# UNITED STATES <br> SECURITIES AND EXCHANGE COMMISSION <br> Washington, D.C. 20549 

$\qquad$
(Mark One)
X
QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended April 30, 2018
OR
$\square \quad$ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File Number 1-33913

## QUANEX BUILDING PRODUCTS CORPORATION

## (Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction of
incorporation or organization)

26-1561397
(I.R.S. Employer incorporation or organization)

Identification No.)
1800 West Loop South, Suite 1500, Houston, Texas 77027
(Address of principal executive offices and zip code)
Registrant's telephone number, including area code: (713) 961-4600

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 (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No $\square$

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

| Large accelerated filer | x | Accelerated filer |
| :--- | :--- | :--- |
| Non-accelerated filer | o (Do not check if a smaller reporting company) | Smaller reporting company |
|  |  | Emerging growth company |

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Securities Act.
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes $\square \quad$ No x Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

## Class

Common Stock, par value $\$ 0.01$ per share

Outstanding at June 1, 2018
35,060,911

# QUANEX BUILDING PRODUCTS CORPORATION 

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## Item 1. Financial Statements

## PART I. FINANCIAL INFORMATION

## QUANEX BUILDING PRODUCTS CORPORATION <br> CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)

|  | $\begin{gathered} \text { April 30, } \\ 2018 \end{gathered}$ |  | October 31, 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (In thousands, except share amounts) |  |  |  |
| ASSETS |  |  |  |  |
| Current assets: |  |  |  |  |
| Cash and cash equivalents | \$ | 10,098 | \$ | 17,455 |
| Accounts receivable, net of allowance for doubtful accounts of \$472 and \$333 |  | 76,594 |  | 79,411 |
| Inventories, net (Note 2) |  | 92,928 |  | 87,529 |
| Prepaid and other current assets |  | 8,527 |  | 7,406 |
| Total current assets |  | 188,147 |  | 191,801 |
| Property, plant and equipment, net of accumulated depreciation of \$276,909 and \$264,047 |  | 209,459 |  | 211,131 |
| Goodwill (Note 3) |  | 224,728 |  | 222,194 |
| Intangible assets, net (Note 3) |  | 133,193 |  | 139,778 |
| Other assets |  | 9,244 |  | 8,975 |
| Total assets | \$ | 764,771 | \$ | 773,879 |

## LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities:

| Accounts payable | \$ | 44,492 | \$ | 44,150 |
| :---: | :---: | :---: | :---: | :---: |
| Accrued liabilities |  | 34,576 |  | 38,871 |
| Income taxes payable (Note 7) |  | 2,284 |  | 2,192 |
| Current maturities of long-term debt (Note 4) |  | 16,167 |  | 21,242 |
| Total current liabilities |  | 97,519 |  | 106,455 |
| Long-term debt (Note 4) |  | 210,857 |  | 218,184 |
| Deferred pension and postretirement benefits (Note 6) |  | 5,890 |  | 4,433 |
| Deferred income taxes (Note 7) |  | 14,889 |  | 21,960 |
| Other liabilities |  | 15,290 |  | 16,000 |
| Total liabilities |  | 344,445 |  | 367,032 |
| Commitments and contingencies (Note 8) |  |  |  |  |
| 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 $37,463,059$ and $37,508,877$, respectively; outstanding $35,090,153$ and $34,838,134$, respectively |  | 375 |  | 375 |
| Additional paid-in-capital |  | 253,269 |  | 255,719 |
| Retained earnings |  | 230,945 |  | 225,704 |
| Accumulated other comprehensive loss |  | $(19,951)$ |  | $(25,076)$ |
| Less: Treasury stock at cost, 2,372,906 and 2,670,743 shares, respectively |  | $(44,312)$ |  | $(49,875)$ |
| Total stockholders' equity |  | 420,326 |  | 406,847 |
| Total liabilities and stockholders' equity | \$ | 764,771 | \$ | 773,879 |

The accompanying notes are an integral part of the financial statements.

QUANEX BUILDING PRODUCTS CORPORATION CONDENSED CONSOLIDATED STATEMENTS OF INCOME (LOSS) (Unaudited)

|  | Three Months Ended April 30, |  |  |  | Six Months Ended April 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2018 |  | 2017 |  |
|  | (In thousands, except per share amounts) |  |  |  |  |  |  |  |
| Net sales | \$ | 214,212 | \$ | 209,133 | \$ | 405,878 | \$ | 404,229 |
| Cost and expenses: |  |  |  |  |  |  |  |  |
| Cost of sales (excluding depreciation and amortization) |  | 168,741 |  | 162,132 |  | 323,181 |  | 317,079 |
| Selling, general and administrative |  | 23,783 |  | 26,916 |  | 47,859 |  | 54,361 |
| Restructuring charges |  | 242 |  | 1,080 |  | 608 |  | 2,219 |
| Depreciation and amortization |  | 13,310 |  | 14,380 |  | 26,583 |  | 29,786 |
| Operating income |  | 8,136 |  | 4,625 |  | 7,647 |  | 784 |
| Non-operating (expense) income: |  |  |  |  |  |  |  |  |
| Interest expense |  | $(2,502)$ |  | $(2,391)$ |  | $(4,943)$ |  | $(4,551)$ |
| Other, net |  | (105) |  | (135) |  | 212 |  | 526 |
| Income (loss) before income taxes |  | 5,529 |  | 2,099 |  | 2,916 |  | $(3,241)$ |
| Income tax (expense) benefit |  | $(1,393)$ |  | (637) |  | 6,167 |  | 977 |
| Net income (loss) | \$ | 4,136 | \$ | 1,462 | \$ | 9,083 | \$ | $(2,264)$ |
|  |  |  |  |  |  |  |  |  |
| Basic income (loss) per common share | \$ | 0.12 | \$ | 0.04 | \$ | 0.26 | \$ | (0.07) |
|  |  |  |  |  |  |  |  |  |
| Diluted income (loss) per common share: | \$ | 0.12 | \$ | 0.04 | \$ | 0.26 | \$ | (0.07) |
|  |  |  |  |  |  |  |  |  |
| Weighted-average common shares outstanding: |  |  |  |  |  |  |  |  |
| Basic |  | 34,796 |  | 34,146 |  | 34,731 |  | 34,099 |
| Diluted |  | 35,115 |  | 34,769 |  | 35,166 |  | 34,099 |
|  |  |  |  |  |  |  |  |  |
| Cash dividends per share | \$ | 0.04 | \$ | 0.04 | \$ | 0.08 | \$ | 0.08 |

The accompanying notes are an integral part of the financial statements.

## QUANEX BUILDING PRODUCTS CORPORATION

## CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME <br> (Unaudited)

|  | Three Months Ended April 30, |  |  |  | Six Months Ended$\qquad$ April 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| Net income (loss) | \$ | 4,136 | \$ | 1,462 | \$ | 9,083 | \$ | $(2,264)$ |
| Other comprehensive (loss) income: |  |  |  |  |  |  |  |  |
| Foreign currency translation adjustments (loss) gain |  | $(5,328)$ |  | 3,744 |  | 5,822 |  | 6,576 |
| Change in pension from net unamortized gain tax (expense) |  | - |  | - |  | (697) |  | - |
| Other comprehensive (loss) income |  | $(5,328)$ |  | 3,744 |  | 5,125 |  | 6,576 |
| Comprehensive (loss) income | \$ | $(1,192)$ | \$ | 5,206 | \$ | 14,208 | \$ | 4,312 |

The accompanying notes are an integral part of the financial statements.

## QUANEX BUILDING PRODUCTS CORPORATION

## CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOW (Unaudited)

|  | Six Months Ended April 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |
| Operating activities: |  |  |  |  |
| Net income (loss) | \$ | 9,083 | \$ | $(2,264)$ |
| Adjustments to reconcile net income (loss) to cash provided by operating activities: |  |  |  |  |
| Depreciation and amortization |  | 26,583 |  | 29,786 |
| Stock-based compensation |  | 211 |  | 3,222 |
| Deferred income tax |  | $(8,087)$ |  | $(4,233)$ |
| Other, net |  | (321) |  | 1,355 |
| Changes in assets and liabilities: |  |  |  |  |
| Decrease in accounts receivable |  | 3,357 |  | 4,564 |
| Increase in inventory |  | $(4,623)$ |  | $(6,593)$ |
| Increase in other current assets |  | $(1,047)$ |  | (506) |
| Increase (decrease) in accounts payable |  | 378 |  | $(7,170)$ |
| Decrease in accrued liabilities |  | $(5,220)$ |  | $(7,469)$ |
| Increase in income taxes payable |  | 25 |  | 3,215 |
| Increase in deferred pension and postretirement benefits |  | 1,457 |  | 1,682 |
| (Decrease) increase in other long-term liabilities |  | (38) |  | 945 |
| Other, net |  | (143) |  | 195 |
| Cash provided by operating activities |  | 21,615 |  | 16,729 |
| Investing activities: |  |  |  |  |
| Acquisitions, net of cash acquired |  | - |  | $(8,497)$ |
| Capital expenditures |  | $(15,213)$ |  | $(17,550)$ |
| Proceeds from disposition of capital assets |  | 180 |  | 593 |
| Cash used for investing activities |  | $(15,033)$ |  | $(25,454)$ |
| Financing activities: |  |  |  |  |
| Borrowings under credit facilities |  | 21,500 |  | 53,500 |
| Repayments of credit facility borrowings |  | $(34,000)$ |  | $(52,250)$ |
| Repayments of other long-term debt |  | (442) |  | $(1,363)$ |
| Common stock dividends paid |  | $(2,800)$ |  | $(2,749)$ |
| Issuance of common stock |  | 2,564 |  | 1,726 |
| Payroll tax paid to settle shares forfeited upon vesting of stock |  | (706) |  | (957) |
| Cash used for financing activities |  | $(13,884)$ |  | $(2,093)$ |
| Effect of exchange rate changes on cash and cash equivalents |  | (55) |  | (195) |
| Decrease in cash and cash equivalents |  | $(7,357)$ |  | $(11,013)$ |
| Cash and cash equivalents at beginning of period |  | 17,455 |  | 25,526 |
| Cash and cash equivalents at end of period | \$ | 10,098 | \$ | 14,513 |

The accompanying notes are an integral part of the financial statements.

# QUANEX BUILDING PRODUCTS CORPORATION 

## CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

(Unaudited)

| Six Months Ended April 30, 2018 | Common |  | Additional Paid-in Capital |  | Retained Earnings |  | Accumulated <br> Other <br> Omperensive <br> Loss |  | Treasury |  | Total <br> Stockholders' <br> Equity |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (In thousands, no per share amounts shown except in verbiage) |  |  |  |  |  |  |  |  |  |  |  |
| Balance at October 31, 2017 | \$ | 375 | \$ | 255,719 | \$ | 225,704 | \$ | $(25,076)$ | \$ | $(49,875)$ | \$ | 406,847 |
| Net income |  | - |  | - |  | 9,083 |  | - |  | - |  | 9,083 |
| Foreign currency translation adjustment |  | - |  | - |  | - |  | 5,822 |  | - |  | 5,822 |
| Common dividends (\$0.08 per share) |  | - |  | - |  | $(2,800)$ |  | - |  | - |  | $(2,800)$ |
| Change in pension from net unamortized gain tax (expense) |  | - |  | - |  | - |  | (697) |  | - |  | (697) |
| Stock-based compensation activity: |  |  |  |  |  |  |  |  |  |  |  |  |
| Expense related to stock-based compensation |  | - |  | 211 |  | - |  | - |  | - |  | 211 |
| Stock options exercised |  | - |  | (149) |  | $(1,005)$ |  | - |  | 3,718 |  | 2,564 |
| Restricted stock awards granted |  | - |  | $(1,371)$ |  | - |  | - |  | 1,371 |  | - |
| Performance share awards vested |  | - |  | (473) |  | - |  | - |  | 473 |  | - |
| Other |  | - |  | (668) |  | (37) |  | - |  | 1 |  | (704) |
| Balance at April 30, 2018 | \$ | 375 | \$ | 253,269 | \$ | 230,945 | \$ | $(19,951)$ | \$ | $(44,312)$ | \$ | 420,326 |

The accompanying notes are an integral part of the financial statements.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

## 1. Nature of Operations and Basis of Presentation

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, see Note 14, "Segment Information." We use low-cost, short lead-time 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.

The accompanying interim condensed consolidated financial statements include the accounts of Quanex Building Products Corporation. All intercompany accounts and transactions have been eliminated in consolidation. These financial statements have been prepared by us, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission (SEC). Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) have been condensed or omitted pursuant to such rules and regulations. The condensed consolidated balance sheet as of October 31, 2017 was derived from audited financial information, but does not include all disclosures required by U.S. GAAP. The accompanying financial statements should be read in conjunction with the audited consolidated financial statements and the notes thereto, included in our Annual Report on Form 10-K for the fiscal year ended October 31, 2017. In our opinion, the accompanying financial statements contain all adjustments (which consist of normal recurring adjustments, except as disclosed herein) necessary to fairly present our financial position, results of operations and cash flows for the interim periods. The results of operations for the periods presented are not necessarily indicative of the results to be expected for the full year or for any future periods.

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 on-going 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.

## Restructuring

We accrue one-time severance costs 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 rental in the current period. For other costs directly related to the restructuring effort, such as equipment moving costs, we expense in the period incurred.

