized gain or loss. As of October 31, 2017 and 2016, a net actuarial loss of \$5.2 million and \$8.7 million, respectively, was included in our accumulated other comprehensive income (loss). There were no net prior service costs or transition obligations for the years ended October 31, 2017 and 2016. The effect on fiscal years after 2017 will depend on the actual experience of the plans.

Mortality assumptions used to determine the obligations for our pension plans are based on the RP-2006 base mortality table with MP-2017 mortality improvement scale.

Stock-Based Compensation

We have issued stock-based compensation in the form of stock options to directors, employees and officers, and non-vested restricted stock awards to certain key employees and officers. We apply the provisions of ASC Topic 718 "Compensation - Stock Compensation" (ASC 718), to determine the fair value of stock option awards on the date of grant using the Black-Scholes valuation model. We recognize the fair value as compensation expense on a straight-line basis over the requisite service period of the award based on awards ultimately expected to vest. Stock options granted to directors vest immediately while the stock options granted to our employees and officers typically vest ratably over a three-year period with service and continued employment as the vesting conditions. For new option grants to retirement-eligible employees, we recognize expense and vest immediately upon grant, consistent with the retirement vesting acceleration provisions of these grants. For employees near retirement age, we amortize such grants over the period from the grant date to the retirement-eligibility date if such period is shorter than the standard vesting schedule. For grants of non-vested restricted stock, we calculate the compensation expense at the grant date as the number of shares granted multiplied by the closing stock price of our common stock on the date of grant. This expense is recognized ratably over the vesting period. Our non-vested restricted stock grants to officers and employees cliff vest over a three-year period with service and continued employment as the only vesting criteria. Our fair value determination of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to, our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behavior over the expected term, our dividend rate, risk-free rate and expectation with regards to forfeitures. Option-pricing models were developed for use in estimating the value of traded options that have no vesting or hedging restrictions and are fully transferable. Because our employee stock options have certain characteristics that are significantly different from traded options, and because changes in the subjective assumptions can materially affect the estimated value, the valuation models may not provide an accurate measure of the fair value of our employee stock options. Accordingly, that value may not be indicative of the fair value observed in a willing buyer/willing seller market transaction.

We have granted other awards which are linked to the performance of our common stock, but will settle in cash rather than the issuance of shares of our common stock. The value of these awards fluctuates with changes in our stock price, with the resulting gains or losses reflected in the period of the change. We have recorded current and non-current liabilities related to these awards reflected in our consolidated balance sheets at October 31, 2017 and 2016, included elsewhere within this Annual Report on Form 10-K.

In addition, we have granted performance share awards which settle in cash and shares. These awards have vesting criteria based on a market condition (relative total shareholder return) and an internal performance condition (earnings per share growth). We utilize a Monte Carlo simulation model to value the market condition and our stock price on the date of grant to value the internal performance condition. We bifurcate the liability and equity portion of the awards (amounts expected to settle in cash and shares, respectively) and recognize expense ratably over the vesting period of three years. We estimate that the performance measures will be met and shares will vest at target until the year of settlement (third year of cliff vesting). For the year ended October 31, 2017, we expect 50,676 shares to vest, of which 25,338 will be settled in shares and 25,338 will be settled in cash.

Recent Accounting Pronouncements

In May 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2017-09, Compensation - Stock Compensation (Topic 718), which provides guidance as to when changes in share-based payment awards under Topic 718 should be accounted for as a modification of the award. Essentially, the changes should be considered a modification unless specific criteria are met. This guidance becomes effective for annual periods and interim periods within those annual periods, beginning after December 15, 2017. We will adopt this guidance in Fiscal 2019. We do not expect this guidance to have a material impact on our consolidated financial statements.

In March 2017, the FASB issued ASU No. 2017-07, Compensation - Retirement Benefits (Topic 715), Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. This update provides explicit guidance on how to present the service cost component and other components of net benefit cost in the income

statement and allows only the service cost component of net benefit cost to be eligible for capitalization. The amendments in this update are effective for annual periods beginning after December 15, 2017. We anticipate adopting ASU 2017-07 in fiscal 2019 and are currently evaluating the impact on our consolidated financial statements. In January 2017, the FASB issued ASU 2017-04, Intangibles - Goodwill and Other (Topic 350). This guidance simplifies the current two-step goodwill impairment test by eliminating the second step. Essentially, the entity would compare the fair value of a reporting unit with its carrying value amount and recognize an impairment charge for the amount by which the carrying value exceeds the fair value. The resulting loss would be limited to the amount of goodwill. This guidance also eliminates the requirement for a reporting unit with zero or negative carrying value to perform a qualitative assessment of goodwill and apply step-two of the goodwill impairment test if the qualitative assessment fails. Thus, the same impairment assessment will be applied to all reporting

