# **KINNOVATION** At Kumho

Petrochemical, we are stepping up the pace of innovation in our quest to become a global leading chemical group. Our innovation is expanding opportunities in core businesses, pursuing new possibilities in promising new fields, raising the bar for environmental, health, and safety performance, and cultivating greater professionalism and leadership in our people to drive future growth.





Since 1970, Kumho Petrochemical Co., Ltd. (KKPC) has grown and prospered with industry by providing innovative petrochemical solutions and customer-focused service.

Today as a trusted partner and one of the world's largest and most competitive producers of synthetic rubbers with world-class technology and products in the fields of synthetic resins, phenol derivatives, and specialty chemicals, we are expanding our business portfolio into the fields of energy, electronic materials, and building materials to drive future growth.

Together, we and our 9 affiliates aim to generate consolidated sales of KRW 20 trillion annually with 20 products that rank in the global top-5 in their respective categories by 2020 as we pursue our vision of becoming a global leading chemical group.

## **Contents**





#### INTRODUCTION

- 01 Company Profile
- 04 Performance Overview
- 06 A Message from the Chairman
- 10 Vision 2020

#### KINNOVATION

- 14 Synthetic Rubbers | Never Far Away from You
- 18 Synthetic Resins | Leading vs. Winning
- 22 Carbon Nanotubes, OLED Panel Sealant | Focusing on What Comes Next
- 28 EHS Excellence | Making the Future Safer and Greener
- 30 Workplace Excellence | Cultivating an Innovative Future







#### MANAGEMENT REVIEW

- 36 Corporate Governance
- 40 Key Executives
- 42 Shareholder Value
- 44 Risk Management
- 46 Business Ethics
- 48 Environmental Management
- 50 Social Responsibility
- 52 Research & Business Development
- 54 Major Innovations

#### **BUSINESS REVIEW**

- 58 2016 Overview
- 60 Synthetic Rubbers
- 62 Synthetic Resins
- 64 Other Businesses
- 66 2017 Outlook

#### FINANCIAL REVIEW

- 68 Independent Auditors' Report
- 70 Consolidated Financial Statements
- 78 Independent Auditors' Report
- 80 Separate Financial Statements

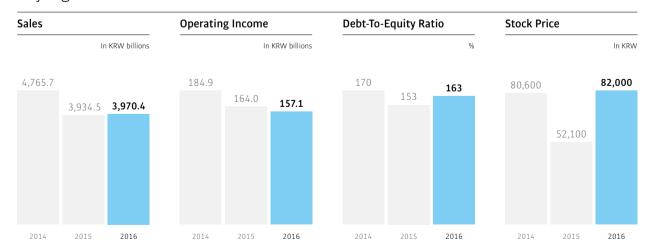
#### APPENDIX

- 88 Corporate History
- 90 Chemical Affiliates
- 92 Global Partnerships
- 94 Global Network

## **Performance Overview**

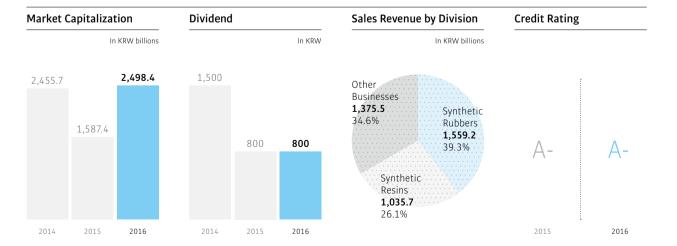
Financial Highlights	2016	2015	Change
Income Statements			
Sales	3,970.4	3,934.5	35.9
Operating Income	157.1	164.0	-6.9
Income before Income Tax	112.9	169.6	-56.7
Net Income	80.8	121.9	-41.1
Net Financing Cost	67.2	67.4	-0.2
Balance Sheets			
Total Assets	4,546.1	4,210.6	335.5
Total Liabilities	2,818.2	2,546.8	271.4
Total Equity	1,727.9	1,663.7	64.2
Key Figures			
Operating Margin	4.0%	4.2%	-0.2%p
Debt-to-Equity Ratio	163%	153%	10%p
Earnings per Share in KRW	2,618	4,257	-1,639
Return on Equity	4.8%	7.4%	-2.6%p
Interest Coverage Ratio	2.67	3.19	-0.52
Dividend per Ordinary Share in KRW	800	800	0
CONSOLIDATED DATA BASED ON K-IFRS			In KRW billions

#### Key Figures



Stock Information	2016	2015
Share Data		
Number of Shares	33,491,177	33,491,177
Common Shares	30,467,691	30,467,691
Preferred Shares	3,023,486	3,023,486
Market Capitalization in KRW Millions	2,586,939	1,691,072
Credit Rating from Korea Information Service	Α-	A-
Per Share Data in KRW		
Net Income	2,618	4,257
Book Value	65,115	62,572
Dividend	800	800
Share Price Year-End	82,000	52,100
High	83,000	93,000
Low	47,850	49,900
Shareholder Structure		
Major Shareholders	24.61%	24.52%
Free Float	44.38%	47.41%

CONSOLIDATED DATA BASED ON K-IFRS



# A Message from the Chairman

INNOVATION IS CHANGING THE FACE OF KUMHO
PETROCHEMICAL. AT A TIME WHEN THE GLOBAL ECONOMY IS
FACING INCREASING UNCERTAINTY, WE ARE COMMITTED TO
RAISING OUR COMPETITIVENESS BY PURSUING INNOVATION
ACROSS ALL OUR BUSINESSES AS WE MOVE CONFIDENTLY
FORWARD TOWARD OUR GOAL OF BEING A GLOBAL LEADING
CHEMICAL GROUP.