We closed a kitchen and bathroom cabinet door business in Mexico in October 2016 and another plant in Lansing, Kansas in September 2017. We closed two United States vinyl operations plants in November 2016 and January 2017. Pursuant to these restructuring efforts, we expensed $\$ 0.2$ million and $\$ 0.6$ million during the three and six months ended April 30 , 2018 respectively, and $\$ 1.1$ million and $\$ 2.2$ million, respectively, for the comparable prior year periods. Our facility lease obligations were deemed to be at fair market value and we have not yet negotiated exit from our remaining lease obligations at two of these facilities. We expect to continue to incur costs related to these operating leases and other costs associated with these restructuring efforts during fiscal 2018.

In 2017, we evaluated the remaining depreciable lives of property, plant and equipment that will be abandoned or otherwise disposed as of the plant closures and recorded a change in estimate associated with the remaining useful lives of these assets. We

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

recorded accelerated depreciation of $\$ 1.4$ million and $\$ 3.0$ million related to this change in estimate for the three and six months ended April 30, 2017, respectively. In addition, we evaluated the remaining service lives of intangible assets with defined lives associated with our United States vinyl extrusion business and recorded a change in estimate associated with the remaining useful lives of a customer relationship intangible and a utility process intangible asset which resulted in an increase in amortization expense of $\$ 0.3$ million and $\$ 1.3$ million for the three and six months ended April 30, 2017, respectively. We do not expect to incur incremental depreciation and amortization expense in fiscal 2018 associated with these restructuring efforts.

## Acquisitions

As more fully described in our Annual Report on Form 10-K for the year ended October 31, 2017, on November 7, 2016, we paid $\$ 8.5$ million pursuant to an earn-out provision for the acquisition of HLP. We have included this earn-out payment under the caption "Acquisitions, net of cash acquired" in the accompanying cash flow statement for the six months ended April 30, 2017.

## Related Parties

We are party to operating leases associated with HLP for which a former owner, who is now our employee, has an ownership interest. These leases include our primary operating facilities, a finished goods warehouse, a mixing plant, and a manufacturing facility. The lease for the manufacturing facility which has a 20 -year term began in 2007, the lease for the manufacturing facility which has a 15 -year term began in 2012, the lease for the mixing plant has a 13.5 -year term which began in 2013, and the lease for the warehouse has a 20 -year life which began in 2017 . We have recorded rent expense pursuant to these agreements of approximately $\$ 0.6$ million and $\$ 1.2$ million, for the three and six months ended April 30,2018 , respectively and $\$ 0.3$ million and $\$ 0.6$ million, respectively, for the comparable prior year periods. Commitments under these lease arrangements are included in our operating lease commitments as disclosed in our Annual Report on Form 10-K for the year ended October 31, 2017.

## 2. Inventories

Inventories consisted of the following at April 30, 2018 and October 31, 2017:

|  | $\begin{gathered} \text { April 30, } \\ 2018 \\ \hline \end{gathered}$ |  | $\begin{gathered} \text { October 31, } \\ 2017 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (In thousands) |  |  |  |
| Raw materials | \$ | 51,113 | \$ | 50,472 |
| Finished goods and work in process |  | 46,179 |  | 40,087 |
| Supplies and other |  | 2,040 |  | 2,655 |
| Total |  | 99,332 |  | 93,214 |
| Less: Inventory reserves |  | 6,404 |  | 5,685 |
| Inventories, net | \$ | 92,928 | \$ | 87,529 |

Fixed costs related to excess manufacturing capacity, if any, have been expensed in the period they were incurred and, therefore, are not capitalized into inventory.

Our inventories at April 30, 2018 and October 31, 2017 were valued using the following costing methods:

|  | $\begin{gathered} \text { April 30, } \\ 2018 \end{gathered}$ |  | $\begin{gathered} \text { October 31, } \\ 2017 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (In thousands) |  |  |  |
| LIFO | \$ | 5,522 | \$ | 4,444 |
| FIFO |  | 87,406 |  | 83,085 |
| Total | \$ | 92,928 | \$ | 87,529 |

During interim periods, we estimate a LIFO reserve based on our expectations of year-end inventory levels and costs. If our calculations indicate that an adjustment at year-end will be required, we may record a proportionate share of this amount during the period. At year-end, we calculate the actual LIFO reserve and record an adjustment for the difference between the annual calculation and any estimates recognized during the interim periods. Because the interim projections are subject to many factors beyond our control, the results could differ significantly from the year-end LIFO calculation. We did not record an interim LIFO reserve adjustment for the six months ended April 30, 2018 and 2017.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

For inventories valued under the LIFO method, replacement cost exceeded the LIFO value by approximately $\$ 1.1$ million at April 30 , 2018 and October 31, 2017.

## 3. Goodwill and Intangible Assets

Goodwill
The change in the carrying amount of goodwill for the six months ended April 30, 2018 was as follows:

|  | Six Months Ended April 30, 2018 |  |
| :---: | :---: | :---: |
|  | (In thousands) |  |
| Beginning balance as of November 1, 2017 | \$ | 222,194 |
| Foreign currency translation adjustment |  | 2,534 |
| Balance as of the end of the period | \$ | 224,728 |

At our last annual test date, August 31, 2017, we evaluated the recoverability of goodwill at each of our five reportable units with goodwill balances and determined that our goodwill was not impaired. For the reporting unit included in our NA Cabinet Components operating segment, we performed the first step of the goodwill impairment test at March 31, 2018, as our annual long-range planning effort produced lower forecasted results compared to the prior year's process, a potential indicator of impairment. We determined the fair value of this reportable unit exceeded its carrying value by approximately $4.5 \%$ as of March 31, 2018, a reduction from the $5.2 \%$ at our August 31, 2017 testing date. Should our actual results for our NA Cabinet Components operating segment be lower than expected in the future, the corresponding goodwill could become impaired and the impairment could be material. The goodwill impairment testing process is more fully described in our Annual Report on Form 10-K for the year ended October 31, 2017. For a summary of the change in the carrying amount of goodwill by segment, see Note 13, "Segment Information", included herewith.

## Identifiable Intangible Assets

Amortizable intangible assets consisted of the following as of April 30, 2018 and October 31, 2017:

|  | April 30, 2018 |  |  |  | October 31, 2017 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gross Carrying Amount |  | Accumulated Amortization |  | Gross Carrying Amount |  | Accumulated Amortization |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| Customer relationships | \$ | 156,664 | \$ | 54,249 | \$ | 155,230 | \$ | 48,479 |
| Trademarks and trade names |  | 56,500 |  | 31,315 |  | 56,058 |  | 29,509 |
| Patents and other technology |  | 22,342 |  | 16,749 |  | 22,624 |  | 16,146 |
| Total | \$ | 235,506 | \$ | 102,313 | \$ | 233,912 | \$ | 94,134 |

Pursuant to a change in estimate with regard to the remaining service lives of certain intangible assets, we recorded incremental amortization expense of $\$ 0.3$ million and $\$ 1.3$ million for the three and six months ended April 30, 2017. See additional disclosure at Note 1, "Nature of Operations, Basis of Presentation and Significant Accounting Policies - Restructuring."

During the six months ended April 30, 2018, we retired identifiable intangible assets of $\$ 0.3$ million related to patents and other technology.
We had aggregate amortization expense related to intangible assets for the three and six months ended April 30, 2018 of $\$ 4.1$ million and $\$ 8.2$ million, respectively, and $\$ 4.4$ million and $\$ 9.9$ million, respectively, for the comparable prior year periods.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

Estimated remaining amortization expense, assuming current intangible balances and no new acquisitions, for each of the fiscal years ending October 31, is as follows (in thousands):

|  | Estimated <br> Amortization Expense |
| :--- | ---: | ---: |
|  | 8,055 |
| 2019 | 15,499 |
| 2020 | 14,442 |
| 2021 | 12,721 |
| 2022 | 12,096 |
| Thereafter | 70,380 |
| Total | $\$ \quad 133,193$ |

## 4. Debt and Capital Lease Obligations

Debt consisted of the following at April 30, 2018 and October 31, 2017:

|  | $\begin{gathered} \text { April 30, } \\ 2018 \end{gathered}$ |  | $\begin{gathered} \text { October 31, } \\ 2017 \\ \hline \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (In thousands) |  |  |  |
| Revolving Credit Facility | \$ | 79,000 | \$ | 84,000 |
| Term Loan A |  | 131,250 |  | 138,750 |
| Capital lease obligations and other |  | 18,584 |  | 18,764 |
| Unamortized deferred financing fees |  | $(1,810)$ |  | $(2,088)$ |
| Total debt | \$ | 227,024 | \$ | 239,426 |
| Less: Current maturities of long-term debt |  | 16,167 |  | 21,242 |
| Long-term debt | \$ | 210,857 | \$ | 218,184 |

As more fully described in our Annual Report on Form 10-K for the year ended October 31, 2017, we maintain a $\$ 450.0$ million credit agreement comprising a $\$ 150.0$ million Term Loan A and a $\$ 300.0$ million revolving credit facility (collectively, the "Credit Agreement"), 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 are outlined in the following table:

| Pricing Level | Consolidated Leverage Ratio | Commitment Fee | LIBOR Rate Loans | Base Rate Loans |
| :---: | :--- | :---: | :---: | :---: |
| I | Less than or equal to 1.50 to 1.00 | $0.200 \%$ | $1.50 \%$ | $0.50 \%$ |
| II | Greater than 1.50 to 1.00, but less than or <br> equal to 2.25 to 1.00 | $0.225 \%$ | $1.75 \%$ | $0.75 \%$ |
| III | Greater than 2.25 to 1.00 , but less than or | equal to 3.00 to 1.00 | $0.250 \%$ | $2.00 \%$ |
| IV | Greater than 3.00 to 1.00 | $0.300 \%$ | $2.25 \%$ | $1.00 \%$ |

In the event of default, outstanding borrowings would accrue interest at the Default Rate, as defined, whereby the obligations will bear interest at a per annum rate equal to $2 \%$ above the total per annum rate otherwise applicable.

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 total $\$ 15.0$ million for the succeeding twelve-month period, and are included in the accompanying condensed 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. Mandatory prepayments of "excess cash flow" as defined in the agreement are required until we achieve a Consolidated Leverage Ratio less than 2.25 to 1.00 , after which, prepayments of "excess cash flow" as defined in the agreement are no longer required.

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:

## Period

## Maximum Ratio

| 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 other transactions as further defined in the Credit Agreement. Substantially all of our domestic assets, with the exception of real property, are utilized as collateral for the Credit Agreement.

As of April 30, 2018, we had $\$ 210.3$ million of borrowings outstanding under the Credit Agreement (reduced by unamortized debt issuance costs of $\$ 1.8$ million), $\$ 5.3$ million of outstanding letters of credit and $\$ 18.6$ million outstanding primarily under capital leases. We had $\$ 215.7$ million available for use under the Credit Agreement at April 30, 2018. Outstanding borrowings under the Credit Agreement accrue interest at $3.90 \%$ per annum. Our weighted average borrowing rate for borrowings outstanding during the six months ended April 30, 2018 and 2017 was $3.55 \%$ and $2.76 \%$, respectively. We were in compliance with our debt covenants as of April 30, 2018.

## Other Debt Instruments

Historically, we have maintained certain capital lease obligations related to equipment purchases. On February 20, 2017, we entered into a capital lease for warehouse space at HLP with a related-party company that is owned by our employee, the former owner of HLP. This new warehouse was anticipated at the time of the HLP acquisition in June 2015, and the lease was negotiated at arms-length. The lease accrues interest at $3.57 \%$ per annum, and extends for a twenty-year period through the year 2036. We recorded the leased asset at inception at fair value of $\$ 16.6$ million and recorded a corresponding liability for our obligation under this lease. We are recognizing interest expense using the effective interest method over the term. Our cash commitments under this lease are $£ 0.9$ million per year for an aggregate of $£ 17.8$ million (or approximately $\$ 25.5$ million). The cost and accumulated depreciation of property, plant and equipment under all outstanding capital leases at April 30, 2018 was $\$ 23.4$ million and $\$ 2.7$ million, respectively, including $\$ 17.6$ million and $\$ 0.9$ million, respectively, related to the HLP warehouse lease. Our total obligations under capital leases and other total $\$ 18.6$ million at April 30, 2018, of which $\$ 1.7$ million is classified in the current portion of long-term debt and $\$ 16.9$ million is classified as long-term debt on the accompanying unaudited condensed consolidated balance sheet. These obligations accrue interest at an average rate of 3.6\%, and extend through the year 2036.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

## 5. Retirement Plans

## Pension Plan

Our non-contributory, single employer defined benefit pension plan covers a majority of our employees in the United States excluding employees of recent acquisitions. Employees of acquired companies may be covered after a transitional period. The net periodic pension cost for this plan for the three and six months ended April 30, 2018 and 2017 was as follows:

|  | Three Months Ended April 30, |  |  |  | Six Months Ended$\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| Service cost | \$ | 1,023 | \$ | 971 | \$ | 1,972 | \$ | 1,897 |
| Interest cost |  | 354 |  | 216 |  | 568 |  | 428 |
| Expected return on plan assets |  | (621) |  | (474) |  | $(1,087)$ |  | (931) |
| Amortization of net (gain) loss |  | (102) |  | 144 |  | 42 |  | 286 |
| Net periodic benefit cost | \$ | 654 | \$ | 857 | \$ | 1,495 | \$ | 1,680 |

During 2017, we contributed $\$ 3.6$ million to fund our plan, and we expect to make a contribution to our plan in September 2018 of approximately $\$ 3.6$ million.

## Other Plans

We also have a supplemental benefit plan covering certain executive officers and a non-qualified deferred compensation plan covering members of the Board of Directors and certain key employees. As of April 30, 2018 and October 31, 2017, our liability under the supplemental benefit plan was approximately $\$ 3.7$ million and $\$ 3.4$ million, respectively. The liability associated with the deferred compensation plan was approximately $\$ 3.7$ million and $\$ 4.0$ million as of April 30, 2018 and October 31, 2017, respectively. We record the current portion of liabilities associated with these plans under the caption "Accrued Liabilities," and the long-term portion under the caption "Other Liabilities" in the accompanying condensed consolidated balance sheets.

