



Where innovation
delivers performance

FERRO CONTINUES MOMENTUM WITH STRONG ORGANIC GROWTH IN THE FOURTH QUARTER

Company delivers top of the guidance range for full year 2017 Adjusted EPS and EBITDA, and provides 2018 guidance

Fourth Quarter *

- Net Sales increased 34.2% to \$377.5M
- Organic sales growth was 9.2% on a constant currency basis
- GAAP diluted EPS improved to a loss of \$0.10 versus a loss of \$0.25
- Adjusted EPS increased 7.4% to \$0.29
- Net Income¹ improved to a loss of \$8.7M compared to a loss of \$20.9M
- Adjusted EBITDA grew 20.1% to \$54.3M

Full Year *

- Net Sales increased 22.0% to \$1,396.7M
- Organic sales growth was 7.3% on a constant currency basis
- GAAP diluted EPS improved to \$0.67 versus a loss of \$0.25
- Adjusted EPS increased 18.3% to \$1.29
- Net Income¹ improved to \$57.1M compared to a loss of \$20.8M
- Adjusted EBITDA grew 20.3% to \$234.2M

“Ferro’s global team delivered another strong quarter of growth, successfully concluding a year in which the momentum from our value creation strategy continued to accelerate. Innovation is driving expansion of our organic pipeline with higher performance and higher margin products. Together with optimal pricing strategies, our innovation initiatives also enabled us to deliver the top end of our guidance despite raw material price inflation in 2017. We will continue our focus on innovation as a fundamental component of our 2020 vision. Alongside organic growth, Ferro completed four more acquisitions, further enhancing our existing portfolio of products and services and reinforcing Ferro’s technology-leading position. Looking ahead, we intend to continue to build on this momentum in the current phase of our strategy with a laser focus on innovation and optimization.”

Peter Thomas
Chairman, President and CEO, Ferro Corporation

Key Results * (amounts in millions, except EPS)

Sales and Gross Profits

	Q4 2017	% Change	2017	% Change
Net Sales	\$ 377.5	34.2%	\$ 1,396.7	22.0%
Net Sales (Constant Currency)	377.5	29.8%	1,396.7	22.0%
Gross Profit (GAAP)	105.5	32.4%	416.2	18.5%
Adjusted Gross Profit (Constant Currency)	108.0	18.8%	424.4	17.9%

Net Income, EBITDA and EPS

	Q4 2017	% Change	2017	% Change
Net Income (Loss) ¹	\$ (8.7)	NM	\$ 57.1	NM
Adjusted EBITDA	54.3	20.1%	234.2	20.3%
GAAP diluted EPS	\$ (0.10)	NM	\$ 0.67	NM
Adjusted EPS	0.29	7.4%	1.29	18.3%

Cash Flow

	2017	% Change
Net Cash provided by operating activities (GAAP)	\$ 84.8	35.4%
Adjusted Free Cash Flow ²	90.1	5.6%

Other Note:

On a GAAP basis, Ferro recorded a \$21.5 million charge related to the recent Tax Cut and Jobs Act in 2018.

*Comparative information is relative to prior-year fourth quarter and full year.

¹ Note: Net Income (Loss) attributable to Ferro Corporation common shareholders.

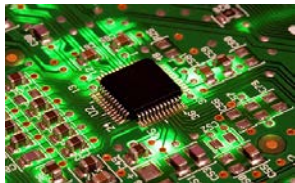
² Note: Adjusted free cash flow from continuing operations is defined as Adjusted EBITDA from continuing operations less cash items used to operate the businesses, including cash taxes and interest, changes in working capital, capital expenditures and other cash items.

Segment Results * (amounts in millions, except EPS)



Performance Coatings

	Q4 2017	% Change	2017	% Change
Net Sales	\$ 169.5	32.6%	\$ 594.0	12.7%
Net Sales (Constant Currency)	169.5	28.4%	594.0	13.7%
Gross Profit (GAAP)	36.6	6.2%	145.8	4.5%
Adjusted Gross Profit (Constant Currency)	38.7	7.8%	148.9	7.2%



Performance Colors & Glass

	Q4 2017	% Change	2017	% Change
Net Sales	\$ 123.9	31.0%	\$ 444.7	19.7%
Net Sales (Constant Currency)	123.9	26.1%	444.7	18.9%
Gross Profit (GAAP)	42.2	28.2%	157.5	17.8%
Adjusted Gross Profit (Constant Currency)	42.7	16.0%	159.6	16.4%



Color Solutions

	Q4 2017	% Change	2017	% Change
Net Sales	\$ 84.1	42.7%	\$ 358.1	45.1%
Net Sales (Constant Currency)	84.1	39.1%	358.1	44.3%
Gross Profit (GAAP)	26.1	41.4%	113.7	34.9%
Adjusted Gross Profit (Constant Currency)	26.2	38.6%	116.5	37.7%

*Comparative information is relative to prior-year fourth quarter and full year.