#### Dear Valued Stakeholders,

KKPC has experienced an extremely challenging period over the past few years. The global synthetic rubbers market has faced chronic oversupply primarily due to capacity expansion in Asian markets. The ensuing fierce competition in the commodity rubber market in particular has been the primary source of our business difficulties over the past 5 years. Beyond that, ongoing crises in global economic blocs such as the EU and general political unrest worldwide have also contributed to uncertainty in the global economy. Responding to this volatile business climate, we have continued to aggressively optimize inventories and reduce costs across our operations. Despite these efforts, we came up short of our financial targets, closing the year with consolidated sales of KRW 3,970.4 billion and operating income of KRW 1571 billion

Although we fell short of our 2016 targets. we did have a number of notable successes that have prepared us for greater success in the future. Our synthetic rubbers business completed the NB latex plant expansion project, boosting annual production capacity to 400,000 metric tons. A focus on process optimization to boost quality now means our quality ranks with the best in the industry. Our energy business completed the Yeosu Energy II expansion project and began commercial operations. We expect that plant to significantly boost the cost competitiveness of our operations as well as generating additional revenues from power and steam sales going forward. Our phenol derivatives business also completed a major expansion project in the first half of the year, bolstering our vertical integration with expanded production capacity for phenol. acetone, and cumene.

»The completion of major capacity expansion projects in our synthetic rubbers, energy, and phenol derivatives businesses will significantly enhance our competitiveness going forward.«

#### **Major Initiatives**

The outlook for 2017 indicates that we will continue to face considerable headwinds and challenges in the year ahead. A sluggish global economy combined with increasing trade protectionism and widespread political uncertainty due to events such as the United Kingdom's exit from the EU are all issues of great concern given our reliance on global markets. With these challenges in mind, we have launched the following four initiatives to achieve our business targets and demonstrate our potential as we pursue our vision of being an industry leader in our core business fields.

# We will aggressively push forward with a survival strategy in our core businesses.

Our core synthetic rubbers and synthetic resins businesses deal largely in commodity petrochemical products. For these businesses to survive and ultimately thrive, we must step up our efforts to differentiate our products as we work to secure a stable supply of the key feedstocks needed to produce them. Building on this foundation, we must step up our efforts to actively build stronger relationships with our major customers as we continue to improve and strengthen these businesses.

# We will strengthen our core competencies to prepare for the future.

We will review our business structure and evaluate the competitiveness of each business as we take the next step toward our vision of becoming a global leading chemical group. This is key to identifying and executing the strategies that will enhance our competitiveness. At the same time, we will also be looking for ways to generate greater synergy between our businesses.

# We will review our business portfolio to identify new business opportunities.

We must continue to expand our business scope, leveraging a streamlined business structure to generate revenue growth in the face of continued sluggish markets. These changes will focus on expanding the proportion of high value-added products in our portfolio through strategic business ventures and technical development based on in-depth market analysis.

# We will promote a can-do corporate culture based on action and communication.

In challenging times, organizational capabilities become increasingly important. Here, communication is key to breaking through the status quo. By creating an environment conducive to constructive conversation that will foster a culture equipped to generate positive synergy, we will create new opportunities to rise above the challenges and difficulties we face. This will in turn enable us to lay the solid foundation that will ultimately elevate our businesses to the top of their industries.



As we move into 2017, I would liken our situation to traveling through a long tunnel. Our task in this new year is to make the changes that will help us exit the tunnel sooner rather than later. We are eliminating unproductive practices, turning challenges into opportunities, and aggressively charting a new course to ensure we are among the world's best in our core businesses. At a time when the global economy is facing increasing uncertainty, we are committed to raising our competitiveness as we move confidently forward toward our goal of being a global leading chemical group. Your continued support and encouragement are greatly appreciated as our talented, experienced teams focus on creating greater value for all our stakeholders in the coming year.

Chan-koo Park Chairman & CEO Kumho Petrochemical

#### Vision 2020

AT KKPC, WE HAVE A VERY CLEAR VISION FOR THE FUTURE. AS WE CREATE NEW MARKETS AND HELP OUR CUSTOMERS SUCCEED, OUR AMBITIOUS GOAL IS TO BECOME A GLOBAL LEADING CHEMICAL GROUP BY 2020 WITH SALES OF KRW 20 TRILLION AND AT LEAST 20 PRODUCTS WITH A TOP-5 GLOBAL MARKET SHARE. DRIVEN BY OUR CORE VALUES—A PASSION FOR EXCELLENCE, INNOVATION TO DELIVER CUSTOMER SATISFACTION, COLLABORATION TO EARN TRUST, AND SOCIAL AND CORPORATE RESPONSIBILITY BASED ON INTEGRITY—EACH MEMBER OF OUR TEAM IS 100% FOCUSED ON MAKING THIS VISION A REALITY.

20

Sales in KRW trillions



We aim to be a global leading chemical group with sales of KRW 20 trillion by 2020.

20

World-class products



We aim to be a global leading chemical group with 20 world-class products by 2020.

- SBR: Styrene butadiene rubber
- > HBR: High-cis polybutadiene rubber
- NBR: Acrylonitrile butadiene rubber
- > LBR: Low-cis polybutadiene rubber
- NB Latex: Acrylonitrile butadiene latex
- KSL-341 foam latex
- > EPDM: Ethylene propylene diene monomer
- > KUMANOX 13 antioxidant
- > KUMANOX 5010L antioxidant
- PA: Phenolic additives
- > MIBK: Methyl isobutyl ketone
- > BPA: Bisphenol-A



#### Mission

11

- For Our Customers
   We create customer value with the best solutions and synergy.
- For Our Shareholders
  We deliver shareholder value by selecting and focusing to maximize profits.
- For Our Employees
  We work to create a virtuous cycle of growth where both company and employees grow.
- For Humanity & The Environment
  We will create green chemicals that coexist in harmony with people and nature.

#### **Core Values**



Passion For Excellence

We take the initiative with responsibility and passion, always learning as we aim for world-class professional and technical leadership in pursuit of our vision.



We embrace change as we proactively strive to deliver increasingly greater value to our customers, unencumbered by conventional practices and success formulas.

Collaboration For Unity
We build personal and professional trust through respect for diversity, open communication, and mutual collaboration.

Responsibility For Integrity
Our commitment to social and corporate responsibility is built on a commitment to the basics that puts environmental safety and corporate ethics first.



Slogan



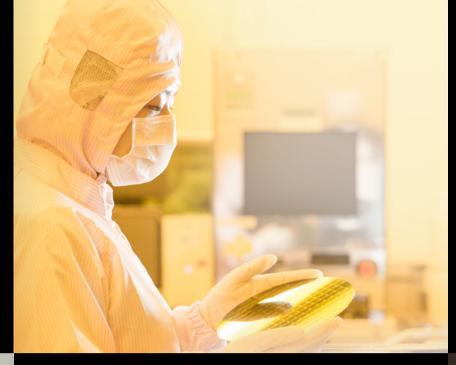
Our commitment to delivering value to our customers that goes beyond the best is reflected in our group slogan.



