

# INVESTOR RELATIONS 2016 1Q

*beyond*  
the best

KUMHO PETROCHEMICAL



Investor Relations 2016

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# 1Q, 2016 Overview

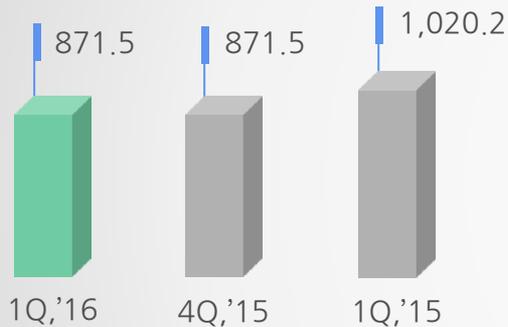
## Sales & Operating Income

- ❖ Sales revenue is KRW 871.5bn similar to the previous quarter and a 14.6% drop compared to the last year
- ❖ Operating profit of KRW 46.3bn has returned into a surplus over the previous quarter, which is a 16.1% drop compared to the last year

(Unit: KRW bn)

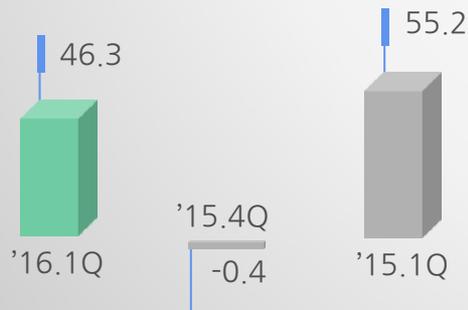
### Sales

(Unit: KRW bn)



### Operating Income

(Unit: KRW bn)



|   | 1Q,'16 | 4Q,'15 | 1Q,'15  | Rate of change |        |
|---|--------|--------|---------|----------------|--------|
|   |        |        |         | QoQ            | YoY    |
| S a l e s   | 871.5  | 871.5  | 1,020.2 | 0.0%           | -14.6% |
| [Synthetic Rubbers]                                 | 347.0  | 356.3  | 386.2   | -2.6%          | -10.2% |
| [Synthetic Resins]                                  | 256.6  | 234.0  | 280.7   | 9.7%           | -8.6%  |
| [ O t h e r s ]                                     | 267.9  | 281.2  | 353.3   | -4.7%          | -24.2% |
| P h e n o l Derivatives                             | 160.0  | 160.9  | 213.9   | -0.6%          | -25.2% |
| S p e c i a l t y Chemical s                        | 29.4   | 29.8   | 40.2    | -1.3%          | -26.9% |
| E n e r g y   | 24.6   | 27.3   | 38.0    | -9.9%          | -35.3% |
| O t h e r s   | 53.9   | 63.2   | 61.2    | -14.7%         | -11.9% |
| Operating Income                                    | 46.3   | -0.4   | 55.2    | Deficit to     | -16.1% |
| [ % ]   | 5.3%   | -0.0%  | 5.4%    | surplus        | -0.1%p |
| Income before Income Taxes                          | 50.9   | 9.1    | 55.5    | 459.3%         | -8.3%  |
| Net Income  | 38.2   | 1.6    | 41.5    | 2287.5%        | -8.0%  |
| Gain/Loss on Valuation of Equity Method Investments | 9.9    | 8.6    | 14.7    | 15.1%          | -32.7% |

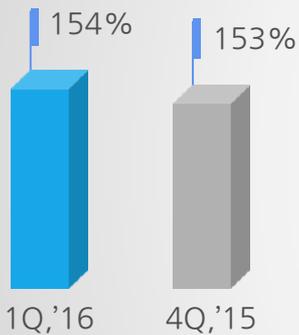
✓ Net Income is based on Controlling Interests.

