







INVESTING IN OUR PEOPLE-BASED CULTURE

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### **Company Overview**

### **Investment Thesis**



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

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

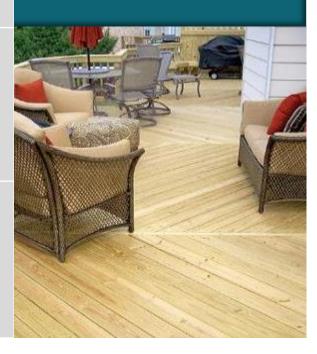
### Knowledge of wood preservation is a core competency

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

**Strategy continues to build momentum**; continue to evaluate opportunities to optimize product portfolio and capital structure

- ✓ Systematic approach of reducing dependence on highly cyclical industries tied to oil and aluminum
- ✓ Improved CMC profitability by streamlining footprint/cost structure

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



### **Business Strategy**



### Strengthen Balance Sheet and Improve Financial Flexibility

- Reduced total debt by ~\$174M from 12/31/14 through 12/31/17
- Reduced net leverage from 5.1 at 12/31/14 to 3.1 at 12/31/17
- Improved liquidity by ~\$187M from 12/31/15 to 12/31/17
- 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 and improved segment Adj. EBITDA margins from low of 1.5% in 2015 to 13.7% in 2017
- Divested small, non-core, margindilutive businesses
- Reduced exposure to low-margin Chinese business by exiting two joint-ventures
- Increased presence in highermargin Performance Chemicals business from 21% in 2014 proforma sales compared with 28% in 2017
- Improved consolidated Adj.
   EBITDA margins from 7.5% in 2014 to 13.6% in 2017

# Repositioned as a Leader in Wood Treatment Technologies

- 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 to serve increased demand of copper-based wood preservative products; improve distribution of oil-borne wood preservative products
- Wood treatment technology sales <50% in 2013 vs. 69% in 2017
- 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
- De-emphasizing CMC business
- Global geographic footprint:
   30 locations across North America,
   South America, Asia, Europe and
   Australia

### **Selected Product and Brand Overview**







2017 Adj EBITDA: \$200M





Treated Crossties with End Plates

#### Adj. EBITDA by Segment<sup>1</sup> Sales by End Market Sales by Geography Sales by Segment Railroad ■ Railroad & Utility ■ Railroad & Utility Products and Services ■ Wood Preservatives ■U.S. Products and Services 19% [VALÙ ■ Europe Aluminum 35% 21% 37% 37% ■ Performance ■ Performance Australasia Chemicals ■ Utilities 58% Chemicals 44% 12% ■ Emerging Markets 28% ■ Phthalic Anhydride ■ Carbon Materials & **TVALU** ■ Carbon Materials & Chemicals ■ Creosote/CBF Chemicals Other

1) Excludes corporate unallocated amounts

2017 Sales: \$1,476M





Unique Product & Service Portfolio; Niche End Market Focus				
	Railroad and Utility Products and Services (RUPS)	Performance Chemicals (PC)	Carbon Materials and Chemicals (CMC)	
Key 2017 Financials <sup>1,2</sup>	<ul> <li>Net Sales: \$513 Million</li> <li>Adj. EBITDA: \$39 Million</li> <li>Adj. EBITDA Margin: 7.5%</li> </ul>	<ul> <li>Net Sales: \$411 Million</li> <li>Adj. EBITDA: \$88 Million</li> <li>Adj. EBITDA Margin: 21.4%</li> </ul>	<ul> <li>Net Sales: \$552 Million</li> <li>Adj. EBITDA: \$75 Million</li> <li>Adj. EBITDA Margin: 13.7%</li> </ul>	
Highlights	Largest Supplier Of Railroad     Crossties To North American     Railroads	Global Leader In Developing, Manufacturing & Marketing Wood Preservation Chemicals/ Technologies	<ul> <li>Largest Supplier Of Creosote To North American Railroad Industry</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</li><li>1-3%</li><li>Crosstie Replacement Cycle</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