#### Synthetic Rubbers

Never Far Away from You

14



#### Carbon Nanotubes, OLED Panel Sealant

Focusing on What Comes Next

22

# **KINNOVATION**



#### **EHS Excellence**

Making the Future Safer and Greener

28





#### Synthetic Resins Leading vs. Winning

18



# Workplace Excellence Cultivating an Innovative Future

30

# Synthetic Rubbers

Starting out as Korea's first producer of synthetic rubbers, we have grown to become one of the world's largest producers of BR (butadiene rubber) and SBR (styrene butadiene rubber). Today, we continue to improve the key properties of our products as we work to expand their range of industrial applications. Our completion of an NB (acrylonitrile butadiene) latex capacity expansion project in 2016 will further cement our position as an industry leader, enhancing our competitiveness as we boost sales of more profitable NB latex and expand our product portfolio in areas such as SSBR (solution styrene butadiene rubber) and NdBR (ultra high-cis polybutadiene rubber).





Our high-performance synthetic rubber products are used by major tiremakers around the globe



## Never Far Away from You

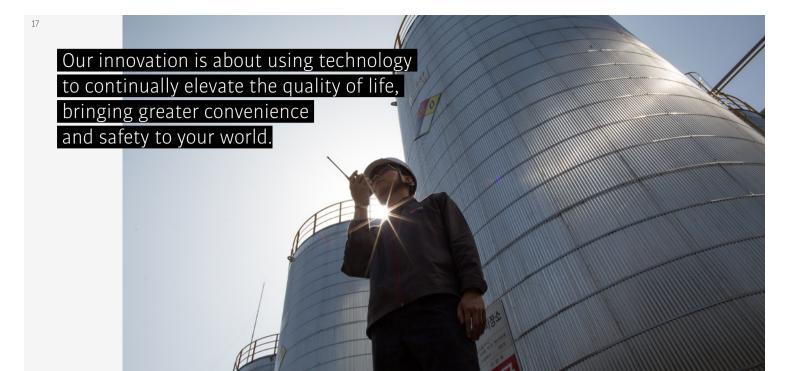
How much do you know about KKPC? Do you know what we make? How about what technologies we have or what our major products are? You may not know that much about us, but if you are like most people, you will be surprised when you realize how frequently our paths cross. That's because you never have to look far to find us in everyday life.



We strive to consistently deliver the highest quality synthetic rubber products to our customers.

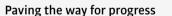


We are a top-tier global synthetic rubbers maker with a production capacity of 1,464,800 mtpy.



#### Spending more time with you

Imagine yourself driving to a country club to play a round of golf with some business associates on the weekend. You might not realize it now, but you will be spending more time today with us than with anyone else. Take your car for instance. You'll find KKPC synthetic rubber products in a large number of components, from the tires to engine hoses and belts. The same goes for the golf shoes that help you navigate the course and even the golf ball that you send flying toward the cup.



Our diverse range of synthetic rubbers is used in far more places than you might imagine. For instance, you'll find our technology inside the asphalt roads you drive on. Over the years, we've improved the properties of our SBS (styrene butadiene styrene) thermoplastic elastomer, enhancing the strength and service life of asphalt roads for safer driving. That's just another example of how our synthetic rubbers are enhancing the quality of life, making every part of life more convenient and safer.





# Synthetic Resins

Becoming a global player in the synthetic resins industry is another one of our key objectives. Aiming for a larger share of the Chinese market, we recently invested KRW 53 billion to expand our ABS (acylonitrile butadiene styrene) production capacity, completing our third plant in that major market. As Korea's leader in resin production technology, we have developed Enerpor EPS (expandable polystyrene) resin, a high-performance product that delivers energy savings that will significantly reduce CO<sub>2</sub> emissions. Through these and other ongoing efforts, we continue to strategically diversify investment to strengthen both product and corporate competitiveness.





Our high-quality synthetic resins enable designers to create home appliances that have both exceptional form and functionality.



## Leading vs. Winning

At KKPC, we are more interested in being a leader than simply being a winner. A winner might be the best for a moment, but a leader gives 100% all the time. A winner may have a huge lead, but a leader brings everyone along with them. A winner is satisfied with today's successes, but a leader thinks about long-term value. Over the years, we have played a leading role in Korea's industrial development by producing commodity resins for industrial and consumer applications. This is the kind of leadership model we intend to build on globally going forward.



Our ABS resins are available in a wide selection of grades for a diverse spectrum of products ranging from automobile parts and home electronics and appliances to everyday items.



We are a global synthetic resins maker with a production capacity of 846,000 mtpy.





#### Bringing more convenience and comfort to life

Our broad synthetic resins product portfolio continues to grow year by year. Our ABS is used in automobiles and home appliances. Our PS is used in everyday goods and electronic components. Our EPS is used in packaging and construction materials. Our PPG is used to produce polyurethane for use in a variety of cushioning and cold insulation materials. In short, our growing family of resins is a key part of the essential products that are bringing more convenience and comfort to life.

#### Creating a lasting legacy

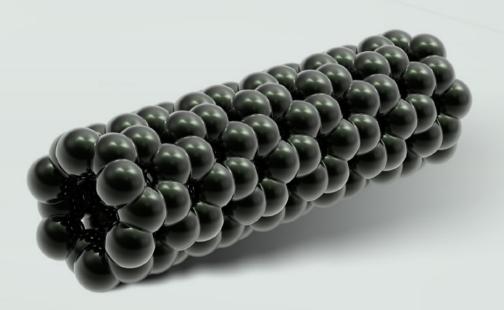
While the theme of the chairman's 2016 corporate new year's address focused on making a new start, his comments about leaving a legacy made a particularly strong impression. He was talking about the value of sharing with all and passing that on to the next generation, echoing the founder's counsel to live with integrity to others. This leader's mindset is why we are committed to leaving a great legacy for tomorrow's industries built on a dedication to ceaseless research and innovative product development.

