

**FERRO SHOWS RESILIENCE WITH STRONGER RESULTS THAN ANTICIPATED,
REPORTS THIRD QUARTER 2020 PERFORMANCE AND PROVIDES FULL YEAR 2020 GUIDANCE**

Improving demand driven by leadership positions in megatrend end markets.

Third Quarter Continuing Operations*

- Net Sales declined 1.4% to \$241.9M
- Net Sales declined 2.1% on a constant currency basis
- Gross Profit declined 7.8% to \$70.2M, Gross Profit Margin of 29.0%
- Adjusted Gross Profit declined 7.4% to \$72.2M, Adjusted Gross Profit Margin of 29.8%
- GAAP diluted EPS of \$0.11, Adjusted diluted EPS of \$0.19
- Net Income¹ improved 12.9% to \$14.5M, Adjusted EBITDA declined 14.0% to \$36.9M, Adjusted EBITDA Margin of 15.2%

Year through September Continuing Operations*

- Net Sales declined 9.2% to \$699.0M
- Net Sales declined 8.0% on a constant currency basis
- Gross Profit declined 7.9% to \$214.6M, Gross Profit Margin improved 43 basis points to 30.7%
- Adjusted Gross Profit declined 7.2%, Adjusted Gross Profit Margin improved 29 basis points to 31.4%
- GAAP diluted EPS of \$0.27, Adjusted diluted EPS of \$0.56
- Net Income¹ declined 32.8% to \$25.1M, Adjusted EBITDA declined 9.1% to \$108.5M, Adjusted EBITDA Margin of 15.5%

*Comparative information is relative to prior-year third quarter and prior-year year-to-date as of September 30 for Continuing Operations

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



Ferro continued its strong recovery in the third quarter from the pandemic-impacted second quarter, demonstrating the quality and resiliency of our business. Sales increased beyond our expectations in the third quarter, although down from the prior year third quarter. Sequentially, sales increased 18.1 percent over the second quarter of 2020.

We currently expect the positive trends in demand for our products to continue in the coming months. Our customers do not appear to be de-stocking in the fourth quarter, as they have in more typical years, and we are seeing an uptick in demand for the new year as our customers' markets continue to recover. We also believe that changes in consumer and other behavior resulting from the COVID pandemic will accelerate demand for Ferro products in multiple markets, including renewables, healthcare, and electronics. In addition, as we have said previously, we hold leadership positions in markets aligned with megatrends and we have invested in innovation targeting these markets. All of this, together with our industry-leading expertise in functional coatings and color solutions, gives us confidence that Ferro is well positioned for attractive growth going forward.

Regarding the COVID pandemic, while we do not currently anticipate a significant impact on demand for our products resulting from a second wave of COVID cases, we recognize that the increasing number of cases in certain areas of the world creates macro-economic uncertainty and we continue to monitor the situation.

We also continue to advance our strategic priorities, including the sale of our Tile Coatings Systems business. The Tile transaction is subject to customary closing conditions, including regulatory approvals. Ferro and Lone Star have made substantial progress on the transaction and are working with the regulatory agencies to obtain the remaining approvals.

Peter Thomas
Chairman, President and CEO, Ferro Corporation



Key Results from Continuing Operations*

(amounts in millions, except EPS)

Sales and Gross Profits	Q3 2020	% Change	2020 YTD	% Change
Net Sales	\$ 241,877	-1.4%	\$ 699,004	-9.2%
Net Sales (constant currency)	241,877	-2.1%	699,004	-8.0%
Gross Profit (GAAP)	70,166	-7.8%	214,648	-7.9%
<i>Gross Profit Margin</i>	<i>29.0%</i>	<i>(199) bps</i>	<i>30.7%</i>	<i>43 bps</i>
Adjusted Gross Profit (constant currency)	72,178	-7.4%	219,770	-7.2%
<i>Adjusted Gross Profit Margin</i>	<i>29.8%</i>	<i>(172) bps</i>	<i>31.4%</i>	<i>29 bps</i>

Net Income/(Loss), EBITDA and EPS	Q3 2020	% Change	2020 YTD	% Change
Net Income/(Loss) ¹	\$ 14,474	12.9%	\$ 25,057	-32.8%
Adjusted EBITDA	36,856	-14.0%	108,475	-9.1%
<i>Adjusted EBITDA Margin</i>	<i>15.2%</i>	<i>(223) bps</i>	<i>15.5%</i>	<i>1 bps</i>
GAAP diluted EPS	\$ 0.11	-45.0%	\$ 0.27	-38.6%
Adjusted EPS	0.19	-29.6%	0.56	-13.8%

* Comparative information is relative to prior-year third quarter and prior-year year-to-date as of September 30 for Continuing Operations

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

Third Quarter 2020 Highlights

During the first quarter of 2020, Ferro renamed the “Performance Colors and Glass” segment “Functional Coatings.” The Tile Coatings Systems business is reported in Discontinued Operations following the announcement in the fourth quarter of 2019 that Ferro signed a definitive agreement to divest that business.