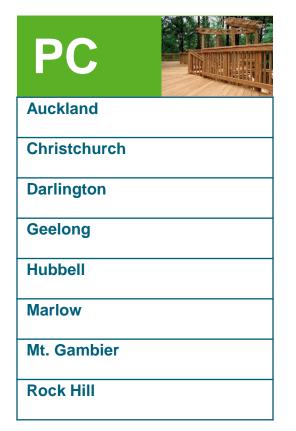




### **Zero Harm - Q1 2018**



## 23 of 31 operating locations worked free of OSHA recordable accidents.



СМС	
Clairton	
Follansbee	
KCCC	
KJCC	
Mayfield	
Nyborg	

RUPS
Ashcroft
Denver
Florence
Grafton
Huntington
North Little Rock
Railroad Structures
Somerville
Takura



### **Key Investment Highlights**





**Leading Global Producer of Wood Preservation and Enhancement Products** 

**Vertically Integrated, Strategically Located Footprint** 

**Stable Over Cycle; Steady Gains in Attractive End Markets** 

**Long-Term Contracts with Key Customers** 

**Successfully Repositioned the Business** 

# 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

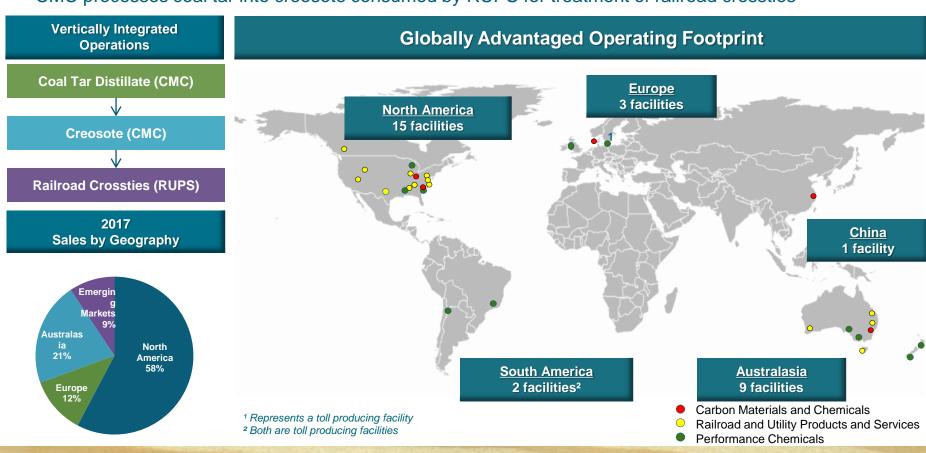
<sup>&</sup>lt;sup>1</sup> Australian carbon pitch includes New Zealand market

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

# Vertically Integrated, Strategically Located Footprint



- Well positioned to capitalize on strong market presence
- Significantly improved efficiency since consolidating coal tar distillation facilities from 11 to 4 over 3-year period (2014-2016)
- CMC processes coal tar into creosote consumed by RUPS for treatment of railroad crossties



# Railroad & Utility Products and Services: Near-term Challenges; Stable Over Cycle



- Near-term, railroad customers scaled back and focusing on cutting operating costs and working capital
- According to the AAR, Class I railroads shifted from being highly dependent on oil and gas, and coal mining industries to being more correlated to trade relations, commodity prices and interest rates
- Rail traffic through March quarter was largely positive
  - ✓ Total U.S. carload traffic was down 0.3% from prior year period
  - ✓ Intermodal units were up 5.5% from the prior year quarter
  - ✓ Combined U.S. traffic for carloads and intermodal units was 2.6% higher than prior year
- Overall, 2018 demand for crossties expected to be relatively flat to slightly up over prior year
- Production constraint challenging; however, expect to have continued positive impact on commercial pricing
  - ✓ Less available inventory of untreated crossties from saw mills
  - ✓ Lumber prices increased dramatically due to wet winter affecting production, combined with higher demand from other industries and overseas markets

# 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 NAR, existing home sales up 1.1% in March
  - ✓ Grew for second consecutive month, but 1.2% below prior year
  - ✓ Lagging inventory levels and affordability constraints kept sales activity below prior year levels
  - ✓ Healthy economic conditions creating considerable demand for purchasing homes, prospective buyers having difficulty finding affordable homes
  - ✓ Multiple winter storms and unseasonably cold weather contributed to decrease in contract signings in northeast
- Per LIRA (reported by Joint Center for Housing Studies of Harvard University), spending on value-adding home improvement and repairs in U.S. expected to grow 7.2% through March 2019
- Conference Board Consumer Confidence Index® increased in to 128.7 in April, up from 127.0 in March
  - Remains strong and suggests that economy will continue expanding at solid pace