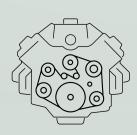


#### 23

# Carbon Nanotubes

CNT (carbon nanotubes) are one of the most promising innovations in nanomaterials development, boasting 100 times the tensile strength of steel and 1,000 times the electrical conductivity of copper. Our successful commercialization of CNT technology puts us on the cutting edge of industrial materials innovation. We are now hard at work developing next-generation materials that will exceed customer expectations, opening the door to new markets and driving growth.





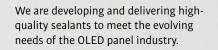
Our carbon nanotube technology has the potential to deliver major performance improvements for our synthetic rubbers and synthetic resins in the coming years.



# OLED Panel Sealant

Without exception, each and every one of our products takes the same path from concept to reality. That difficult and challenging path can be summarized as never-ending research and never-satisfied development. In 2016, our electronic materials business became the first in Korea to commercialize production of an OLED panel sealant, a success made possible by taking a greater, more innovative path than the rest.







# Focusing on What Comes Next

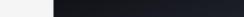
At KKPC, the reason we exist today is because of the research and development that has enabled us to upgrade our core products and diversify our portfolio over the years. Talking about R&D is easy, but actually doing it is another matter. Our success here is what differentiates us and makes us strong as we pursue and deliver innovation across our organization.



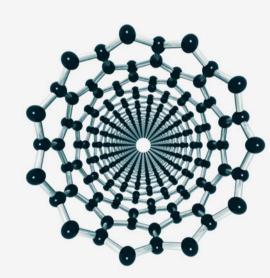
Our research and business development efforts are driven by a staff of approximately 200 specialists spanning the fields of chemicals and materials.



We invested over KRW 34 billion in 2016 to improve the performance of existing products and develop new value-added products with the potential to drive future growth.







#### Taking product performance to the next level

Carbon nanotubes are extremely versatile materials. Although they have outstanding properties of their own, when combined with other materials, their strength can double. When our existing synthetic rubbers and synthetic resins products and CNT technology come together, dramatic improvements in durability, thermal conductivity, electrical conductivity, and other properties are possible. We continue to explore the vast range of possibilities as we systematically identify opportunities to drive future growth.



#### Making Korean display makers more competitive

Our greatest achievement in the electronic materials field in 2016 was the development of a sealant for OLED panels. Since developing Korea's first commercial sealant for the small and medium OLED panel market in 2012, we have strategically expanded our sealant lineup to include products for the latest OLED panel segments. By leveraging our expertise to deliver Korea's first OLED panel sealant, we have once again reaffirmed our leadership in the display sealant field.

# EHS Excellence

Putting the environment first is the heart of our environmental, health, and safety philosophy, anchored by our vision to be a company that creates the future by meeting the needs of humanity and the environment. In recent years we have put in place an independent environmental management system, upgraded our safety management system and training, and implemented an emergency response system that aims to minimize our environmental impact and reduce safety accidents to zero.





#### **KCMS**

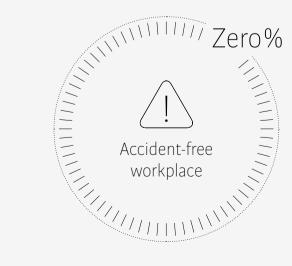
Our new chemical management system (KCMS) significantly enhances our ability to systematically monitor and manage chemical substances at our production sites across Korea.



#### Making the future safer and greener

In our unwavering pursuit to make the chemical industry more eco-friendly, we have set mid- and long-term goals and are now moving forward with a number of focused initiatives. In 2016, we upgraded our EHS (environmental, health, and safety) policies as we implemented a new chemical management system that has upgraded our review and monitoring of chemical substances to the next level. As part of our carbon emissions and energy consumption reduction targets, we also replaced all lighting fixtures at all worksites with energy-efficient LED fixtures as we continued to do our part to create a safer, greener future.





#### **Putting safety first**

As evidenced by our steadily rising investment in safety, we believe that safety is something than can never be emphasized enough. Our CEO-led organization-wide safety management system plays the lead role in creating an accident-free workplace. In March 2016, our Yeosu plant set a new internal corporate record for safety performance, a record it continues to extend to this day. This is the kind of safety performance that we strive for across our organization every day of every year.

# Workplace Excellence

In our quest to become a global leading chemical company, we are looking for people who aspire to be global leaders. We want people who are open to collaboration. People who take responsibility. People with passion who never give up. And people who innovate as they pursue creative change. These are the kind of people that will help us lead the way in global markets in the coming years.









Our human resources strategy focuses on hiring and cultivating global-minded people as we pursue our vision of being a global leading chemical company.



## Cultivating an Innovative Future

Behind every successful organization you'll find successful people. That's why we value our people and actively invest large amounts of both time and money to help them achieve their full potential. Our human resources management program is a case in point. We believe that cultivating professionalism and leadership across our workforce will enable us to reach higher and further both today and tomorrow. For us, the ultimate, most forward-looking innovation is people.



We encourage our people to enhance their skills and capabilities by covering costs related to earning governmentrecognized professional certifications.



Our in-house lecturer development program is helping us tap into the wealth of expertise we already have to boost institutional know-how.



#### Raising the standard for professionalism

One of the HR initiatives we have operated since 2010 to cultivate entrepreneurial global leaders is a program designed to encourage our people to acquire governmentrecognized certifications in professional fields. During the past five years, they have earned a wide range of certifications such as certified US public accountant, financial risk manager, certified financial analyst, production and inventory management specialist, and project management specialist. We also operate an in-house lecturer development program that helps grow institutional know-how by tapping the expertise of employees with more than five years of experience in 14 core job positions spanning the production, quality, and the environmental fields.

## Fostering leadership skills

"Leadership" is another key word in our HR management strategy. We support a variety of experiences to help our people develop their communication, thinking, and decision-making skills. The best example is our Wink Talk program, which invites outside experts such as artists, writers, and academics to talk about current issues from culture and the arts to the latest topics in management such as "big data". We also operate a number of programs for managers at the team leader level and above that actively support proactive self-development through annual goalsetting, daily self-study, and book reading relays.