units (even if the carrying value is zero or negative). This guidance should be applied prospectively and becomes effective for public entities for the annual period, and interim periods within that year, beginning after December 15, 2019. We will adopt this guidance in Fiscal 2021. We are currently evaluating the impact that this guidance will have on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805), which provides clarity when determining whether a set of assets and activities constitutes a business. Specifically, if substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not deemed to be a business. This guidance becomes effective for public entities for annual periods beginning after December 15, 2017. We will adopt this guidance in Fiscal 2019. We are currently evaluating the impact that this guidance will have on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230), Classification of Certain Cash Receipts and Cash Payments. This amendment is intended to reduce diversity in practice as to how certain cash receipts and cash payments are presented and classified in the statement of cash flows by providing guidance for several specific cash flow issues. This guidance becomes effective for fiscal years beginning after December 15, 2017 and, therefore, we will adopt this pronouncement in fiscal 2019. We are currently evaluating the impact of this pronouncement on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326). This amendment replaces the incurred loss impairment methodology in current U.S. GAAP and requires that financial assets be measured on an amortized cost basis and presented at the net amount expected to be collected. This new methodology reflects expected credit losses (rather than probable credit losses) and requires consideration of a broader range of supportable information when determining these estimated credit losses, including relevant experience, current conditions and supportable forecasts to determine collectability. In addition, the amendment provides guidance with regard to the use of an allowance for credit losses for purchased financial assets and available-for-sale debt securities. This amendment becomes effective for fiscal years beginning after December 15, 2019, including interim periods within that fiscal year. We expect to adopt this amendment during fiscal 2021, with no material impact on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. This amendment simplifies the accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This guidance becomes effective for fiscal years beginning after December 15, 2016, and, therefore, we will adopt this pronouncement in fiscal 2018. We do not expect this pronouncement to have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842): Amendments to the Accounting Standards Codification. These amendments replace current guidance and require the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases under previous U.S. GAAP. The amendments apply to any entity that enters into leasing arrangements. This guidance becomes effective for fiscal years beginning after December 15, 2018, and, therefore, we will adopt this pronouncement in fiscal 2020. We are currently evaluating the impact of this pronouncement on our consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory. This amendment simplifies the subsequent measurement of inventories by replacing the lower of cost or market revaluation method with the lower of cost and net realizable value test. This guidance is applicable to all inventories measured using methods other than last-in first-out method and the retail inventory method. This guidance becomes effective for fiscal years beginning after December 15, 2016. We expect to adopt this pronouncement in fiscal 2018, with no material impact on our consolidated financial statements.

Revenue Recognition

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers. This guidance prescribes a methodology to determine when revenue is recognizable and constitutes a principles-based approach to revenue recognition based on the consideration to which the entity expects to be entitled in exchange for goods or services. In addition, this guidance requires additional disclosure in the notes to the financial statements with regard to the

methodology applied. This pronouncement will essentially supersede and replace existing revenue recognition rules in U.S. GAAP, including industry-specific guidance. In July 2015, the FASB issued ASU 2015-14 to defer implementation of this guidance to annual reporting periods beginning after December 15, 2017. ASU 2014-09 has been further amended by the following items, which we intend to implement concurrently during fiscal 2019:

ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations. This amendment is intended to improve the operability and understandability of the implementation guidance on principal versus agent considerations.

ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606), Identifying Performance Obligations and Licensing. This amendment is intended to clarify the identification of performance obligations and the licensing implementation guidance.

ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606), Narrow-Scope Improvements and Practical Expedients. This update provides clarifying guidance in certain narrow areas and adds some practical expedients. ASU No. 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers. This amendment provides technical corrections and improvements to guidance previously issued.

We expect to adopt this guidance in fiscal 2019. We are currently evaluating the impact on our consolidated financial statements and have begun collecting the population of revenues by contract type for further evaluation. Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

The following discussion of our exposure to various market risks contains "forward looking statements" regarding our estimates, assumptions and beliefs concerning our exposure. Although we believe these estimates and assumptions are reasonable in light of information currently available to us, we cannot provide assurance that these estimates will not materially differ from actual results due to the inherent unpredictability of interest rates, foreign currency rates and commodity prices as well as other factors. We do not use derivative financial instruments for speculative or trading purposes.

Interest Rate Risk

Our outstanding debt bears interest at variable rates and accordingly is sensitive to changes in interest rates. Based upon the balances of the variable rate debt at October 31, 2017, a hypothetical 1.0% increase or decrease in interest rates could result in approximately \$2.2 million of additional pre-tax charges or credit to our operating results. This sensitivity pertains primarily to our outstanding Term Loan A and revolving credit facility borrowings outstanding under the Credit Agreement as of October 31, 2017.