## 6. Warranty Obligations

We accrue warranty obligations as we recognize revenue associated with certain products. We make provisions for our warranty obligations based upon historical experience of costs incurred for such obligations adjusted, as necessary, for current conditions and factors. There are significant uncertainties and judgments involved in estimating our warranty obligations, including changing product designs, differences in customer installation processes and future claims experience which may vary from historical claims experience. Therefore, the ultimate amount we incur as warranty costs in the near and long-term may not be consistent with our current estimate.

A reconciliation of the activity related to our accrued warranty, including both the current and long-term portions (reported in accrued liabilities and other liabilities, respectively, on the accompanying condensed consolidated balance sheet) follows:

|  | Six Months Ended April 30, 2018 |  |
| :---: | :---: | :---: |
|  |  | (In thousands) |
| Beginning balance as of November 1, 2017 | \$ | 323 |
| Provision for warranty expense |  | 8 |
| Warranty costs paid |  | (15) |
| Total accrued warranty as of the end of the period | \$ | 316 |
| Less: Current portion of accrued warranty |  | 152 |
| Long-term portion of accrued warranty | \$ | 164 |

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

## 7. Income Taxes

To determine our income tax expense or benefit for interim periods, consistent with accounting standards, we apply the estimated annual effective income tax rate to year-to-date results. Our estimated annual effective tax rates for the six months ended April 30, 2018 and 2017 were $24.0 \%$ and $30.1 \%$, respectively, excluding discrete items. The change in the annual rate was due largely to the effect of the Tax Cuts and Jobs Act (the Act) which was signed into law on December 22, 2017.

The Act reduced our federal income tax rate from $35.0 \%$ to $23.3 \%$ for the fiscal year ending October 31, 2018. Discrete items contributing to the income tax benefit for the six months ended April 30, 2018 included $\$ 7.7$ million for the re-measurement of our deferred income tax assets and liabilities due to the decrease in the federal corporate income tax rate and a benefit of $\$ 0.3$ million for the true up of our accruals and related deferred taxes from prior year filings and settled tax audits, partially offset by a tax expense of $\$ 1.2$ million for the one-time mandatory transition tax on deemed repatriation of previously taxdeferred and unremitted foreign earnings.

The following table reconciles our effective income tax benefit rate to the federal statutory rate of $23.3 \%$ and $35.0 \%$ for the six months ended April 30, 2018 and 2017, respectively:

|  | Six months ended April 30, |  |
| :---: | :---: | :---: |
|  | 2018 | 2017 |
| United States tax at statutory rate | 23.3 \% | 35.0 \% |
| State and local income tax | 2.7 | 1.5 |
| Non-United States income tax | (1.0) | (7.1) |
| Other permanent differences | (1.0) | 0.7 |
| Deferred rate impact of enactment of tax reform | (266.5) | - |
| Tax impact of stock based compensation | (1.4) | - |
| Impact of deemed repatriation | 42.0 | - |
| Return to actual adjustments | (9.6) | - |
| Effective tax benefit rate | (211.5)\% | 30.1 \% |

The United States statutory rate of $23.3 \%$ reflects the period November 1, 2017 to December 31, 2017 at the previous $35.0 \%$ rate and the period January 1, 2018 to October 31, 2018 at the new $21.0 \%$ rate.

Given the significance of the Act, the SEC staff issued Staff Accounting Bulletin No. 118 (SAB 118), which allows registrants to record provisional amounts during a one year "measurement period". During the measurement period, impacts of the Act are expected to be recorded at the time a reasonable estimate for all or a portion of the effects can be made, and provisional amounts can be recognized and adjusted as information becomes available, prepared or analyzed. In accordance with SAB 118, a company must reflect the income tax effects of those aspects of the Act for which the accounting under ASC 740 is complete. To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Act.

As of April 30, 2018, we have not completed the accounting for the tax effects of the Act. However, we have made an initial assessment of the Act and recorded a discrete benefit of $\$ 6.5$ million during the six-month period ended April 30, 2018. We believe that our assessment of the re-measurement of our deferred income tax assets and liabilities to be complete, while we consider our tax expense related to the one-time mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings and our tax benefit of stock based compensation to be provisional. At this time, our estimate does not reflect changes in current interpretations of compensation deduction limitations, effects of any state tax law changes and uncertainties regarding interpretations that may arise as a result of federal tax reform. Any additional impact of the enactment of the Act will be recorded as they are identified during the one-year measurement period provided for in SAB 118.

In light of the Act, we repatriated $\$ 2.5$ million of excess cash from our insulating glass spacer division in the United Kingdom. This was repatriation of excess cash that was a portion of the one-time mandatory transition tax discussed above. We will continue to evaluate our foreign cash position and may repatriate additional foreign earnings in the future. With the exception of the one-time mandatory transition tax on deemed repatriation of previously taxdeferred and unremitted foreign earnings, we do not anticipate any material tax impact from any potential repatriation of previously unremitted foreign earnings.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

As of April 30, 2018, our liability for uncertain tax positions (UTP) of $\$ 0.6$ million relates to certain state tax items regarding the interpretation of tax laws and regulations. Judgment is required in assessing the future tax consequences of events that have been recognized in our financial statements or tax returns. The final outcome of the future tax consequences of legal proceedings, if any, as well as the outcome of competent authority proceedings, changes in regulatory tax laws, or interpretation of those tax laws could impact our financial statements. We are subject to the effect of these matters occurring in various jurisdictions. The disallowance of the UTP would not materially affect the annual effective tax rate. We do not believe any of the UTP at April 30, 2018 will be recognized within the next twelve months.

We evaluate the likelihood of realization of our deferred tax assets by considering both positive and negative evidence. We believe there is no need for a valuation allowance of the federal net operating losses. We will continue to evaluate our position throughout the year. We maintain a valuation allowance for certain state net operating losses which totaled $\$ 1.3$ million at April 30, 2018.

## 8. Contingencies

## Remediation and Environmental Compliance Costs

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.

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.

## Spacer Migration

We were notified by certain customers through our German operation that the vapor barrier employed on certain spacer products manufactured prior to March 2014 may permit spacer migration in certain extreme circumstances. This product does not have a specific customer warranty, but we have received claims from customers related to this issue, which we continue to investigate. The balance of the accrual for this matter was $\$ 1.3$ million and $\$ 1.6$ million at October 31, 2017 and April 30, 2018. During the six months ended April 30, 2018, we incurred additional claims of $\$ 1.0$ million, which were offset by payments of $\$ 0.7$ million. We cannot estimate any future liability with regard to unasserted claims. We evaluate this reserve at each balance sheet date. We investigate any claims, but we are not obligated to honor any future claims.

## Litigation

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. During the six months ended April 30, 2018, our insurance carrier reimbursed fees and expenses originally incurred as part of our defense of these various commercial sealant claims totaling $\$ 0.5$ million. 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

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

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.

## 9. Derivative Instruments

Our derivative activities are subject to the management, direction, and control of the Chief Financial Officer and Chief Executive Officer. Certain transactions in excess of specified levels require further approval from the Board of Directors.

The nature of our business activities requires the management of various financial and market risks, including those related to changes in foreign currency exchange rates. We have historically used foreign currency forwards and options to mitigate or eliminate certain of those risks at our subsidiaries. We use foreign currency contracts to offset fluctuations in the value of accounts receivable and accounts payable balances that are denominated in currencies other than the United States dollar, including the Euro, British Pound and Canadian Dollar. Currently, we do not enter into derivative transactions for speculative or trading purposes. We are exposed to credit loss in the event of nonperformance by the counterparties to our derivative transactions. We attempt to mitigate this risk by monitoring the creditworthiness of our counterparties and limiting our exposure to individual counterparties. In addition, we have established master netting agreements in certain cases to facilitate the settlement of gains and losses on specific derivative contracts.

We have not designated any of our derivative contracts as hedges for accounting purposes in accordance with the provisions under the Accounting Standards Codification Topic 815 "Derivatives and Hedging" (ASC 815). Therefore, changes in the fair value of these contracts and the realized gains and losses are recorded in the unaudited condensed consolidated statements of income (loss) for the three and six months ended April 30, 2018 and 2017 as follows (in thousands):

|  |  | Three Months Ended April 30, |  | Six Months Ended April 30, |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Location of gains (losses): |  | 2018 | 2017 | 2018 | 2017 |
| Other, net | Foreign currency derivatives | 26 | (34) | (29) | 110 |

We have chosen not to offset any of our derivative instruments in accordance with the provisions of ASC 815. Therefore, the assets and liabilities are presented on a gross basis on the accompanying condensed consolidated balance sheets. Less than $\$ 0.1$ million of fair value related to foreign currency derivatives was included in prepaid and other current assets as of April 30, 2018 and October 31, 2017. Less than $\$ 0.1$ million of fair value related to foreign currency derivatives was included in accrued liabilities as of October 31, 2017.

The following table summarizes the notional amounts and fair value of outstanding derivative contracts at April 30, 2018 and October 31, 2017 (in thousands):

|  |  | Notional as indicated |  |  |  | Fair Value in \$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { April 30, } \\ 2018 \end{gathered}$ |  | $\begin{gathered} \text { October 31, } \\ 2017 \end{gathered}$ |  | $\begin{gathered} \hline \text { April 30, } \\ 2018 \end{gathered}$ |  | $\begin{gathered} \hline \text { October 31, } \\ 2017 \end{gathered}$ |  |
| Foreign currency derivatives: |  |  |  |  |  |  |  |  |  |
| Sell EUR, buy USD | EUR | \$ | - | \$ | 1,271 | \$ | - | \$ | 24 |
| Sell CAD, buy USD | CAD |  | 124 |  | 320 |  | - |  | 1 |
| Sell GBP, buy USD | GBP |  | 196 |  | 75 |  | 5 |  | - |
| Buy EUR, sell USD | EUR |  | 12 |  | - |  | - |  | - |
| Buy EUR, sell GBP | EUR |  | 183 |  | 30 |  | 2 |  | (1) |
| Buy USD, sell EUR | USD |  | 17 |  | - |  | - |  | - |

For the classification in the fair value hierarchy, see Note 10, "Fair Value Measurement of Assets and Liabilities", included herewith.

## 10. Fair Value Measurement of Assets and Liabilities

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

assumptions about market data developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to Level 1 and the lowest priority to Level 3 . The three levels of the fair value hierarchy are described below:

- Level 1 - Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly including quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable for the asset or liability (e.g., interest rates) and inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 - Inputs that are both significant to the fair value measurement and unobservable.

As of April 30, 2018 and October 31, 2017, foreign currency derivatives were the only instruments being measured on a recurring basis. Less than $\$ 0.1$ million of foreign currency derivatives were included in total assets as of April 30, 2018 and less than $\$ 0.1$ million of foreign currency derivatives were included in total assets and total liabilities as of October 31, 2017. All of our derivative contracts are valued using quoted market prices from brokers or exchanges and are classified within Level 2 of the fair value hierarchy.

We have recorded land totaling approximately $\$ 2.4$ million at fair value on a non-recurring basis which is classified as a Level 3 measurement as of April 30, 2018 and October 31, 2017. The fair value was based on broker opinions received during the fourth fiscal quarter of the year ended October 31, 2017.

Carrying amounts reported on the balance sheet for cash, cash equivalents, accounts receivable and accounts payable approximate fair value due to the short-term maturity of these instruments. Our outstanding debt is variable rate debt that re-prices frequently, thereby limiting our exposure to significant change in interest rate risk. As a result, the fair value of our debt instruments approximates carrying value at April 30, 2018, and October 31, 2017 (Level 3 measurement).

## 11. Stock-Based Compensation

We have established and maintain an Omnibus Incentive Plan (2008 Plan) that provides for the granting of restricted stock awards, stock options, restricted stock units, performance share awards, performance restricted stock units, and other stock-based and cash-based awards. The 2008 Plan is administered by the Compensation and Management Development Committee of the Board of Directors.

The aggregate number of shares of common stock authorized for grant under the 2008 Plan is 7,650,000 as approved by shareholders. Any officer, key employee and/or non-employee director is eligible for awards under the 2008 Plan. We grant restricted stock units to non-employee directors on the first business day of each fiscal year. As approved by the Compensation \& Management Development Committee of our Board of Directors annually, we grant a mix of stock options, restricted stock awards, performance shares and/or performance restricted stock units to officers, management and key employees. Occasionally, we may make additional grants to key employees at other times during the year.

## Restricted Stock Awards

Restricted stock awards are granted to key employees and officers annually, and typically cliff vest over a three year period with service and continued employment as the only vesting criteria. The recipient of the restricted stock award is entitled to all of the rights of a shareholder, except that the award is nontransferable during the vesting period. The fair value of the restricted stock award is established on the grant date and then expensed over the vesting period resulting in an increase in additional paid-in-capital. Shares are generally issued from treasury stock at the time of grant.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

A summary of non-vested restricted stock awards activity during the six months ended April 30, 2018 is presented below:

|  | Restricted Stock Awards | Weighted Average Grant Date Fair Value per Share |  |
| :---: | :---: | :---: | :---: |
| Non-vested at October 31, 2017 | 284,300 | \$ | 19.66 |
| Granted | 73,400 |  | 20.70 |
| Cancelled | $(14,400)$ |  | 19.57 |
| Vested | $(61,800)$ |  | 20.28 |
| Non-vested at April 30, 2018 | 281,500 | \$ | 19.80 |

The total weighted average grant-date fair value of restricted stock awards that vested during each of the six month periods ended April 30, 2018 and 2017 was $\$ 1.3$ million and $\$ 1.2$ million, respectively. As of April 30, 2018, total unrecognized compensation cost related to unamortized restricted stock awards was $\$ 2.5$ million. We expect to recognize this expense over the remaining weighted average vesting period of 2.0 years.