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

### Leading Indicator of Remodeling Activity — First 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 Portfolio			
Strategic Initiatives	Actions Taken		
Reduce China Risk Profile	<ul> <li>Restructured loan agreements in China; renegotiated soft pitch agreement with Nippon Steel and received \$30M (July 2015)</li> <li>Divested TKK, a minority-held joint venture (November 2016)</li> <li>Exited 2 of 3 joint ventures in China</li> </ul>		
Streamline CMC Business	<ul> <li>Ceased distillation or sold 7 of 11 facilities by year-end 2016</li> <li>CMC revenues decreased from two-thirds to approx. one-third of consolidated sales</li> <li>Expect to improve CMC profitability to 9-15% adjusted EBITDA through economic cycle by year-end 2018; 2017 EBITDA at 13.7%</li> </ul>		
Aggressively Reduce Debt  Long-term Goal:  2.0x – 3.0x Net Leverage Ratio	<ul> <li>Strong operating cash flow; \$100M-\$120M+ annually</li> <li>Reduced debt to \$677M at 12/31/17, compared with \$851M at 12/31/14</li> <li>Lowered net leverage ratio to 3.1x at 12/31/17 and 3.7x at 12/31/16, compared with 4.7x at 12/31/14 (per bank agreements)</li> </ul>		
Secure Long-term Business of Key Customer Base	<ul> <li>Extended contracts with the BNSF, CSX, NS &amp; UP into 2020-2026</li> <li>Signed long-term rail joint agreements with NS (2019) &amp; UP (2021)</li> <li>Extended supply agreements with 2 largest PC customers</li> <li>Signed 2 long-term contracts expected to increase phthalic sales volume ≥ 20% YOY</li> </ul>		
Divest Non-core Assets	<ul> <li>CMC – Port Clarence &amp; Scunthorpe distillation facilities (July 2016); TKK (Nov 2016)</li> <li>RUPS – N.A. utility business (Jan 2015); KSA concrete tie joint venture (July 2015); Wood Protection dimensional lumber-treating business (Oct 2016)</li> </ul>		





**Leading Global Producer of Wood Preservation and Enhancement Products** 

**Vertically Integrated, Strategically Located Footprint** 

**Stable Over Cycle; Steady Gains in Attractive End Markets** 

**Long-Term Contracts with Key Customers** 

**Successfully Repositioned Business** 



# Strategic Rationale: Cox Industrial

# **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
- Pro-forma net debt to adjusted EBITDA ratio of < 4x; projected at ≤ 3.5x by 12/31/18; goal of 2x-3x net leverage ratio over long-term; not to exceed 4x on pro-forma basis with acquisitions
- Accretive to earnings in 2018; expect additional \$0.15-\$0.20 in adjusted EPS in 2018; annualized run rate of \$0.40-\$0.50 in adjusted EPS in 2019; increased 2018 guidance to ~\$1.9B in sales and ~\$240M in adjusted EBITDA

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

# 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



# Transaction Overview: Cox Industrial



### **Compelling Valuation & Terms**

### Consideration

 Acquired Cox Industrial for ~\$200M in cash; funded with debt financing; credit amendment in place; increased revolver to \$600M from \$400M; \$100M secured term loan

### Tax Benefits & Synergies

- Structured as acquisition of stock with mutual 338(h)(10) election, resulting in ~\$24M of Net Present Value tax benefits
- Estimated total synergies of at least \$5M annually from overhead cost savings, along with incremental sales opportunities for PC & CMC businesses through vertically integrated supply relationships

#### Attractive Valuation

- ~8x TEV based on Cox Industrial standalone 2018E Adjusted EBITDA of ~\$25M, excluding synergies and discounted future tax benefits
- ~6x TEV, net of synergies and discounted future tax benefits
- Accretive to earnings in 2018; expect acquisition to contribute adjusted EPS of \$0.15-\$0.20 in 2018 and \$0.40-\$0.50 in 2019

### **Timing**

Signed and closed acquisition on April 10, 2018



### **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



# **Business Overview: Cox Industrial**



### **Corporate Governance & Operations**

### **Corporate Governance**

- Cox Industrial re-named Utility and Industrial
   Products
- Mikee Johnson as Business Unit Leader
- Reports directly to CEO Leroy Ball
- Joins Koppers Executive Leadership team

