





KOPPERS

INVESTING IN OUR PEOPLE-BASED CULTURE

Barrington Research Toronto & Montreal November 26-27, 2018



# **Senior Management**



Leroy M. Ball

President and Chief Executive Officer





Michael J. Zugay
Chief Financial Officer





## **Forward Looking Statement**

Certain statements in this presentation are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 and may include, but are not limited to, statements about sales levels, acquisitions, restructuring, profitability and anticipated synergies, expenses and cash outflows. All forward-looking statements involve risks and uncertainties. All statements contained herein that are not clearly historical in nature are forward-looking, and words such as "believe," "anticipate," "expect," "estimate," "may," "will," "should," "continue," "plans," "potential," "intends," "likely," or other similar words or phrases are generally intended to identify forward-looking statements. Any forward-looking statement contained herein, in press releases, written statements or documents filed with the Securities and Exchange Commission, or in Koppers communications with and discussions with investors and analysts in the normal course of business through meetings, phone calls and conference calls, regarding expectations with respect to sales, earnings, cash flows, operating efficiencies, restructurings, the benefits of acquisitions and divestitures or other matters as well as financings and debt reduction, are subject to known and unknown risks, uncertainties and contingencies. Many of these risks, uncertainties and contingencies are beyond our control, and may cause actual results, performance or achievements to differ materially from anticipated results, performance or achievements. Factors that might affect such forward-looking statements, include, among other things, the impact of changes in commodity prices, such as oil and copper, on product margins; general economic and business conditions; potential difficulties in protecting our intellectual property; the ratings on our debt and our ability to repay or refinance outstanding indebtedness; our ability to operate within the limitations of our debt covenants; potential impairment of our goodwill and/or long-lived assets; demand for Koppers goods and services; competitive conditions; interest rate and foreign currency rate fluctuations; availability of key raw materials and unfavorable resolution of claims against us, as well as those discussed more fully elsewhere in this release and in documents filed with the Securities and Exchange Commission by Koppers, particularly our latest annual report on Form 10-K and subsequent filings. Any forward-looking statements in this presentation speak only as of the date of this presentation, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after that date or to reflect the occurrence of unanticipated events.

Note: There are non-GAAP amounts in this presentation for which reconciliations to GAAP are provided in the company's quarterly financial news releases, which are posted to our website at <a href="www.koppers.com">www.koppers.com</a>. To access the reconciliations, go to the company's homepage, select "Investor Relations" and then "News Releases".



# **Strategic Overview**

#### **Investment Thesis**



Global leader in oil and water-borne preservatives serving many market applications for treated wood

Successfully transitioned from a business built on producing carbon pitch to serve global aluminum industry into an enterprise centered on the preservation and enhancement of wood

#### Knowledge of wood preservation is a core competency

- Largest integrated producer of wood treatment preservatives for railroad crosstie industry in North America
- Performance Chemicals wood treatment preservatives serve various residential, industrial and agricultural markets

# Strategic plan to deliver significant profitability improvements; continue to enhance product portfolio and capital structure

- Focusing on network optimization, commercial development and cost savings
- Improved CMC profitability by streamlining footprint/cost structure
- Reduced dependence on highly cyclical industries tied to oil and aluminum

Wood Treatment
Technologies Are At
The Heart Of Our
Value Creation Model



## **Business Strategy**



#### Strengthen Balance Sheet and Improve Financial Flexibility

- Strong focus on debt reduction; acquisitions made in early 2018
- Pro-forma net debt to adjusted EBITDA ≤ 4.2 by 12/31/18; 5.1 net leverage ratio at 12/31/14
- Refinanced debt in February 2017:
  - ✓ Extended senior notes from 2019 to 2025; moved to unsecured status
  - ✓ Increased senior notes from \$300M to \$500M
  - ✓ Reduced coupon rate from 7.875% to 6.0%
  - ✓ Eliminated term loan and mandatory annual amortization of \$30M
  - ✓ Extended revolving credit facility from 2019 to 2022

# Improve Profitability and Expand Margin

- Restructured CMC operating footprint; improved segment Adj.
   EBITDA margins from low of 1.5% in 2015 to 18.1% in LTM 9/30/18
- Divested small, non-core, margindilutive businesses
- Reduced exposure to low-margin Chinese business by exiting two joint-ventures
- Performance Chemicals business increased sales from 21% in 2014 pro-forma sales compared with 25% in LTM 9/30/18
- Improved consolidated Adj.
   EBITDA margins from 7.5% in 2014 to 13.8% in LTM 9/30/18

# Repositioned as a Leader in Wood Treatment Technologies

- Focusing on wood treatment and protection technology; niche markets with small number of sizable competitors
- Tighter focus around core competency of wood allows for better stability and visibility of earnings stream
- Investing capacity to serve increased demand of copperbased wood preservative products; improve distribution of oil-borne wood preservative products
- Pursue growth opportunities through selective tuck-in acquisitions primarily in wood related markets

#### At-A-Glance

**KOPPERS** 

- Leading integrated global provider of oil and water-borne preservatives serving various market applications of treated wood
- Right-sized CMC business
- Global geographic footprint:
   46 locations across North
   America, South America, Asia,
   Europe and Australia

2017 Sales: \$1,476M

#### **Selected Product & Brand Overview**





MicroPro





Treated Crossties with End Plates

#### Sales by End Market Sales by Geography Sales by Segment Adj. EBITDA by Segment<sup>1</sup> ■ Railroad Railroad & Utility ■ Railroad & Utility **Products and Services** ■Wood Preservatives ■U.S. Products and Services 19% ■ Europe Aluminum 21% 40% ■ Performance ■ Performance 52% Chemicals Australasia Chemicals Utilities 29% 12% ■ Emerging Markets 25% ■ Phthalic Anhydride ■ Carbon Materials & ■ Carbon Materials & Chemicals ■ Creosote/CBF Chemicals ■ Other