## Stock Options

Historically, stock options have been awarded to key employees, officers and non-employee directors. Effective May 2015, the director compensation structure was revised to eliminate the annual grant of stock options to non-employee directors. Employee stock options typically vest ratably over a three-year period with service and continued employment as the vesting conditions. Our stock options may be exercised up to a maximum of ten years from the date of grant. The fair value of the stock options is determined on the grant date and expensed over the vesting period resulting in an increase in additional paid-incapital. For employees who are nearing retirement-eligibility, we recognize stock option expense ratably over the shorter of the vesting period or the period from the grant-date to the retirement-eligibility date. During December 2017, the Compensation \& Management Committee of the Board of Directors approved a change to the long-term incentive award program eliminating the grant of stock options and replacing this award with a grant of performance restricted stock units as further described below.

We use a Black-Scholes pricing model to estimate the fair value of stock options. A description of the methodology for the valuation assumptions was disclosed in our Annual Report on Form 10-K for the fiscal year ended October 31, 2017.

The following table provides a summary of assumptions used to estimate the fair value of our stock options issued during the six months ended April 30, 2017.

|  |  |
| :--- | :---: |
|  | Six Months Ended <br> April 30, 2017 |
| Weighted-average expected volatility | $34.7 \%$ |
| Risk-free interest rate | 5.7 |
| Expected dividend yield over expected term | $2.0 \%$ |
| Weighted average grant date fair value | $1.0 \%$ |

The following table summarizes our stock option activity for the six months ended April 30, 2018:

|  | Stock Options | Weighted Average Exercise Price |  | Weighted Average Remaining Contractual Term (in years) | Aggregate Intrinsic Value (000s) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Outstanding at October 31, 2017 | 2,152,758 | \$ | 17.44 |  |  |  |
| Granted | - |  | - |  |  |  |
| Exercised | $(199,097)$ |  | 12.88 |  |  |  |
| Forfeited/Expired | $(19,885)$ |  | 19.30 |  |  |  |
| Outstanding at April 30, 2018 | 1,933,776 | \$ | 17.90 | 4.8 | \$ | 1,556 |
| Vested or expected to vest at April 30, 2018 | 1,933,776 | \$ | 17.90 | 4.8 | \$ | 1,556 |
| Exercisable at April 30, 2018 | 1,668,799 | \$ | 17.66 | 4.3 | \$ | 1,556 |

Intrinsic value is the amount by which the market price of the common stock on the date of exercise exceeds the exercise price of the stock option. The total intrinsic value of stock options exercised during the six months ended April 30, 2018 and 2017 was $\$ 1.9$ million and $\$ 0.1$ million. The weighted-average grant date fair value of stock options that vested during the six months ended April 30, 2018 and 2017 was $\$ 1.5$ million and $\$ 1.8$ million, respectively. As of April 30, 2018, total unrecognized compensation cost related to stock options was $\$ 0.5$ million. We expect to recognize this expense over the remaining weighted average vesting period of 1.3 years.

## Restricted Stock Units

Restricted stock units may be awarded to key employees and officers from time to time, and annually to non-employee directors. The non-employee director restricted stock units vest immediately but are payable only upon the director's cessation of service unless an election is made by the non-employee director to settle and pay the award on an earlier specified date. Restricted stock units awarded to employees and officers typically cliff vest after a three-year period with service and continued employment as the vesting conditions. Restricted stock units are not considered outstanding shares and do not have voting rights, although the holder does receive a cash payment equivalent to the dividend paid, on a one-for-one basis, on our outstanding common shares. Once the criteria is met, each restricted stock unit is payable to the holder in cash based on the market value of one share of our common stock. Accordingly, we record a liability for the restricted stock units on our balance sheet and recognize any changes in the market value during each reporting period as compensation expense.

As of April 30, 2018, there were no non-vested restricted stock units. During the six month periods ended April 30, 2018 and 2017, non-employee directors received 18,050 and 24,560 restricted stock units, respectively, at a grant date fair value of $\$ 21.85$ and $\$ 15.65$, respectively, which vested immediately. During the six month periods ended April 30, 2018 and 2017, there were no payments to settle restricted stock units.

## Performance Share Awards

We have awarded annual grants of performance shares to key employees and officers. These awards cliff vest after a three-year period with service and performance measures (relative total shareholder return (R-TSR) and earnings per share (EPS) growth), as vesting conditions. However, the number of shares earned is variable depending on the metrics achieved, and the settlement method is $50 \%$ in cash and $50 \%$ in our common stock.

To account for these awards, we have bifurcated the portion subject to a market condition (relative total shareholder return) and the portion subject to an internal performance measure (earnings per share growth). We have further bifurcated these awards based on the settlement method, as the portion expected to settle in stock (equity component) and the portion expected to settle in cash (liability component).

To value the shares subject to the market condition, we utilized a Monte Carlo simulation model to arrive at a grant-date fair value. This amount will be expensed over the three-year term of the award with a credit to additional paid-in-capital. To value the shares subject to the internal performance measure, we used the value of our common stock on the date of grant as the grant-date fair value per share. This amount is being expensed over the three-year term of the award, with a credit to additional paid-in-capital, and could fluctuate depending on the number of shares ultimately expected to vest based on our assessment of the probability that the performance conditions will be achieved. For both performance conditions, the portion of the award expected to settle in cash is recorded as a liability and is being marked to market over the three-year term of the award, and can fluctuate
depending on the number of shares ultimately expected to vest. Depending on the achievement of the performance conditions, $0 \%$ to $200 \%$ of the awarded performance shares may ultimately vest.

The following table summarizes our performance share grants and the grant date fair value for the EPS and R-TSR performance metrics:


On December 3, 2017, 123,600 shares vested pursuant to the December 2014 grant, resulting in the issuance of 25,340 shares of common stock and a cash payment of $\$ 0.6$ million. The November 2016 and December 2017 grants include a return on invested capital (ROIC) metric which, if achieved, could enhance the number of shares that are ultimately issued but cannot exceed the maximum (200\%). Due to the uncertainty with regard to achieving this metric, no value has been assigned. In the event and at such time the metric is deemed achievable, compensation expense will begin to be recognized through the remaining vesting period. During the three and six months ended April 30, 2018, we recorded a decrease in compensation expense of $\$ 1.0$ million and $\$ 1.6$ million, respectively, which reflects a decrease in the number of shares expected to vest in December 2018 associated with the December 2, 2015 performance share grant, as well as current expense for other outstanding performance share grants. During the three and six months ended April 30, 2017, we recorded compensation expense of $\$ 0.7$ million and $\$ 1.7$ million related to our performance share awards.

Performance share awards are not considered outstanding shares and do not have voting rights, although dividends are accrued over the performance period and will be payable in cash based upon the number of performance shares ultimately earned.

The performance shares are excluded from the diluted weighted-average shares used to calculate earnings per share until the performance criteria is probable to result in the issuance of contingent shares. As of April 30, 2018, we have deemed no shares related to the December 2015 grant of performance shares as probable to vest.

## Performance Restricted Stock Units

We awarded performance restricted share units to key employees and officers in December 2017. These awards cliff vest upon a three-year service period with the absolute total shareholder return of our common stock over this three-year term as the vesting criteria. The number of shares earned is variable depending on the metric achieved, and the settlement method is $100 \%$ in our common stock, with accrued dividends paid in cash at the time of vesting, assuming the shares had been outstanding throughout the performance period.

To value the shares, we utilized a Monte Carlo simulation model to arrive at a grant-date fair value. This amount will be adjusted for forfeitures and expensed over the three-year term of the award with a credit to additional paid-in-capital. Depending on the achievement of the performance conditions, a minimum of $0 \%$ and a maximum of $150 \%$ of the awarded performance restricted stock units may vest. Specifically, the awards vest on a continuum with the following Absolute Total Shareholder Return (A-TSR) milestones:

| Vesting Level | Vesting Criteria | Percentage of Award Vested |
| :---: | :---: | :---: |
| Level 1 | A-TSR greater than or equal to $50 \%$ | 150\% |
| Level 2 | A-TSR less than $50 \%$ and greater than or equal to 20\% | 100\% |
| Level 3 | A-TSR less than $20 \%$ and greater than or equal to -20\% | 50\% |
| Level 4 | A-TSR less than -20\% | -\% |

On December 7, 2017, we awarded 78,200 performance restricted share units with a grant date fair value of $\$ 17.76$ per share. During the six months ended April 30, 2018, 2,100 of the performance restricted share units were forfeited. During the three and

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

six months ended April 30, 2018, we recorded compensation expense of approximately $\$ 0.1$ million and $\$ 0.2$ million, respectively, related to our performance share restricted units.

Similar to performance shares, the performance restricted stock units are not considered outstanding shares, do not have voting rights, and are excluded from diluted weighted-average shares used to calculate earnings per share until the performance criteria is probable to result in the issuance of contingent shares.

## Treasury Shares

We record treasury stock purchases under the cost method whereby the entire cost of the acquired stock is recorded as treasury stock. Shares are generally issued from treasury stock at the time of grant of restricted stock awards, and upon the exercise of stock options and upon the vesting of performance shares and performance restricted stock units. On the subsequent issuance of treasury shares, we record proceeds in excess of cost as an increase in additional paid in capital. A deficiency of such proceeds relative to costs would be applied to reduce paid-in-capital associated with prior issuances to the extent available, with the remainder recorded as a charge to retained earnings. We recorded a charge to retained earnings of $\$ 1.0$ million during the six months ended April 30, 2018.

The following table summarizes the treasury stock activity during the six months ended April 30, 2018:

|  | Six Months Ended <br> April 30, 2018 |
| :--- | ---: |
| Beginning balance as of November 1, 2017 | $2,670,743$ |
| Restricted stock awards granted | $(73,400)$ |
| Performance share awards vested | $(25,340)$ |
| Stock options exercised | $(199,097)$ |
| Balance at April 30,2018 | $2,372,906$ |

## 12. Other (Expense) Income

Other (expense) income included under the caption "Other, net" on the accompanying condensed consolidated statements of income (loss), consisted of the following for the three and six months ended April 30, 2018 and 2017:

|  | Three Months Ended$\qquad$ April 30, |  |  |  | Six Months Ended$\qquad$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| Foreign currency transaction (losses) gains | \$ | (158) | \$ | (121) | \$ | 196 | \$ | 365 |
| Foreign currency derivative gains (losses) |  | 26 |  | (34) |  | (29) |  | 110 |
| Interest income |  | 25 |  | 19 |  | 40 |  | 46 |
| Other |  | 2 |  | 1 |  | 5 |  | 5 |
| Other, net | \$ | (105) | \$ | (135) | \$ | 212 | \$ | 526 |

## 13. Segment Information

We present three reportable business segments in accordance with Topic 280-10-50, "Segment Reporting" (ASC 280): (1) North American Engineered Components segment ("NA Engineered Components"), comprising four operating segments primarily focused on the fenestration market in North America including vinyl profiles, insulating glass (IG) spacers, screens \& other fenestration components; (2) European Engineered Components segment ("EU Engineered Components"), comprising our United Kingdom-based vinyl extrusion business, manufacturing vinyl profiles \& conservatories, and the European insulating glass business manufacturing IG spacers; and (3) North American Cabinet Components segment ("NA Cabinet Components"), comprising solely the North American cabinet door and components business acquired in November 2015. We maintain an Unallocated Corporate \& Other grouping which includes LIFO inventory adjustments, corporate office charges, and inter-segment eliminations, less an allocation of a portion of the general and administrative costs associated with the corporate office which 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 cost. Certain costs are not allocated to the reportable operating segments, but remain in Unallocated Corporate \& Other, including 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 all segments, depreciation of corporate assets, interest expense, other, net, income taxes and inter-segment eliminations. The accounting policies of our operating segments are the same as those used to prepare the accompanying condensed consolidated financial statements. Corporate general and administrative expense allocated during the three and six month periods ended April 30, 2018 were $\$ 4.9$ million and $\$ 10.0$ million, respectively, and $\$ 4.2$ million and $\$ 8.5$ million, respectively, for the prior year comparable periods.

ASC 280 permits aggregation of operating segments based on factors including, but not limited to: (1) similar nature of products serving the building products industry, primarily the fenestration business; (2) similar production processes, although there are some differences in the amount of automation amongst operating plants; (3) similar types or classes of customers, namely the primary OEMs; (4) similar distribution methods for product delivery, although the extent of the use of third-party distributors will vary amongst the businesses; (5) similar regulatory environment; and (6) converging long-term economic similarities.