Full Year 2018 Guidance

	Net Sales (% of PY Sales)	Adjusted Tax Rate	Adjusted EBITDA	Adjusted EPS	Adjusted Cash Flow from Operations Conversion
2017 Results	\$1,396.7M	27%	\$234.2M	\$1.29	38.50%
2018 Guidance	13.0% - 13.5%	26% - 27%	\$270 - \$275M	\$1.55 - \$1.60	40% - 45%

The 2018 guidance assumes no acquisitions, optimization programs spend or divestitures in 2018.

Currency Exposure 2017 Weighting		2018 Guidance FX sensitivity	
		% Change	Operating Profit
EUR - Euro	35% to 40%		
CNY -Yuan Renminbi	5% to 7%	+1% all FX change	~ \$1.2 million to ~\$1.4 million
MXN – Mexican Peso	4% to 6%	+1% Euro change	~\$0.8 million to ~\$0.9 million
EGP – Egyptian Pound	2% to 5%		

Note: Ferro is providing full-year guidance. Consistent with prior practice, 2018 guidance uses foreign exchange rates as of December 31, 2017, which includes a USD/EUR exchange rate at 1.20.

The results and guidance in this release, including in the highlights above, contain references to non-GAAP measures from continuing operations. Reconciliation of GAAP to non-GAAP results can be found at the end of this release.

Ferro is providing adjusted diluted EPS, adjusted EBITDA and adjusted cash flow from operations conversion guidance on a continuing operations basis. While it is likely that Ferro could incur charges for items excluded from adjusted diluted EPS and adjusted EBITDA from continuing operations such as mark-to-market adjustments of pension and other postretirement benefit obligations, restructuring and impairment charges, and legal and professional expenses related to certain business development activities, it is not possible, without unreasonable effort, to identify the amount or significance of these items or the potential for other transactions that may impact future GAAP net income and cash flow from operating activities. Management does not believe these items to be representative of underlying business performance. Management is unable to reconcile, without unreasonable effort, the Company's forecasted range of these adjusted non-GAAP financial measures to their most directly comparable GAAP financial measures.

Constant Currency

Constant currency results reflect the remeasurement of 2016 reported and adjusted local currency results using 2017 exchange rates, which reproduces constant currency comparative figures to 2017 reported and adjusted results. These non-GAAP financial measures should not be considered as a substitute for the measures of financial performance prepared in accordance with GAAP.

Conference Call

Ferro will conduct an investor teleconference at 10:00 a.m. EDT Thursday, March 1, 2018. Investors can access this conference via any of the following:

- Webcast can be accessed by clicking on the Investor Information link at the top of Ferro's website at ferro.com.
- Live telephone: Call 800-272-9104 within the U.S. or +1 303-223-2684 outside the U.S. Please join the call at least 10 minutes before the start time.
- Webcast replay: Available on Ferro's Investor website at ferro.com beginning at approximately 12:00 noon Eastern Time on March 1, 2018
- Telephone replay: Call 800-633-8284 within the U.S. or +1 402-977-9140 outside the U.S. (for both U.S. and outside the U.S. access code is 21881197).
- Presentation material & podcast: Earnings presentation material and podcasts can be accessed through the Investor Information portion of the Company's Web site at ferro.com.

About Ferro Corporation

Ferro Corporation (www.ferro.com) is a leading global supplier of technology-based functional coatings and color solutions. Ferro supplies functional coatings for glass, metal, ceramic and other substrates and color solutions in the form of specialty pigments and colorants for a broad range of industries and applications. Ferro products are sold into the building and construction, automotive, electronics, industrial products, household furnishings and appliance markets. The Company's reportable segments include: Performance Coatings (metal and ceramic coatings), Performance Colors and Glass (glass coatings), and Color Solutions. Headquartered in Mayfield Heights, Ohio, the Company has approximately 5,680 associates globally and reported 2017 sales of \$1.4 billion.

Cautionary Note on Forward-Looking Statements

Certain statements in this press release may constitute “forward-looking statements” within the meaning of federal securities laws. These statements are subject to a variety of uncertainties, unknown risks, and other factors concerning the Company’s operations and business environment. Important factors that could cause actual results to differ materially from those suggested by these forward-looking statements and that could adversely affect the Company’s future financial performance include the following:

- demand in the industries into which Ferro sells its products may be unpredictable, cyclical, or heavily influenced by consumer spending;
- Ferro’s ability to successfully implement and/or administer its optimization initiatives, including its investment and restructuring programs, and to produce the desired results;
- currency conversion rates and economic, social, political, and regulatory conditions in the U.S. and around the world;
- challenges associated with a multi-national company such as Ferro competing lawfully with local competitors in certain regions of the world;
- Ferro’s ability to identify suitable acquisition candidates, complete acquisitions, effectively integrate the acquired businesses and achieve the expected synergies, as well as the acquisitions being accretive and Ferro achieving the expected returns on invested capital;
- the effectiveness of the Company’s efforts to improve operating margins through sales growth, price increases, productivity gains, and improved purchasing techniques;
- Ferro’s ability to successfully introduce new products and services or enter into new growth markets;
- the impact of damage to, or the interruption, failure or compromise of the Company’s information systems;
- the implementation and operations of business information systems and processes;
- restrictive covenants in the Company’s credit facilities could affect its strategic initiatives and liquidity;
- Ferro’s ability to access capital markets, borrowings, or financial transactions;
- the availability of reliable sources of energy and raw materials at a reasonable cost;
- increasingly aggressive domestic and foreign governmental regulation of hazardous and other materials and regulations affecting health, safety and the environment;
- competitive factors, including intense price competition;
- Ferro’s ability to protect its intellectual property, including trade secrets, or to successfully resolve claims of infringement brought against it;
- sale of products and materials into highly regulated industries;
- our ability to address safety, human health, product liability and environmental risks associated with our current and historical products, product life cycle and production processes;
- limited or no redundancy for certain of the Company’s manufacturing facilities and possible interruption of operations at those facilities;
- management of Ferro’s general and administrative expenses;
- Ferro’s multi-jurisdictional tax structure and its ability to reduce its effective tax rate, including the impact of the Company’s performance on its ability to utilize significant deferred tax assets;
- the effectiveness of strategies to increase Ferro’s return on invested capital, and the short-term impact that acquisitions may have on return on invested capital;
- stringent labor and employment laws and relationships with the Company’s employees;
- the impact of requirements to fund employee benefit costs, especially post-retirement costs;
- implementation of business processes and information systems, including the outsourcing of functions to third parties;
- risks associated with the manufacture and sale of material into industries making products for sensitive applications;
- the impact of the Tax Cuts and Jobs Act on our business;
- exposure to lawsuits governmental investigations and proceedings relating to current and historical operations and products;

Cautionary Note on Forward-Looking Statements (continued)

- risks and uncertainties associated with intangible assets;
- Ferro's borrowing costs could be affected adversely by interest rate increases;
- liens on the Company's assets by its lenders affect its ability to dispose of property and businesses;
- amount and timing of any repurchase of Ferro's common stock; and
- other factors affecting the Company's business that are beyond its control, including disasters, accidents and governmental actions.

The risks and uncertainties identified above are not the only risks the Company faces. Additional risks and uncertainties not presently known to the Company or that it currently believes to be immaterial also may adversely affect the Company. Should any known or unknown risks and uncertainties develop into actual events, these developments could have material adverse effects on our business, financial condition and results of operations.

This release contains time-sensitive information that reflects management's best analysis only as of the date of this release. The Company does not undertake any obligation to publicly update or revise any forward-looking statements to reflect future events, information, or circumstances that arise after the date of this release.

Additional information regarding these risks can be found in our Annual Report on Form 10-K for the year ended December 31, 2017.

Ferro Corporation

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Table 1
Ferro Corporation and Subsidiaries
Consolidated Statements of Operations

(Dollars in thousands, except per share amounts)

	Three Months Ended		Twelve Months Ended	
	December 31, (Unaudited)		December 31,	
	2017	2016	2017	2016
Net sales	\$ 377,543	\$ 281,337	\$ 1,396,742	\$ 1,145,292
Cost of sales	272,074	201,703	980,521	794,075
Gross profit	105,469	79,634	416,221	351,217
Selling, general and administrative expenses	71,647	75,597	258,604	241,702
Restructuring and impairment charges	3,696	14,213	11,409	15,907
Other expense (income):				
Interest expense	7,833	5,968	27,754	21,547
Interest earned	(345)	(216)	(901)	(630)
Foreign currency losses, net	979	10,039	6,554	12,906
Loss on extinguishment of debt	-	-	3,905	-
Miscellaneous expense (income), net	642	(581)	(1,622)	(2,660)
Income (loss) before income taxes	21,017	(25,386)	110,518	62,445
Income tax expense (benefit)	29,564	(4,791)	52,750	17,868
(Loss) income from continuing operations	(8,547)	(20,595)	57,768	44,577
Loss from discontinued operations, net of income taxes	-	-	-	(64,464)
Net (loss) income	(8,547)	(20,595)	57,768	(19,887)
Less: Net income attributable to noncontrolling interests	139	341	714	930
Net (loss) income attributable to Ferro Corporation common shareholders	\$ (8,686)	\$ (20,936)	\$ 57,054	\$ (20,817)
(Loss) earnings per share attributable to Ferro Corporation common shareholders:				
Basic (loss) earnings:				
Continuing operations	\$ (0.10)	\$ (0.25)	\$ 0.68	\$ 0.52
Discontinued operations	-	-	-	(0.77)
	\$ (0.10)	\$ (0.25)	\$ 0.68	\$ (0.25)
Diluted (loss) earnings:				
Continuing operations	\$ (0.10)	\$ (0.25)	\$ 0.67	\$ 0.51
Discontinued operations	-	-	-	(0.76)
	\$ (0.10)	\$ (0.25)	\$ 0.67	\$ (0.25)
Shares outstanding:				
Weighted-average basic shares	83,913	83,405	83,713	83,298
Weighted-average diluted shares	83,913	83,405	85,156	84,910
End-of-period basic shares	84,049	83,439	84,049	83,439