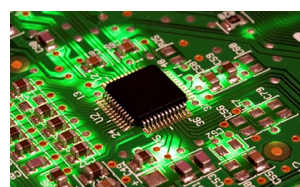
Net sales in the third quarter of 2020 declined 1.4% to \$241.9 million or 2.1% on a constant currency basis relative to the prior year quarter. The decline was primarily related to the COVID pandemic, which has resulted in demand softness in many of Ferro’s end markets relative to the prior year, although notably not for our electronics material business, which again generated double-digit sales growth compared to the prior year quarter. On a sequential basis, sales increased 18.1% in the third quarter as compared to the second quarter of 2020. While we saw softness in the automotive, hospitality and leisure end markets compared to prior year, demand in those markets improved in the third quarter compared to the second quarter of 2020.

Compared to the prior year quarter, gross profit in the third quarter declined 7.8% to \$70.2 million or 7.4% to \$72.2 million on a constant currency basis. Gross Profit Margin in the third quarter was 29.0% compared to 31.0% in the prior year third quarter. Adjusted Gross Profit Margin was 29.8% compared to 31.6% in the prior year third quarter. The lower Gross Profit Margin was due to reducing inventories and sales mix in certain product lines.

Third quarter GAAP diluted EPS was \$0.11. Adjusted diluted EPS for the third quarter was \$0.19. Net Income¹ improved 12.9% to \$14.5 million for the third quarter, and Adjusted EBITDA declined 14.0% to \$36.9 million.

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

Segment Results Continuing Operations * (amounts in millions, except EPS)



Functional Coatings	Q3 2020	% Change	2020 YTD	% Change
Net Sales	\$ 154,218	-0.3%	\$ 441,325	-9.1%
Net Sales (Constant Currency)	154,218	-0.8%	441,325	-7.7%
Gross Profit (GAAP)	41,906	-11.4%	125,842	-13.1%
Gross Profit Margin	27.2%	(338) bps	28.5%	(132) bps
Adjusted Gross Profit (Constant Currency)	42,912	-11.0%	129,902	-10.6%
Adj. Gross Profit Margin (Constant Currency)	27.8%	(316) bps	29.4%	(94) bps



Color Solutions	Q3 2020	% Change	2020 YTD	% Change
Net Sales	\$ 87,659	-3.2%	\$ 257,679	-9.3%
Net Sales (Constant Currency)	87,659	-4.2%	257,679	-8.6%
Gross Profit (GAAP)	28,450	-2.3%	89,222	2.3%
Gross Profit Margin	32.5%	31 bps	34.6%	394 bps
Adjusted Gross Profit (Constant Currency)	28,903	-0.9%	89,698	1.1%
Adj. Gross Profit Margin (Constant Currency)	33.0%	111 bps	34.8%	334 bps

* Comparative information is relative to prior-year third quarter and prior-year year-to-date as of September 30 for Continuing Operations

Full-Year 2020 Guidance * (amounts in millions, except EPS)

Although there remains a level of uncertainty in macro-economic conditions as a result of COVID pandemic, we have gained sufficient visibility and confidence to re-establish guidance with respect to certain metrics through the end of 2020, as set forth below.

	Adjusted EBITDA	Adjusted Diluted EPS
2020 Full Year Guidance	\$141 to \$146M	\$0.71 to \$0.76

The 2020 Full Year outlook assumes no acquisitions, divestitures, restructuring, acquisition related professional fees, optimization programs spend, or repurchase of common stock.

Note: The Full Year 2020 outlook uses foreign exchange rates as of Sept 30, 2020 which includes a USD/EUR exchange rate at 1.17.

Ferro is providing Adjusted Diluted EPS and Adjusted EBITDA 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 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.

Currency Exposure 2019 Weighting		FX sensitivity	
EUR – Euro	35% to 40%	% Change	Operating Profit
CNY -Yuan Renminbi	6% to 8%	+1% all FX change	~\$0.6 million to ~\$0.8 million
MXN – Mexican Peso	2% to 4%	+1% Euro change	~\$0.4 million to ~\$0.6 million

Constant currency

Constant currency results reflect the remeasurement of 2019 reported and adjusted local currency results using 2020 exchange rates, which produces constant currency comparatives for 2020 reported and adjusted results. These non-GAAP financial measures should not be considered a substitute for the measures of financial performance prepared in accordance with GAAP.