Foreign Currency Rate Risk

Our international operations have exposure to foreign currency rate risks, primarily due to fluctuations in the Euro, the British Pound Sterling and the Canadian Dollar. From time to time, we enter into foreign exchange contracts associated with our operations to manage a portion of the foreign currency rate risk.

The notional and fair market values of these positions at October 31, 2017 and 2016, were as follows:

		Notional as		Fair Value in \$		2	
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		Octob	eØ8tb,ber 31,	Octob	o er c3dber	31,	
		2017	2016	2017	2016		
Foreign currency exchange derivatives:		(In the	ousands)				
Sell EUR, Buy USD	EUR	1,271	5,251	\$24	\$ (79)	
Sell CAD, Buy USD	CAD	320	186	1	1		
Sell GBP, Buy USD	GBP	75	187		(1)	
Buy EUR, Sell GBP	EUR	30	130	(1)	1		
Buy USD, Sell EUR	USD		1				
					_		

At October 31, 2017 and 2016, we held foreign currency derivative contracts hedging cross-border intercompany and commercial activity for our insulating glass spacer business. Although these derivatives hedge our exposure to fluctuations in foreign currency rates, we do not apply hedge accounting and therefore, the change in the fair value of these foreign currency derivatives is recorded directly to other income and expense in the accompanying consolidated statements of income (loss). To the extent the gain or loss on the derivative instrument offsets the gain or loss from the remeasurement of the underlying foreign currency balance, changes in exchange rates should have no effect. See Note 13, "Derivative Instruments", contained elsewhere herein this Annual Report on Form 10-K.

We currently have an unhedged foreign currency position associated with the debt borrowed to facilitate the HLP acquisition. For the year ended October 31, 2017, we recorded a foreign currency gain of \$0.7 million, of which \$0.5

million was realized.

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For the year ended October 31, 2016, we recorded an unrealized loss of \$5.2 million, partially offset by a realized gain of \$0.2 million related to this foreign currency exposure.

In July 2016, the United Kingdom voted to exit the European Union (commonly referred to as "Brexit"), which has impacted the valuation of the British Pound Sterling relative to other currencies used in our business, including our reporting currency, the United States Dollar. Although we do not know the long-term effects of this change, our operations have been impacted somewhat primarily with regard to the cost of materials purchased by our British subsidiaries from suppliers outside the United Kingdom. We continue to monitor our exposure to changes in exchange rates.

Commodity Price Risk

We purchase polyvinyl resin (PVC) as the significant raw material consumed in the manufacture of vinyl extrusions. We have a monthly resin adjuster in place with a majority of our customers and our resin supplier that is adjusted based upon published industry indices for resin prices for the prior month. This adjuster effectively shares the base pass-through price changes of PVC with our customers commensurate with the market at large. Our long-term exposure to changes in PVC prices is somewhat mitigated due to the contractual component of the resin adjuster program. In addition, there is a level of exposure to short-term volatility due to the one month lag.

We also charge our customers a surcharge related to petroleum-based raw materials. The surcharge is intended to offset the rising cost of products which are highly correlated to the price of oil including butyl and other oil-based raw materials. The surcharge is in place with the majority of our customers who purchase these products and is adjusted monthly based upon the 90-day average published price for Brent crude. The oil-based raw materials that we purchase are subject to similar pricing schemes. As such, our long-term exposure to changes in oil-based raw material prices is significantly reduced under this surcharge program.

Similarly, Woodcraft includes a surcharge provision in the majority of its customer arrangements to insulate against significant fluctuations in the price for various hardwood products used as the primary raw material for kitchen and bathroom cabinet doors. Like our vinyl extrusion business, we are exposed to short-term volatility in wood prices due to a lag in the timing of price updates which generally could extend for up to three months.

From time to time, in the normal course of business, we may enter into firm price sales commitments with customers in which aluminum is an integral fabrication input. In an effort to protect cost of sales from the effects of changing prices of aluminum, we enter into firm price raw material purchase commitments, which are designated as "normal purchases" under Accounting Standards Codification Topic 815, "Derivatives and Hedging." As a result, firm price sales commitments are matched with firm price raw material purchase commitments so that changes in aluminum prices should have no effect. While we consider the derivative contracts to provide an economic hedge against changes in aluminum prices, the derivatives have not been designated as hedges in accordance with ASC 815 for accounting purposes. As such, any mark-to-market net gain or loss is recorded as a period cost with the offsetting amount reflected as an asset or liability on the balance sheet. During the year ended October 31, 2016, we incurred a gain of less than \$0.1 million on a forward purchase contract with a notional amount of approximately 1.4 million pounds of aluminum. There are no contracts outstanding as of October 31, 2016, and there were no such contracts utilized during the years ended October 31, 2017 and 2015. For additional details, see Note 13, "Derivative Instruments," contained elsewhere herein this Annual Report on Form 10-K.