9/30/18 LTM Sales: \$1,651M

1) Excludes corporate unallocated amounts

9/30/18 LTM Adj EBITDA: \$228M





Unique Product & Service Portfolio; Niche End Market Focus				
	Railroad and Utility Products and Services (RUPS)	Performance Chemicals (PC)	Carbon Materials and Chemicals (CMC)	
LTM 9/30/18 Key Financials <sup>1,2</sup>	<ul><li>Net Sales: \$580 Million</li><li>Adj. EBITDA: \$43 Million</li><li>Adj. EBITDA Margin: 7.5%</li></ul>	<ul> <li>Net Sales: \$414 Million</li> <li>Adj. EBITDA: \$68 Million</li> <li>Adj. EBITDA Margin: 16.4%</li> </ul>	<ul> <li>Net Sales: \$657 Million</li> <li>Adj. EBITDA: \$119 Million</li> <li>Adj. EBITDA Margin: 18.1%</li> </ul>	
Highlights	<ul> <li>Largest Supplier of Railroad Crossties in North America</li> <li>#1 Provider of Utility Poles in Eastern U.S.; #2 in U.S.</li> </ul>	Global Leader in Developing, Manufacturing/Marketing Wood Preservation Chemicals and Technologies	<ul> <li>Largest Supplier of Creosote to Railroad Industry in N.A.</li> <li>Vertically Integrated with RUPS</li> </ul>	
Products & Services	<ul><li>Railroad Crossties</li><li>Railroad Bridge Services</li><li>Rail Joint Bars</li><li>Utility Poles</li></ul>	<ul> <li>Wood Preservation Chemicals</li> <li>Coatings</li> <li>Water Repellants</li> <li>Pigmented Stains</li> <li>Fire Retardants</li> </ul>	<ul><li>Carbon Pitch</li><li>Creosote</li><li>Carbon Black Feedstock</li><li>Naphthalene</li><li>Phthalic Anhydride</li></ul>	
Market Position Market Growth Key Market Drivers	<ul><li>#1 or #2</li><li>1-3%</li><li>Crosstie and Utility Pole Replacement Cycles</li></ul>	<ul><li>#1</li><li>2-4%</li><li>Repair &amp; Remodel; Existing Home Sales</li></ul>	<ul><li>#1 or #2</li><li>1-3%</li><li>Global Industrial Growth</li><li>Crosstie Replacement Cycle</li></ul>	

<sup>&</sup>lt;sup>1</sup> Excludes corporate unallocated amounts

<sup>&</sup>lt;sup>2</sup> Adjusted EBITDA margin defined as Adjusted EBITDA as a percentage of GAAP sales





### **Zero Harm Culture**



- Committed to creating a Zero Harm culture that strives to place the well-being of our employees, the protection of the environment and the strength of our communities first at all times.
  - Requires a heightened awareness of process safety, product safety, environmental stewardship and security.
  - Empowers each Koppers employee to ensure safe operations and to act to identify and correct unsafe situations in real time.
- Achieved certification in American Chemistry Council's Responsible Care<sup>®</sup> initiative across 18 global facilities and corporate headquarters to date.





## **Zero Harm – YTD** (as of 9/30/2018)



#### 23 of 46 operating locations free of OSHA recordables

РС			
Christchurch			
Darlington			
Marlow			
Mt. Gambier			
Rock Hill			











# **Investment Highlights**

# Leading Global Producer of Wood Preservation and Enhancement Products



#### **Products Play Critical Role In End Application; Often Have No Substitutes**

	Product	Market Position
Wood- Related	North American Crosstie	#1
	North American Wood Treating Chemicals	#1
	North American Creosote	#1
	Australian Creosote	#1
	Australian Utility Poles	#1
	Australian / New Zealand Wood Treating Chemicals	#1
	South / Central American Wood Treating Chemicals	#1
Other	Australian Carbon Pitch <sup>1</sup>	#1
	North American Merchant Phthalic Anhydride <sup>2</sup>	#1

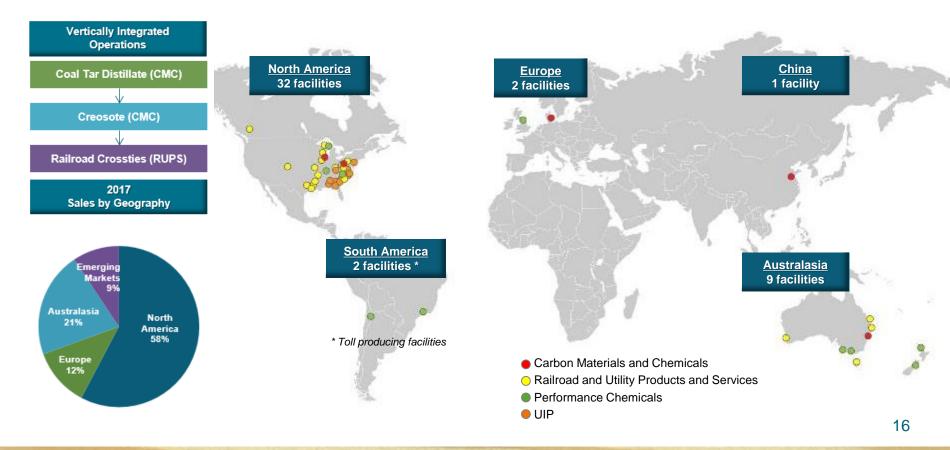
<sup>&</sup>lt;sup>1</sup> Australian carbon pitch includes New Zealand market