Conference Call

Ferro will conduct an investor teleconference at 8:00 a.m. EDT Thursday November 5, 2020. Investors can access this conference via any of the following:

- Webcast can be accessed by clicking on the Investors link at the top of Ferro’s website at ferro.com.
- Live telephone: Call 888-391-0101 within the U.S. or +1 212-231-2907 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 4:30 p.m. Eastern Time on November 5, 2020.
- 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 21970927).
- Presentation material and podcast: Earnings presentation material and podcasts can be accessed through the Investors portion of the Company’s website 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: Functional Coatings and Color Solutions. Headquartered in Mayfield Heights, Ohio, the Company has approximately 5,890 associates globally and reported 2019 sales of \$1.0 billion. Included within our employee count are approximately 2,100 employees in our foreign consolidated subsidiaries associated with the Tile Coatings Systems business.

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:

- factors affecting the Company’s business that are beyond its control, including disasters, pandemics (such as COVID-19), accidents and governmental actions;
- Ferro’s ability to successfully complete the sale of its Tile Coatings Systems business, including obtaining the requisite regulatory approvals;
- demand in the industries into which Ferro sells its products may be unpredictable, cyclical, or heavily influenced by consumer spending;
- the effectiveness of the Company’s efforts to improve operating margin through sales growth, price increases, productivity gains, and improved purchasing techniques;
- currency conversion rates and economic, social, political, and regulatory conditions in the U.S. and around the world;
- the availability of reliable sources of energy and raw materials at a reasonable cost;
- 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 successfully implement and/or administer its optimization initiatives, including its investment and restructuring programs, and to produce the desired results;
- Ferro’s ability to successfully introduce new products and services or enter into new growth markets;
- 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 impact of damage to, or the interruption, failure or compromise of the Company’s information systems due to events including but not limited to aging information systems infrastructure, computer viruses and cyber security breaches;
- the implementation and operations of business information systems and processes;
- increasingly aggressive domestic and foreign governmental regulation of hazardous and other materials and regulations affecting health, safety and the environment;
- our ability to address safety, human health, social, product liability and environmental risks associated with our current and historical products, product life cycles and production processes;
- competitive factors, including intense price competition;
- increased, and possibly inconsistent, domestic and foreign regulations of privacy and data security;
- changes in U.S. and other governments’ trade policies;
- 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; sale of products and materials into highly regulated industries;
- limited or no redundancy for certain of the Company’s manufacturing facilities and possible interruption of operations at those facilities;
- our ability to attract and retain key personnel;
- exposure to lawsuits, governmental investigations and proceedings relating to current and historical operations and products;
- Ferro’s ability to protect its intellectual property, including trade secrets, or to successfully resolve claims of infringement brought against it;
- 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;
- borrowing costs that could be affected adversely by interest rate increases;

Cautionary Note on Forward-Looking Statements (continued)

- management of Ferro's general and administrative expenses;
- the impact of the Tax Cuts and Jobs Act on our business;
- 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;
- risks and uncertainties associated with intangible assets;
- the effectiveness of strategies to increase Ferro's return on invested capital, internal rate of return and other return metrics, and the short-term impact that acquisitions may have on such metrics;
- liens on the Company's assets by its lenders affect its ability to dispose of property and businesses; and
- amount and timing of any repurchase of Ferro's common stock.

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, 2019 and in our subsequent Quarterly Reports on Form 10-Q.

Ferro Corporation

Investor & Media Contact:

Kevin Cornelius Grant, 216.875.5451

Director of Investor Relations and Corporate Communications

kevincornelius.grant@ferro.com

Table 1
Ferro Corporation and Subsidiaries
Condensed Consolidated Statements of Operations (unaudited)

(In thousands, except per share amounts)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2020	2019	2020	2019
Net sales	\$ 241,877	\$ 245,339	\$ 699,004	\$ 769,679
Cost of sales	171,711	169,277	484,356	536,628
Gross profit	70,166	76,062	214,648	233,051
Selling, general and administrative expenses	47,820	47,543	154,407	157,723
Restructuring and impairment charges	2,447	2,065	12,231	7,862
Other expense (income):				
Interest expense	4,767	6,002	16,474	18,578
Interest earned	(474)	(813)	(1,035)	(2,456)
Foreign currency losses, net	1,450	3,655	1,278	7,662
Miscellaneous expense (income), net	(438)	(2,467)	(2,604)	(2,103)
Income before income taxes	14,594	20,077	33,897	45,785
Income tax expense	5,047	3,347	10,364	8,893
Income from continuing operations	9,547	16,730	23,533	36,892
Income (loss) from discontinued operations, net of income taxes	5,367	(3,520)	2,350	1,305
Net income	14,914	13,210	25,883	38,197
Less: Net income attributable to noncontrolling interests	440	390	826	902
Net income attributable to Ferro Corporation common shareholders	<u>\$ 14,474</u>	<u>\$ 12,820</u>	<u>\$ 25,057</u>	<u>\$ 37,295</u>
Earnings (loss) per share attributable to Ferro Corporation common				
Basic earnings (loss):				
Continuing operations	0.11	0.20	0.28	0.44
Discontinued operations	0.07	(0.04)	0.03	0.01
Diluted earnings (loss):				
Continuing operations	0.11	0.20	0.27	0.44
Discontinued operations	0.06	(0.04)	0.03	0.01
Shares outstanding:				
Weighted-average basic shares	82,261	81,942	82,201	82,118
Weighted-average diluted shares	82,771	82,495	82,891	82,956
End-of-period basic shares	82,291	81,968	82,291	81,968