Segment information for the three and six months ended April 30, 2018 and 2017, and total assets as of April 30, 2018 and October 31, 2017 are summarized in the following table (in thousands):

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

|  | NA Eng. Comp. |  | EU Eng. Comp. |  | NA CabinetComp. |  | Unallocated Corp. \& Other |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Three Months Ended April 30, 2018 |  |  |  |  |  |  |  |  |  |  |
| Net sales | \$ | 114,157 | \$ | 38,824 | \$ | 62,668 | \$ | $(1,437)$ | \$ | 214,212 |
| Depreciation and amortization |  | 6,808 |  | 2,527 |  | 3,839 |  | 136 |  | 13,310 |
| Operating income (loss) |  | 5,559 |  | 2,453 |  | 202 |  | (78) |  | 8,136 |
| Capital expenditures |  | 3,567 |  | 1,456 |  | 2,313 |  | 66 |  | 7,402 |
| Three Months Ended April 30, 2017 |  |  |  |  |  |  |  |  |  |  |
| Net sales | \$ | 111,165 | \$ | 34,205 | \$ | 65,080 | \$ | $(1,317)$ | \$ | 209,133 |
| Depreciation and amortization |  | 8,540 |  | 2,306 |  | 3,394 |  | 140 |  | 14,380 |
| Operating income (loss) |  | 3,969 |  | 2,937 |  | 2,002 |  | $(4,283)$ |  | 4,625 |
| Capital expenditures |  | 5,689 |  | 1,807 |  | 1,913 |  | - |  | 9,409 |
| Six Months Ended April 30, 2018 |  |  |  |  |  |  |  |  |  |  |
| Net sales | \$ | 216,883 | \$ | 72,820 | \$ | 118,590 | \$ | $(2,415)$ | \$ | 405,878 |
| Depreciation and amortization |  | 13,819 |  | 4,976 |  | 7,525 |  | 263 |  | 26,583 |
| Operating income (loss) |  | 7,172 |  | 3,740 |  | $(2,675)$ |  | (590) |  | 7,647 |
| Capital expenditures |  | 7,464 |  | 3,864 |  | 3,771 |  | 114 |  | 15,213 |
| Six Months Ended April 30, 2017 |  |  |  |  |  |  |  |  |  |  |
| Net sales | \$ | 217,248 | \$ | 65,774 | \$ | 123,710 | \$ | $(2,503)$ | \$ | 404,229 |
| Depreciation and amortization |  | 18,478 |  | 4,362 |  | 6,669 |  | 277 |  | 29,786 |
| Operating income (loss) |  | 4,039 |  | 5,140 |  | 1,175 |  | $(9,570)$ |  | 784 |
| Capital expenditures |  | 9,400 |  | 4,951 |  | 2,997 |  | 202 |  | 17,550 |
| As of April 30, 2018 |  |  |  |  |  |  |  |  |  |  |
| Total assets | \$ | 249,021 | \$ | 223,303 | \$ | 286,305 | \$ | 6,142 | \$ | 764,771 |
| As of October 31, 2017 |  |  |  |  |  |  |  |  |  |  |
| Total assets | \$ | 258,315 | \$ | 219,622 | \$ | 285,457 | \$ | 10,485 | \$ | 773,879 |

During 2017, we transferred two operating plants that manufacture wood products (fenestration and non-fenestration products) from the NA Engineered Components segment to the NA Cabinet Components segment, to better align wood-related products under a common segment management team, which is expected to generate operational efficiencies and synergies. The operating results and total assets presented reflect this transfer as if it occurred on November 1, 2016.

The following table reconciles our segment presentation, as previously reported in our Quarterly Report on Form 10-Q for the three and six months ended April 30, 2017, to the current presentation (in thousands):

| Three Months Ended April 30,2017 | As Previously Reported |  | Reclassification |  | Current Presentation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (in thousands) |  |  |  |  |  |
| NA Engineered Components |  |  |  |  |  |  |
| Net sales | \$ | 116,410 | \$ | $(5,245)$ | \$ | 111,165 |
| Depreciation and amortization |  | 8,669 |  | (129) |  | 8,540 |
| Operating income (loss) |  | 4,937 |  | (968) |  | 3,969 |
| Capital expenditures | \$ | 5,940 | \$ | (251) |  | 5,689 |
| EU Engineered Components |  |  |  |  |  |  |
| Net sales | \$ | 34,205 | \$ | - | \$ | 34,205 |
| Depreciation and amortization |  | 2,306 |  | - |  | 2,306 |
| Operating income (loss) |  | 2,937 |  | - |  | 2,937 |
| Capital expenditures | \$ | 1,807 | \$ | - |  | 1,807 |
| NA Cabinet Components |  |  |  |  |  |  |
| Net sales | \$ | 59,147 | \$ | 5,933 | \$ | 65,080 |
| Depreciation and amortization |  | 3,265 |  | 129 |  | 3,394 |
| Operating income (loss) |  | 1,034 |  | 968 |  | 2,002 |
| Capital expenditures | \$ | 1,662 | \$ | 251 | \$ | 1,913 |
| Unallocated Corporate \& Other |  |  |  |  |  |  |
| Net sales | \$ | (629) | \$ | (688) | \$ | $(1,317)$ |
| Depreciation and amortization |  | 140 |  | - |  | 140 |
| Operating income (loss) |  | $(4,283)$ |  | - |  | $(4,283)$ |
| Capital expenditures | \$ | - | \$ | - | \$ | - |


| $\underline{\text { Six Months Ended April 30, } 2017}$ | As Previously Reported |  | Reclassification |  | Current Presentation |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (in thousands) |  |  |  |  |  |
| NA Engineered Components |  |  |  |  |  |  |
| Net sales | \$ | 227,483 | \$ | $(10,235)$ | \$ | 217,248 |
| Depreciation and amortization |  | 18,747 |  | (269) |  | 18,478 |
| Operating income (loss) |  | 5,238 |  | $(1,199)$ |  | 4,039 |
| Capital expenditures | \$ | 9,696 | \$ | (296) | \$ | 9,400 |
| EU Engineered Components |  |  |  |  |  |  |
| Net sales | \$ | 65,774 | \$ | - | \$ | 65,774 |
| Depreciation and amortization |  | 4,362 |  | - |  | 4,362 |
| Operating income (loss) |  | 5,140 |  | - |  | 5,140 |
| Capital expenditures | \$ | 4,951 | \$ | - | \$ | 4,951 |
| NA Cabinet Components |  |  |  |  |  |  |
| Net sales | \$ | 112,144 | \$ | 11,566 | \$ | 123,710 |
| Depreciation and amortization |  | 6,400 |  | 269 |  | 6,669 |
| Operating income (loss) |  | (24) |  | 1,199 |  | 1,175 |
| Capital expenditures | \$ | 2,701 | \$ | 296 | \$ | 2,997 |
| Unallocated Corporate \& Other |  |  |  |  |  |  |
| Net sales | \$ | $(1,172)$ | \$ | $(1,331)$ | \$ | $(2,503)$ |
| Depreciation and amortization |  | 277 |  | - |  | 277 |
| Operating income (loss) |  | $(9,570)$ |  | - |  | $(9,570)$ |
| Capital expenditures | \$ | 202 | \$ | - | \$ | 202 |

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table summarizes the change in the carrying amount of goodwill by segment for the six months ended April 30, 2018 (in thousands):

|  | NA Eng. Comp. |  | EU Eng. Comp. |  | NA CabinetComp. |  | $\begin{gathered}\text { Unallocated } \\ \text { Corp. \& Other }\end{gathered}$ |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance as of October 31, 2017 | \$ | 38,712 | \$ | 69,735 | \$ | 113,747 | \$ | - | \$ | 222,194 |
| Foreign currency translation adjustment |  | - |  | 2,534 |  | - |  | - |  | 2,534 |
| Balance as of April 30, 2018 | \$ | 38,712 | \$ | 72,269 | \$ | 113,747 | \$ | - | \$ | 224,728 |

For further details of Goodwill, see Note 4, "Goodwill \& Intangible Assets", located herewith.
We did not allocate non-operating loss or income tax benefit to the reportable segments. The following table reconciles operating loss as reported above to net income (loss) for the three and six months ended April 30, 2018 and 2017:

|  | Three Months Ended April 30, |  |  |  | Six Months Ended April 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| Operating loss | \$ | 8,136 | \$ | 4,625 | \$ | 7,647 | \$ | 784 |
| Interest expense |  | $(2,502)$ |  | $(2,391)$ |  | $(4,943)$ |  | $(4,551)$ |
| Other, net |  | (105) |  | (135) |  | 212 |  | 526 |
| Income tax benefit |  | $(1,393)$ |  | (637) |  | 6,167 |  | 977 |
| Net income (loss) | \$ | 4,136 | \$ | 1,462 | \$ | 9,083 | \$ | $(2,264)$ |

## Product Sales

We produce a wide variety of products that are used in the fenestration industry, including window and door systems; accessory trim profiles with real wood veneers and wood grain laminate finishes; window spacer systems; extruded vinyl products; metal fabrication; and astragals, thresholds and screens. In addition, we produce certain non-fenestration products, including kitchen and bath cabinet doors and components, trim moldings, solar edge tape, plastic decking, fencing, water retention barriers, conservatory roof components, and other products.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

The following table summarizes our product sales for the three and six months ended April 30, 2018 and 2017 into general groupings by segment to provide additional information to our shareholders. For all periods presented, this table reflects the reclassification of two operating plants transferred from the NA Engineered Components segment to the NA Cabinet Components segment, as applicable.

|  | Three months ended April 30, |  |  |  | Six Months Ended April 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2018 |  | 2017 |  |
|  | (In thousands) |  |  |  |  |  |  |  |
| NA Engineered Components: |  |  |  |  |  |  |  |  |
| United States - fenestration | \$ | 97,005 | \$ | 92,327 | \$ | 184,787 | \$ | 182,039 |
| International - fenestration |  | 8,897 |  | 8,646 |  | 15,906 |  | 14,986 |
| United States - non-fenestration |  | 4,697 |  | 6,698 |  | 8,843 |  | 12,529 |
| International - non-fenestration |  | 3,558 |  | 3,494 |  | 7,347 |  | 7,694 |
|  | \$ | 114,157 | \$ | 111,165 | \$ | 216,883 | \$ | 217,248 |
| EU Engineered Components: |  |  |  |  |  |  |  |  |
| United States - fenestration | \$ | - | \$ | 79 | \$ | - | \$ | 114 |
| International - fenestration |  | 32,847 |  | 30,536 |  | 62,716 |  | 59,441 |
| International - non-fenestration |  | 5,977 |  | 3,590 |  | 10,104 |  | 6,219 |
|  | \$ | 38,824 | \$ | 34,205 | \$ | 72,820 | \$ | 65,774 |
| NA Cabinet Components: |  |  |  |  |  |  |  |  |
| United States - fenestration | \$ | 3,403 | \$ | 3,363 | \$ | 6,850 | \$ | 6,696 |
| United States - non-fenestration |  | 58,698 |  | 60,965 |  | 110,703 |  | 115,655 |
| International - non-fenestration |  | 567 |  | 752 |  | 1,037 |  | 1,359 |
|  | \$ | 62,668 | \$ | 65,080 | \$ | 118,590 | \$ | 123,710 |
| Unallocated Corporate \& Other |  |  |  |  |  |  |  |  |
| Eliminations | \$ | $(1,437)$ | \$ | $(1,317)$ | \$ | $(2,415)$ | \$ | $(2,503)$ |
|  | \$ | $(1,437)$ | \$ | $(1,317)$ | \$ | $(2,415)$ | \$ | $(2,503)$ |
| Net sales | \$ | 214,212 | \$ | 209,133 | \$ | 405,878 | \$ | 404,229 |

## 14. Earnings Per Share

We compute basic earnings (loss) per share by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Diluted earnings per common and potential common shares include the weighted average of additional shares associated with the incremental effect of dilutive employee stock options, non-vested restricted stock as determined using the treasury stock method prescribed by U.S. GAAP and contingent shares associated with performance share awards, if dilutive.

Basic and diluted earnings per share for the each of the three months ended April 30, 2018 and 2017, and for the six months ended April 30, 2018, were calculated as follows (in thousands, except per share data):

|  | Three Months Ended April 30, 2018 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Income |  | Weighted Average Shares | Per Share |  |
| Basic earnings per common share | \$ | 4,136 | 34,796 | \$ | 0.12 |
| Effect of dilutive securities: |  |  |  |  |  |
| Stock options |  |  | 183 |  |  |
| Restricted stock awards |  |  | 136 |  |  |
| Diluted earnings per common share | \$ | 4,136 | 35,115 | \$ | 0.12 |

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

|  | Three Months Ended April 30, 2017 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Income |  | Weighted Average Shares | Per Share |  |
| Basic earnings per common share | \$ | 1,462 | 34,146 | \$ | 0.04 |
| Effect of dilutive securities: |  |  |  |  |  |
| Stock options |  |  | 440 |  |  |
| Restricted stock awards |  |  | 121 |  |  |
| Performance shares |  |  | 62 |  |  |
| Diluted earnings per common share | \$ | 1,462 | 34,769 | \$ | 0.04 |


|  | Six Months Ended April 30, 2018 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Income |  | Weighted Average Shares | Per Share |  |
| Basic earnings per common share | \$ | 9,083 | 34,731 | \$ | 0.26 |
| Effect of dilutive securities: |  |  |  |  |  |
| Stock options |  |  | 289 |  |  |
| Restricted stock awards |  |  | 146 |  |  |
| Diluted earnings per common share | \$ | 9,083 | 35,166 | \$ | 0.26 |

Basic and diluted loss per share was $\$ 0.07$ for the six months ended April 30, 2017. The computation of diluted earnings per share excludes outstanding stock options and other common stock equivalents when their inclusion would be anti-dilutive. This is always the case when an entity incurs a net loss. During the six months ended April 30, 2017, 426,572 shares of common stock equivalents and 121,023 shares of restricted stock were excluded from the computation of diluted earnings per share. In addition, 61,800 potentially dilutive contingent shares related to performance share awards for the six months ended April 30, 2017 were excluded.

We had common stock equivalents that were potentially dilutive in future earnings per share calculations of 562,533 and $1,077,055$ for the three and six months ended April 30, 2018, respectively, and 760,712 and $1,025,007$, respectively, for the prior year comparable periods. Such dilution will be dependent on the excess of the market price of our stock over the exercise price and other components of the treasury stock method.