# 1Q, 2016 Overview

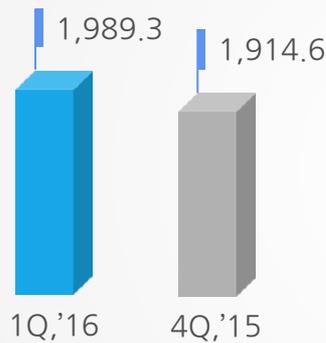
## Financial Structure

- ❖ Interest coverage ratio increased because of the improved performance in major businesses
- ❖ Financial structure maintained its stability through consistent liquidity management

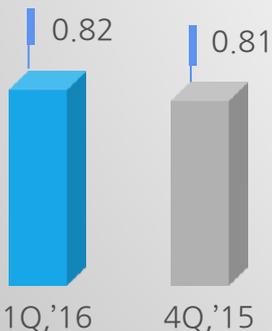
Debt to Equity Ratio (%)



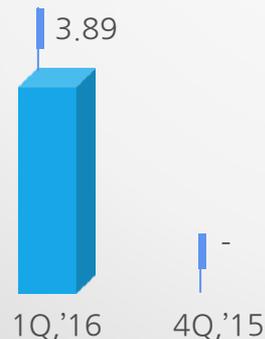
Borrowings (KRW bn)



Total Assets Turnover Ratio



Interest Coverage Ratio



(Unit: KRW bn)

|                              | Unit   | 1Q, '16 | 4Q, '15 | 1Q, '15 | Rate of change |        |
|------------------------------|--------|---------|---------|---------|----------------|--------|
|                              |        |         |         |         | QoQ            | YoY    |
| Assets                       | KRW bn | 4,280.5 | 4,210.5 | 4,371.4 | 1.7%           | -2.1%  |
| Liabilities                  | KRW bn | 2,597.5 | 2,546.8 | 2,678.3 | 2.0%           | -3.0%  |
| Shareholders' Equity         |        | 1,683.0 | 1,663.7 | 1,693.1 | 1.2%           | -0.6%  |
| Controlling Interests        | KRW bn | 1,580.1 | 1,556.5 | 1,610.2 | 1.5%           | -1.9%  |
| Non-controlling Interests    |        | 102.9   | 107.2   | 82.9    | -4.0%          | 24.1%  |
| Debt to Equity Ratio         | %      | 154     | 153     | 158     | 1%p            | -4%p   |
| Borrowings                   |        | 1,989.3 | 1,914.6 | 2,042.9 | 3.9%           | -2.6%  |
| Won-denominated              | KRW bn | 1,573.0 | 1,565.0 | 1,523.0 | 0.5%           | 3.3%   |
| Foreign currency-denominated |        | 416.3   | 349.6   | 519.9   | 19.1%          | -19.9% |
| Total Assets Turnover Ratio  |        | 0.82    | 0.81    | 0.93    | 1.2%           | -11.8% |
| Interest Coverage Ratio      |        | 3.89    | -       | 3.86    | -              | 0.8%   |

# Business Review

## Synthetic Rubbers

39.8%  
of Total sales

Synthetic Rubbers

Synthetic Resins

Others



- ❖ Sales decreased by 2.6% over the previous quarter, down to KRW 347.0bn
- ❖ Profitability was improved because of the increased price of synthetic rubber in accordance with the upward trend in the BD price of main materials

### • Sharp increase in BD price

- Despite little changed in the downstream markets, regular maintenances and continued troubles in the region resulted in a tight supply that, in turn, sharply raised the BD price
- Delayed offshore supply that was originally expected to be done in the quarter also contributed to the continued price uptrend

#### ➤ BD Price changes by region

(Unit: USD/ton)

|            | Oct.'15 | Nov.'15 | Dec.'15 | Jan.'16 | Feb.'16 | Mar.'16 |
|------------|---------|---------|---------|---------|---------|---------|
| Asia       | 790     | 729     | 731     | 771     | 865     | 1,091   |
| N. America | 884     | 816     | 778     | 653     | 551     | 672     |
| Europe     | 570     | 550     | 524     | 488     | 511     | 669     |

※ Source: ICIS/PLATTS 2016

### • Improvement in profitability of synthetic rubber

- The upward trend in BD price led to the price rebound of the synthetic rubber, thus driving the profitability to be recovered
- The upward trend in natural rubber price because of the off-season production and policies contributed to the soaring price of synthetic rubber