<sup>&</sup>lt;sup>2</sup> Reflects merchant market sales

## Vertically Integrated; Strategically Located Footprint



- Well positioned to capitalize on strong market presence; focusing on growth opportunities in wood preservation
- Significantly improved efficiency; consolidated coal tar distillation facilities from 11 to 4 (2014-2016)
- CMC processes coal tar into creosote consumed by RUPS for treatment of railroad crossties



# Railroad & Utility Products and Services: Near-Term Challenges; Improving YOY



- Longer-term outlook remains solid for railroads and overall economy; continue to monitor potential threats including potential trade disputes (Source: Association of American Railroads)
  - ✓ Year-to-date 9/30/18 compared to prior year period: U.S. carload traffic up 2%; intermodal units 6% higher; total combined U.S. traffic increased 4%
- Hardwood lumber demand softening; sharp declines in hardwood lumber sales volumes due to changing economic conditions in China; potential effects from impending tariffs may negatively impact hardwood industry and availability of lumber (Source: Rail Tie Association)
- Managing near-term challenges; forecasting higher profitability YOY in 2018
  - ✓ As green tie inventory builds, more dry crosstie inventory available for treating.
  - Pricing and volumes on commercial crossties remain strong
  - ✓ UIP and MAER integration teams evaluating opportunities to leverage combined treating and distribution network
- Providing end-to-end sustainable supply solution to customer base; helping railroad customers improve sustainability profile by responsibly disposing treated tie waste

# Performance Chemicals: Steady Gains in Attractive End Markets

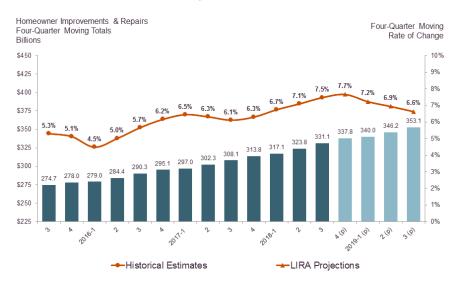


#### Growth Drivers: Existing Home Sales; Repair & Remodel Activity

- Market for existing homes continues to show mixed signals according to the National Association of Realtors®
  - ✓ Existing home sales decreased in September, 4.1% lower than prior year
  - ✓ Affordable home listings remain low; existing home prices driven higher due to lack of inventory
  - Rising interest rates led to decline in sales across all regions of U.S.
- LIRA estimates YOY increases in residential remodeling expenditures will reach decade high of 7.7% in 2018 then soften to 6.6% in 2019, yet expected to grow to \$350+ billion
- Conference Board Consumer Confidence Index increased in September to 138.4 (18-year high), up from 134.7 in August
- Focusing on price realization as raw material costs continue to increase; copper pricing higher beginning in 2017 and continuing into 2018
  - ✓ Hedging majority of requirements for 2-3 years; lessen impact from rapidly fluctuating commodity markets
  - ✓ Average hedged prices increased from prior year; expect to continue in 2019

#### **U.S. Homeowner Improvements & Repairs**

## Leading Indicator of Remodeling Activity 3rd Quarter 2018



Notes: Historical estimates since 2015 are produced using the LIRA model until American Housing Survey data become available

Source: Joint Center for Housing Studies of Harvard University

## Long-Term Contracts with Key Customers



#### Key Customers Include Railroad, Wood Preservation & Other Blue-Chip Industrial Companies

- Approximately 70% of North American RUPS sales are served under long-term contracts
- Currently supply and have contracts with all 7 North American Class I railroads
- Supplies 9 of 10 largest lumber treating companies in U.S., in addition to top 3 lumber treating companies in Canada
- Deploys a key risk mitigation strategy to hedge underlying copper prices, a key raw material, associated with processing PC products
- 100% of creosote supply for RUPS comes from CMC



## **Successfully Repositioned Business**

Strengthening Our Market Position; Optimizing Our Portfolio			
Strategic Initiatives	Actions Taken		
Implementing Strategic Plan to Deliver Significant Profitability Improvements	<ul> <li>Anticipate \$25M-\$40M of profitability improvements from network optimization, commercial development opportunities, and raw materials and other cost savings (over 5-year period)</li> <li>Expect 2019 to benefit from \$10M in strategic initiatives, full year of contribution from acquisitions, new commercial opportunities in PC, cyclical recovery in RUPS, and savings of \$15M in CMC related to new naphthalene unit at facility in Stickney, IL</li> </ul>		
Strong Debt Reduction Focus  Long-term Goal:  2.0x – 3.0x Net Leverage Ratio	<ul> <li>Continue to generate strong operating cash flow</li> <li>Capital expenditures expected to be significantly lower in 2019 at ~\$50M</li> <li>Pro-forma net debt to adjusted EBITDA projected to be ≤ 4.2x by 12/31/18</li> </ul>		
Streamlined CMC Business	<ul> <li>Improved CMC profitability to 18.1% adjusted EBITDA for LTM 9/30/18; expect adjusted EBITDA of 9-15% through economic cycle</li> <li>Ceased distillation or sold 7 of 11 facilities by year-end 2016</li> </ul>		
Reduced China Risk Profile	<ul> <li>Exited 2 of 3 joint ventures in China</li> <li>Restructured loan agreements in China; renegotiated soft pitch agreement with Nippon Steel and received \$30M (July 2015)</li> </ul>		
Continue to Enhance Business Profile	<ul> <li>Acquired Cox Industrial utility pole business (April 2018); M.A. Energy Resources (Feb 2018)</li> <li>Divested non-core businesses</li> <li>✓ CMC – U.K. Specialty Chemicals business; Clairton, Port Clarence &amp; Scunthorpe distillation facilities; TKK minority-held JV</li> <li>✓ RUPS – KSA concrete tie joint venture; Wood Protection lumber-treating business</li> </ul>		