### **Operations**

- Approximately 360 employees
- Current production facilities will remain operational
- Capital investments will be made as needed in areas such as safety, maintenance, productivity and growth

### **Strong Presence in Utility Pole Treatment**



# Poles Pilings Specialty Lumber

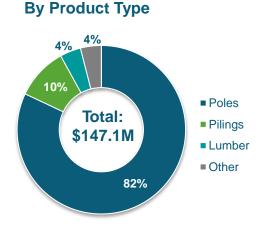
#### **Value Added Services**

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

### **Geographic Footprint**



### 2017 Revenues





# By Customer Type 3% 2% 2% 14% Contractors Cooperatives International Municipalities Other AMERICAN national grid EVERS⊕URCE Verizon Total: Statement of the power of



### **Appendix**

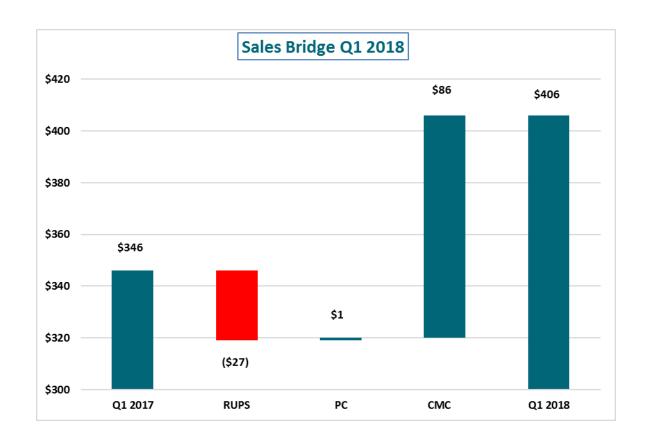


### Q1 2018 Results

### Q1 Sales of \$406M; Higher CMC Sales Offset RUPS Weakness



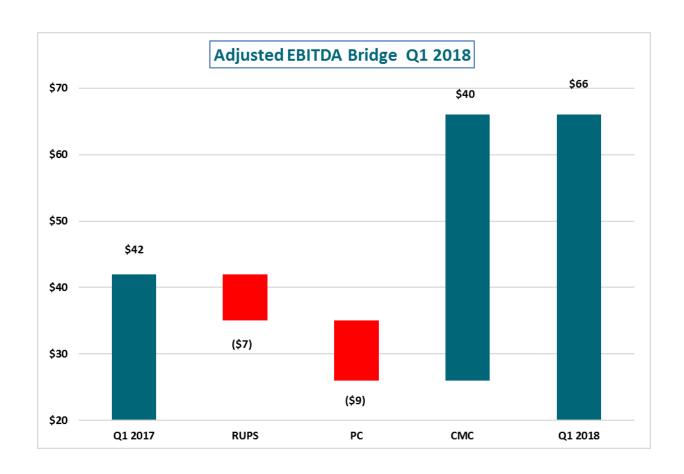
(\$ in millions)



# Q1 Adjusted EBITDA of \$66M; CMC Driving Higher Profitability



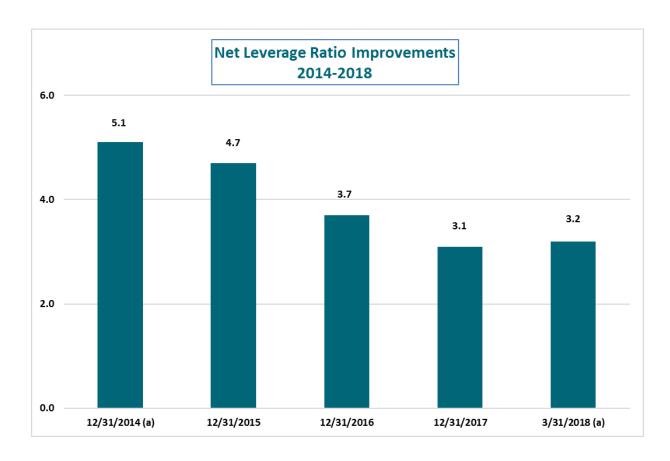
(\$ in millions)



# **Net Leverage Ratio: Significantly Improved Balance Sheet**



(\$ in millions)