Table 2
Ferro Corporation and Subsidiaries
Segment Net Sales and Gross Profit (unaudited)

(Dollars in thousands)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2017	2016	2017	2016
Segment Net Sales				
Performance Coatings	\$ 169,480	\$ 127,815	\$ 594,029	\$ 526,981
Performance Colors and Glass	123,920	94,568	444,653	371,464
Color Solutions	84,143	58,954	358,060	246,847
Total segment net sales	\$ 377,543	\$ 281,337	\$ 1,396,742	\$ 1,145,292
Segment Gross Profit				
Performance Coatings	\$ 36,592	\$ 34,469	\$ 145,797	\$ 139,454
Performance Colors and Glass	42,159	32,891	157,544	133,716
Color Solutions	26,052	18,425	113,694	84,293
Other costs of sales	666	(6,151)	(814)	(6,246)
Total gross profit	\$ 105,469	\$ 79,634	\$ 416,221	\$ 351,217
Selling, general and administrative expenses				
Strategic services	39,470	30,006	138,551	116,807
Functional services	22,659	40,072	95,702	106,798
Incentive compensation	4,649	3,553	12,581	10,852
Stock-based compensation	4,869	1,966	11,770	7,245
Total selling, general and administrative expenses	\$ 71,647	\$ 75,597	\$ 258,604	\$ 241,702

Table 3
Ferro Corporation and Subsidiaries
Consolidated Balance Sheets

(Dollars in thousands)

	December 31, 2017	December 31, 2016
ASSETS		
Current assets		
Cash and cash equivalents	\$ 63,551	\$ 45,582
Accounts receivable, net	354,416	259,687
Inventories	324,180	229,847
Other receivables	67,137	37,814
Other current assets	16,448	9,087
Total current assets	825,732	582,017
Other assets		
Property, plant and equipment, net	321,742	262,026
Goodwill	195,369	148,296
Intangible assets, net	187,616	137,850
Deferred income taxes	108,025	106,454
Other non-current assets	43,718	47,126
Total assets	<u>\$ 1,682,202</u>	<u>\$ 1,283,769</u>
LIABILITIES AND EQUITY		
Current liabilities		
Loans payable and current portion of long-term debt	\$ 25,136	\$ 17,310
Accounts payable	211,711	127,655
Accrued payrolls	48,201	35,859
Accrued expenses and other current liabilities	70,151	65,203
Total current liabilities	355,199	246,027
Other liabilities		
Long-term debt, less current portion	726,491	557,175
Postretirement and pension liabilities	166,680	162,941
Other non-current liabilities	77,152	62,594
Total liabilities	1,325,522	1,028,737
Equity		
Total Ferro Corporation shareholders' equity	344,814	247,113
Noncontrolling interests	11,866	7,919
Total liabilities and equity	<u>\$ 1,682,202</u>	<u>\$ 1,283,769</u>

Table 4
Ferro Corporation and Subsidiaries
Condensed Consolidated Statements of Cash Flows

(Dollars in thousands)

	Three Months Ended		Twelve Months Ended	
	December 31, (Unaudited)		December 31,	
	2017	2016	2017	2016
Cash flows from operating activities				
Net (loss) income	\$ (8,547)	\$ (20,595)	\$ 57,768	\$ (19,887)
Loss (gain) on sale of assets	362	695	(852)	(2,764)
Depreciation and amortization	14,045	13,206	50,085	46,805
Interest amortization	1,121	362	3,496	1,353
Restructuring and impairment charges	3,964	13,695	7,593	50,868
Loss on extinguishment of debt	—	—	3,905	—
Accounts receivable	19,100	22,477	(25,852)	(21,893)
Inventories	(15,583)	10,182	(46,962)	(10,271)
Accounts payable	25,569	4,371	26,150	1,162
Other current assets and liabilities, net	(17,842)	(859)	(29,497)	8,620
Other adjustments, net	27,910	12,354	38,956	8,637
Net cash provided by operating activities	50,099	55,888	84,790	62,630
Cash flows from investing activities				
Capital expenditures for property, plant and equipment and other long-lived assets	(20,418)	(6,728)	(50,552)	(24,945)
Proceeds from sale of assets	—	36	—	3,634
Proceeds from sale of equity method investment	—	—	2,268	—
Business acquisitions, net of cash acquired	(59,264)	(118,094)	(131,194)	(129,511)
Other investing	16	—	567	—
Net cash (used in) investing activities	(79,666)	(124,786)	(178,911)	(150,822)
Cash flows from financing activities				
Net (repayments) borrowings under loan payable	(8,831)	1,990	(19,634)	4,596
Proceeds from revolving credit facility, maturing 2019	—	142,837	15,628	355,743
Principal payments on revolving credit facility, maturing 2019	—	(64,492)	(327,183)	(214,188)
Proceeds from term loan facility, maturing 2024	—	—	623,827	—
Principal payments on term loan facility, maturing 2024	(1,640)	—	(4,872)	—
Principal payments on term loan facility, maturing 2021	—	(750)	(243,250)	(53,000)
Proceeds from revolving credit facility, maturing 2022	110,818	—	180,605	—
Principal payments on revolving credit facility, maturing 2022	(60,205)	—	(102,605)	—
Principal payments on other long-term debt	(993)	—	(3,971)	—
Proceeds from other long-term debt	—	—	2,700	—
Payment of debt issuance costs	—	(50)	(12,927)	(711)
Acquisition related contingent consideration payment	—	—	(1,315)	—
Purchase of treasury stock	—	—	—	(11,429)
Other financing activities	1,178	570	1,360	986
Net cash provided by financing activities	40,327	80,105	108,363	81,997
Effect of exchange rate changes on cash and cash equivalents	580	(6,181)	3,727	(6,603)
Increase (decrease) in cash and cash equivalents	11,340	5,026	17,969	(12,798)
Cash and cash equivalents at beginning of period	52,211	40,556	45,582	58,380
Cash and cash equivalents at end of period	\$ 63,551	\$ 45,582	\$ 63,551	\$ 45,582
Cash paid during the period for:				
Interest	\$ 6,256	\$ 2,454	\$ 26,850	\$ 17,486
Income taxes	\$ 9,043	\$ 6,805	\$ 25,662	\$ 19,734