(Unit: USD/ton)

|     | Oct.'15 | Nov.'15 | Dec.'15 | Jan.'16 | Feb.'16 | Mar.'16 |
|-----|---------|---------|---------|---------|---------|---------|
| SBR | 1,156   | 1,099   | 1,063   | 1,041   | 1,056   | 1,240   |
| BR  | 1,200   | 1,131   | 1,098   | 1,085   | 1,093   | 1,319   |

※ Source: ICIS 2016

# Business Review

## Synthetic Resins

29.4%  
of Total sales

Synthetic Rubbers

Synthetic Resins

Others

- ❖ Sales increased by 9.7% over the previous quarter to KRW 256.6bn
- ❖ Revenue and profitability were improved because of the expectation for improved demand, as well as the increased product price in accordance with the price uptrend of raw materials (SM/BD)

### • Strong price of raw materials (SM/BD)

- SM price has been maintained to be strong because of the limited supply—such as scrap volume in the region— and demand for inventory deployment. Also, BD price has been continuously showing an upward trend after a rebound in the mid of the first quarter

#### ➤ SM Price changes

(Unit: USD/ton, CFR China)

|    | Oct.'15 | Nov.'15 | Dec.'15 | Jan.'16 | Feb.'16 | Mar.'16 |
|----|---------|---------|---------|---------|---------|---------|
| SM | 945     | 931     | 913     | 929     | 993     | 1,133   |

※ Source: ICIS 2016

### • Expended profitability of synthetic resin

- Profitability was improved by the selling price rise owing to the upward trend in the price of raw materials (SM/BD)
- Sales revenue grew because of the increased sales volume as demand is expected to be improved

(Unit: USD/ton)

|     | Oct.'15 | Nov.'15 | Dec.'15 | Jan.'16 | Feb.'16 | Mar.'16 |
|-----|---------|---------|---------|---------|---------|---------|
| PS  | 1,065   | 1,061   | 1,044   | 1,060   | 1,070   | 1,223   |
| ABS | 1,235   | 1,192   | 1,097   | 1,135   | 1,163   | 1,298   |

※ Source: PLATTS 2016

# Business Review

Others

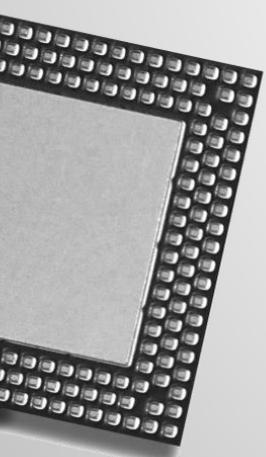
30.8%

Of Total sales

Synthetic Rubbers

Synthetic Resins

Others



- ❖ Sales decreased by 4.7% over the previous quarter, down to KRW 267.9bn
- ❖ Phenol derivatives : Profitability was restrictively improved because of the continued oversupply in the region as well as the expansion project for the company
- ❖ Energy : Sales revenue and operating profit were decreased because of the expansion project for Yeosu energy facility as well as the prolonged downward trend in the selling price

## • Phenol derivatives

- The price of benzene has been continuously showing a weakness because of price fluctuations in accordance with the oil price change and the decreased arbitrage to offshore areas
- Limited improvement was shown in the profitability because of the oversupply in the region and expansion project for the company, which is scheduled to be completed in the second quarter

### ➤ BZ Price changes

(Unit: USD/ton, FOB Korea)

|    | Oct.'15 | Nov.'15 | Dec.'15 | Jan.'16 | Feb.'16 | Mar.'16 |
|----|---------|---------|---------|---------|---------|---------|
| BZ | 595     | 625     | 593     | 559     | 547     | 630     |

※ Source: PLATTS 2016

## • Energy

- Sales revenue and operating profit were dropped because of the prolonged downward trend in the price of electricity (SMP), along with the expansion project of the 2nd energy facility in Yeosu and regular maintenance