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Item 8. Financial Statements and Supplementary Data.

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Quanex Building Products Corporation

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Quanex Building Products Corporation

We have audited the accompanying consolidated balance sheets of Quanex Building Products Corporation (a Delaware corporation) and subsidiaries (the "Company") as of October 31, 2017 and 2016, and the related consolidated statements of income (loss), comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended October 31, 2017. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Quanex Building Products Corporation and subsidiaries as of October 31, 2017 and 2016, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of October 31, 2017, based on the criteria established in the 2013 Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated December 12, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ GRANT THORNTON LLP

Houston, Texas December 12, 2017

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Quanex Building Products Corporation

We have audited the internal control over financial reporting of Quanex Building Products Corporation (a Delaware corporation) and subsidiaries (collectively, the "Company") as of October 31, 2017, based on criteria established in the 2013 Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting ("Management's Report"). Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 31, 2017, based on criteria established in the 2013 Internal Control-Integrated Framework issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements of the Company as of and for the year ended October 31, 2017, and our report dated December 12, 2017 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

Houston, Texas December 12, 2017

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of the Company, including the Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended. The Company's internal control system was designed to provide reasonable assurance to management and the Company's Board of Directors regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

All internal control systems, no matter how well designed, have inherent limitations. A system of internal control may become inadequate over time because of changes in conditions, or deterioration in the degree of compliance with the policies or procedures. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Management assessed the effectiveness of the Company's internal control over financial reporting as of October 31, 2017 using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control — Integrated Framework (2013). Based on this assessment, management has concluded that, as of October 31, 2017, the Company's internal control over financial reporting was effective to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles based on such criteria.

Grant Thornton LLP, the Company's independent registered public accounting firm, has issued an attestation report on the effectiveness of the Company's internal control over financial reporting. This report appears on page 47.

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QUANEX BUILDING PRODUCTS CORPORATION CONSOLIDATED BALANCE SHEETS

As of October 31, 2017 and 2016

	October 31, 2017 (In thousands amounts)	2016 s, except share	
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 17,455	\$ 25,526	
Accounts receivable, net of allowance for doubtful accounts of \$333 and \$251 (Note 3)	79,411	83,625	
Inventories, net (Note 4)	87,529	84,335	
Prepaid and other current assets	7,406	10,488	
Total current assets	191,801	203,974	
Property, plant and equipment, net of accumulated depreciation of \$264,047 and \$245,128	211,131	198,497	
(Note 5) Goodwill (Note 6)	222,194	217,035	
Intangible assets, net (Note 6)	139,778	154,180	
Other assets	8,975	6,667	
Total assets	\$ 773,879	\$ 780,353	
LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 113,019	\$ 760,333	
Current liabilities:			
Accounts payable	\$ 44,150	\$ 47,781	
Accrued liabilities (Note 7)	38,871	55,101	
Income taxes payable (Note 11)	2,192	732	
Current maturities of long-term debt (Note 8)	21,242	10,520	
Total current liabilities	106,455	114,134	
Long-term debt (Note 8)	218,184	259,011	
Deferred pension and postretirement benefits (Note 9)	4,433	8,167	
Deferred income taxes (Note 11)	21,960	18,322	
Liability for uncertain tax positions (Note 11)	591	579	
Other liabilities	15,409	12,309	
Total liabilities	367,032	412,522	
Commitments and contingencies (Note 12)	307,032	112,322	
Stockholders' equity:			
Preferred stock, no par value, shares authorized 1,000,000; issued and outstanding - none	_		
Common stock, \$0.01 par value, shares authorized 125,000,000; issued 37,508,877 and	275	276	
37,560,249 respectively; outstanding 34,838,134 and 34,220,496, respectively	375	376	
Additional paid-in-capital	255,719	254,540	
Retained earnings	225,704	214,047	
Accumulated other comprehensive loss	(25,076)	(38,765)	
Less: Treasury stock at cost, 2,670,743 and 3,339,753 shares, respectively	(49,875)	(62,367)	
Total stockholders' equity	406,847	367,831	
Total liabilities and stockholders' equity	\$ 773,879	\$ 780,353	
See notes to consolidated financial statements.			