# **Utility and Industrial Products**

(Cox Industries Acquisition)



## **Growth-Focused, Strategic Investment**

#### **Strategic Criteria**

- Directly in or adjacent to core wood protection
- Growth at/above total company or catalyst to achieve
- Strong management; track record of performance
- Good fit for implementing Zero Harm practices
- Complementary to existing businesses
- Leverage existing core competencies



#### **Financial Criteria**

- Adjusted EBITDA multiple, net of synergies and tax benefits, < trading multiple for KOP shares
- IRR and ROI > WACC
- Accretive to existing KOP margin; clear path to margin expansion
- Reasonable investment level in R&D and capex
- Strong free cash flows

# Combining Industry Leaders in Wood Treatment Market







- Global leader in oil and water-borne preservatives serving many market applications for treated wood
- Largest integrated producer of wood treatment preservatives for N.A. railroad crosstie industry
- Global geographic footprint across North America,
   South America, Asia, Europe and Australia

- Largest supplier of utility poles in eastern U.S.
   and major supplier in entire U.S.
- Supplies power distribution and transmission poles and pilings to investor-owned utilities, electric cooperatives and municipalities.
- 8 manufacturing locations, 3 peeling facilities and 19 reload yards in U.S.; market leadership position with further opportunities for growth

Global Leader in High Value, Vertically Integrated, Wood-Based Solutions Market

# **Strengthens Market Position as Vertically Integrated Wood Treatment Leader**



## Advances Strategic Transformation

- Creates leading utility pole and wood treatment producer; re-entering market as secondlargest supplier to U.S. utility pole industry; better scale to compete
- Represents strategic milestone; advances strategy of being a vertically integrated, high-value global supplier of wood-based technologies to infrastructure markets
- Aligned with long-term goal of developing unique end-to-end solutions from wood preservation chemicals, to finished products, to end-of-life disposal

## Maintains Attractive Financial Profile

- Vertically integrated model provides cost savings synergies and incremental sales opportunities; transaction structure provides tax benefits of ~\$24M in net present value
- Acquired for ~\$200M in cash; funded with debt financing; expect pro-forma net debt to adjusted EBITDA ratio of ≤ 4.2x by 12/31/18; goal of 2x-3x net leverage ratio over long-term

# **Provides Growth Opportunities**

- Provides scale in large and attractive U.S. utility pole market; ~\$850M estimated opportunity
- Potential for growth in range of geographies, end-markets and product categories
- Strategically located facilities to enable shipments throughout U.S. and other key markets

#### Brings Additional Leadership Capabilities

- Established business leaders; culture of growth and innovation
- Strong operational expertise; consistent with Zero Harm focus
- Track record of disciplined execution and value creation

# **Strong Presence in Utility Pole Treatment**



# Poles Pillings Specialty Lumber

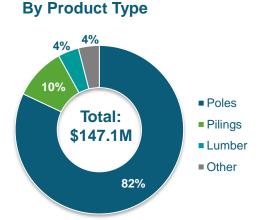
#### **Value Added Services**

- National Wood Sourcing
- Sustainable Management
   Systems
- Storm Response
- Recovery Services

#### **Geographic Footprint**

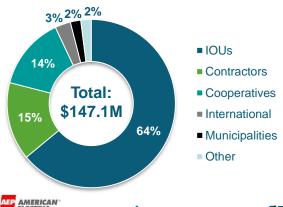


#### 2017 Revenues \*





#### **By Customer Type**







<sup>\* 2017</sup> revenues do not include acquisitions made by Cox Industries of TEC and Langdale

# **Utility Poles: Treatment & Delivery**











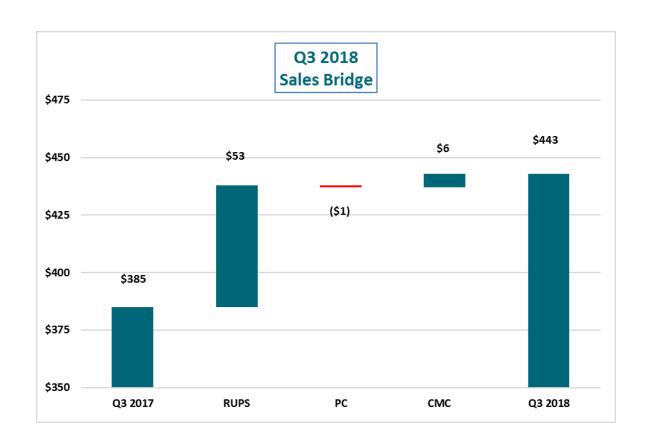
# **Financial Overview**



# Q3 2018 Results

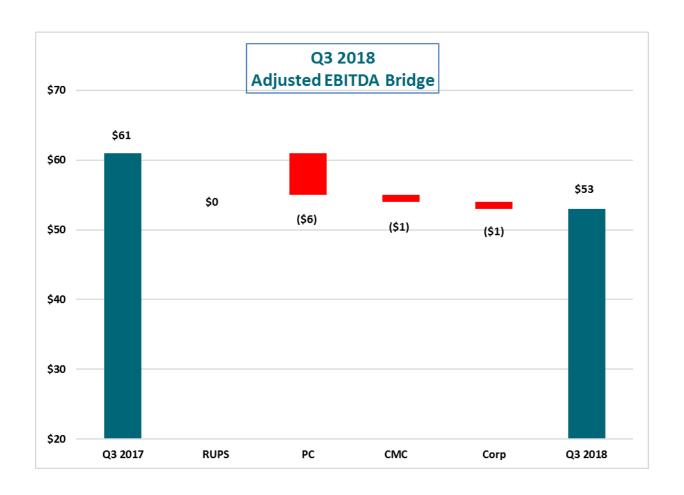
## Q3 Sales of \$443M: Reflects Growth from RUPS Acquisitions