Table 5
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Reported Income to Adjusted Income
For the Three Months Ended December 31 (unaudited)

(Dollars in thousands, except per share amounts)	Cost of sales	Selling general and administrative expenses	Restructuring and impairment charges	Other expense, net	Income tax expense (benefit) ⁴	Net (loss) income attributable to common shareholders	Diluted (loss) earnings per share
2017							
As reported	\$ 272,074	\$ 71,647	\$ 3,696	\$ 9,109	\$ 29,564	\$ (8,686)	\$ (0.10)
Special items:							
Restructuring	—	—	(3,696)	—	786	2,910	0.03
Pension ¹	603	3,249	—	—	(1,548)	(2,304)	(0.03)
Other ²	(3,141)	(7,154)	—	(409)	(21,940)	32,644	0.38
Total special items ⁵	(2,538)	(3,905)	(3,696)	(409)	(22,702)	33,250	0.39
As adjusted	\$ 269,536	\$ 67,742	\$ —	\$ 8,700	\$ 6,862	\$ 24,564	\$ 0.29
2016							
As reported	\$ 201,703	\$ 75,597	\$ 14,213	\$ 15,210	\$ (4,791)	\$ (20,936)	\$ (0.25)
Special items:							
Restructuring	—	—	(14,213)	—	356	13,857	0.16
Pension ¹	(4,548)	(15,595)	—	—	6,713	13,430	0.16
Other ³	(3,792)	(7,661)	—	(10,305)	5,441	16,317	0.19
Total special items ⁵	(8,340)	(23,256)	(14,213)	(10,305)	12,510	43,604	0.51
As adjusted	\$ 193,363	\$ 52,341	\$ —	\$ 4,905	\$ 7,719	\$ 22,668	\$ 0.27

- (1) The adjustments relate to pension and other postretirement benefit mark-to-market adjustments and settlements.
- (2) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions, and other acquisition costs. The adjustments to "Selling, general and administrative expenses" primarily include legal, professional and other expenses related to certain business development activities, as well as fees associated with certain reorganization projects. The adjustments to "Other expense, net" primarily relate to acquisition related costs. In addition to the tax impacts to adjustments at statutory rates discussed in note 4 below, an adjustment has also been made to adjust for the impact associated with the Tax Cut and Jobs Act that was recorded in the fourth quarter.
- (3) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions. The adjustments to "Selling, general and administrative expenses" primarily include legal, professional and other expenses related to certain business development activities. The adjustments to "Other expense, net" primarily relate to impacts of currency-related items in Egypt and the impact of the loss on a foreign currency contract associated with the purchase of Cappelle.
- (4) The tax rate reflects the reported tax rate, adjusted for special items being tax effected at the respective statutory rate where the item originated.
- (5) Due to rounding, total earnings per share related to special items does not always add to the total adjusted earnings per share.

It should be noted that adjusted income, earnings per share and other adjusted items referred to above are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP, and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 6
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Reported Income to Adjusted Income
For the Twelve Months Ended December 31 (unaudited)