#### Mentoring the future

We operate a mentoring program for new employees to help them successfully settle into company life. Each new employee has two mentors during their first year on the job. During the first six months, they have an assigned mentor. For the latter six months, they have the opportunity to choose their own mentor. We also hold mentoring workshops to help mentors and mentees build rapport and ensure that the mentoring experience meets its objectives. In these and many other ways, we are empowering our people to expand their individual skills and capabilities, ultimately enhancing our organizational capabilities in the process.

#### **Kumho Petrochemical Personnel System**

Salaries reflect employee

PERFORMANCE Incentive system rewards

both individual and corporate



Job rotation provides career development opportunities

# MANAGEMENT REVIEW

<u>36</u> Corporate Governance

Key Executives

Shareholder Value

Risk Management

<u>46</u>

Business Ethics

<u>48</u>

Environmental Management

<u>50</u>

Social Responsibility

Research & Business Development

<u>54</u>

Major Innovations







# **Corporate Governance**

WE ARE COMMITTED TO EARNING THE TRUST OF ALL OUR STAKEHOLDERS—FROM SHAREHOLDERS AND CUSTOMERS TO EMPLOYEES, PARTNERS, AND COMMUNITIES. OUR GOVERNANCE STRUCTURE GIVES US A SOLID FOUNDATION FROM WHICH TO EARN THAT TRUST AND GENERATE GREATER VALUE AS WE AIM FOR A HIGHER LEVEL OF PERFORMANCE.

#### **Board of Directors**

Our board is comprised of six directors, four of which are outside directors nominated by the Outside Director Nominating Committee and elected at the annual general shareholders' meeting. The board consults on and conducts oversight of all major business activities and has final decision-making authority and responsibility in all business matters. In addition to ensuring all decisions benefit shareholders, the board's objective is to maximize corporate value from a long-term perspective. In 2016, the board met 10 times to decide on a total of 32 major agenda items.

#### **Board Committees**

Outside directors hold over half of the board seats to enhance the board's independence and professional expertise. The board also operates two committees to aid its mission. The Audit Committee plays a key internal control role, elevating transparency in management and credibility in financial disclosures. The Outside Director Nominating Committee identifies, screens, and nominates qualified professionals to serve on the board through a fair and impartial process. In 2016, the committees met 3 times and 1 time, respectively.

#### **Board Structure**



#### **Board Agenda Overview**

			%
Area	Items		
Finance and accounting	10	٦٢	24
Sales and marketing	5	25%	31%
Investment	5	Other	Finance and accounting
Governance	3	R&D 3%	
R&D	1	9%	
Other	8	Governance	16%
Total	32	16% Investment	Sales and marketing



#### **Governance Structure**

Chaire

Chan-koo Park

#### Board of Directors

2 Inside Directors

Chan-koo Park · Seong-chae Kim

#### 4 Outside Directors

Yong-man Rhee · Jin-ho Chung · Ok-rial Song · Myoung-kee Jang

**Outside Director Nominating Committee** 

#### 3 Outside Directors

2 Outside Directors

Yong-man Rhee · Jin-ho Chung · Ok-rial Song

Yong-man Rhee · Jin-ho Chung

#### **Outside Director Attendance**

	Yong-man Rhee	Jin-ho Chung	Ok-rial Song	Myoung-kee Jang
Board Meetings	80%	90%	90%	100%
Audit Committee Meetings ·····	100%	100%	67%	
Outside Director Nominating Committee Meetings	100%	100%		



**Inside Director** 

#### Chan-koo Park

Chairman & CEO Kumho Petrochemical

Chairman and CEO Chan-koo Park chairs the board. He graduated from Iowa State University in the United States with a degree in statistics and began his career at KKPC. He has previously served as CEO of several KKPC group companies, including KKPC and Kumho Mitsui Chemicals. During his more than four decades at KKPC, he has played a key decision-making role while contributing to company growth. He also served as chair of the International Institute of Synthetic Rubber Producers from 2010 to 2011.

**Inside Director** 

#### Seong-chae Kim

President & CEO Kumho Petrochemical

President Seong-chae Kim graduated from Yonsei University in Korea with a degree in chemical engineering and began his career at KKPC. During his career, he has accumulated a vast amount of experience and expertise in the synthetic rubbers industry while serving in a variety of sales and management positions at home and abroad. He has served as president and CEO since 2010.

#### **Outside Director**

39

#### Yong-man Rhee

**Chair, Outside Director Nominating Committee** Member, Audit Committee

Former Minister, Korean Ministry of Strategy & Finance

Director Yong-man Rhee previously served as a secretary in Korea's presidential secretariat as well as minister of the Korean Ministry of Strategy & Finance, gaining extensive experience in the fields of finance and policy. In his outside director role, he also serves on both the Audit Committee and the Outside Director Nominating Committee.

#### **Outside Director**

#### Jin-ho Chung

Chair, Audit Committee Member, Outside Director Nominating Committee Chairman & CEO, The Wells Investment

Director Jin-ho Chung has had an extensive career in the financial and investment industries, including stints at Nomura Securities and as CEO of Prudential Investment & Securities. He is currently chairman and CEO of The Wells Investment. In his outside director role, he also serves on both the Audit Committee and Outside Director Nominating Committee.

#### **Outside Director**

#### **Ok-rial Song**

Member, Audit Committee Professor, Seoul National University School of Law

Director Ok-rial Song has an extensive career in the legal field. An LL.D. graduate of Harvard Law School, he has previously worked as an attorney at Korea's largest law firm. He currently teaches law at the Seoul National University School of Law. In his outside director role, he also serves on the Audit Committee.

#### **Outside Director**

#### Myoung-kee Jang

Former Director, Korea Exchange Bank Chairman & CEO. Fidelis Partners

Director Myoung-kee Jang has an extensive career in the banking industry. He has served as a deputy director of major Korean financial institutions including Shinhan Bank and Korea Exchange Bank. He is currently chairman of Fidelis Partners. In his outside director role, he provides valuable insights and guidance on decisions related to fund management policy.

## **Key Executives**

OUR TALENTED MANAGEMENT TEAM IS LAYING A FIRM FOUNDATION FOR GROWTH, TAPPING THE CREATIVITY AND SYNERGY OF OUR PEOPLE AND BUSINESSES TO SET THE STAGE FOR OUR EMERGENCE AS A GLOBAL LEADING CHEMICAL GROUP IN THE COMING DECADE.