# Q3 Adjusted EBITDA of \$53M: Continued Headwinds in PC

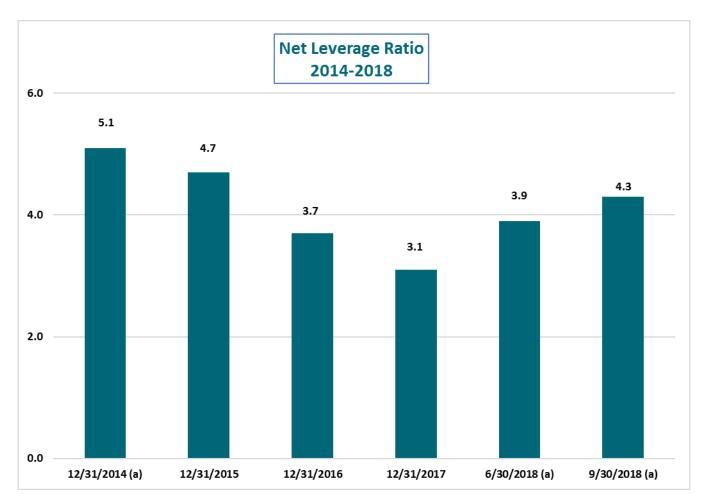




# **Net Leverage Ratio: Focusing on Debt Reduction; 4.2X by 12/31/18**



(\$ in millions)



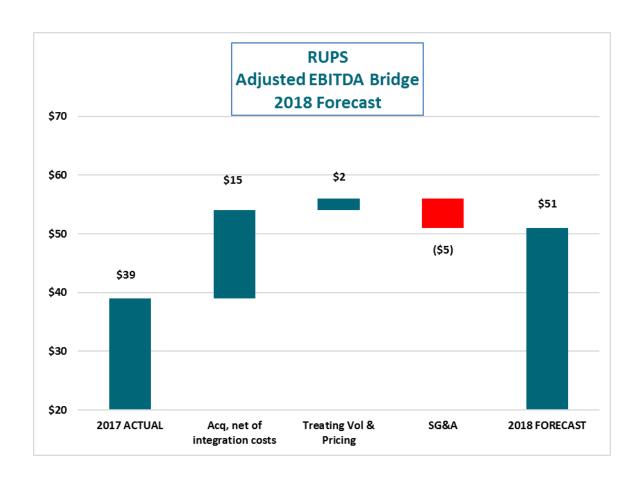
(a) Pro-forma



# 2018 Guidance

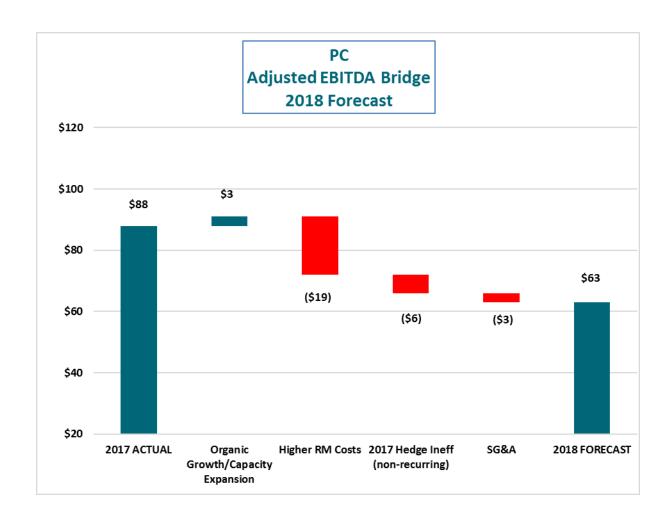
# **2018 Adjusted EBITDA Forecast: RUPS Growth Primarily Driven by Acquisitions**





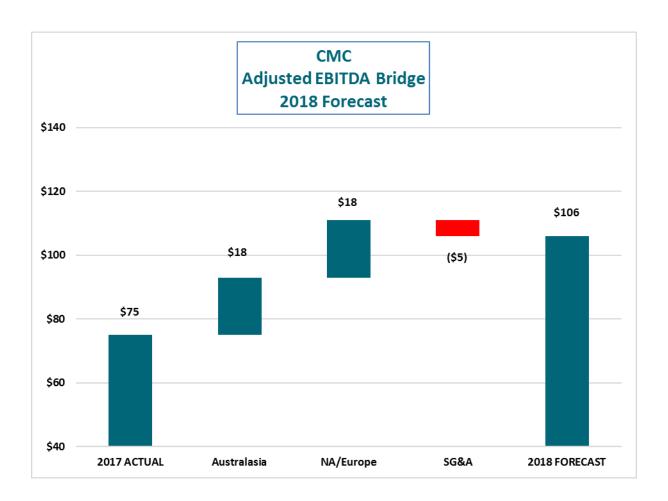
# 2018 Adjusted EBITDA Forecast: PC Lower Profitability; Higher Raw Material Costs