QUANEX BUILDING PRODUCTS CORPORATION CONSOLIDATED STATEMENTS OF INCOME (LOSS)

For the Years Ended October 31, 2017, 2016 and 2015

1 of the Tears Effect October 31, 2017, 2010 and 2013				
	Year Ended October 31,			
	2017	2016	2015	
	(In thousand	thousands, except per share		
Net sales	\$ 866,555	\$ 928,184	\$ 645,528	
Cost and expenses:		·	•	
Cost of sales (excluding depreciation and amortization)	672,162	710,644	499,097	
Selling, general and administrative	97,981	114,910	86,536	
Restructuring charges	4,550	529		
Depreciation and amortization	57,495	53,146	35,220	
Asset impairment charges		12,602		
Operating income	34,367	36,353	24,675	
Non-operating (expense) income:				
Interest expense	(9,595) (36,498) (991)	
Other, net	730	(5,479) (531)	
Income (loss) from continuing operations before income taxes	25,502	(5,624) 23,153	
Income tax (expense) benefit	(6,819	3,765	(7,539)	
Income (loss) from continuing operations	18,683	(1,859) \$15,614	
Income from discontinued operations, net of tax of \$0, \$0, and \$300,			479	
respectively	_	_	4/9	
Net income (loss)	\$ 18,683	\$ (1,859) \$16,093	
Basic earnings (loss) per common share:				
Earnings (loss) from continuing operations	\$ 0.55	\$ (0.05) \$ 0.46	
Earnings from discontinued operations			0.01	
Basic earnings (loss) per share	\$ 0.55	\$ (0.05) \$ 0.47	
Diluted earnings (loss) per common share:				
Earnings (loss) from continuing operations	\$ 0.54	\$ (0.05) \$ 0.46	
Earnings from discontinued operations		_	0.01	
Diluted earnings (loss) per share	\$ 0.54	\$ (0.05) \$ 0.47	
Weighted-average common shares outstanding:				
Basic	34,230	33,876	33,993	
Diluted	34,837	33,876	34,502	
	0.46	.	40.46	
Cash dividends per share	\$ 0.16	\$ 0.16	\$ 0.16	

See notes to consolidated financial statements.

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QUANEX BUILDING PRODUCTS CORPORATION CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

For the Years Ended October 31, 2017, 2016 and 2015

	Year Ended October 31,		
	2017	2016	2015
	(In thousa	ands)	
Net income (loss)	\$18,683	\$(1,859)	\$16,093
Other comprehensive income (loss):			
Foreign currency translation adjustments gain (loss)	11,524	(26,838)	(3,595)
Change in pension from net unamortized gain (loss) (pretax)	3,462	(2,864	(1,280)
Change in pension from net unamortized gain (loss) tax (expense) benefit	(1,297)	986	534
Total other comprehensive income (loss), net of tax	13,689	(28,716)	(4,341)
Comprehensive income (loss)	\$32,372	\$(30,575)	\$11,752

See notes to consolidated financial statements.

QUANEX BUILDING PRODUCTS CORPORATION CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

For the Years Ended October 31, 2017, 2016 and 2015

For the Years Ended October 31, 2017, 2016 and 2015								TD 4 1			
		Common Stock			Accumulated Treasury Stock			ock	Total		
		Shares	Amount	Additional Paid-in Capital	Retained Earnings	Other Comprehen Loss	siv	Shares	Amount	Stockhold Equity	ers'
		(In thousand	ls, excep	t share amo	ounts)						
	Balance at October 31, 2014	37,632,032	\$ 376	\$249,600	\$202,319	\$ (5,708)	(1,417,700)	\$(25,667)	\$420,920	
	Net income		_		16,093	_			_	16,093	
	Foreign currency					(3,595)			(3,595)
	translation adjustment	•				(3,373	,			(3,373	,
	Change in pension										
	from net unamortized			_	_	(746)		_	(746)
	loss (net of tax					(,	,			(,	,
	benefit of \$534)										
	Common dividends				(5,515)					(5,515)
	(\$0.16 per share)				(-))					(-)-	
	Treasury shares							(2,675,903)	(50,761)	(50,761)
	purchased, at cost							, , , ,	, , ,	,	
	Expense related to			1.066						1.066	
	stock-based		_	4,266	_				_	4,266	
	compensation										
	Stock options			(282)	(719)			327,700	6,110	5,109	
	exercised										
	Tax benefit from			(202						(202	`
	share-based	_		(283)	· —	_		_		(283)
	compensation Restricted stock										
		_		(2,211)				118,800	2,211	_	
	awards granted										
	Recognition of unrecognized tax				10,003					10,003	
	benefit			_	10,003				_	10,003	
		(22,469)		(153)	(43)					(196)
	Balance at October									`	,
	31, 2015	37,609,563	\$ 376	\$250,937	\$222,138	\$ (10,049)	(3,647,103)	\$(68,107)	\$ 395,295	
	Net loss			_	(1,859)				_	(1,859)
	Foreign currency				(1,00)	(= - 0 = 0					,
	translation adjustment		_	_	_	(26,838)	_	_	(26,838)
	Change in pension										
	from net unamortized					(1.050	,			(1.050	,
	loss (net of tax			_	_	(1,878)		_	(1,878)
	benefit of \$986)										
	Common dividends				(5.450					(5. 450)	,
	(\$0.16 per share)	_	_		(5,470)	_		_	_	(5,470)
	Expense related to										
	stock-based			6,089				_		6,089	
	compensation										