(a) Pro-forma

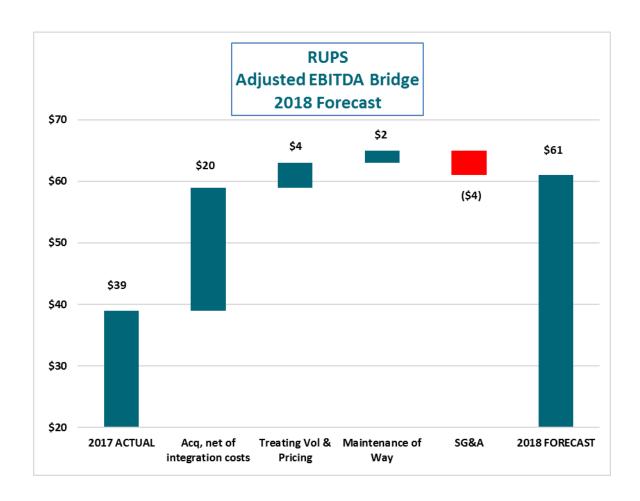


### 2018 Guidance

# 2018 Adjusted EBITDA Forecast: RUPS M&A Driven Improvement



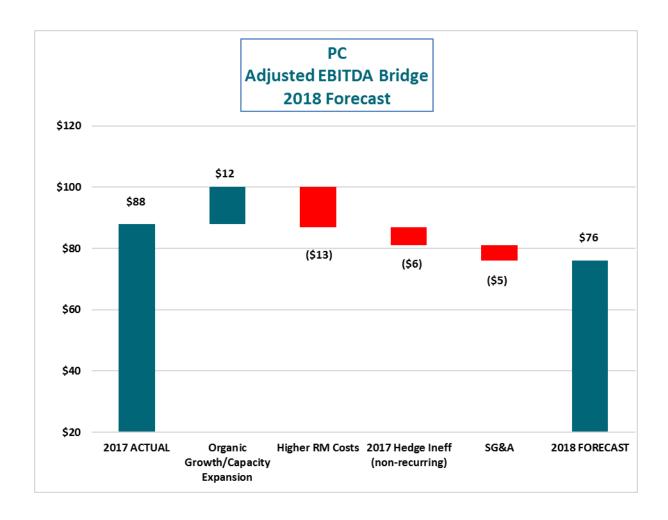
(\$ in millions)



# **2018 Adjusted EBITDA Forecast: PC Growth Offset by Raw Material Headwind**



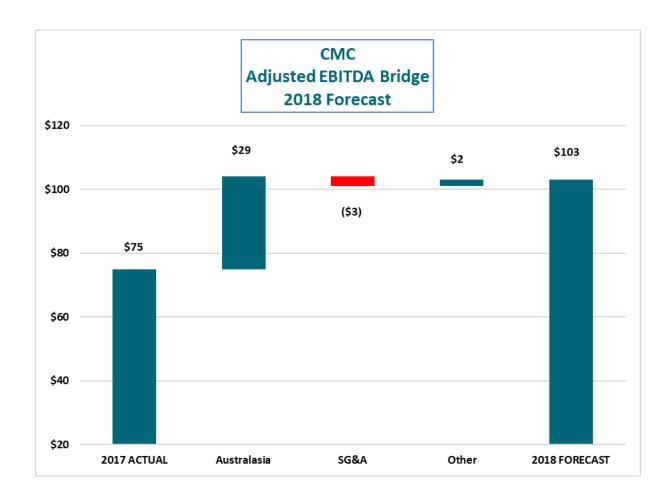
(\$ in millions)



## **2018 Adjusted EBITDA Forecast: CMC Australasia Drives Improvement**



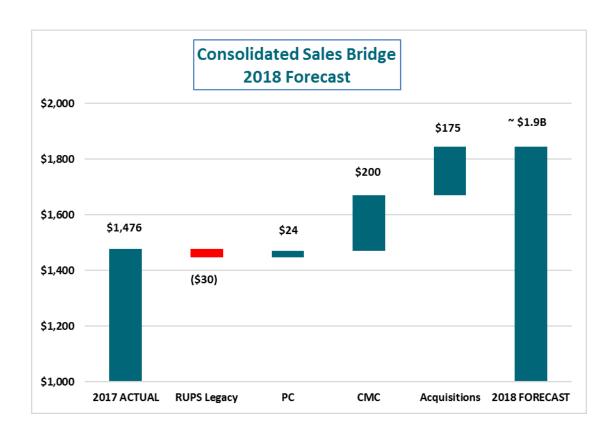
(\$ in millions)