## 15. New Accounting Guidance

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 industryspecific guidance. We have reviewed our revenue streams and are currently in the process of evaluating all material contract types and costs that may be impacted by this amended guidance. We will adopt this guidance using the modified retrospective approach in the first quarter of 2019 with a cumulative adjustment to retained earnings.

In July 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (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 lastin first-out method and the retail inventory method. We adopted the provisions of ASU 2016-09 effective November 1, 2017, with no material impact on our consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. This guidance prescribes the presentation of excess tax benefits or deficiencies derived from book and tax timing differences associated with stock-based compensation arrangements and certain related statement of cash flow implications. We adopted the provisions of ASU 2016-09 effective November 1, 2017, as noted below with no significant impact on our consolidated financial statements.

## QUANEX BUILDING PRODUCTS CORPORATION

## NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)

- Excess tax benefits or deficiencies for share-based payments are to be recorded in the income tax provision, rather than as an adjustment to additional paid-in-capital. We made this change on a prospective basis;
- Cash flows related to excess tax benefits or deficiencies are included in net cash provided by operating activities rather than as a financing activity. We adopted this change retrospectively, which resulted in an increase to net cash provided by operating activities and a corresponding decrease to net cash provided by financing activities of less than $\$ 0.1$ million for the six months ended April 30, 2017;
- Cash paid to taxing authorities when withholding shares from an employee's vesting or exercise of equity-based compensation awards for taxwithholding purposes is to be classified as net cash used in financing activities rather than as an operating activity. We adopted this change retrospectively, which resulted in an increase to net cash provided by operating activities and a corresponding decrease to net cash provided by financing activities of $\$ 1.0$ million for the six months ended April 30, 2017;
- We elected to continue to withhold shares associated with stock-based compensation vesting or exercises to satisfy the minimum statutory tax withholding requirements, rather than electing to withhold at a higher rate; and
- We elected to continue to estimate forfeitures rather than account for forfeitures as they occur.

In February 2018, the FASB issued ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income. This amendment requires disclosure of the accounting policy for releasing income tax effects from accumulated other comprehensive income. It also provides an option for entities to reclassify the income tax effects of the Tax Cuts and Jobs Act from accumulated other comprehensive income to retained earnings. We elected to early adopt this ASU effective November 1, 2017. We record income tax effects related to our unrecognized pension obligations in accumulated other comprehensive income as discussed in our Annual Report on Form 10-K for the year ended October 31, 2017. We have not elected to reclassify the income tax effects of the Tax Cuts and Jobs Act from accumulated other comprehensive income to retained earnings.

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 a good relationship with our suppliers, subcontractors, and key customers; and
- the resolution of litigation and other legal proceedings.

For information on additional factors that could cause actual results to differ materially, please refer to the section entitled "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended October 31, 2017.

## 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.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with the accompanying unaudited condensed consolidated financial statements and related notes as of April 30, 2018, and for the three and six months ended April 30, 2018 and 2017, included elsewhere herein. For additional information pertaining to our business, including risk factors which should be considered before investing in our common stock, refer to our Annual Report on Form 10-K for the fiscal year ended October 31, 2017.

## 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. 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 use low-cost, short lead-time 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 currently have three reportable business segments: (1) North American Engineered Components segment ("NA Engineered Components"), comprising 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"), comprising 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"), comprising our cabinet door and components operations. 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. The accounting policies of our operating segments are the same as those used to prepare our accompanying condensed consolidated financial statements.

In an effort to focus on protecting margins and improving cash flows, we implemented a strategy to reduce our sales volume with certain low-margin customers. During 2017, we rationalized capacity and closed two United States vinyl plants and two cabinet door plants, relocating assets to improve overall operational efficiency. Pursuant to these restructuring efforts, we expensed $\$ 0.2$ million and $\$ 0.6$ million during the three and six months ended April 30, 2018 respectively, and $\$ 1.1$ million and $\$ 2.2$ million, respectively, for the comparable prior year periods. We recognized $\$ 1.7$ million and $\$ 4.3$ million of accelerated depreciation and amortization associated with related assets during the three and six months ended April 30, 2017.

We continue to invest in organic growth initiatives and 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.

## Recent Transactions and Events

On December 22, 2017, President Trump signed into law a sweeping tax reform bill which includes the following provisions which impact United States corporations: (1) reduction of the statutory federal corporate tax rate from $35 \%$ to $21 \%$; (2) shifting to a territorial tax system in which foreign earnings could be repatriated through a $100 \%$ dividends received deduction; (3) imposing a one-time tax on un-repatriated earnings of $15.5 \%$ on cash and $8 \%$ on other assets; (4) doubling bonus depreciation to $100 \%$ for five years and allowing used property to qualify; (5) limiting net interest expense deductions to $30 \%$ of adjusted taxable income; (6) limiting NOL deductions to $80 \%$ of taxable income; and (7) repealing the corporate alternative minimum tax. We have made an initial assessment of this new tax law and recorded a discrete benefit of $\$ 6.5$ million during the six months ended April 30, 2018. We expect the effective tax rate for fiscal 2018 to be approximately $8 \%$, or $24 \%$ excluding these discrete items.

## 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 in the United States. To assess the housing market in the United Kingdom, we use published reports by D\&G Consulting, a consulting and research firm. We obtain market data from Freedonia Group and Catalina Research and KCMA, each a consulting and research firm, for insight into the United States residential wood cabinet demand.

Reports and forecasts from these sources indicate continued growth in the markets we serve. The NAHB has forecasted calendar-year housing starts (excluding manufactured units) to remain stable in 2018 and increase slightly in 2019. Ducker indicated that window shipments in the R\&R market are expected to increase approximately $3 \%$ to $4 \%$ annually through 2020. Derived from reports published by Ducker, the overall growth in window shipments for the trailing twelve months ended March 31, 2018 was $3.9 \%$. During this period, growth in new construction increased $5.7 \%$, while growth in R\&R activity increased $2.4 \%$. Growth in new construction continues to outpace the growth in R\&R. D\&G Consulting forecasts an increase in housing in the United Kingdom through 2020. Catalina Research estimates residential semi-custom cabinet demand in the U.S. to grow between $4 \%$ to $6 \%$ annually through 2020.

We utilize several commodities in our business for which pricing can fluctuate, including polyvinyl resin (PVC), titanium dioxide (TiO2), petroleum products, aluminum and wood. For the majority of our customers and critical suppliers, we have price adjusters in place which effectively share the base passthrough price changes for our primary 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 for all commodities, 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, particularly with regard to hardwoods. In addition, some of these commodities, such as silicone, are in high demand, particularly in Europe, which can affect the cost of the raw materials, a portion of which we may not be able to fully recover.

Our business continues to be impacted by fluctuations in foreign exchange rates as the United States dollar has weakened recently compared to other currencies where we have operations, including the United Kingdom.

## Results of Operations

## Three Months Ended April 30, 2018 Compared to Three Months Ended April 30, 2017

|  | Three Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | Change \$ |  | \% Variance |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 214.2 | \$ | 209.1 | \$ | 5.1 | 2 \% |
| Cost of sales (excluding depreciation and amortization) |  | 168.7 |  | 162.1 |  | 6.6 | (4)\% |
| Selling, general and administrative |  | 23.8 |  | 26.9 |  | (3.1) | 12 \% |
| Restructuring charges |  | 0.2 |  | 1.1 |  | (0.9) | 82 \% |
| Depreciation and amortization |  | 13.3 |  | 14.4 |  | (1.1) | 8 \% |
| Operating income | \$ | 8.2 | \$ | 4.6 | \$ | 3.6 | 78 \% |
| Interest expense |  | (2.5) |  | (2.4) |  | (0.1) | (4)\% |
| Other, net |  | (0.2) |  | (0.1) |  | (0.1) | (100)\% |
| Income tax expense |  | (1.4) |  | (0.6) |  | (0.8) | (133)\% |
| Net income | \$ | 4.1 | \$ | 1.5 | \$ | 2.6 | 173 \% |

Our period-over-period results by reportable segment follow.

## Changes Related to Operating Income by Reportable Segment:

## NA Engineered Components

|  | Three Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | \% Variance |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 114.2 | \$ | 111.0 | \$ | 3.2 | 3\% |
| Cost of sales (excluding depreciation and amortization) |  | 88.1 |  | 84.2 |  | 3.9 | (5)\% |
| Selling, general and administrative |  | 13.4 |  | 13.4 |  | - | -\% |
| Restructuring charges |  | 0.2 |  | 0.9 |  | (0.7) | 78\% |
| Depreciation and amortization |  | 6.8 |  | 8.5 |  | (1.7) | 20\% |
| Operating income | \$ | 5.7 | \$ | 4.0 | \$ | 1.7 | 43\% |

Operating income margin
Net Sales. Net sales increased $\$ 3.2$ million, or $3 \%$, for the three months ended April 30, 2018 compared to the same period in 2017. We experienced $\$ 7.7$ million of revenue growth driven both by market growth and new volume for our insulating spacer and window components businesses and an increase of $\$ 1.6$ million related to price and surcharges for commodities, particularly resin used in our vinyl business. These increases were partially offset by a $\$ 6.1$ million decrease volume primarily driven by our strategy to shed lower margin business at our United States vinyl business resulting in the loss of a major customer during 2017, as well as the sale of our wood flooring business on October 31, 2017.

Cost of Sales. The cost of sales increased $\$ 3.9$ million, or 5\%, when comparing the three months ended April 30, 2018 to the same period in 2017. Cost of sales increased due to the corresponding increase in volumes coupled with inflationary cost increases in both raw materials and labor. A portion of the raw material increases are expected to be recovered in the second half of the year as resin and oil surcharges take effect on a lag basis.

Selling, General and Administrative. Selling, general and administrative expenses remained flat when comparing the three months ended April 30, 2018 to the same period in 2017. An increase in the allocation of corporate expenses year-over-year of $\$ 0.4$ million were offset by decreases resulting from the restructuring efforts completed at our US vinyl business during fiscal 2017.

Restructuring Charges. Restructuring charges of $\$ 0.2$ million primarily relate to facility lease expenses related to two vinyl extrusion plants which were closed in November 2016 and January 2017 in the United States that have not been sublet or otherwise exited as of April 30, 2018.

Depreciation and Amortization. Depreciation and amortization expense decreased $\$ 1.7$ million, or $20 \%$ when comparing the three months ended April 30, 2018 and 2017. The decrease reflects the impact of restructuring efforts in 2017 which included incremental depreciation of $\$ 1.4$ million associated with an October 2016 change in estimate of the remaining service lives of assets displaced or abandoned, and accelerated amortization of $\$ 0.3$ million related to a change in estimate for certain related intangible assets. The incremental depreciation expense associated with property, plant and equipment placed into service during the trailing twelve months ended April 30, 2018, was offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

## EU Engineered Components

|  | Three Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | Variance \% |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 38.8 | \$ | 34.2 | \$ | 4.6 | 13\% |
| Cost of sales (excluding depreciation and amortization) |  | 27.6 |  | 23.8 |  | 3.8 | (16)\% |
| Selling, general and administrative |  | 6.3 |  | 5.2 |  | 1.1 | (21)\% |
| Depreciation and amortization |  | 2.5 |  | 2.3 |  | 0.2 | (9)\% |
| Operating income | \$ | 2.4 | \$ | 2.9 | \$ | (0.5) | (17)\% |
| Operating income margin |  | 6\% |  | 8\% |  |  |  |

Net Sales. Net sales increased $\$ 4.6$ million when comparing the three months ended April 30, 2018 to the same period in 2017. This increase reflects a $\$ 3.6$ million favorable impact associated with changes in foreign exchange rates, $\$ 3.0$ million of volume increases, and $\$ 1.3$ million of base price increases, partially offset by $\$ 3.4$ million due to the intentional shed of some lower margin customers at HLP.

Cost of Sales. The cost of sales increased $\$ 3.8$ million, or $16 \%$, for the three months ended April 30, 2018 compared to the same period in 2017. Foreign currency contributed $\$ 1.3$ million of the increase. The remaining increase was driven by increased volume, continued vinyl resin cost increases and notable silicone cost increases.

Selling, General and Administrative. Selling, general and administrative expense increased $\$ 1.1$ million for the three months ended April 30, 2018 compared to the same period in 2017. The increase was primarily attributable to foreign currency exchange rate changes, increased staffing costs at our U.K. vinyl business, and an increase in the allocation of corporate expenses year-over-year of $\$ 0.1$ million.

Depreciation and Amortization. Depreciation and amortization expense increased $\$ 0.2$ million for the three months ended April 30, 2018 compared to the same period in 2017. The increase reflects depreciation and amortization expense associated with property, plant and equipment placed into service during the trailing twelve months ended April 30, 2018 and, to a lesser extent, the effect of changes in exchange rates.

## NA Cabinet Components

|  | Three Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | Variance \% |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 62.6 | \$ | 65.1 | \$ | (2.5) | (4)\% |
| Cost of sales (excluding depreciation and amortization) |  | 54.1 |  | 55.1 |  | (1.0) | 2\% |
| Selling, general and administrative |  | 4.5 |  | 4.4 |  | 0.1 | (2)\% |
| Restructuring charges |  | - |  | 0.2 |  | (0.2) | 100\% |
| Depreciation and amortization |  | 3.8 |  | 3.4 |  | 0.4 | (12)\% |
| Operating income | \$ | 0.2 | \$ | 2.0 | \$ | (1.8) | (90)\% |
| Operating income margin |  | -\% |  | 3\% |  |  |  |

Net Sales. Net sales decreased $\$ 2.5$ million, or 4\%, for the three months ended April 30, 2018 compared to the same period in 2017. On a year-overyear basis, we experienced a $\$ 1.3$ million decrease in sales volume related to the closure of two facilities last year and additional lower margin business we shed and $\$ 3.7$ million of market declines in existing business, partially offset by an increase of $\$ 2.5$ million in revenue associated with price and raw material surcharges.