Table 2
Ferro Corporation and Subsidiaries
Segment Net Sales, Gross Profit and SG&A (unaudited)

(Dollars in thousands)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2020	2019	2020	2019
Segment Net Sales				
Functional Coatings	\$ 154,218	\$ 154,744	\$ 441,325	\$ 485,462
Color Solutions	87,659	90,595	257,679	284,217
Total segment net sales	\$ 241,877	\$ 245,339	\$ 699,004	\$ 769,679
Segment Gross Profit				
Functional Coatings	\$ 41,906	\$ 47,275	\$ 125,842	\$ 144,812
Color Solutions	28,450	29,122	89,222	87,220
Other costs of sales	(190)	(335)	(416)	1,019
Total gross profit	\$ 70,166	\$ 76,062	\$ 214,648	\$ 233,051
Selling, general and administrative expenses				
Strategic services	\$ 22,363	\$ 25,254	\$ 69,474	\$ 80,101
Functional services	21,831	21,633	72,274	70,118
Incentive compensation	2,018	356	6,109	1,559
Stock-based compensation	1,608	300	6,550	5,945
Total selling, general and administrative expenses	\$ 47,820	\$ 47,543	\$ 154,407	\$ 157,723

Table 3
Ferro Corporation and Subsidiaries
Condensed Consolidated Balance Sheets (unaudited)

(Dollars in thousands)

	September 30, 2020	December 31, 2019
ASSETS		
Current assets		
Cash and cash equivalents	\$ 64,495	\$ 96,202
Accounts receivable, net	148,050	139,333
Inventories	272,797	264,476
Other receivables	69,933	69,365
Other current assets	15,724	22,373
Current assets held-for-sale	285,229	291,420
Total current assets	856,228	883,169
Other assets		
Property, plant and equipment, net	303,291	302,672
Goodwill	173,241	172,209
Intangible assets, net	120,658	127,815
Deferred income taxes	103,380	98,714
Operating leased assets	14,246	20,088
Other non-current assets	88,361	72,023
Non-current assets held-for-sale	163,103	157,931
Total assets	<u>\$ 1,822,508</u>	<u>\$ 1,834,621</u>
LIABILITIES AND EQUITY		
Current liabilities		
Loans payable and current portion of long-term debt	\$ 8,764	\$ 8,703
Accounts payable	92,702	138,799
Accrued payrolls	30,232	27,447
Accrued expenses and other current liabilities	103,344	73,016
Current liabilities held-for-sale	89,481	133,780
Total current liabilities	324,523	381,745
Other liabilities		
Long-term debt, less current portion	798,775	798,862
Postretirement and pension liabilities	170,467	174,021
Operating leased non-current liabilities	9,000	14,474
Other non-current liabilities	59,300	56,976
Non-current liabilities held-for-sale	69,535	38,341
Total liabilities	1,431,600	1,464,419
Equity		
Total Ferro Corporation shareholders' equity	380,629	360,376
Noncontrolling interests	10,279	9,826
Total liabilities and equity	<u>\$ 1,822,508</u>	<u>\$ 1,834,621</u>

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

(Dollars in thousands)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2020	2019	2020	2019
Cash flows from operating activities				
Net income	\$ 14,914	\$ 13,210	\$ 25,883	\$ 38,197
Loss (gain) on sale of assets	(428)	272	78	(947)
Depreciation and amortization	9,799	13,691	30,653	42,041
Interest amortization	1,071	968	2,866	2,780
Restructuring and impairment	28	3,079	6,944	9,837
Accounts receivable	(56,534)	(7,252)	(107,551)	(78,082)
Inventories	44,793	5,919	10,022	(9,182)
Accounts payable	(33,487)	(4,980)	(78,576)	(63,452)
Other current assets and liabilities, net	12,396	4,280	10,750	3,735
Other adjustments, net	5,528	(17,478)	(7,550)	(12,167)
Net cash provided by (used in) operating activities	(1,920)	11,709	(106,481)	(67,240)
Cash flows from investing activities				
Capital expenditures for property, plant and equipment and other long-lived assets	(6,699)	(3,186)	(21,681)	(40,820)
Collections of financing receivables	34,719	19,633	97,299	60,904
Business acquisitions, net of cash acquired	-	-	-	(251)
Other investing activities	25	32	803	1,930
Net cash provided by investing activities	28,045	16,479	76,421	21,763
Cash flows from financing activities				
Net borrowings under loans payable	(12,103)	692	(683)	8,220
Principal payments on term loan facility - Amended Credit Facility	(2,050)	(2,050)	(6,150)	(6,150)
Proceeds from revolving credit facility - Amended Credit Facility	38,336	50,646	398,336	216,066
Principal payments on revolving credit facility - Amended Credit Facility	(49,213)	(70,652)	(392,596)	(193,595)
Purchase of treasury stock	-	-	-	(25,000)
Other financing activities	690	(189)	(728)	(757)
Net cash provided by (used in) financing activities	(24,340)	(26,753)	(1,821)	(6,416)
Effect of exchange rate changes on cash and cash equivalents	679	(1,005)	174	(667)
Increase (decrease) in cash and cash equivalents	2,464	430	(31,707)	(52,560)
Cash and cash equivalents at beginning of period	70,231	51,311	104,402	104,301
Cash and cash equivalents at end of period	72,695	51,741	72,695	51,741
Less: Cash and cash equivalents of discontinued operations at end of period	8,200	8,200	8,200	8,200
Cash and cash equivalents of continuing operations at end of period	\$ 64,495	\$ 43,541	\$ 64,495	\$ 43,541
Cash paid during the period for:				
Interest	\$ 3,440	\$ 8,518	\$ 20,176	\$ 25,475
Income taxes	\$ 5,283	\$ 4,594	\$ 13,005	\$ 12,845