(Dollars in thousands, except per share amounts)	Cost of sales	Selling general and administrative expenses	Restructuring and impairment charges	Other expense, net	Income tax expense (benefit) ⁴	Net income (loss) attributable to common shareholders	Diluted earnings (loss) per share
2017							
As reported	\$ 980,521	\$ 258,604	\$ 11,409	\$ 35,690	\$ 52,750	\$ 57,054	\$ 0.67
Special items:							
Restructuring	—	—	(11,409)	—	2,724	8,685	0.10
Pension ¹	603	3,249	—	—	(1,548)	(2,304)	(0.03)
Other ²	(8,774)	(21,580)	—	(3,470)	(12,956)	46,780	0.55
Total special items ⁵	(8,171)	(18,331)	(11,409)	(3,470)	(11,780)	53,161	0.62
As adjusted	<u>\$ 972,350</u>	<u>\$ 240,273</u>	<u>\$ —</u>	<u>\$ 32,220</u>	<u>\$ 40,970</u>	<u>\$ 110,215</u>	<u>\$ 1.29</u>
2016							
As reported	\$ 794,075	\$ 241,702	\$ 15,907	\$ 31,163	\$ 17,868	\$ (20,817)	\$ (0.25)
Special items:							
Restructuring	—	—	(15,907)	—	878	15,029	0.18
Pension ¹	(4,548)	(15,595)	—	—	6,713	13,430	0.16
Other ³	(3,792)	(18,000)	—	(7,240)	8,205	20,827	0.25
Discontinued operations	—	—	—	—	—	64,464	0.76
Total special items ⁵	(8,340)	(33,595)	(15,907)	(7,240)	15,796	113,750	1.34
As adjusted	<u>\$ 785,735</u>	<u>\$ 208,107</u>	<u>\$ —</u>	<u>\$ 23,923</u>	<u>\$ 33,664</u>	<u>\$ 92,933</u>	<u>\$ 1.09</u>

(1) The adjustments relate to pension and other postretirement benefit mark-to-market adjustments and settlements.

(2) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions, and other acquisition costs. The adjustments to "Selling, general and administrative expenses" primarily include legal, professional and other expenses related to certain business development activities, as well as fees associated with certain reorganization projects. The adjustments to "Other expense, net" primarily relate to the FX loss incurred on our Euro-denominated term loan, a loss on an equity method investment, gains and losses on asset sales, debt extinguishment charges, gain on adjustments of a liability related to a divested business in Argentina, acquisition related costs and the gain recognized on increasing our ownership interest in Gardenia. In addition to the tax impacts to adjustments at statutory rates discussed in note 4 below, an adjustment has also been made to adjust for the impact associated with the Tax Cut and Jobs Act that was recorded in the fourth quarter.

(3) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions. The adjustments to "Selling, general and administrative expenses" primarily include legal, professional and other expenses related to certain business development activities, as well as fees associated with certain reorganization projects. The adjustments to "Other expense, net" primarily relate to the gain on an asset sale that was recognized during the year, the finalization of the purchase price for the acquisition of Vetriceramics, impacts of currency-related items in Egypt and the impact of the loss on a foreign currency contract associated with the purchase of Cappelle.

(4) The tax rate reflects the reported tax rate, adjusted for special items being tax effected at the respective statutory rate where the item originated.

(5) Due to rounding, total earnings per share related to special items does not always add to the total adjusted earnings per share.

It should be noted that adjusted income, earnings per share and other adjusted items referred to above are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP, and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 7
Ferro Corporation and Subsidiaries
Supplemental Information
Constant Currency Schedule of Adjusted Operating Profit (unaudited)

(Dollars in thousands)	Three Months Ended December 31,			
	2016	Adjusted 2016 ¹	2017	2017 vs Adjusted 2016
Segment net sales				
Performance Coatings	\$ 127,815	\$ 132,009	\$ 169,480	\$ 37,471
Performance Colors and Glass	94,568	98,265	123,920	25,655
Color Solutions	58,954	60,487	84,143	23,656
Total segment net sales	<u>\$ 281,337</u>	<u>\$ 290,761</u>	<u>\$ 377,543</u>	<u>\$ 86,782</u>
Segment adjusted gross profit				
Performance Coatings	\$ 34,469	\$ 35,903	\$ 38,688	\$ 2,785
Performance Colors and Glass	35,540	36,810	42,699	5,889
Color Solutions	18,589	18,865	26,150	7,285
Other costs of sales	(624)	(636)	470	1,106
Total adjusted gross profit ²	<u>\$ 87,974</u>	<u>\$ 90,942</u>	<u>\$ 108,007</u>	<u>\$ 17,065</u>
Adjusted gross profit percentage		31.3%	28.6%	
Adjusted selling, general and administrative expenses				
Strategic services	29,331	30,643	39,298	8,655
Functional services	17,491	17,928	18,926	998
Incentive compensation	3,553	3,617	4,649	1,032
Stock-based compensation	1,966	1,966	4,869	2,903
Total adjusted selling, general and administrative expenses ³	<u>\$ 52,341</u>	<u>\$ 54,154</u>	<u>\$ 67,742</u>	<u>\$ 13,588</u>
Adjusted operating profit	\$ 35,633	\$ 36,788	\$ 40,265	\$ 3,477
Adjusted operating profit as a % of net sales	12.7%	12.7%	10.7%	

(1) Reflects the remeasurement of 2016 reported and adjusted local currency results using 2017 exchange rates, resulting in constant currency comparative figures to 2017 reported and adjusted results. See Table 5 for non-GAAP adjustments applicable to the three month period.