Cost of Sales. The cost of sales decreased $\$ 1.0$ million, or $2 \%$, for the three months ended April 30, 2018 compared with the same period in 2017, primarily related to lower sales volume. Margins were unfavorably impacted by higher wood and material costs which will be recovered through surcharges that take effect during the second half of the year, and an overall unfavorable product mix.

Selling, General and Administrative. Selling, general and administrative expense increased $\$ 0.1$ million for the three months ended April 30, 2018 compared to the same period in 2017, and primarily related to higher corporate allocations year-over-year.

Restructuring Charges. Restructuring charges of $\$ 0.2$ million in the three months ended April 30, 2018 represent equipment moving and other related costs associated with the Mexican plant closure effected in October 2016.

Depreciation and Amortization. Depreciation and amortization expense increased $\$ 0.4$ million for the three months ended April 30, 2018 compared with the same period in 2017. This increase primarily reflects accelerated depreciation expense associated with a change in estimate for useful lives of certain assets associated with a plant re-layout. The incremental depreciation expense associated with assets placed in service during the trailing twelve months ended April 30, 2017 was offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

|  | Three Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | Variance \% |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | (1.4) | \$ | (1.2) | \$ | (0.2) | (17)\% |
| Cost of sales (excluding depreciation and amortization) |  | (1.1) |  | (1.0) |  | (0.1) | 10\% |
| Selling, general and administrative |  | (0.4) |  | 3.9 |  | (4.3) | 110\% |
| Depreciation and amortization |  | 0.2 |  | 0.2 |  | - | -\% |
| Operating income (loss) | \$ | (0.1) | \$ | (4.3) | \$ | 4.2 | 98\% |

Net Sales. Net sales for Unallocated Corporate \& Other represents the elimination of inter-segment sales for the three months ended April 30, 2018 and 2017. The change between periods reflects the amount of inter-segment sales.

Cost of Sales. Cost of sales for Unallocated Corporate \& Other consists of the elimination of inter-segment sales, profit in inventory, LIFO reserve adjustments and other costs. For the three months ended April 30, 2018 and 2017, the change of $\$ 0.1$ million was primarily related to the elimination of intersegment sales.

Selling, General and Administrative. Selling, general and administrative expenses decreased $\$ 4.3$ million for the three months ended April 30, 2018 compared to the same period in 2017. Of this decrease, $\$ 2.3$ million relates to stock based compensation, reflecting revised estimates of performance shares expected to vest in December 2018 pursuant to the December 2015 grant and the impact of a lower stock price on incentive liabilities that are marked-tomarket. In addition, we recorded a decrease in professional fees year-over-year related to legal costs that are being paid directly by our insurance company in 2018 to defend claims of an alleged defect in a commercial sealant product, as described in Note 8, "Contingencies," to the accompanying unaudited condensed consolidated financial statements contained elsewhere herein.

Depreciation and Amortization. Depreciation and amortization expense remained flat for the three months ended April 30, 2018 compared to the same period in 2017. Relatively few new assets were placed in service at corporate during the trailing twelve months ended April 30, 2018.

## Changes related to Non-Operating Items:

Interest Expense. Interest expense increased $\$ 0.1$ million for the three months ended April 30, 2018 compared to the same period in 2017. This increase is primarily attributable to higher interest rates on our revolving credit facilities and the addition of the manufacturing facility lease at HLP, offset somewhat by a lower average outstanding debt balance.

Other, net. The decrease in other, net of $\$ 0.1$ million at April 30, 2018 compared to the same period in 2017 relates primarily to changes in net foreign exchange transaction gains.

Income Taxes. We recorded income tax expense of $\$ 1.4$ million for the three months ended April 30, 2018, an effective rate of $25.2 \%$, and income tax expense of $\$ 0.6$ million for the three months ended April 30, 2017, an effective rate of $30.3 \%$. The difference in the effective rates between these periods relates to the Tax Cuts and Jobs Act (the Act) which was signed into law on December 22, 2017. The act reduced our federal tax rate from $35 \%$ to $23.3 \%$ for the fiscal year ending October 31, 2018. The effective rate for the three months ended April 30, 2018 was further impacted by a discrete charge of $\$ 0.1$ million related to the exercise of equity-based compensation awards, and the effective rate for the corresponding prior year period reflects a decrease in permanent items.

|  | Six Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | Change \$ |  | \% Variance |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 405.9 | \$ | 404.2 | \$ | 1.7 | -\% |
| Cost of sales (excluding depreciation and amortization) |  | 323.2 |  | 317.1 |  | 6.1 | (2)\% |
| Selling, general and administrative |  | 47.9 |  | 54.3 |  | (6.4) | 12 \% |
| Restructuring charges |  | 0.6 |  | 2.2 |  | (1.6) | 73 \% |
| Depreciation and amortization |  | 26.6 |  | 29.8 |  | (3.2) | 11 \% |
| Operating income | \$ | 7.6 | \$ | 0.8 | \$ | 6.8 | 850 \% |
| Interest expense |  | (4.9) |  | (4.6) |  | (0.3) | (7)\% |
| Other, net |  | 0.2 |  | 0.5 |  | (0.3) | 60 \% |
| Income tax benefit |  | 6.2 |  | 1.0 |  | 5.2 | 520 \% |
| Net income (loss) | \$ | 9.1 | \$ | (2.3) | \$ | 11.4 | $496 \%$ |

Our period-over-period results by reportable segment follow.

## Changes Related to Operating Income by Reportable Segment:

## NA Engineered Components

|  | Six Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | \% Variance |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 216.9 | \$ | 217.2 | \$ | (0.3) | -\% |
| Cost of sales (excluding depreciation and amortization) |  | 168.2 |  | 166.3 |  | 1.9 | (1)\% |
| Selling, general and administrative |  | 27.2 |  | 26.9 |  | 0.3 | (1)\% |
| Restructuring charges |  | 0.5 |  | 1.5 |  | (1.0) | 67\% |
| Depreciation and amortization |  | 13.8 |  | 18.5 |  | (4.7) | 25\% |
| Operating income | \$ | 7.2 | \$ | 4.0 | \$ | 3.2 | 80\% |
| Operating income margin |  | 3\% |  | 2\% |  |  |  |

Net Sales. Net sales decreased $\$ 0.3$ million for the six months ended April 30, 2018 compared to the same period in 2017. We experienced market growth of $\$ 12.3$ million year-over-year across the core product sales and an increase in revenue of $\$ 1.2$ million related to price and resin and oil based surcharges. This was offset by a $\$ 13.8$ million decrease related to the US vinyl business we shed and the divestiture of the wood flooring business.

Cost of Sales. The cost of sales increased $\$ 1.9$ million, or $1 \%$, when comparing the six months ended April 30, 2018 to the same period in 2017. The largest drivers of the increase are inflationary increases from both raw material and labor costs.

Selling, General and Administrative. Selling, general and administrative expenses increased $\$ 0.3$ million, or $1 \%$ when comparing the six months ended April 30, 2018 to the same period in 2017. This increase was due entirely to an increase in the corporate allocation. Absent the allocation expenses declined slightly.

Restructuring Charges. Restructuring charges of $\$ 0.5$ million for the six months ended April 30, 2018 primarily relate to facility lease expenses related to two U.S. vinyl extrusion plants which were closed in November 2016 and January 2017 and have not been sublet or otherwise exited as of April 30, 2018.

Depreciation and Amortization. Depreciation and amortization expense decreased $\$ 4.7$ million, or $25 \%$ when comparing the three-month periods ended April 30, 2018 and 2017. The decrease reflects the impact of restructuring efforts in 2017 which included accelerated depreciation of $\$ 3.0$ million and amortization of $\$ 1.3$ million associated with an October 2016 change in estimate of the remaining service lives of select fixed and intangible assets. The incremental depreciation expense associated with property, plant and equipment placed into service during the trailing twelve months ended April 30, 2018, was more than offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

EU Engineered Components

|  | Six Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | Variance \% |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 72.8 | \$ | 65.8 | \$ | 7.0 | 11\% |
| Cost of sales (excluding depreciation and amortization) |  | 52.4 |  | 46.3 |  | 6.1 | (13)\% |
| Selling, general and administrative |  | 11.7 |  | 10.0 |  | 1.7 | (17)\% |
| Depreciation and amortization |  | 5.0 |  | 4.4 |  | 0.6 | (14)\% |
| Operating income | \$ | 3.7 | \$ | 5.1 | \$ | (1.4) | (27)\% |
| Operating income margin |  | 5\% |  | 8\% |  |  |  |

Net Sales. Net sales increased $\$ 7.0$ million when comparing the six months ended April 30, 2018 to the same period in 2017. This increase reflects a $\$ 6.8$ million favorable foreign exchange impact, volume increases of $\$ 4.1$ million, and $\$ 2.5$ million base price increases, partially offset by $\$ 6.4$ million of lower margin U.K. vinyl business that was shed during 2017.

Cost of Sales. The cost of sales increased $\$ 6.1$ million for the six months ended April 30, 2018 compared to the same period in 2017. The primary drivers of the increase were the continued U.K. vinyl material cost inflation and the change in foreign exchange rates.

Selling, General and Administrative. Selling, general and administrative expense increased $\$ 1.7$ million, for the six months ended April 30, 2018 compared to the same period in 2017. The increase was primarily attributable to foreign currency exchange rate changes, increased staffing costs at our U.K. vinyl business, and an increase in the allocation of corporate expenses year-over-year of $\$ 0.3$ million.

Depreciation and Amortization. Depreciation and amortization expense increased $\$ 0.6$ million for the six months ended April 30, 2018 compared to the same period in 2017. The increase was primarily attributable to foreign currency exchange rate changes and depreciation expense associated with property, plant and equipment place into service during the trailing twelve months.

## NA Cabinet Components

|  | Six Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | Variance \% |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | 118.6 | \$ | 123.7 | \$ | (5.1) | (4)\% |
| Cost of sales (excluding depreciation and amortization) |  | 104.3 |  | 106.4 |  | (2.1) | 2\% |
| Selling, general and administrative |  | 9.3 |  | 8.7 |  | 0.6 | (7)\% |
| Restructuring charges |  | 0.1 |  | 0.7 |  | (0.6) | 86\% |
| Depreciation and amortization |  | 7.5 |  | 6.7 |  | 0.8 | (12)\% |
| Operating (loss) income | \$ | (2.6) | \$ | 1.2 | \$ | (3.8) | (317)\% |
| Operating (loss) income margin |  | (2) |  | 1\% |  |  |  |

Net Sales. Net sales decreased $\$ 5.1$ million, or $4 \%$, for the six months ended April 30, 2018 compared to the same period in 2017. On a year-over-year basis, we experienced a $\$ 3.7$ million decrease in sales volume related to the closure of two facilities last year and additional lower margin business we shed and $\$ 5.1$ million of market declines in existing business, partially offset by an increase of $\$ 3.7$ million in price and raw material surcharges.

Cost of Sales. The cost of sales decreased $\$ 2.1$ million, or $2 \%$, for the six months ended April 30, 2018 compared with the same period in 2017, primarily related to the lower sales volume. Margins were unfavorably impacted by higher wood and material costs which will be recovered through surcharges that take effect during the second half of the year, and an overall unfavorable product mix.

Selling, General and Administrative. Selling, general and administrative expense increased $\$ 0.6$ million for the six months ended April 30, 2018 compared to the same period in 2017, related to some additional administrative headcount, normal wage inflation, and higher medical insurance and employee benefit costs, as well as higher corporate allocations year-over-year of $\$ 0.4$ million.

Restructuring Charges. Restructuring charges of $\$ 0.1$ million for the six months ended April 30, 2018 primarily represent costs associated with a Kansas plant closure effected in September 2017. Restructuring charges of $\$ 0.7$ million in the six months ended April 30, 2017 represent equipment moving and other related costs associated with the Mexican plant closure effected in October 2016.

Depreciation and Amortization. Depreciation and amortization expense increased $\$ 0.8$ million for the six months ended April 30, 2018 compared with the same period in 2017. This increase reflects accelerated depreciation expense associated with a change in estimate for useful lives of certain assets associated with a plant re-layout. The incremental depreciation expense associated with assets placed in service during the trailing twelve months ended April 30, 2017 was offset by the run-off of depreciation expense associated with existing assets and disposals during this period.

## Unallocated Corporate \& Other

|  | Six Months Ended April 30, |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | \$ Change |  | Variance \% |
|  | (Dollars in millions) |  |  |  |  |  |  |
| Net sales | \$ | (2.4) | \$ | (2.5) | \$ | 0.1 | 4\% |
| Cost of sales (excluding depreciation and amortization) |  | (1.7) |  | (1.9) |  | 0.2 | (11)\% |
| Selling, general and administrative |  | (0.3) |  | 8.7 |  | (9.0) | 103\% |
| Depreciation and amortization |  | 0.3 |  | 0.2 |  | 0.1 | 50\% |
| Operating loss | \$ | (0.7) | \$ | (9.5) | \$ | 8.8 | 93\% |

Net Sales. Net sales for Unallocated Corporate \& Other represents the elimination of inter-segment sales for the three months ended April 30, 2018 and 2017. The change between periods reflects the amount of inter-segment sales.

Cost of Sales. Cost of sales for Unallocated Corporate \& Other consists of the elimination of inter-segment sales, profit in inventory, LIFO reserve adjustments and other costs. For the six months ended April 30, 2018 and 2017, the change of $\$ 0.2$ million was primarily related to the elimination of intersegment sales.