Table 5
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Reported Income to Adjusted Income
For the Three Months Ended September 30 (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 ⁷	Net income attributable to common shareholders	Diluted earnings per share
2020							
As reported	\$ 171,711	\$ 47,820	\$ 2,447	\$ 5,305	\$ 5,047	\$ 9,107	\$ 0.11
Adjustments:							
Restructuring	-	-	(2,447)	-	-	2,447	0.03
Acquisition related costs ⁴	-	(153)	-	-	-	153	-
Costs related to optimization projects ³	(1,559)	(1,783)	-	-	-	3,342	0.04
Costs related to divested businesses and assets	-	(763)	-	(200)	-	963	0.01
Other ⁵	(453)	-	-	(1,044)	-	1,497	0.02
Tax on adjustments	-	-	-	-	1,785	(1,785)	(0.02)
Total adjustments ⁸	(2,012)	(2,699)	(2,447)	(1,244)	1,785	6,617	0.08
As adjusted	\$ 169,699	\$ 45,121	\$ -	\$ 4,061	\$ 6,832	\$ 15,724	\$ 0.19
2019							
As reported	\$ 169,277	\$ 47,543	\$ 2,065	\$ 6,377	\$ 3,347	\$ 16,340	\$ 0.20
Adjustments:							
Restructuring	-	-	(2,065)	-	-	2,065	0.03
Acquisition related costs ²	(479)	(527)	-	-	-	1,006	0.01
Costs related to optimization projects ⁴	(1,097)	(1,053)	-	-	-	2,150	0.03
Costs related to divested businesses and assets	-	(926)	-	(62)	-	988	0.01
Other ⁶	-	-	-	(1,323)	-	1,323	0.02
Tax on adjustments	-	-	-	-	1,755	(1,755)	(0.02)
Total adjustments ⁸	(1,576)	(2,506)	(2,065)	(1,385)	1,755	5,777	0.07
As adjusted	\$ 167,701	\$ 45,037	\$ -	\$ 4,992	\$ 5,102	\$ 22,117	\$ 0.27

- (1) The adjustments to "Selling general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs.
- (2) The adjustments to "Cost of Sales" primarily include environmental costs related to our recent acquisitions. The adjustments to "Selling general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs.
- (3) Costs related to Optimization projects of \$3.3 million include costs associated with our Americas manufacturing optimization initiative of \$2.3 million, which is comprised of costs for process development and production testing, professional fees for legal and tax services, supplies and equipment commissioning, and utility setup and testing. The remaining \$1.0 million of costs relate to global optimization projects and discrete projects at our previous acquisitions.
- (4) Costs related to Optimization projects of \$2.2 million include costs associated with our Americas manufacturing optimization initiative of \$2.1 million, which is comprised of costs for process development and production testing, professional fees for legal and tax services, supplies and equipment commissioning, and utility setup and testing. The remaining \$0.1 million of costs relate to global optimization projects and discrete projects at our previous acquisitions.
- (5) The adjustments to "Other expense, net" relate to losses from fire in Columbia and impacts of currency related items in Thailand.
- (6) The adjustments to "Other expense, net" relate to impacts of currency related items in Argentina.
- (7) Income tax expense reflects the reported expense, adjusted for adjustments being tax effected at the respective statutory rate where the item originated.
- (8) Due to rounding, total earnings per share related to adjustments does not always add to the total adjusted earnings per share.

It should be noted that adjusted net 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 by excluding these costs, our adjusted earnings per share better reflect our underlying business performance, as well as being considered in our internal evaluation of financial performance. These costs are ones that we have concluded are not normal, recurring cash operating expenses necessary to operate our business, and we believe it is useful to present this non-GAAP financial measure to provide investors greater comparability of our base business.