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Stock options exercised	_	_	(106) (637) —	221,850	4,143	3,400	
Tax benefit from share-based compensation	_	_	(146) —	_	_	_	(146)
Restricted stock awards granted	_	_	(1,591) (6) —	85,500	1,597	_	
Other	(49,314) —	(643) (119) —			(762)
Balance at October 31, 2016	37,560,249	\$ 376	\$254,540	3 \$214,	047 \$ (38,765) (3,339,753) \$(62,367)	\$ 367,831	
Net income			_	18,68	3 —		_	18,683	
Foreign currency translation adjustmen	nt		_	_	11,524	_	_	11,524	
Change in pension from net unamortized gain (net of taxes of \$1,297)	d	_	_	_	2,165	_	_	2,165	
Common dividends (\$0.16 per share)	_	_	_	(5,510	5) —	_	_	(5,516)
Expense related to stock-based compensation	_	_	5,189	_	_	_	_	5,189	
Stock options exercised	_	_	(76) (1,45	1)—	507,660	9,480	7,953	
Tax benefit from share-based compensation	_	_	(4) —	_	_	_	(4)
Restricted stock awards granted	_	_	(1,752) —	_	161,350	1,752	_	
Performance share awards vested	_	_	(1,261) —	_	_	1,261	_	
Other	(51,372) (1)	(917) (59) —		(1)) (978)
Balance at October 31, 2017	37,508,877	\$ 375	\$255,719	9 \$225,	704 \$ (25,076) (2,670,743) \$(49,875)	\$ 406,847	
See notes to consolid	lated financia	l stateme	ents.						

QUANEX BUILDING PRODUCTS CORPORATION CONSOLIDATED STATEMENTS OF CASH FLOW

For the Years Ended October 31, 2017, 2016 and 2015

	Year End 2017 (In thous	led Octobe 2016 ands)	r 31, 2015
Operating activities:	`	,	
Net income (loss)	\$18,683	\$(1,859)	\$16,093
Adjustments to reconcile net income (loss) to cash provided by operating activities:			
Depreciation and amortization	57,495	53,146	35,220
Loss (gain) on disposition of capital assets	1,528	(20)	495
Stock-based compensation	5,189	6,089	4,266
Deferred income tax	(112)	(8,469)	5,204
Excess tax benefit from share-based compensation	(248	(136)	(60)
Charge for deferred loan costs and debt discount		16,022	_
Asset impairment charges		12,602	_
Gain on involuntary conversion			(1,263)
Other, net	1,741	339	(19)
Changes in assets and liabilities, net of effects from acquisitions:			
Decrease in accounts receivable	5,378	796	2,668
(Increase) decrease in inventory	(3,240	5,346	9,805
Decrease (increase) in other current assets	186	2,503	(1,304)
Decrease in accounts payable	(4,893	(2,273)	(2,862)
(Decrease) increase in accrued liabilities	(8,497	1,246	(576)
Increase (decrease) in income taxes	4,670	(365)	369
(Decrease) increase in deferred pension and postretirement benefits	(271	588	(372)
Increase (decrease) in other long-term liabilities	1,382	956	(283)
Other, net	(437	(93)	(294)
Cash provided by operating activities	78,554	86,418	67,087
Investing activities:			
Acquisitions, net of cash acquired	(8,497	(245,904)	(131,689)
Capital expenditures	(34,564)	(37,243)	(29,982)
Proceeds from disposition of capital assets	1,937	1,044	264
Proceeds from property insurance claim			1,263
Cash used for investing activities	(41,124)	(282,103)	(160,144)
Financing activities:			
Borrowings under credit facility	53,500	634,800	117,000
Repayments of credit facility borrowings	(98,875)	(422,875)	(67,000)
Debt issuance costs		(11,435)	(496)
Repayments of other long-term debt	(2,722)	(2,185)	(1,020)
Common stock dividends paid	(5,516)	(5,470)	(5,515)
Issuance of common stock	7,953	3,400	5,109
Excess tax benefit from share-based compensation	248	136	60
Purchase of treasury stock			(52,719)
Cash (used for) provided by financing activities	(45,412)	196,371	(4,581)
Effect of exchange rate changes on cash and cash equivalents	(89	1,715	379
(Decrease) increase in cash and cash equivalents	(8,071	2,401	(97,259)
Cash and cash equivalents at beginning of period	25,526	23,125	120,384

Cash and cash equivalents at end of period See notes to consolidated financial statements. \$17,455 \$25,526 \$23,125