## 2018 Sales Forecast of ~\$1.9B; Includes Recent Acquisitions



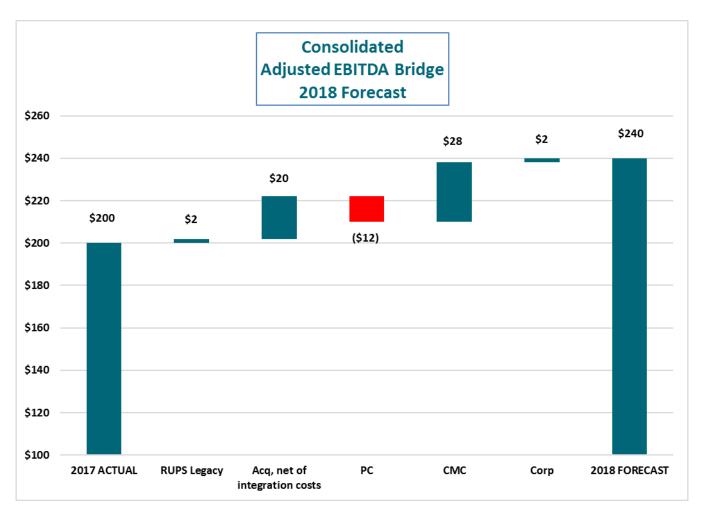
(\$ in millions)



# 2018 Adjusted EBITDA Forecast: M&A and CMC Drive Higher Profitability



(\$ in millions)





### **Non-GAAP Reconciliations**



#### 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. Koppers believes that the presentation of non-GAAP financial measures such as adjusted EBITDA 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 a performance measure 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 excludes restructuring, impairment, non-cash LIFO charges, 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 Reconciliation of Operating Profit To EBITDA and Adjusted EBITDA**



### UNAUDITED RECONCILIATION OF OPERATING PROFIT TO EBITDA AND ADJUSTED EBITDA (In millions)

1.		,						
					Year E	Ended Dece	mber	<sup>,</sup> 31, 2017
					Co	orporate		
	F	RUPS	PC	CMC	Una	allocated	Cor	nsolidated
Operating profit (loss)	\$	25.3	\$ 71.4	\$ 27.4	\$	(12.0)	\$	112.1
Other (loss) income		(0.3)	2.4	1.4		0.5		4.0
Depreciation		11.8	17.9	20.1		-		49.8
Depreciation in impairment and restructuring charges		-	-	13.0		-		13.0
EBITDA with noncontrolling interest	\$	36.8	\$ 91.7	\$ 61.9	\$	(11.5)	\$	178.9
Unusual items impacting net income:								
CMC restructuring		-	-	14.2		-		14.2
RUPS treating plant closures		1.7	-	-		-		1.7
Non-cash LIFO expense (benefit)		0.2	-	(0.7)		-		(0.5)
Mark-to-market commodity hedging		-	(3.5)	-		-		(3.5)
Pension settlement charge		-	-	-		10.0		10.0
Reimbursement of environmental costs		-	(0.4)	-		-		(0.4)
Adjusted EBITDA	\$	38.7	\$ 87.8	\$ 75.4	\$	(1.5)	\$	200.4
Adj. EBITDA % of Consolidated Adj. EBITDA (excluding corporate unallocated)		19.2%	43.5%	37.3%		<del></del>		

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



UNAUDITED RECONCILIATION OF TOTAL DEBT TO NET DEBT AND NET LEVERAGE RATIO											
(In millions)											
Year ended December 3										nber 31,	
											Pro-
											Forma
		2017			2016			2015			2014
Total Debt	\$	677.0		\$	662.4	:	\$	722.3		\$	850.5
Less: Cash		60.3			20.8			21.8		\$	-
Net Debt	\$	616.7		\$	641.6	;	\$	700.5		\$	850.5
Adjusted EBITDA	\$	200.4		\$	174.2		\$	150.2		\$	167.1
Net Leverage Ratio		3.1		·	3.7			4.7			5.1