Seong-chae Kim President & CEO



Seok-geun Song Senior Executive Vice President Production Division



Chang-soo Jung Executive Vice President Ulsan Synthetic Rubber Plant



Jong-hoon Baek Executive Vice President Sales Division



Executive Vice President Chairman's Administrative Support



Vice President Kumho Petrochemical R&BD Center & Synthetic Rubber Research



Vice President Synthetic Resin Sales & Electronic

Materials Plant



 Vice President Purchasing & Accounting



Kab-jong Chang Vice President





Chul-wan Park Vice President Synthetic Rubber Overseas Sales



Vice President Synthetic Resin Overseas Sales



Jeong-hwan Kim · Vice President Yeosu Plant Administration & Management



Building Materials Business Unit

Kwun-wook Heo Vice President

41



Technology & Energy Business Unit

Vice President



 Vice President · Administration & Management



 Vice President · Purchasing & Finance



Jung-chan Lee Vice President Yeosu Specialty Chemicals Plant



· Vice President Strategic Planning



 Vice President Research Planning



Jong-sub Byun Vice President Yeosu Energy Plant



Young-ho Chun Vice President Synthetic Resin Research



 Vice President · Ulsan Synthetic Resin Plant



Han-won Hong Vice President IT Strategic Center

# Shareholder Value

WE NEVER STOP WORKING ON WAYS TO CREATE GREATER VALUE FOR OUR SHAREHOLDERS. DESPITE UNFAVORABLE INDUSTRY TRENDS AND A CHALLENGING GLOBAL ECONOMY, OUR SHARE PRICE CLIMBED 57% IN 2016, A PERFORMANCE DUE IN LARGE PART TO OUR MULTIFACETED IR STRATEGY. WE WILL CONTINUE TO EXPAND THESE EFFORTS TO DELIVER GREATER SHAREHOLDER RETURNS IN THE COMING YEAR.

#### **Capital Market Overview**

As the global economy continued to struggle in 2016, ongoing political and policy issues had a major impact on stock markets. Contrary to market expectations, the UK decided to exit the EU. Uncertainty about trade policy following the US presidential election also added to market volatility. In China, the government launched structural reforms aimed at mid- to long-term growth. As major European markets saw growth stagnate, China continued to grow in the 6% range. This continued economic slowdown in both advanced and emerging economies alike resulted in another challenging year for the global economy.

The Korean financial market was also impacted by the above factors, dampening investor sentiment. Despite efforts to stimulate the market such as the increase of the bid-ask price spread to ±30% in 2015 and the lengthening of trading hours by 30 minutes daily to 3:30 pm in 2016, total trading value fell approximately 16% during the year. The KOSPI Index closed the year at 2,026.46 points, up just over 3% from 1,961.31 points at the start of the year.

#### **Share Performance**

In 2016, our shares followed an upward trajectory throughout the year. While our core synthetic rubbers business continued to face a challenging marketplace, improving profitability and high expectations for an overall improvement in the rubber industry going forward helped boost our share price from KRW 52,100 at the start of the year to KRW 82,000 at the close, a 57% increase for the year. In 2017, we will be focusing on improving our performance to meet market expectations and lay a solid foundation for future stock price appreciation.

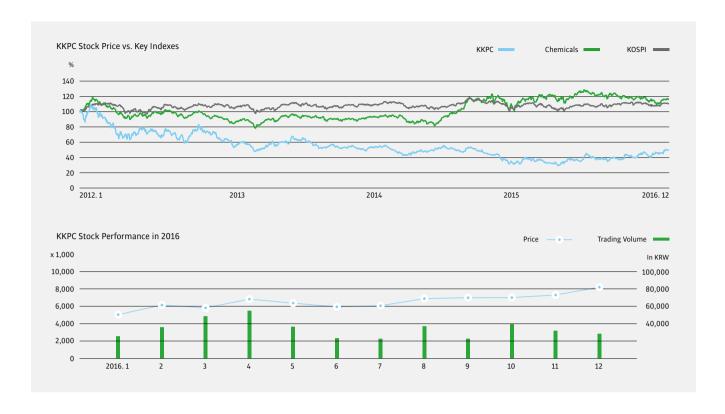
#### **IR** Initiatives

Our ongoing, coordinated investor relations initiatives span the range from the disclosure of key business developments and financial information via our website and DART (http://dart.fss.or.kr) to regular meetings with both domestic and international institutional investors. These efforts continue to earn us credibility in the market and a fair market valuation for our shares as we focus on our strategic goal of attracting quality, long-term investors.





Annual Report Recognition — Our 2015 annual report was recognized at a number of prestigious awards competitions in 2016. We took Platinum in the Chemical class at the 2015 Vision Awards hosted by the League of American Communications Professionals (LACP). We also took Bronze in the LACP's Most Engaging category for the Asia region. At the 2016 ARC Awards hosted by MerComm, we took Silver in the traditional annual report category. We intend to continue to raise the bar for excellence in communications as we engage shareholders, investors, and stakeholders around the world in creative and memorable ways through our annual report.



In addition to timely disclosure of board decisions and other major business information, we focused on expanding the information available through our IR website in conjunction with our earnings releases in 2016. We continued to hold regular small group meetings with investors on a weekly basis, including in-depth discussions that went beyond simple information sharing. We also held one-on-one meetings and conference calls for investors unable to participate in regularly scheduled meetings due to language, timing, or geographic constraints.

43

Together, these efforts helped our stock price rise by a remarkable 57% in 2016 as we continued to attract quality long-term investors from global markets. The portion of our shares held by foreign investors rose from 14.96% at the beginning of the year to 18.97% at the end, the highest level recorded during the past 10 years, as we increased meetings with foreign investors by approximately 70%.

#### **Share Dividend**

It is our policy to consistently return a fair and reasonable portion of our profits to our investors. This policy has led us to continue to declare a basic dividend each year despite the continued market challenges we have had over the past few years.

As we were wrapping up major investments in a number of capacity expansion projects designed to position the company for future growth in 2016, we also faced a difficult business environment that hampered our efforts to improve our performance. Given these constraints, we declared a cash dividend of KRW 800 per common share and KRW 850 per preferred share, representing 16% and 17% of the KRW 5,000 par value, respectively, matching the 2015 dividend. We declared a reduced dividend of 15% of par value or KRW 750 per common share for the controlling shareholder as a gesture of responsibility for failing to meet business targets for the year.