Table 6
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Reported Income to Adjusted Income
For the Nine Months Ended September 30 (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 ⁷	Net income attributable to common shareholders	Diluted earnings per share
2020							
As reported	\$ 484,356	\$ 154,407	\$ 12,231	\$ 14,113	\$ 10,364	\$ 22,707	\$ 0.27
Adjustments:							
Restructuring	-	-	(12,231)	-	-	12,231	0.15
Acquisition related costs ¹	(9)	(1,223)	-	-	-	1,232	0.01
Costs related to optimization projects ³	(4,662)	(7,228)	-	-	-	11,890	0.14
Costs related to divested businesses and assets	-	(4,006)	-	(307)	-	4,313	0.05
Other ⁵	(453)	-	-	(1,044)	-	1,497	0.02
Tax on adjustments	-	-	-	-	7,259	(7,259)	(0.09)
Total adjustments ⁸	(5,124)	(12,457)	(12,231)	(1,351)	7,259	23,904	0.29
As adjusted	\$ 479,232	\$ 141,950	\$ -	\$ 12,762	\$ 17,623	\$ 46,611	\$ 0.56
2019							
As reported	\$ 536,628	\$ 157,723	\$ 7,862	\$ 21,681	\$ 8,893	\$ 35,990	\$ 0.44
Adjustments:							
Restructuring	-	-	(7,862)	-	-	7,862	0.09
Acquisition related costs ²	(875)	(2,968)	-	(768)	-	4,611	0.06
Costs related to optimization projects ⁴	(5,383)	(3,688)	-	(50)	-	9,121	0.11
Costs related to divested businesses and assets	-	(1,732)	-	(201)	-	1,933	0.02
Other ⁶	-	-	-	(86)	-	86	-
Tax on adjustments	-	-	-	-	5,818	(5,818)	(0.07)
Total adjustments ⁸	(6,258)	(8,388)	(7,862)	(1,105)	5,818	17,795	0.21
As adjusted	\$ 530,370	\$ 149,335	\$ -	\$ 20,576	\$ 14,711	\$ 53,785	\$ 0.65

- (1) The adjustments to "Selling general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs.
- (2) The adjustments to "Cost of Sales" primarily include the amortization of purchase accounting adjustments related to our recent acquisitions and environmental costs related to our recent acquisitions. The adjustments to "Selling general and administrative expenses" primarily include legal, professional and other expenses related to acquisition costs. The adjustments to "Other expense, net" primarily relate to earn out adjustments related to an acquisition that are beyond the measurement period.
- (3) Cost related to Optimization projects of \$11.9 million includes costs associated with our Americas manufacturing optimization initiative of \$7.4 million, which is comprised of costs for process development and production testing, professional fees for legal and tax services, supplies and equipment commissioning, and utility setup and testing. The remaining \$4.7 million of costs relate to global optimization projects and discrete projects at our previous acquisitions.
- (4) Cost related to Optimization projects of \$9.1 million includes costs associated with our Americas manufacturing optimization initiative of \$9.1 million, which is comprised of costs for process development and production testing, professional fees for legal and tax services, supplies and equipment commissioning, and utility setup and testing.
- (5) The adjustments to "Other expense, net" relate to losses from fire in Columbia and impacts of currency related items in Thailand.
- (6) The adjustments to "Other expense, net" relate to gains and losses on asset sales and impacts of currency related items in Argentina.
- (7) Income tax expense reflects the reported expense, adjusted for adjustments being tax effected at the respective statutory rate where the item originated.
- (8) Due to rounding, total earnings per share related to adjustments does not always add to the total adjusted earnings per share.

It should be noted that adjusted net 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 by excluding these costs, our adjusted earnings per share better reflect our underlying business performance, as well as being considered in our internal evaluation of financial performance. These costs are ones that we have concluded are not normal, recurring cash operating expenses necessary to operate our business, and we believe it is useful to present this non-GAAP financial measure to provide investors greater comparability of our base business.

Table 7
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Adjusted Gross Profit

(Dollars in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Functional Coatings	\$ 154,218	\$ 154,744	\$ 441,325	\$ 485,462
Color Solutions	87,659	90,595	257,679	284,217
Total net sales	<u>\$ 241,877</u>	<u>\$ 245,339</u>	<u>\$ 699,004</u>	<u>\$ 769,679</u>
Total net sales	\$ 241,877	\$ 245,339	\$ 699,004	\$ 769,679
Adjusted cost of sales ¹	169,699	167,701	479,232	530,370
Adjusted gross profit	<u>\$ 72,178</u>	<u>\$ 77,638</u>	<u>\$ 219,772</u>	<u>\$ 239,309</u>
Adjusted gross profit percentage	29.8%	31.6%	31.4%	31.1%

(1) Refer to Table 5 for the reconciliation of adjusted cost of sales for the three months ended September 30, 2020 and 2019, respectively. Refer to Table 6 for the reconciliation of adjusted cost of sales for the nine months ended September 30, 2020 and 2019, respectively.