➤ Expansion of Yeosu Energy II : Steam 800T/H, Electricity 145MWH(in 2016.1Q), Investment of KRW 425.8bn(2012~2016)

## 2Q, 2016 Outlook

BD

- Despite the expected increase in the LPG injection, some regular maintenance is expected to be done while the BD supply is gradually stabilized
- The price, which has been strong according to supply factors, is expected to show a steady tone because of the remaining uncertainty of demand recovery

Synthetic Rubbers

- Despite of the slight recovery in the utilization rate of tire makers within the region, improvement in the balance between supply and demand is expected to be limited according to the increase in the synthetic rubber inventory and the wait-and-see attitude in the demand
- The stable and steady price of raw materials and the expected supply stabilization of natural rubber are expected to lead into a limited price increase of synthetic rubber

SM

- Even though regular maintenance is scheduled for SM plants in the region and the manufacturing business has entered its peak season, price is expected to be flexible in accordance with the actual demand of the downstream markets
- Supply and demand is expected to be stable as offshore supply is looking to decrease in spite of the high SM inventory in the eastern parts of China

Synthetic Resins

- Expectations for improved demand are forecasted to remain high as the traditional peak season is coming
- As the price of raw materials (SM/BD) is expected to be restrictively increased and some areas experience a wait-and-see trend in the purchase, the price increase in synthetic resins is forecasted to be limited

## Appendices

### Income Statement

(Unit: KRW bn)

|   | 1Q,'16      | 4Q,'15       | 1Q,'15      | Rate of change |                    |               |                |
|---|-------------|--------------|-------------|----------------|--------------------|---------------|----------------|
|   |             |              |             | QoQ            |                    | YoY           |                |
|   |             |              |             | Amount         | Rate of change     | Amount        | Rate of change |
| Sales   | 871.5       | 871.5        | 1,020.2     | 0.0            | 0.0%               | -148.7        | -14.6%         |
| Operating Income                                    | 46.3        | -0.4         | 55.2        | 46.7           | Deficit to surplus | -8.9          | -16.1%         |
| <i>(Operating Margin)</i>                           | <i>5.3%</i> | <i>-0.0%</i> | <i>5.4%</i> | <i>5.3%p</i>   | -                  | <i>-0.1%p</i> | -              |
| Net Interest Expense                                | 8.4         | 5.5          | 14.4        | 2.9            | 52.7%              | -6.0          | -41.7%         |
| Gain/Loss on Valuation of Equity Method Investments | 9.9         | 8.6          | 14.7        | 1.3            | 15.1%              | -4.8          | -32.7%         |
| Income before Income Taxes                          | 50.9        | 9.1          | 55.5        | 41.8           | 459.3%             | -4.6          | -8.3%          |
| <i>(Ordinary Income Margin)</i>                     | <i>5.8%</i> | <i>1.0%</i>  | <i>5.4%</i> | <i>4.8%p</i>   | -                  | <i>0.4%p</i>  | -              |
| Net Income  | 38.2        | 1.6          | 41.5        | 36.6           | 2287.5%            | -3.3          | -8.0%          |
| <i>(Net Income Margin)</i>                          | <i>4.4%</i> | <i>0.2%</i>  | <i>4.1%</i> | <i>4.2%p</i>   | -                  | <i>0.3%p</i>  | -              |

✓ Net Income is based on Controlling Interests.

## Appendices

### Balance Sheet

(Unit: KRW bn)