Although the business environment is expected to remain challenging in 2017 due to ongoing oversupply and intensifying competition in our core businesses, we will continue to strive to improve our performance to enable us to increase our dividend payout going forward.

# Risk Management

WE PROACTIVELY MONITOR AND MANAGE THE WIDE RANGE OF RISKS THAT WE FACE ACROSS OUR OPERATIONS. OUR COMPREHENSIVE RISK MANAGEMENT SYSTEM CLOSELY FOLLOWS THE RAPIDLY CHANGING GLOBAL MARKETPLACE, ENABLING US TO STRATEGICALLY MINIMIZE OUR EXPOSURE TO FINANCIAL, CURRENCY, AND RAW MATERIALS RISK.

#### **Financial Risk**

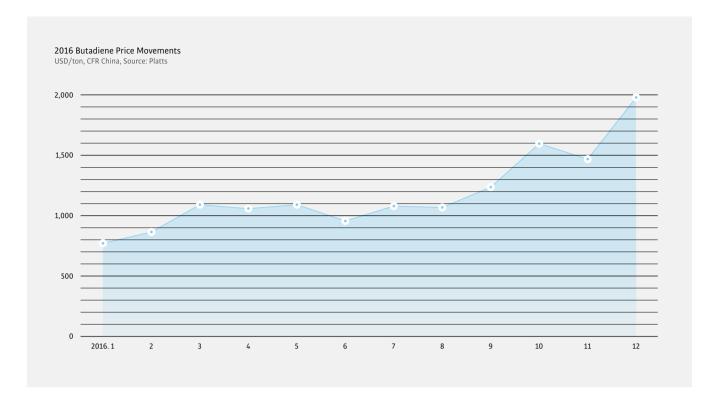
In 2016, total debt remained steady at KRW 1,870 billion. Our debt-to-equity ratio rose 10 percentage points from 153% to 163%.

With the completion of a number of major capacity expansion projects in 2016, our investment capital needs will ease in 2017. Now positioned to steadily pay down debt, we expect our debt-to-equity ratio to decline going forward as we continue to improve our liquidity ratio, which is relatively weighted toward mid- and long-term debt. This is projected to lower our financing costs and reduce related risk. We expect to secure additional funding from the sale of available-for-sale securities in Daewoo Engineering & Construction. Considering the value of our available-for-sale securities in Daewoo Engineering & Construction and Asiana Airlines as well as the treasury shares and other marketable securities we hold, we believe our financial liquidity position is satisfactory.

#### **Currency Risk**

When finalizing our business plans for 2017, we adopted a conservative exchange rate of KRW 1,110 to USD 1 for our projections. Given that the US dollar continues to maintain its strength against global currencies with the average exchange rate holding above KRW 1,190 in early 2017, we believe that the exchange rate will not be a significant obstacle to achieving our targets for the coming year.

In 2016, exports accounted for approximately 63% of total sales. Including the 10% portion of domestic local sales, approximately 73% of sales was in foreign currencies, 96% of which was in US dollars. Although our foreign-currency income is slightly higher than our expenses due to the high proportion of exports, our slightly long cash position of within 20% between the two indicates that exchange rate fluctuations will have a minimal impact on overall profitability.



#### Market Risk

45

Looking at the market outlook for our core synthetic rubbers business, global tire production is projected to rise by approximately 3% in 2017. Structural oversupply is expected to continue to be a key factor for this business. Feedstock prices began rising in the fourth quarter of 2016 and are expected to remain strong through the first half of the year. Accordingly, we will be closely monitoring prices to minimize inventory risk related to price volatility. We will also be building out our NB latex sales network to expand sales following the completion of a capacity expansion project in 2016.

Our synthetic resins business will also continue to face structural oversupply in the market in 2017. The situation is expected to be somewhat mitigated by the scrapping of a number of older facilities during the year. We plan to aggressively expand sales by targeting niche markets as we tailor our portfolio to match market conditions and maximize profitability.

#### Raw Materials Risk

In late January 2017, BD (butadiene) demand began to rise as buyers built up inventories before the lunar new year holiday period in China, sending Asian BD prices higher. Concerns about tighter supply as BD suppliers proceed with their regular maintenance schedules in the first half of the year make it likely that prices will continue to rise.

In the first half of 2017, we expect to see a temporary period of correction. However, supply shortages due to scheduled maintenance are expected to keep prices strong. In the third quarter, the peak period for the synthetic rubber market will keep BD prices strong before weakening in the fourth quarter as demand falls and scheduled maintenance by BD suppliers declines.

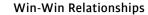
To ensure a smooth supply of BD in these market conditions, we will continue purchases from outside Asia in addition to existing contracts with regional suppliers. We will also actively pursue new C4 and BD contracts with regional suppliers to boost our utilization rate as we continue to strategically increase our self-sufficiency in BD over the long term.

## **Business Ethics**

INTEGRITY AND SHARED GROWTH ARE
OUR HIGHEST MANAGEMENT VALUES.
MORE THAN SIMPLY DECLARING A
COMMITMENT TO ETHICAL MANAGEMENT
AND CODE OF CONDUCT, WE ARE BUILDING
AN INFRASTRUCTURE FOR PRACTICING
INTEGRITY THAT WILL PROVIDE PROPER
GUIDANCE TO OUR PEOPLE. CONCURRENTLY,
WE ARE WORKING TO BUILD A SOUND
CORPORATE CULTURE THAT FOSTERS
TRANSPARENT, WIN-WIN RELATIONSHIPS
WITH OUR SUPPLIERS.

#### Stakeholder Trust

We operate a dedicated channel for reporting violations of our code of conduct and rules as we continue to foster a rational and clean corporate culture. Our online ethics site provides a convenient way for employees, suppliers, and other parties to report unethical behavior. We also run specific campaigns during major national holidays to discourage gift giving. These include sending notices to suppliers that gifts will not be accepted as part of our efforts to maintain fair and transparent business relationships. We also operate a special call center to facilitate the return of gifts as we work to foster a healthy corporate culture free of corruption and influence peddling.