It should be noted that adjusted gross profit 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 this data provides investors with additional useful 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)	Three Months Ended September 30,			
	2019	Adjusted 2019 ¹	2020	2020 vs Adjusted 2019
Segment net sales				
Functional Coatings	\$ 154,744	\$ 155,530	\$ 154,218	\$ (1,312)
Color Solutions	90,595	91,548	87,659	(3,889)
Total segment net sales	<u>\$ 245,339</u>	<u>\$ 247,078</u>	<u>\$ 241,877</u>	<u>\$ (5,201)</u>
Segment adjusted gross profit				
Functional Coatings	\$ 48,051	\$ 48,197	\$ 42,912	\$ (5,285)
Color Solutions	29,018	29,167	28,903	(264)
Other costs of sales	615	608	363	(245)
Total adjusted gross profit ²	<u>\$ 77,684</u>	<u>\$ 77,972</u>	<u>\$ 72,178</u>	<u>\$ (5,794)</u>
Adjusted selling, general and administrative expenses				
Strategic services	\$ 25,264	\$ 25,457	\$ 22,272	\$ (3,185)
Functional services	19,161	19,388	19,198	(190)
Incentive compensation	311	333	2,042	1,709
Stock-based compensation	300	300	1,608	1,308
Total adjusted selling, general and administrative expenses ³	<u>\$ 45,036</u>	<u>\$ 45,478</u>	<u>\$ 45,120</u>	<u>\$ (358)</u>
Adjusted operating profit	\$ 32,648	\$ 32,494	\$ 27,058	\$ (5,436)
Adjusted operating profit as a % of net sales	13.3%	13.2%	11.2%	

- (1) Reflects the remeasurement of 2019 reported and adjusted local currency results using 2020 exchange rates, resulting in constant currency comparative figures to 2020 reported and adjusted results. See Table 5 for Non-GAAP adjustments applicable to the three month period.
- (2) Refer to Table 7 for the reconciliation of adjusted gross profit for the three months ended September 30, 2020 and 2019, respectively.
- (3) Refer to Table 5 for the reconciliation of adjusted SG&A expenses for the three months ended September 30, 2020 and 2019, respectively.

It should be noted that adjusted net sales, gross profit, SG&A expenses, and operating profit 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 are presented within this table, as well as Table 5 and Table 7. We believe this data provides investors with additional useful 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
Constant Currency Schedule of Adjusted Operating Profit (unaudited)

(Dollars in thousands)	Nine Months Ended September 30,			
	2019	Adjusted 2019 ¹	2020	2020 vs Adjusted 2019
Segment net sales				
Functional Coatings	\$ 485,462	\$ 478,215	\$ 441,325	\$ (36,890)
Color Solutions	284,217	281,913	257,679	(24,234)
Total segment net sales	\$ 769,679	\$ 760,128	\$ 699,004	\$ (61,124)
Segment adjusted gross profit				
Functional Coatings	\$ 147,539	\$ 145,240	\$ 129,902	\$ (15,338)
Color Solutions	89,129	88,718	89,698	980
Other costs of sales	2,799	2,808	170	(2,638)
Total adjusted gross profit²	\$ 239,467	\$ 236,766	\$ 219,770	\$ (16,996)
Adjusted selling, general and administrative expenses				
Strategic services	\$ 80,067	\$ 79,099	\$ 69,093	\$ (10,006)
Functional services	62,399	62,116	60,179	(1,937)
Incentive compensation	1,470	1,440	6,133	4,693
Stock-based compensation	5,419	5,419	6,550	1,131
Total adjusted selling, general and administrative expenses³	\$ 149,355	\$ 148,074	\$ 141,955	\$ (6,119)
Adjusted operating profit	\$ 90,112	\$ 88,692	\$ 77,815	\$ (10,877)
Adjusted operating profit as a % of net sales	11.7%	11.7%	11.1%	

- (1) Reflects the remeasurement of 2019 reported and adjusted local currency results using 2020 exchange rates, resulting in constant currency comparative figures to 2020 reported and adjusted results. See Table 6 for Non-GAAP adjustments applicable to the six month period.
- (2) Refer to Table 7 for the reconciliation of adjusted gross profit for the nine months ended September 30, 2020 and 2019, respectively.
- (3) Refer to Table 6 for the reconciliation of adjusted SG&A expenses for the nine months ended September 30, 2020 and 2019, respectively.