(2) Refer to Table 5 for the reconciliation of adjusted gross profit for the three months ended December 31, 2017 and 2016, respectively.

(3) Refer to Table 5 for the reconciliation of SG&A expenses to adjusted SG&A expenses for the three months ended December 31, 2017 and 2016, respectively.

It should be noted that adjusted 2016 results is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). This non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of this financial measure to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 8
Ferro Corporation and Subsidiaries
Supplemental Information
Constant Currency Schedule of Adjusted Operating Profit (unaudited)

(Dollars in thousands)	Twelve Months Ended December 31,			
	2016	Adjusted 2016 ¹	2017	2017 vs Adjusted 2016
Segment net sales				
Performance Coatings	\$ 526,981	\$ 522,324	\$ 594,029	\$ 71,705
Performance Colors and Glass	371,464	374,056	444,653	70,597
Color Solutions	246,847	248,063	358,060	109,997
Total segment net sales	<u>\$ 1,145,292</u>	<u>\$ 1,144,443</u>	<u>\$ 1,396,742</u>	<u>\$ 252,299</u>
Segment adjusted gross profit				
Performance Coatings	\$ 139,454	\$ 138,882	\$ 148,932	\$ 10,050
Performance Colors and Glass	136,365	137,147	159,622	22,475
Color Solutions	84,457	84,588	116,456	31,868
Other costs of sales	(719)	(739)	(618)	121
Total adjusted gross profit ²	<u>\$ 359,557</u>	<u>\$ 359,878</u>	<u>\$ 424,392</u>	<u>\$ 64,514</u>
Adjusted gross profit percentage		31.4%	30.4%	
Adjusted selling, general and administrative expenses				
Strategic services	116,132	116,649	137,272	20,623
Functional services	73,878	74,063	78,650	4,587
Incentive compensation	10,852	10,897	12,581	1,684
Stock-based compensation	7,245	7,245	11,770	4,525
Total adjusted selling, general and administrative expenses ³	<u>\$ 208,107</u>	<u>\$ 208,854</u>	<u>\$ 240,273</u>	<u>\$ 31,419</u>
Adjusted operating profit	\$ 151,450	\$ 151,024	\$ 184,119	\$ 33,095
Adjusted operating profit as a % of net sales	13.2%	13.2%	13.2%	

(1) Reflects the remeasurement of 2016 reported and adjusted local currency results using 2017 exchange rates, resulting in constant currency comparative figures to 2017 reported and adjusted results. See Table 6 for non-GAAP adjustments applicable to the twelve month period.

(2) Refer to Table 6 for the reconciliation of adjusted gross profit for the twelve months ended December 31, 2017 and 2016, respectively.

(3) Refer to Table 6 for the reconciliation of SG&A expenses to adjusted SG&A expenses for the twelve months ended December 31, 2017 and 2016, respectively.

It should be noted that adjusted 2016 results is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). This non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of this financial measure to the most comparable U.S. GAAP financial measures is presented. We believe this data provides investors with additional information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 9
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Net (loss) income attributable to Ferro Corporation
common shareholders to Adjusted EBITDA (unaudited)

(Dollars in thousands)

	Three Months Ended		Twelve Months Ended	
	December 31,		December 31,	
	2017	2016	2017	2016
Net (loss) income attributable to Ferro Corporation common shareholders	\$ (8,686)	\$ (20,936)	\$ 57,054	\$ (20,817)
Less: Net income attributable to noncontrolling interests	139	341	714	930
Loss from discontinued operations, net of income taxes	-	-	-	64,464
Restructuring and impairment charges	3,696	14,213	11,409	15,907
Other expense, net	1,276	9,242	7,936	9,616
Interest expense	7,833	5,968	27,754	21,547
Income tax expense (benefit)	29,564	(4,791)	52,750	17,868
Depreciation and amortization	15,166	13,568	53,581	48,158
Less: interest amortization expense and other	(1,121)	(362)	(3,496)	(1,353)
Cost of sales adjustments ¹	2,538	4,721	8,171	4,721
SG&A adjustments ¹	3,905	23,256	18,331	33,595
Adjusted EBITDA	\$ 54,310	\$ 45,220	\$ 234,204	\$ 194,636
Net sales	\$ 377,543	\$ 281,337	\$ 1,396,742	\$ 1,145,292
Adjusted EBITDA as a % of net sales	14.4%	16.1%	16.8%	17.0%

- (1) For details of Non-GAAP adjustments, refer to Table 5 and Table 6 for the reconciliation of cost of sales to adjusted cost of sales and SG&A to adjusted SG&A for the three and twelve months ended December 31, 2017 and 2016, respectively.