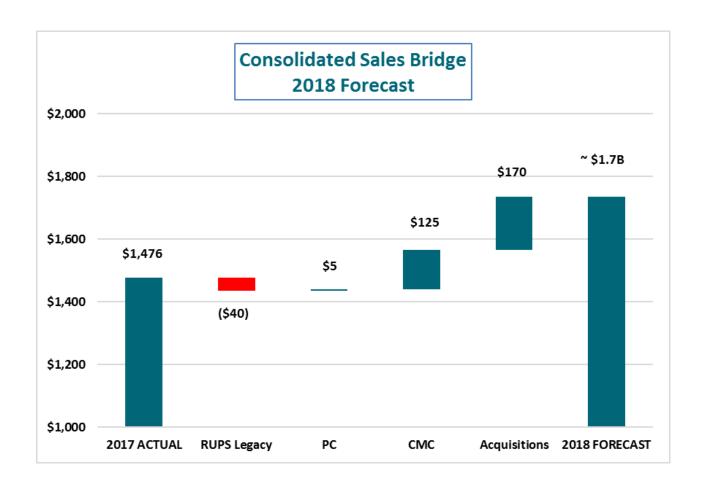
# **2018 Adjusted EBITDA Forecast: CMC Improved Profitability Globally**





## 2018 Sales Forecast of ~\$1.7B; RUPS Acquisitions & CMC Driving Growth

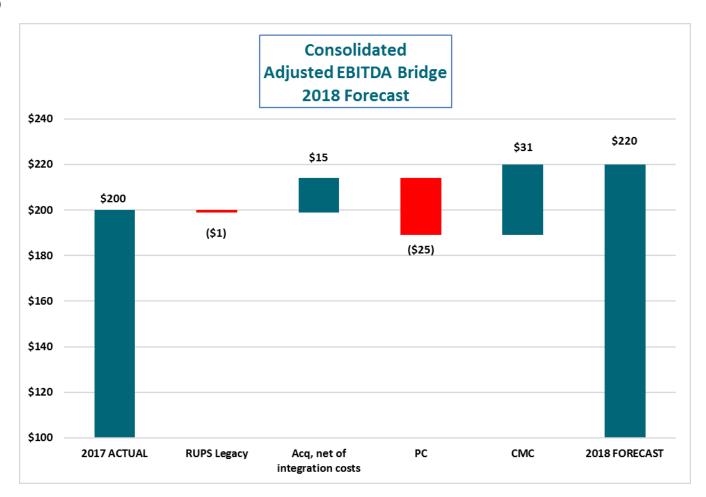




### 2018 Adjusted EBITDA Forecast: CMC & RUPS Acquisitions Driving Profitability



(\$ in millions)





#### **Appendix**



#### **Non-GAAP Measures and Guidance**

This presentation includes unaudited "non-GAAP financial measures" as defined in Regulation G under the Securities Exchange Act of 1934, including adjusted EBITDA and net leverage ratio. Koppers believes that the presentation of non-GAAP financial measures such as adjusted EBITDA and net leverage ratio provide information useful to investors in understanding the underlying operational performance of the company, its business and performance trends and facilitates comparisons between periods and with other corporations in similar industries. The exclusion of certain items permits evaluation and a comparison of results for ongoing business operations, and it is on this basis that Koppers management internally assesses the company's performance. In addition, the Board of Directors and executive management team use adjusted EBITDA as performance measures under the company's annual incentive plans.

Although Koppers believes that these non-GAAP financial measures enhance investors' understanding of its business and performance, these non-GAAP financial measures should not be considered an alternative to GAAP basis financial measures and should be read in conjunction with the relevant GAAP financial measure. Other companies in a similar industry may define or calculate these measures differently than the company, limiting their usefulness as comparative measures. Because of these limitations, these non-GAAP financial measures should not be considered in isolation from, or as substitutes for performance measures calculated in accordance with GAAP.

For the company's guidance, adjusted EBITDA, adjusted EBITDA margin and adjusted EPS excludes restructuring, impairment, non-cash LIFO charges, acquisition-related costs, and non-cash mark-to-market commodity hedging. The forecasted amounts for these items cannot be reasonably estimated due to their nature, but may be significant. For that reason, the company is unable to provide GAAP earnings estimates at this time. Final results could also be affected by various other factors that management is unaware of at this time.

References to historical EBITDA herein means adjusted EBITDA, for which the company has provided calculations and reconciliations in the Appendix.