### **Unaudited Segment Information**

	Thre 2018	e Months Er	nded March 31, 2017	
(Dollars in millions)		2010		2017
Net sales:				
Railroad and Utility Products and Services	\$	108.4	\$	135.5
Performance Chemicals		97.4		96.7
Carbon Materials and Chemicals		200.3		114.4
Total	\$	406.1	\$	346.6
Operating profit (loss):				
Railroad and Utility Products and Services	\$	1.1	\$	9.3
Performance Chemicals		5.6		18.6
Carbon Materials and Chemicals		37.2		0.6
Corporate Unallocated		(0.6)		(0.4)
Total	\$	43.3	\$	28.1
Operating profit margin:				
Railroad and Utility Products and Services		1.0%		6.9%
Performance Chemicals		5.7%		19.2%
Carbon Materials and Chemicals		18.6%		0.5%
Total		10.7%		8.1%
Depreciation and amortization:		•		
Railroad and Utility Products and Services	\$	3.0	\$	3.0
Performance Chemicals		4.4		4.4
Carbon Materials and Chemicals		4.4		3.8
Total	\$	11.8	\$	11.2
Adjusted EBITDA <sup>(1)</sup> :				_
Railroad and Utility Products and Services	\$	5.4	\$	11.9
Performance Chemicals		13.8		22.9
Carbon Materials and Chemicals		47.0		7.3
Corporate Unallocated		0.0		(0.3)
Total	\$	66.2	\$	41.8
Adjusted EBITDA margin <sup>(2)</sup> :				_
Railroad and Utility Products and Services		5.0%		8.8%
Performance Chemicals		14.2%		23.7%
Carbon Materials and Chemicals		23.5%		6.4%
Total		16.3%		12.1%

<sup>(1)</sup> The tables below describe the adjustments to EBITDA for the quarters ended March 31, 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**



### UNAUDITED RECONCILIATION OF OPERATING PROFIT TO EBITDA AND ADJUSTED EBITDA (In millions)

					Thre	e mon	ths ended	March	31,2018
						Co	rporate		
R	UPS		PC		CMC	Una	llocated	Con	solidated
\$	1.1	\$	5.6	\$	37.2	\$	(0.6)	\$	43.3
	(0.3)		0.3		(0.4)		0.6		0.2
	3.0		4.4		4.4		0.0		11.8
	0.0		0.0		1.4		0.0		1.4
\$	3.8	\$	10.3	\$	42.6	\$	0.0	\$	56.7
	0.0		0.0		4.1		0.0		4.1
	0.3		0.0		0.0		0.0		0.3
	1.3		0.0		0.3		0.0		1.6
	0.0		3.5		0.0		0.0		3.5
\$	5.4	\$	13.8	\$	47.0	\$	0.0	\$	66.2
	8.2%		20.8%	•	71.0%				
	\$	(0.3) 3.0 0.0 \$ 3.8  0.0 0.3 1.3 0.0 \$ 5.4	\$ 1.1 \$ (0.3) 3.0 0.0 \$ 3.8 \$ \$ 0.0 0.3 1.3 0.0	\$ 1.1 \$ 5.6 (0.3) 0.3 3.0 4.4 0.0 0.0 \$ 3.8 \$ 10.3 0.0 0.0 0.3 0.0 1.3 0.0 0.0 3.5 \$ 5.4 \$ 13.8	\$ 1.1 \$ 5.6 \$ (0.3) 0.3 3.0 4.4 0.0 0.0 \$ 3.8 \$ 10.3 \$ \$ 0.0 0.0 0.3 0.0 0.3 0.0 0.0 0.3 0.0 0.0	RUPS         PC         CMC           \$ 1.1         \$ 5.6         \$ 37.2           (0.3)         0.3         (0.4)           3.0         4.4         4.4           0.0         0.0         1.4           \$ 3.8         \$ 10.3         \$ 42.6           0.0         0.0         4.1           0.3         0.0         0.0           1.3         0.0         0.3           0.0         3.5         0.0           \$ 5.4         \$ 13.8         \$ 47.0	RUPS         PC         CMC         Una           \$ 1.1         \$ 5.6         \$ 37.2         \$           (0.3)         0.3         (0.4)           3.0         4.4         4.4           0.0         0.0         1.4           \$ 3.8         \$ 10.3         \$ 42.6           0.0         0.0         4.1           0.3         0.0         0.0           1.3         0.0         0.3           0.0         3.5         0.0           \$ 5.4         \$ 13.8         \$ 47.0	RUPS         PC         CMC         Corporate Unallocated           \$ 1.1         \$ 5.6         \$ 37.2         \$ (0.6)           (0.3)         0.3         (0.4)         0.6           3.0         4.4         4.4         0.0           0.0         0.0         1.4         0.0           \$ 3.8         \$ 10.3         \$ 42.6         \$ 0.0           0.0         0.0         4.1         0.0           0.3         0.0         0.0         0.0           1.3         0.0         0.3         0.0           0.0         3.5         0.0         0.0           \$ 5.4         \$ 13.8         \$ 47.0         \$ 0.0	RUPS         PC         CMC         Unallocated (0.6)         Constitution           \$ 1.1         \$ 5.6         \$ 37.2         \$ (0.6)         \$ (0.6)         \$ (0.3)         \$ (0.4)         \$ (0.6)         \$ (0.0