|                                      | 1Q,'16         | 4Q,'15         | 1Q,'15         | Rate of change |              |
|--------------------------------------|----------------|----------------|----------------|----------------|--------------|
|                                      |                |                |                | QoQ            | YoY          |
| Current Assets                       | 1,006.6        | 967.6          | 1,208.6        | 39.0           | -202.0       |
| - Cash and Cash Equivalents          | 102.0          | 47.3           | 222.5          | 54.7           | -120.5       |
| Non-current Assets                   | 3,273.9        | 3,242.9        | 3,162.8        | 31.0           | 111.1        |
| <b>Total Assets</b>                  | <b>4,280.5</b> | <b>4,210.5</b> | <b>4,371.4</b> | <b>70.0</b>    | <b>-90.9</b> |
| Current Liabilities                  | 1,668.4        | 1,541.2        | 1,581.5        | 127.2          | 86.9         |
| Non-current Liabilities              | 929.1          | 1,005.6        | 1,096.8        | -76.5          | -167.7       |
| ■ Interest bearing Liabilities       | 1,989.3        | 1,914.6        | 2,042.9        | 74.7           | -53.6        |
| - Short-term Debts                   | 1,191.3        | 1,032.3        | 1,061.9        | 159.0          | 129.4        |
| - Long-term Debts                    | 798.0          | 882.3          | 981.0          | -84.3          | -183.0       |
| ■ Non-interest bearing Liabilities   | 608.2          | 632.2          | 635.4          | -24.0          | -27.2        |
| <b>Total Liabilities</b>             | <b>2,597.5</b> | <b>2,546.8</b> | <b>2,678.3</b> | <b>50.7</b>    | <b>-80.8</b> |
| Common & Preferred Stock             | 167.5          | 167.5          | 167.5          | -              | -            |
| <b>Total Shareholders' Equity</b>    | <b>1,683.0</b> | <b>1,663.7</b> | <b>1,693.1</b> | <b>19.3</b>    | <b>-10.1</b> |
| Net Debt Ratio                       | 44.1%          | 44.3%          | 41.6%          | -0.2%p         | 2.5%         |
| Long-term Debts to Total Debts Ratio | 40.1%          | 46.1%          | 48.0%          | -6.0%p         | -7.9%        |
| Current Ratio                        | 60.3%          | 62.8%          | 76.4%          | -2.5%p         | -16.1%       |
| Debt to Equity Ratio                 | 154.3%         | 153.1%         | 158.2%         | 1.2%p          | -3.9%        |

## Appendices

### Production Capacity (KKPC)

|                     | Product      | Capa.            | Unit | Note  |  |
|---------------------|--------------|------------------|------|---|--|
| Synthetic Rubbers   | SBR          | 481,000          | MT/Y |   |  |
|                     | BR           | HBR              |      | 290,000   |  |
|                     |              | LBR              |      | 45,000  |  |
|                     | S-SBR        | 63,000           |      |   |  |
|                     | NdBR         | 60,000           |      |   |  |
|                     | NBR          | 80,000           |      |   |  |
|                     | HSR          | 10,000           |      |   |  |
|                     | NB Latex     | 200,000          |      |   |  |
|                     | SB Latex     | 80,000           |      |   |  |
|                     | SBS          | 75,000           |      |   |  |
|                     | <b>Total</b> | <b>1,384,000</b> |      |   |  |
| Synthetic Resins    | PS           | 230,000          | MT/Y |   |  |
|                     | ABS          | 250,000          |      |   |  |
|                     | SAN/POW      | 145,000          |      |   |  |
|                     | EPS          | 80,000           |      |   |  |
|                     | PPG          | 139,000          |      |   |  |
|                     | <b>Total</b> | <b>844,000</b>   |      |   |  |
| Specialty Chemicals | Antioxidants | 80,300           | MT/Y |   |  |
| Energy              | Steam        | 1,710            | T/H  | Completion of Expansion: Steam 800T/H, Electricity 145MWH in 1Q,'16 |  |
|                     | Electricity  | 300              | MWH  |   |  |
| BD                  | Ulsan        | 90,000           | MT/Y |   |  |
|                     | Yeosu        | 147,000          |      |   |  |
|                     | <b>Total</b> | <b>237,000</b>   |      |   |  |