#### **Unaudited Segment Information**

	Three Months Ended September 30, 2018 2017			'	<u>Nine iviontris Eri</u> 2018	<u>eptember 30,</u> 2017	
(Dollars in millions)	20.0		20.7.	•	20.0		20
Net sales:							
Railroad and Utility Products and Services \$	185.0	\$	131.7	\$	470.6	\$	403.1
Performance Chemicals	108.2		109.7		320.7		318.2
Carbon Materials and Chemicals	149.5		143.4		493.5		388.1
Total \$	442.7	\$	384.8	\$	1,284.8	\$	1,109.4
Operating profit (loss):							
Railroad and Utility Products and Services \$	5.8	\$	9.5	\$	5.9	\$	30.1
Performance Chemicals	11.0		18.4		28.2		56.6
Carbon Materials and Chemicals	14.9		16.3		64.6		24.9
Corporate Unallocated	(0.5)		(9.2)		(1.9)		(10.4)
Total \$	31.2	\$	35.0	\$	96.8	\$	101.2
Operating profit margin:							
Railroad and Utility Products and Services	3.19	%	7.2%	)	1.3%		7.5%
Performance Chemicals	10.29	%	16.8%	•	8.8%		17.8%
Carbon Materials and Chemicals	10.09	%	11.4%	)	13.1%		6.4%
Total	7.09	%	9.1%		7.5%		9.1%
Depreciation and amortization:							
Railroad and Utility Products and Services \$	4.9	\$	2.9	\$	12.8	\$	8.8
Performance Chemicals	4.4		4.4		13.3		13.3
Carbon Materials and Chemicals	3.7		4.8		12.4		12.9
Total \$	13.0	\$	12.1	\$	38.5	\$	35.0
Adjusted EBITDA <sup>(1)</sup> :							_
Railroad and Utility Products and Services \$	12.3	\$	11.9	\$	31.5	\$	37.4
Performance Chemicals	16.6		22.2		48.3		69.4
Carbon Materials and Chemicals	24.9		26.1		95.2		51.5
Corporate Unallocated	(0.5)		0.3		(0.3)		(0.2)
Total \$	53.3	\$	60.5	\$	174.7	\$	158.1
Adjusted EBITDA margin <sup>(2)</sup> :							_
Railroad and Utility Products and Services	6.69	%	9.0%	)	6.7%		9.3%
Performance Chemicals	15.39	%	20.2%	)	15.1%		21.8%
Carbon Materials and Chemicals	16.79	%	18.2%	)	19.3%		13.3%
Total	12.09	%	15.7%	)	13.6%		14.3%

<sup>(1)</sup> The tables below describe the adjustments to EBITDA for the three and nine months ended September 30, 2018 and 2017, respectively.

<sup>(2)</sup> Adjusted EBITDA as a percentage of GAAP sales.

### **Unaudited Reconciliation of Operating Profit To EBITDA and Adjusted EBITDA**



(In millions)

,-		,								
						Three months ended September 30, 2018				
							Cor	porate		
	R	UPS		PC	(	CMC	Una	llocated	Cons	olidated
Operating profit (loss)	\$	5.8	\$	11.0	\$	14.9	\$	(0.5)	\$	31.2
Other income (loss)		(0.2)		0.2		(0.6)		(0.1)		(0.7)
Depreciation and amortization		4.9		4.4		3.7		0.0		13.0
Depreciation in impairment and restructuring charges		0.0		0.0		1.0		0.0		1.0
EBITDA with noncontrolling interest	\$	10.5	\$	15.6	\$	19.0	\$	(0.6)	\$	44.5
Unusual items impacting EBITDA:										
CMC restructuring		0.0		0.0		4.7		0.0		4.7
RUPS treating plant closures		(0.2)		0.0		0.0		0.0		(0.2)
Non-cash LIFO expense		1.4		0.0		0.3		0.0		1.7
Acquisition closing costs		0.0		0.0		0.0		0.1		0.1
Mark-to-market commodity hedging		0.0		1.0		0.0		0.0		1.0
Contract buyout		0.1		0.0		0.0		0.0		0.1
UIP inventory purchase accounting adjustment		0.5		0.0		0.0		0.0		0.5
Sale of specialty chemicals business		0.0		0.0		0.9		0.0		0.9
Adjusted EBITDA	\$	12.3	\$	16.6	\$	24.9	\$	(0.5)	\$	53.3
Adj. EBITDA % of Consolidated Adj. EBITDA (excluding corporate unallocated)		22.9%		30.9%		46.3%				

### **Unaudited Reconciliation of Operating Profit To EBITDA and Adjusted EBITDA**



/1		
/In	mıl	lions)
( , , , ,	,,,,,,	1101137

				Three mo	nths e	nded Septe	ember	30, 2017
					Co	rporate		
	R	RUPS	PC	CMC	Una	allocated	Con	solidated
Operating profit (loss)	\$	9.5	\$ 18.4	\$ 16.3	\$	(9.2)	\$	35.0
Other income (loss)		(0.6)	0.4	(0.2)		0.7		0.3
Depreciation and amortization		2.9	4.4	4.8		0.0		12.1
Depreciation in impairment and restructuring charges		0.0	0.0	1.3		0.0		1.3
EBITDA with noncontrolling interest	\$	11.8	\$ 23.2	\$ 22.2	\$	(8.5)	\$	48.7
Unusual items impacting EBITDA:								
CMC restructuring		0.0	0.0	4.3		0.0		4.3
RUPS treating plant closures		0.2	0.0	0.0		0.0		0.2
Non-cash LIFO benefit		(0.1)	0.0	(0.4)		0.0		(0.5)
Mark-to-market commodity hedging (non-cash)		0.0	(1.0)	0.0		0.0		(1.0)
Pension settlement charge		0.0	0.0	0.0		8.8		8.8
Adjusted EBITDA	\$	11.9	\$ 22.2	\$ 26.1	\$	0.3	\$	60.5
Adj. EBITDA % of Consolidated Adj. EBITDA (excluding corporate unallocated)		19.8%	36.9%	43.4%				