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



#### UNAUDITED RECONCILIATION OF OPERATING PROFIT TO EBITDA AND ADJUSTED EBITDA

(In millions)

	a a a a				Three months ended March 31,201					
							Co	rporate		
	F	RUPS		PC	(	CMC	Una	allocated	Cons	solidated
Operating profit (loss)	\$	9.3	\$	18.6	\$	0.6	\$	(0.4)	\$	28.1
Other income (loss)		(0.4)		0.6		1.3		0.0		1.5
Depreciation and amortization		3.0		4.4		3.8		0.0		11.2
Depreciation in impairment and restructuring charges		0.0		0.0		1.2		0.0		1.2
EBITDA with noncontrolling interest	\$	11.9	\$	23.6	\$	6.9	\$	(0.4)	\$	42.0
Unusual items impacting EBITDA:										
CMC restructuring		0.0		0.0		8.0		0.0		0.8
RUPS treating plant closures		0.1		0.0		0.0		0.0		0.1
Non-cash LIFO benefit		(0.1)		0.0		(0.4)		0.0		(0.5)
Mark-to-market commodity hedging		0.0		(0.7)		0.0		0.0		(0.7)
Debt refinancing costs		0.0		0.0		0.0		0.1		0.1
Adjusted EBITDA	\$	11.9	\$	22.9	\$	7.3	\$	(0.3)	\$	41.8
Adj. EBITDA % of Consolidated Adj. EBITDA (excluding										
corporate unallocated)		28.3%		54.4%		17.3%				

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



### UNAUDITED RECONCILIATION OF TOTAL DEBT TO NET DEBT AND NET LEVERAGE RATIO (In millions)

			Twelve months ended
	March 31, 2018	Proforma March 31, 2018	December 31, 2017
Total Debt	\$ 790.8	\$ 790.8	\$ 677.0
Less: Cash	52.2	52.2	60.3
Net Debt	\$ 738.6	\$ 738.6	\$ 616.7
Adjusted EBITDA	\$ 224.8	\$ 230.8	\$ 200.4
Net Leverage Ratio	3.3	3.2	3.1

### **Unaudited Reconciliation of Net Income to EBITDA**& Adjusted EBITDA on a Latest Twelve Month Basis



### UNAUDITED RECONCILIATION OF NET INCOME TO EBITDA AND ADJUSTED EBITDA ON A LATEST TWELVE MONTH BASIS

(In millions)

		Twelve months ended
	March 31, 2018	December 31, 2017
Net income	\$ 49.5	\$ 30.5
Interest expense including refinancing	42.4	55.8
Depreciation and amortization	63.6	62.8
Income tax provision	37.2	29.0
Discontinued operations	0.8	0.8
EBITDA	193.5	178.9
Unusual items impacting net income:		
Impairment, restructuring and plant closure	19.3	15.9
Non-cash LIFO expense (benefit)	1.6	(0.5)
Mark-to-market commodity hedging	0.7	(3.5)
Reimbursement of environmental costs	(0.3)	(0.4)
Pension settlement charge	10.0	10.0
Adjusted EBITDA with noncontrolling interests	\$ 224.8	\$ 200.4
Proforma adjusted EBITDA from MAER	6.0	0.0
Proforma adjusted EBITDA with noncontrolling interests	\$ 230.8	\$ 200.4



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

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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**

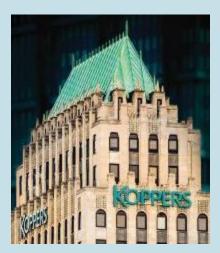
NYSE: KOP

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

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