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QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Operations, Basis of Presentation and Significant Accounting Policies Nature of Operations

Quanex Building Products Corporation is a component supplier to original equipment manufacturers (OEMs) in the building products industry. These components can be categorized as window and door (fenestration) components and kitchen and bath cabinet components. Examples of fenestration components include: (1) energy-efficient flexible insulating glass spacers, (2) extruded vinyl profiles, (3) window and door screens, and (4) precision-formed metal and wood products. We also manufacture cabinet doors and other components for OEMs in the kitchen and bathroom cabinet industry. In addition, we provide certain other non-fenestration components and products, which include solar panel sealants, trim moldings, vinyl decking, fencing, water retention barriers, and conservatory roof components. We have organized our business into three reportable business segments. For additional discussion of our reportable business segments, including the transfer of two wood-manufacturing plants from the NA Engineered Components segment to the NA Cabinet Component segment, see Note 18, "Segment Information." We use low-cost production processes and engineering expertise to provide our customers with specialized products for their specific window, door, and cabinet applications. We believe these capabilities provide us with unique competitive advantages. We serve a primary customer base in North America and the United Kingdom, and also serve customers in international markets through our operating plants in the United Kingdom and Germany, as well as through sales and marketing efforts in other countries.

Unless the context indicates otherwise, references to "Quanex", the "Company", "we", "us" and "our" refer to the consolidated business operations of Quanex Building Products Corporation and its subsidiaries.

Basis of Presentation and Principles of Consolidation

Our consolidated financial statements have been prepared by us in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). We consolidate our wholly-owned subsidiaries and eliminate intercompany sales and transactions. We have no cost or equity investments in companies that are not wholly-owned. In our opinion, these audited financial statements contain all adjustments necessary to fairly present our financial position, results of operations and cash flows for the periods presented.

Use of Estimates

In preparing financial statements, we make informed judgments and estimates that affect the reported amounts of assets and liabilities as of the date of the financial statements and affect the reported amounts of revenues and expenses during the reporting period. We review our estimates on an ongoing basis, including those related to impairment of long lived assets and goodwill, contingencies and income taxes. Changes in facts and circumstances may result in revised estimates and actual results may differ from these estimates. During the years ended October 31, 2017 and 2016, we recorded a change in estimate related to certain assets involved in restructuring activities, as more fully described under the caption "Restructuring."

A summary of our significant accounting policies consistently applied in the preparation of the accompanying consolidated financial statements follows:

Revenue Recognition

We recognize revenue when products are shipped and when title has passed to the customer. Revenue is deemed to be realized or earned when the following criteria are met: (a) persuasive evidence that a contractual sales arrangement exists; (b) delivery has occurred; or when title passes to the buyers; (c) the price to the buyer is fixed or determinable; and (d) collection is reasonably assured. Sales allowances and customer incentives, including volume discounts or rebates, are treated as reductions to revenue and are provided for based on historical experience, current estimates or contract terms.

Cash and Cash Equivalents

Cash equivalents include all highly liquid investments with an original maturity of three months or less. Such securities with an original maturity which exceeds three months are deemed to be short-term investments. We maintain cash and cash equivalents at several financial institutions, which at times may not be federally insured or

may exceed federally insured limits. We have not experienced any losses in such accounts and believe we are not exposed to any significant credit risks on such accounts.

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QUANEX BUILDING PRODUCTS CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)

Concentration of Credit Risk and Allowance for Doubtful Accounts

Certain of our businesses or product lines are largely dependent on a relatively few large customers. Although we believe we have an extensive customer base, the loss of one of these large customers or if such customers were to incur a prolonged period of decline in business, our financial condition and results of operations could be adversely affected. For the year ended October 31, 2017, no customers provided more than 10% of our consolidated net sales. For the year ended October 31, 2016, one customer provided 10% of our consolidated net sales. Amounts included in accounts receivable at October 31, 2016 related to this customer totaled \$5.9 million. Each of two customers provided more than 10% of our consolidated net sales for the year ended October 31, 2015 (11% and 14%).

We have established an allowance for doubtful accounts to estimate the risk of loss associated with our accounts receivable balances. Our policy for determining the allowance is based on factors that affect collectability, including: (a) historical trends of write-offs, recoveries and credit losses; (b) the credit quality of our customers; and (c) projected economic and market conditions. We believe our allowance is adequate to absorb any known or probable losses as of October 31, 2017.