# **Unaudited Reconciliation of LTM Net Income To EBITDA and Adjusted EBITDA**



	Twelve months ended September 30, 2018							
		RUPS		PC		CMC	Corporate Unallocated	Consolidated
Net income	\$	2.7	\$	42.6	\$	53.0	\$ (80.5)	\$ 17.8
Interest expense including refinancing		-		-		2.9	47.5	50.4
Depreciation and amortization		15.8		17.9		31.7		65.4
Income tax provision		(0.5)		3.6		13.0	25.1	41.2
(Income) loss from discontinued operations		-		-		(8.0)	-	(8.0)
EBITDA		18.0		64.1		99.8	(7.9)	174.0
Unusual items impacting net income:								
Impairment, restructuring and plant closure		1.4		-		17.7	-	19.1
Non-cash LIFO expense (benefit)		5.8		-		1.6	-	7.4
Mark-to-market commodity hedging		-		4.0		-	-	4.0
Reimbursement of environmental costs		-		(0.3)		-	-	(0.3)
Acquisition closing costs		-		-		-	3.1	3.1
Sale of land		-		-		-	1.1	1.1
Contract buyout		1.6		-		-	-	1.6
UIP inventory purchase accounting adjustment		6.0		-		-	-	6.0
Pension settlement charge		-		-		-	1.1	1.1
Adjusted EBITDA with noncontrolling interests	\$	32.8	\$	67.8	\$	119.1	\$ (2.6)	\$ 217.1
Proforma adjusted EBITDA from acquisitions		10.5		-		-	-	10.5
Proforma adjusted EBITDA with noncontrolling interests	\$	43.3	\$	67.8	\$	119.1	\$ (2.6)	\$ 227.6
% Total Sales		35.1%		25.1%		39.8%		
Sales	\$	580.1	\$	413.7	\$	657.1		\$ 1,650.9
Adj EBITDA %		7.5%		16.4%		18.1%		13.8%

## **Unaudited Reconciliation of Total Debt To Net Debt and Net Leverage Ratio**



	(In	millio	ns)		
				Year	ended December 31,
					Pro-
					Forma
			2016	2015	2014
Total Debt		\$	662.4	\$ 722.3	\$ 850.5
Less: Cash			20.8	21.8	\$ -
Net Debt		\$	641.6	\$ 700.5	\$ 850.5
Adjusted EBITDA		\$	174.2	\$ 150.2	\$ 167.1
Net Leverage Ratio	_		3.7	4.7	5.1

## **Unaudited Reconciliation of Total Debt To Net Debt and Net Leverage Ratio**



#### (In millions)

<u> </u>				Twelve months ended
		Proforma	Proforma	
	Jui	ne 30, 2018	September 30, 2018	December 31, 2017
Total Debt	\$	1,000.1 \$	1,044.9 \$	677.0
Less: Cash		62.5	62.5	60.3
Net Debt	\$	937.6 \$	982.4 \$	616.7
Adjusted EBITDA	\$	242.9 \$	227.6 \$	200.4
Net Leverage Ratio	·	3.9	4.3	3.1

## **Unaudited Reconciliation of Net Income To EBITDA and Adjusted EBITDA (LTM)**



(In millions)		
, ,	Tv	velve months ended June 30, 2018
Net income	\$	30.8
Interest expense including refinancing		46.0
Depreciation and amortization		65.0
Income tax provision		37.2
(Income) loss from discontinued operations		(8.0)
EBITDA		178.2
Unusual items impacting net income:		
Impairment, restructuring and plant closure		18.1
Non-cash LIFO expense (benefit)		5.3
Mark-to-market commodity hedging		2.0
Reimbursement of environmental costs		(0.3)
Acquisition closing costs		3.0
Sale of land		1.1
Contract buyout		1.5
UIP inventory purchase accounting adjustment		5.5
Pension settlement charge		10.0
Adjusted EBITDA with noncontrolling interests	\$	224.4
Proforma adjusted EBITDA from acquisitions		18.5
Proforma adjusted EBITDA with noncontrolling interests	\$	242.9

## **Unaudited Reconciliation of Net Income To EBITDA and Adjusted EBITDA (LTM)**



#### (In millions)

		Twelve months ended
	 September 30, 2018	December 31, 2017
Net income	\$ 17.8	\$ 30.5
Interest expense including refinancing	50.4	55.8
Depreciation and amortization	65.5	62.8
Income tax provision	41.1	29.0
(Income) loss from discontinued operations	 (8.0)	0.8
EBITDA	174.0	178.9
Unusual items impacting net income:		
Impairment, restructuring and plant closure	18.1	15.9
Non-cash LIFO expense (benefit)	7.5	(0.5)
Mark-to-market commodity hedging	4.0	(3.5)
Reimbursement of environmental costs	(0.3)	(0.4)
Acquisition closing costs	3.1	0.0
Sale of land	1.1	0.0
Contract buyout	1.6	0.0
UIP inventory purchase accounting adjustment	6.0	0.0
Sale of specialty chemicals business	0.9	0.0
Pension settlement charge	 1.1	10.0
Adjusted EBITDA with noncontrolling interests	\$ 217.1	\$ 200.4
Proforma adjusted EBITDA from acquisitions	10.5	0.0
Proforma adjusted EBITDA with noncontrolling interests	\$ 227.6	\$ 200.4



#### **Koppers Holdings Inc.**

436 Seventh Avenue Pittsburgh, PA 15219-1800

Koppers is an integrated global provider of treated wood products, wood treatment chemicals and carbon compounds for the railroad, specialty chemical, utility, residential lumber, agriculture, aluminum, steel, rubber, and construction industries. Headquartered in Pittsburgh, Pennsylvania, we serve our customers through a comprehensive global manufacturing and distribution network, with facilities located in North America, South America, Australasia, China and Europe.

#### **Stock Exchange Listing**

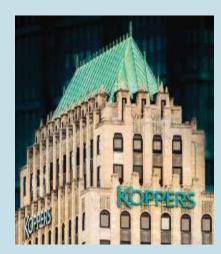
NYSE: KOP

#### **Investor Relations and Media Information**

Ms. Quynh McGuire
Director, Investor Relations and
Corporate Communications
412 227 2049
McGuireQT@koppers.com



Koppers is a a member of the American Chemistry Council.



KOPPERS World Headquarters Pittsburgh, Pennsylvania, USA





www.koppers.com