It should be noted that adjusted net sales, gross profit, SG&A expenses, and operating profit 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 are presented within this table, as well as Table 6 and Table 7. We believe this data provides investors with additional useful 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
Reconciliation of Net income attributable to Ferro Corporation
common shareholders to Adjusted EBITDA (unaudited)

(Dollars in thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net income attributable to Ferro Corporation common shareholders	\$ 9,107	\$ 16,340	\$ 22,707	\$ 35,990
Net income attributable to noncontrolling interests	440	390	826	902
Restructuring and impairment charges	2,447	2,065	12,231	7,862
Other (income) expense, net	538	375	(2,361)	3,103
Interest expense	4,767	6,002	16,474	18,578
Income tax expense	5,047	3,347	10,364	8,893
Depreciation and amortization	10,870	11,220	33,519	32,180
Less: interest amortization expense and other	(1,071)	(968)	(2,866)	(2,780)
Cost of sales adjustments ¹	2,012	1,576	5,124	6,258
SG&A adjustments ¹	2,699	2,506	12,457	8,388
Adjusted EBITDA	<u>\$ 36,856</u>	<u>\$ 42,853</u>	<u>\$ 108,475</u>	<u>\$ 119,374</u>
Net sales	\$ 241,877	\$ 245,339	\$ 699,004	\$ 769,679
Adjusted EBITDA as a % of net sales	15.2%	17.5%	15.5%	15.5%

(1) For details of Non-GAAP adjustments, refer to Table 5 and Table 6 for the reconciliation of adjusted cost of sales and adjusted SG&A for the three and nine months ended September 30, 2020 and 2019, 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. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 11
Ferro Corporation and Subsidiaries
Supplemental Information
Change in Net Debt (unaudited)

(Dollars in thousands)

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2020	2019	2020	2019
Beginning of period				
Gross debt	\$ 835,486	\$ 872,184	\$ 811,450	\$ 826,224
Cash	62,031	51,311	96,202	104,301
Debt, net of cash	773,455	820,873	715,248	721,923
Unamortized debt issuance costs	4,314	4,356	3,885	4,827
Debt, net of cash and unamortized debt issuance costs	769,141	816,517	711,363	717,096
End of period				
Gross debt	811,556	850,048	811,556	850,048
Cash	64,495	51,741	64,495	51,741
Debt, net of cash	747,061	798,307	747,061	798,307
Unamortized debt issuance costs	4,017	4,121	4,017	4,121
Debt, net of cash and unamortized debt issuance costs	743,044	794,186	743,044	794,186
Unamortized debt issuance costs	(297)	(235)	132	(706)
FX on cash	679	(1,005)	174	(667)
Period decrease (increase) in debt, net of cash, unamortized debt issuance costs and FX	\$ 25,715	\$ 23,571	\$ (31,987)	\$ (75,717)
Period decrease (increase) in debt, net of cash and unamortized debt issuance costs	\$ 26,097	\$ 22,331	\$ (31,681)	\$ (77,090)

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 this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.

Table 12
Ferro Corporation and Subsidiaries
Supplemental Information
Reconciliation of Net Cash Used in Operating Activities (GAAP) to
Adjusted Free Cash Flow (Non-GAAP) (unaudited)

(Dollars in thousands)	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2020	2019	2020	2019
Cash flows from operating activities				
Net income	\$ 14,914	\$ 13,210	\$ 25,883	\$ 38,197
Loss (gain) on sale of assets	(428)	272	78	(947)
Depreciation and amortization	9,799	13,691	30,653	42,041
Interest amortization	1,071	968	2,866	2,780
Restructuring and impairment	28	3,079	6,944	9,837
Accounts receivable	(56,534)	(7,252)	(107,551)	(78,082)
Inventories	44,793	5,919	10,022	(9,182)
Accounts payable	(33,487)	(4,980)	(78,576)	(63,452)
Other current assets and liabilities, net	12,396	4,280	10,750	3,735
Other adjustments, net	5,528	(17,478)	(7,550)	(12,167)
Net cash provided by (used in) operating activities (GAAP)	\$ (1,920)	\$ 11,709	\$ (106,481)	\$ (67,240)
Less: Capital Expenditures	(6,699)	(3,186)	(21,681)	(40,820)
Plus: Cash collected for AR securitization	34,719	19,633	97,299	60,904
Adjusted Free Cash Flow (Non-GAAP)	26,100	28,156	(30,863)	(47,156)
Net Income Attributable to Ferro Corporation Common Shareholders	14,474	12,820	25,057	37,295
Adjusted Free Cash Flow Conversion of Net Income Attributable to Ferro Corporation Common Shareholders	180.3%	219.6%	-123.2%	-126.4%

It should be noted that Adjusted Free Cash Flow is a financial measure not required by, or presented in accordance with, accounting principles generally accepted in the United States (U.S. GAAP). The 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 these financial measures to the most comparable U.S. GAAP financial measures is presented. Adjusted Free Cash Flow (Non-GAAP) is calculated as Cash Flow used in operating activities (GAAP), less capital expenditures and adding cash collected from the Accounts Receivable Securitization program. We believe this data provides investors with additional useful information on the underlying operations and trends of the business and enables period-to-period comparability of financial performance.