Business Combinations

We apply the acquisition method of accounting for business combinations in accordance with U.S. GAAP, which requires us to make use of estimates and judgments to allocate the purchase price paid for acquisitions to the fair value of the assets and liabilities acquired. We account for contingent assets and liabilities at fair value on the acquisition date, and record changes to fair value associated with these assets and liabilities as a period cost as incurred. We use established valuation techniques and engage reputable valuation specialists to assist us with these valuations. Inventory

We record inventory at the lower of cost or market value. Inventories are valued using the first-in first-out (FIFO) and last-in first-out (LIFO) methods, although LIFO is only used at two of our plant locations currently. We use the dollar-value link chain LIFO method, and the LIFO reserve is calculated on a consolidated basis in a single consolidated pool. The businesses that we acquire and integrate into our operations may value inventories using either the LIFO or FIFO method. Fixed costs related to excess manufacturing capacity are evaluated and expensed in the period, to insure that inventory is properly capitalized. Inventory quantities are regularly reviewed and provisions for excess or obsolete inventory are recorded primarily based on our forecast of future demand and our estimates regarding current and future market conditions. Significant unanticipated variances to our forecasts could require a change in the provision for excess or obsolete inventory, resulting in a charge to net income during the period of the change.

Long-Lived Assets

Property, Plant and Equipment and Intangible Assets with Defined Lives

We make judgments and estimates related to the carrying value of property, plant and equipment, intangible assets with defined lives, and long-lived assets, which include determining when to capitalize costs, the depreciation and amortization methods to use and the useful lives of these assets. We evaluate these assets for impairment when there are indicators that the carrying values of these assets might not be recoverable. Such indicators of impairment may include changes in technology, significant market fluctuations, historical losses or loss of a significant customer, or other changes in circumstances that could affect the assets' ability to generate future cash flows. When we evaluate these assets for impairment, we compare the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset to its carrying value. If the carrying value exceeds the sum of the undiscounted cash flows, and there is no alternative use for the asset, we determine that the asset is impaired. To measure the impairment charge, we compare the carrying amount of the long-lived asset to its fair value, as determined by quoted market prices in active markets, if available, or by discounting the projected future cash flows using our incremental

borrowing rate. This calculation of fair value requires us to develop and employ long-term forecasts of future operating results related to these assets. These forecasts are based on assumptions about demand for our products and future market conditions. Future events and unanticipated changes to these assumptions could require a provision for impairment, resulting in a charge to net income during the period of the change.

We monitor relevant circumstances, including industry trends, general economic conditions, and the potential impact that such circumstances might have on the valuation of our identifiable intangible assets with finite lives. Events and changes in circumstances that may cause a triggering event and necessitate such a review include, but are not limited to: a decrease in sales for certain customers, improvements or changes in technology, and/or a decision to discontinue the use of a trademark or trade name, or allow a patent to lapse. Such events could negatively impact the fair value of our identifiable intangible assets. In such

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circumstances, we may evaluate the underlying assumptions and estimates made by us in order to assess the appropriate valuation of these identifiable intangible assets and compare to the carrying value of the assets. We may be required to write down these identifiable intangible assets and record a non-cash impairment charge. When we originally value our intangible assets, we use a variety of techniques to establish the carrying value of the assets, including the relief from royalty method, excess current year earnings method and income method. Changes in market conditions during the fourth quarter of 2016 and throughout 2017 impacted our long-term forecasts of future operating results with regard to the reduction of significant sales volume to a large customer of our United States vinyl operations, and lower-than-expected operating performance of our North American Cabinet Components business. We determined that these conditions were indicators of triggering events which necessitated an evaluation of certain long-term assets utilized in these businesses for potential impairment. We compared the projected undiscounted cash flows we expected to realize associated with these assets over the remaining useful lives of the primary operating assets to the net book value of the long-term assets, including goodwill, and determined that these assets were not impaired. Therefore, we did not record an impairment charge related to property, plant and equipment or intangible assets with defined lives during the years ended October 31, 2017 and 2016. There were no indicators of triggering events noted for the year ended October 31, 2015.

Software development costs, including costs incurred to purchase third-party software, are capitalized when we have determined that the technology is capable of meeting our performance requirements, and we have authorized funding for the project. We cease capitalization of software costs when the software is substantially complete and is ready for its intended use. The software is then amortized over its estimated useful life. When events or circumstances indicate the carrying value of internal use software might not be recoverable, we assess the recoverability of these assets by comparing the carrying value of the asset to the undiscounted future cash flows expected to be generated from the asset's use, consistent with the methodology to test other property, plant and equipment for impairment. Property, plant and equipment is stated at cost and is depreciated using the straight-line method over the estimated useful lives of the assets. We capitalize betterments which extend the useful lives or significantly improve the operational efficiency of assets. We expense repair and maintenance costs as incurred.

The estimated useful lives of our primary asset categories at October 31, 2017 were as follows:

Useful Life (in Years)

Land improvements 7 to 25 Buildings 25 to 40 Building improvements 5 to 20

Machinery and equipment