## Appendices

### Production Capacity (Affiliates)

|                        | Product      | Capa.            | Unit | Note   |
|------------------------|--------------|------------------|------|--|
| Kumho P&B Chemicals    | Phenol       | 380,000          | MT/Y | Completion of Expansion: 300,000MT/Y, 1H,'16   |
|                        | Acetone      | 235,000          |      | Completion of Expansion: 185,000MT/Y, 1H,'16   |
|                        | MIBK         | 60,000           |      |  |
|                        | Cumene       | 430,000          |      | Completion of Expansion: 470,000MT/Y, 1H,'16   |
|                        | BPA          | 450,000          |      |  |
|                        | Epoxy Resin  | 135,000          |      |  |
|                        | <b>Total</b> | <b>1,690,000</b> |      |  |
| Kumho Mitsui Chemicals | MDI          | 250,000          | MT/Y | Completion of Expansion: 100,000MT/Y, 2H,'17   |
|                        | Aniline      | 2,000            |      |  |
|                        | <b>Total</b> | <b>252,000</b>   |      |  |
| Kumho Polychem         | EP(D)M       | 220,000          | MT/Y | Completion of Expansion: 60,000MT/Y, 2Q,'15    |
|                        | TPV/KEPA     | 7,000            |      | Completion of Expansion: TPV 5,000MT/Y, 3Q,'17 |
|                        | <b>Total</b> | <b>227,000</b>   |      |  |

# Appendices

## Sales Breakdown & Export Share by Region

Domestic  
23%



Export  
77%

38%

22%

17%

11%

11%

1%

S.E. Asia

China

S.W. Asia

America

Europe

Others

39%

16%

15%

13%

9%

8%

China

Europe

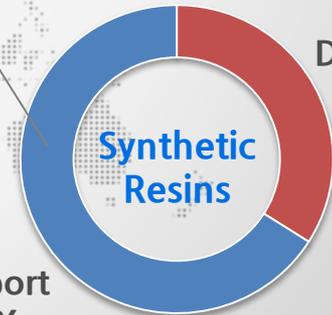
Africa

S.W. Asia

America

S.E. Asia

Domestic  
34%

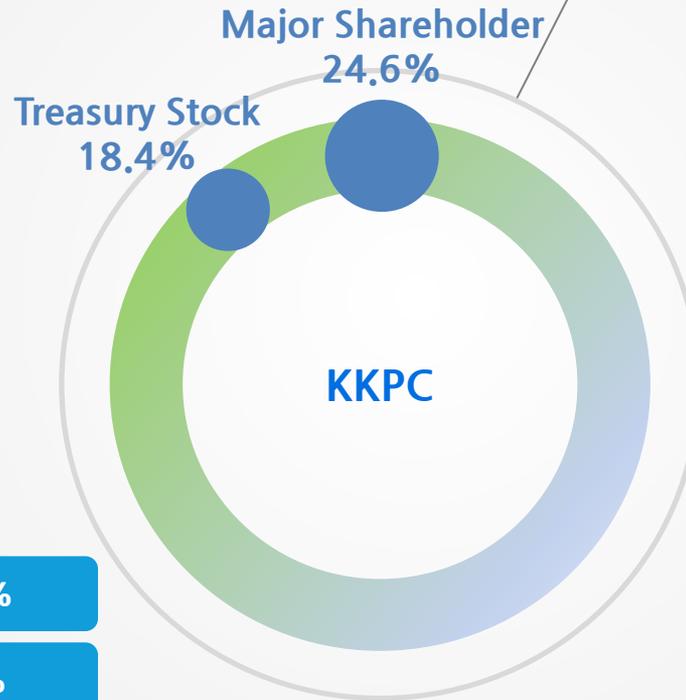


Export  
66%

# Appendices

## Investment Shares & Asset available for sale

✓ As of 31<sup>th</sup> March 2016, based on common shares



## Investments in Affiliates

|                            |       |
|----------------------------|-------|
| Kumho P&B Chemicals        | 78.2% |
| Kumho Mitsui Chemicals     | 50.0% |
| Kumho Polychem             | 50.0% |
| Kumho Terminal & Logistics | 95.0% |
| Korea Energy Power Plant   | 92.6% |

|                    |       |
|--------------------|-------|
| Asiana Airlines    | 12.6% |
| Daewoo E&C         | 3.5%  |
| KDB Life Insurance | 0.9%  |

Asset available for sale

**Q & A**