Selling, General and Administrative. Selling, general and administrative expenses decreased $\$ 9.0$ million for the six months ended April 30, 2018 compared to the same period in 2017. Stock based compensation decreased $\$ 5.9$ million based on revised lower estimates of performance shares expected to vest in December 2018, the impact of the lower stock price on other long-term liabilities that are marked-to-market, and the impact of issuing performance restricted stock units in December 2017 instead of stock options. The results for the six months ended April 30, 2017 include a charge of $\$ 1.2$ million primarily associated with options granted to retirement-eligible participants which vested immediately. In addition, we recorded a decrease in professional fees year-over-year related to reimbursement of legal costs incurred to defend claims of an alleged defect in a commercial sealant product, as described in Note 9 , "Contingencies," to the accompanying unaudited condensed consolidated financial statements contained elsewhere herein. Partially offsetting those declines was an increase in salaries associated with increased headcount and wage inflation and related incentive accruals.

Depreciation and Amortization. Depreciation and amortization expense increased $\$ 0.1$ million for the six months ended April 30, 2018 compared to the same period in 2017 associated with assets placed into service at corporate during the twelve months ended April 30, 2018.

## Changes related to Non-Operating Items:

Interest Expense. Interest expense increased $\$ 0.3$ million for the six months ended April 30, 2018 compared to the same period in 2017. This increase is primarily attributable to higher interest rates on our revolving credit facilities and the addition of the warehouse facility lease at HLP during the second quarter of 2017, offset somewhat by a lower average outstanding debt balance.

Other, net. The decrease in other, net of $\$ 0.3$ million at April 30, 2018 compared to the same period in 2017 relates primarily to changes in net foreign exchange transaction gains.

Income Taxes. Our estimated annual effective tax rates for the six months ended April 30, 2018 and 2017 were $24 \%$ and $30 \%$, respectively. The change in the annual rate was due to the Tax Cuts and Jobs Act (the Act) which was signed into law on December 22, 2017. The Act reduced our federal income tax rate from $35 \%$ to $23.3 \%$ for the fiscal year ending October 31, 2018. Discrete items impacting the income tax benefit for the six months ended April 30, 2018 were a benefit of $\$ 7.7$ million for the re-measurement of our deferred income tax assets and liabilities due to the decrease in the federal corporate income tax rate, and a benefit of $\$ 0.3$ million for the true up of our accruals and related deferred taxes from prior year filings and settled tax audits, partially offset by a tax expense of $\$ 1.2$ million for the one-time mandatory transition tax on deemed repatriation of previously tax-deferred and unremitted foreign earnings.

## 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.
We maintain a $\$ 450.0$ million credit agreement comprising a $\$ 150.0$ million Term Loan A and a $\$ 300.0$ million revolving credit facility (collectively, the Credit Agreement). 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 $2.25 \%$ ). The applicable rate during the six months ended April 30,2018 was LIBOR $+2.00 \%$. In addition to the Consolidated Leverage Ratio covenant, we are required to meet a Consolidated Fixed Charge Coverage Ratio covenant, and there are limitations on certain transactions including our ability to incur indebtedness, incur liens, dispose of material assets, acquire businesses, make restricted payments and pay dividends (limited to $\$ 10.0$ million per year). We are amortizing deferred financing fees of $\$ 1.8$ million straight-line over the remaining term of the facility.

As of April 30, 2018, we had $\$ 10.1$ million of cash and equivalents, $\$ 210.3$ million outstanding under the Credit Agreement, $\$ 5.3$ million of outstanding letters of credit and $\$ 18.6$ million outstanding under capital leases. We had $\$ 215.7$ million available for use under the Credit Agreement at April 30, 2018.

We repatriated $\$ 2.5$ million of foreign cash in the first half of fiscal 2018. We expect to repatriate excess cash moving forward and utilize the funds to retire debt or meet current working capital needs.

## Analysis of Cash Flow

The following table summarizes our cash flow results for the six months ended April 30, 2018 and 2017:

|  |  | Six Months Ended |  |
| :--- | :--- | :--- | :---: |
|  |  |  |  |

Operating Activities. Cash provided by operating activities for the six months ended April 30, 2018 increased by approximately $\$ 4.9$ million compared to the six months ended April 30, 2017. Cash receipts were impacted favorably by higher net income and lower incentive accrual payments in December 2018 compared to the prior year, due to financial performance and the timing of volume discount payments to customers. In addition, our inventory levels are down year-over-year, as we invested more in an inventory build in 2017 than in 2018.

Investing Activities. Cash used for investing activities decreased $\$ 10.5$ million when comparing the six months ended April 30, 2018 to the same period in 2017. In 2017, we paid $\$ 8.5$ million related to the HLP acquisition earn-out, with no corresponding cash payment in 2018. Our investment in capital expenditures declined by $\$ 2.3$ million for the six months ended April 30, 2018 compared to the same period in 2017, which was offset by a decline in proceeds from the sale of capital assets during these periods.

Financing Activities. Cash used for financing activities was $\$ 13.9$ million for the six months ended April 30, 2018, primarily attributable to $\$ 12.9$ million of net repayments of debt, dividends paid to our shareholders of $\$ 2.8$ million, and $\$ 0.7$ million of cash paid for payroll taxes related to stock based compensation, partially offset by $\$ 2.6$ million of proceeds received from stock
option exercises. For the six months ended April 30, 2017, cash used for financing activities was $\$ 2.1$ million, primarily attributable to dividends paid to our shareholders of $\$ 2.7$ million and for payroll taxes related to stock based compensation of $\$ 1.0$ million, partially offset by $\$ 1.7$ million of proceeds received from stock option exercises.

## 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 six months ended April 30, 2018 and 2017. We maintain cash balances in foreign countries which total $\$ 6.6$ million as of April 30, 2018. During the six months ended April 30, 2018, we repatriated $\$ 2.5$ million of foreign earnings from our insulating spacer division in the United Kingdom. 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 capitalization of the acquisition.

## 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.

For a description of our critical accounting policies and estimates, see our Annual Report on Form 10-K for the fiscal year ended October 31, 2017. Our critical accounting policies and estimates have not changed materially during the six months ended April 30, 2018.

## New Accounting Pronouncements

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (FASB) or other standards setting bodies that we adopt as of the specified effective date. Unless otherwise discussed, we believe the impact of any recently issued standards that are not yet effective are either not applicable to us at this time or will not have a material impact on our consolidated financial statements upon adoption.

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 industryspecific guidance. We have reviewed our revenue streams and are currently in the process of evaluating all material contract types and costs that may be impacted by this amended guidance. We will adopt this guidance using the modified retrospective approach in the first quarter of 2019 with a cumulative adjustment to retained earnings.

Refer to our Annual Report on Form 10-K for the year ended October 31, 2017 for additional standards we are currently evaluating.

## Item 3. 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 April 30, 2018, a hypothetical $1.0 \%$ increase or decrease in interest rates could result in approximately $\$ 2.1$ million of additional pretax charges or credit to our operating results per year. This sensitivity is impacted by the amount of borrowings under our credit facilities, and amounts outstanding under finance leases at HLP.

## 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 April 30, 2018 and October 31, 2017, were as follows (in thousands):

|  |  | Notional as indicated |  |  |  | Fair Value in \$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { April 30, } \\ 2018 \end{gathered}$ |  | October 31, 2017 |  | $\begin{gathered} \text { April 30, } \\ 2018 \\ \hline \end{gathered}$ |  | October 31, 2017 |  |
| Foreign currency derivatives: |  |  |  |  |  |  |  |  |  |
| Sell EUR, buy USD | EUR | \$ | - | \$ | 1,271 | \$ | - | \$ | 24 |
| Sell CAD, buy USD | CAD |  | 124 |  | 320 |  | - |  | 1 |
| Sell GBP, buy USD | GBP |  | 196 |  | 75 |  | 5 |  | - |
| Buy EUR, sell USD | EUR |  | 12 |  | - |  | - |  | - |
| Buy EUR, sell GBP | EUR |  | 183 |  | 30 |  | 2 |  | (1) |
| Buy USD, sell EUR | USD |  | 17 |  | - |  | - |  | - |

At April 30, 2018 and October 31, 2017, 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 condensed consolidated statements of income (loss). To the extent the gain or loss on the derivative instrument offsets the gain or loss from the re-measurement of the underlying foreign currency balance, changes in exchange rates should have no effect. See Note 10, "Derivative Instruments," to the accompanying unaudited condensed consolidated financial statements contained elsewhere herein.

We currently have an unhedged foreign currency position associated with the debt borrowed to facilitate the HLP acquisition. We are evaluating our options with regard to hedging our exposure. For the three and six months ended April 30, 2018, we recorded unrealized losses of $\$ 0.1$ million and unrealized gains of $\$ 0.2$ million, respectively, and an unrealized gains of $\$ 0.3$ million and $\$ 0.6$ million, respectively, for the comparable prior year periods associated with this foreign currency exposure.

## 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 certain 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 contracts to insulate against significant fluctuations in the price for various hardwood products used as the primary raw material for kitchen and bathroom cabinet doors and components. We are exposed to short-term volatility in wood prices due to a lag in the timing of price updates which generally are updated quarterly, though contractual mechanics could delay changes from taking effect beyond three months.

While we maintain surcharges and other adjusters to manage our exposure to changes in the prices of our critical raw materials, we utilize several commodities in our business that are not covered by contractual surcharges or adjusters for which pricing can fluctuate, including titanium dioxide (TiO2), aluminum, silicone and other inputs. Further discussion of our industry risks is included within our Annual Report on Form 10-K for the year ended October 31, 2017.

## Item 4. Controls and Procedures

## Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, we have evaluated the effectiveness of our disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (1934 Act) as of April 30, 2018. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of April 30, 2018, the disclosure controls and procedures are effective.

## Changes in Internal Control over Financial Reporting

There have been no changes in internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the 1934 Act) during the most recent fiscal quarter that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

## PART II. OTHER INFORMATION

## Item 6. Exhibits

The exhibits required to be furnished pursuant to Item 6 are listed in the Exhibit Index filed herewith, which Exhibit Index is incorporated herein by reference.

## SIGNATURES

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

## QUANEX BUILDING PRODUCTS CORPORATION

Date: June 5, 2018
/s/ Brent L. Korb
Brent L. Korb
Senior Vice President - Finance and Chief Financial Officer (Principal Financial Officer)

| 3.1 | Restated Certificate of Incorporation of the Registrant dated as of March 4, 2016, filed as Exhibit 3.1 of the Registrant's Current |
| :---: | :---: |
|  | Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on March 7, 2016, and incorporated herein by reference. |
| 3.2 | Third Amended and Restated Bylaws of the Registrant as of March 4, 2016, filed as Exhibit 3.2 of the Registrant's Quarterly Report on Form 10-Q_(Reg. No. 001-33913) for the quarter ended July 31, 2016, and incorporated herein by reference. |
| 4.1 | Form of Registrant's Common Stock certificate, filed as Exhibit 4.1 of Amendment No. 1 to the Registrant's Registration Statement on Form 10 (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on February 14, 2008, and incorporated herein by reference. |
| 4.2 | Credit Agreement dated as of July 29, 2016, among the Company; certain of its subsidiaries as guarantors; Wells Fargo Bank, National Association, as administrative agent; Bank of America, N.A., as syndication agent; Wells Fargo Securities LLC and Merrill Lynch, Pierce, Fenner \& Smith Incorporated as joint lead arrangers; and the lenders party thereto, filed as Exhibit 10.1 of the Registrant's Current Report on Form 8-K (Reg. No. 001-33913) as filed with the Securities and Exchange Commission on August 1, 2016, and incorporated herein by reference. |
| *31.1 | Certification by chief executive officer pursuant to Rule 13a-14(a)/15d-14(a). |
| *31.2 | Certification by chief financial officer pursuant to Rule 13a-14(a)/15d-14(a). |
| *32.1 | Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| *101.INS | XBRL Instance Document |
| *101.SCH | XBRL Taxonomy Extension Schema Document |
| *101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document |
| *101.DEF | XBRL Taxonomy Extension Definition Linkbase Document |
| *101.LAB | XBRL Taxonomy Extension Label Linkbase Document |
| *101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document |

* Filed herewith

As permitted by Item 601(b)(4)(iii)(A) of Regulation S-K, the Registrant has not filed with this Quarterly Report on Form 10-Q certain instruments defining the rights of holders of long-term debt of the Registrant and its subsidiaries because the total amount of securities authorized under any of such instruments does not exceed $10 \%$ of the total assets of the Registrant and its subsidiaries on a consolidated basis. The Registrant agrees to furnish a copy of any such agreements to the Securities and Exchange Commission upon request.

## CHIEF EXECUTIVE OFFICER CERTIFICATION

I, William C. Griffiths, certify that:

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

June 5, 2018
/s/ William C. Griffiths
William C. Griffiths
Chairman of the Board, President and Chief Executive Officer
(Principal Executive Officer)

## CHIEF FINANCIAL OFFICER CERTIFICATION

## I, Brent L. Korb, certify that:

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

June 5, 2018
/s/ Brent L. Korb
Brent L. Korb
Senior Vice President - Finance and Chief Financial Officer
(Principal Financial Officer)

## Certification Pursuant To Section 906 of the Sarbanes-Oxley Act of 2002

We hereby certify that the accompanying Quarterly Report on Form 10-Q of Quanex Building Products Corporation for the quarter ended April 30, 2018 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Report fairly presents, in all material respects, the financial condition and results of operations of Quanex Building Products Corporation.

June 5, 2018
/s/ William C. Griffiths
William C. Griffiths
Chairman of the Board, President and Chief
Executive Officer
(Principal Executive Officer)
/s/ Brent L. Korb
Brent L. Korb
Senior Vice President-Finance and
Chief Financial Officer
(Principal Financial Officer)