It should be noted that adjusted EBITDA is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). This non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of this financial measure to the most comparable U.S. GAAP financial measure is presented. Adjusted EBITDA is net income (loss) attributable to Ferro Corporation common shareholders before the effects of net income attributable to noncontrolling interests, discontinued operations, restructuring and impairment charges, other (income) expense, net, interest expense, income tax expense, depreciation and amortization, non-GAAP adjustments to cost of sales and non-GAAP adjustments to SG&A. We believe this data provides investors with additional information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 10
Ferro Corporation and Subsidiaries
Supplemental Information
Change in Net Debt (unaudited)

(Dollars in thousands)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2017	2016	2017	2016
Beginning of period				
Gross debt	\$ 699,684	\$ 491,243	\$ 578,205	\$ 478,087
Cash	52,211	40,556	45,582	58,380
Debt, net of cash	647,473	450,687	532,623	419,707
Unamortized debt issuance costs	7,743	3,922	3,720	4,533
Debt, net of cash and unamortized debt issuance costs	639,730	446,765	528,903	415,174
End of period				
Gross debt	759,078	578,205	759,078	578,205
Cash	63,551	45,582	63,551	45,582
Debt, net of cash	695,527	532,623	695,527	532,623
Unamortized debt issuance costs	7,451	3,720	7,451	3,720
Debt, net of cash and unamortized debt issuance costs	688,076	528,903	688,076	528,903
Change from FX on Euro term loan debt	(5,005)	-	(33,883)	-
Assumption of debt from acquisitions	(15,431)	(10,320)	(23,406)	(10,320)
Period (increase) in debt, net of cash, unamortized debt issuance costs, FX, and assumption of debt from acquisitions	\$ (27,618)	\$ (71,616)	\$ (105,615)	\$ (102,596)
Period (increase) in debt, net of cash and unamortized debt issuance costs	\$ (48,346)	\$ (82,138)	\$ (159,173)	\$ (113,729)

It should be noted that the change in net debt is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). This non-GAAP financial measure should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of this financial measure to the most comparable U.S. GAAP financial measure is presented. We believe that given the significant cash and cash equivalents on the balance sheet that the change in cash against outstanding debt, net debt, between periods is a meaningful measure.

Table 11
Ferro Corporation and Subsidiaries
Supplemental Information
Adjusted Cash Flow from Continuing Operations (unaudited)

	Three Months Ended		Twelve Months Ended	
	December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
	As Adjusted			
Adjusted EBITDA ¹	\$ 54,310	\$ 45,220	\$ 234,204	\$ 194,636
Capital expenditures	(11,990)	(6,729)	(34,249)	(24,025)
Working capital	32,996	29,015	(42,754)	(33,280)
Cash income taxes	(9,043)	(6,805)	(25,662)	(19,734)
Cash interest	(6,256)	(2,454)	(26,850)	(17,486)
Pension	(2,494)	(2,415)	(4,533)	(5,336)
Incentive compensation payments	-	-	(12,224)	(8,802)
Other	(1,394)	(3,324)	2,203	(622)
Adjusted Cash Flow from Continuing Operations	56,129	52,508	90,135	85,351
Discontinued operations	-	-	-	(32,534)
Restructuring/Other	(18,925)	(1,887)	(34,219)	(5,152)
(Outflows) from M&A activity	(64,822)	(122,237)	(148,604)	(138,832)
Debt issuance costs	-	-	(12,927)	-
Stock repurchase	-	-	-	(11,429)
Period (increase) in debt, net of cash, unamortized debt issuance costs, FX, and assumption of debt from acquisitions ²	\$ (27,618)	\$ (71,616)	\$ (105,615)	\$ (102,596)
Change in unamortized debt issuance costs	(292)	(202)	3,731	(813)
Change from FX on Euro term loan debt	(5,005)	-	(33,883)	-
Assumption of debt from acquisitions	(15,431)	(10,320)	(23,406)	(10,320)
Period (increase) in debt, net of cash and unamortized debt issuance costs	\$ (48,346)	\$ (82,138)	\$ (159,173)	\$ (113,729)

(1) See Table 9 for the reconciliation of net income (loss) attributable to Ferro Corporation common shareholders to adjusted EBITDA.

(2) See Table 10 for the reconciliation of period change in debt, net of cash, unamortized debt issuance costs, FX and assumption of debt from acquisitions.

It should be noted that adjusted EBITDA and adjusted free cash flow from continuing operations are financial measures not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). These non-GAAP financial measures should be considered as a supplement to, and not as a substitute for, the financial measures prepared in accordance with U.S. GAAP and a reconciliation of these financial measures to the most comparable U.S. GAAP financial measures is presented. Adjusted EBITDA is net income (loss) attributable to Ferro Corporation common shareholders before the effects of income attributable to noncontrolling interest, discontinued operations, restructuring and impairment charges, other (income) expense, net, interest expense, income tax expense, depreciation and amortization, non-GAAP adjustments to cost of sales, and non-GAAP adjustments to SG&A. Adjusted Free Cash Flow from Continuing Operations is adjusted EBITDA less capital expenditures, changes in working capital, cash income taxes, cash interest, pension contributions, incentive compensation payments, and other continuing operations cash items. We believe this data provides investors with additional information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance. In addition, these measures are used in the calculation of certain incentive compensation programs for selected employees.