We operate a number of support programs to help us build win-win relationships with our suppliers. We pay small and medium-size suppliers in cash, offer financial assistance, provide training and technical support, share information, and undertake joint technical development projects. We also take supplier survey feedback into account when making major operational decisions. Following the enactment of Korea's Improper Solicitation and Graft Act, we are now providing our people with specific guidance on how to comply in regards to common courtesies such as sending flowers and providing financial congratulatory or condolence gifts.



#### Trust

We strive to be a trusted and respected company by practicing transparency.



#### Win-Win

We are creating a culture of shared growth with our stakeholders.



#### Social Responsibility

We are making the world a brighter, warmer place by caring for the disabled and underprivileged.



#### **Environment & Safety**

We strive for harmony with nature and to create a safe and pleasant work environment.





# **Environmental Management**

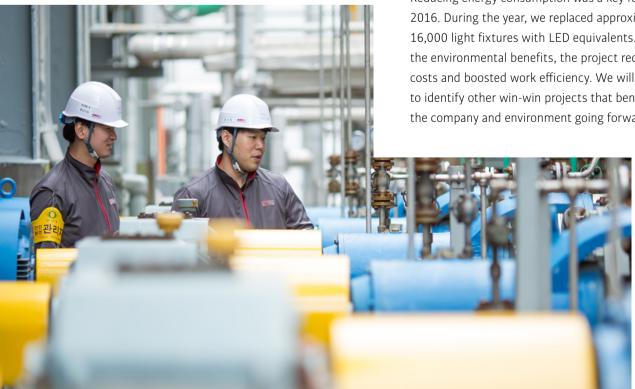
THE IMPORTANCE OF ENVIRONMENTAL ISSUES CONTINUES TO INCREASE WITH INDUSTRIAL DEVELOPMENT. WE BELIEVE THAT ENVIRONMENTAL ISSUES ARE NOT ISSUES LIMITED TO A SPECIFIC REGION OR COUNTRY. THEY ARE GLOBAL ISSUES THAT REQUIRE A COORDINATED GLOBAL RESPONSE. SINCE WE ANNOUNCED OUR ENVIRONMENTAL VISION IN 2008. ENVIRONMENTAL, HEALTH, AND SAFETY (EHS) HAVE BEEN KEY AREAS OF FOCUS FOR US. IN STEP WITH DOMESTIC AND INTERNATIONAL TRENDS, WE CONTINUE TO UPGRADE OUR COMPLIANCE, CLIMATE CHANGE RESPONSE, AND EHS SYSTEMS AND MANAGEMENT.

#### **EHS Initiatives**

Our vision is to be a company that creates the future by meeting the needs of humanity and the environment. Toward this end, we have updated our environmental, health, and safety policies and established a long-term strategy and action plan that we are now making concrete progress on. We continued to update our policies in 2016 in response to our changing environment and business direction.

Our environmental initiatives cover a wide range of areas including air quality, water quality, and waste generation. In each of these areas, we have set performance targets that we continually monitor and manage to ensure they are met. We strictly comply with all legal standards regarding the discharge of harmful substances and voluntarily participate in offsite environmental clean-up efforts. These ongoing efforts have enabled us to maintain the highest possible certification level for our environmental management system.

Reducing energy consumption was a key focus in 2016. During the year, we replaced approximately 16,000 light fixtures with LED equivalents. Beyond the environmental benefits, the project reduced fixed costs and boosted work efficiency. We will continue to identify other win-win projects that benefit both the company and environment going forward.



#### **Regulatory Compliance**

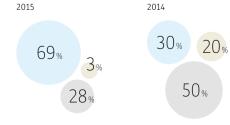
49

We continually monitor and adapt to laws and regulations that affect the chemical industry. We have implemented a chemical management system (KCMS) that enables us to respond to and comply with both the letter and intent of Korea's Act on the Registration and Evaluation of Chemicals (K-REACH) and the recently enacted Clean Air Conservation Act.

The Clean Air Conservation Act sets clearer standards targeting the reduction of hazardous air pollutant emissions. These pollutant emissions are measured once annually. Facilities that fail to meet the standard must be upgraded and monitored to ensure they do so. We are currently in the process of putting in place the necessary facilities to ensure we are able to meet our responsibility to manage emissions and comply with legal mandates. Once the facilities are in place, we will be installing an integrated leak detection and repair system (LDAR) that will monitor components prone to leaking such as valves, connectors, and pumps. We have also upgraded all pumps to either dual mechanical seal or sealless equipment to meet target standards for all chemicals subject to control.

#### **Environmental Investment**







#### **Environmental Vision**

We aspire to be a company that creates the future by meeting the needs of humanity and the environment.

#### Long-term strategy

Develop eco-friendly products



Reduce energy consumption and emissions



Play a leading role globally in EHS





Strengthen system

#### System Overview

Our corporate-wide EHS system starts with the CEO and extends all the way down to the environmental and safety teams at each plant site. Each site operates an integrated management system covering all aspects of the environment, safety, and health for effective oversight.

In addition to the corporate safety and environment committee, which takes up major issues, plant management presides over regular meetings to focus on local issues. Beyond upgrading our emergency response system, we continue to focus on accident prevention, initial accident response, and postaccident measures as we work to ensure we are capable of providing a comprehensive, timely response to any situation.

#### Investment & Oversight

In addition to ongoing initiatives to replace facilities that have reached the end of their service life, we are actively increasing investment in facilities designed to prevent environmental and safety accidents. Augmenting comprehensive inspections encompassing the machinery, piping, electrical, and instrumentation areas, we hold monthly safety inspection days to give both us and our suppliers time to conduct internal safety inspections. We also highlight local safety issues on bulletin boards at each plant as well as arranging regular third-party inspections to further enhance safety awareness.

## Social Responsibility

DRIVEN BY A STRONG COMMITMENT TO SOCIAL RESPONSIBILITY, WE ACTIVELY PARTICIPATE IN A BROAD RANGE OF ACTIVITIES TO BENEFIT THE MOST-NEEDY IN OUR LOCAL COMMUNITIES. THESE RANGE FROM DONATIONS OF SPECIAL EQUIPMENT FOR THE PHYSICALLY AND VISUALLY DISABLED TO THE INSTALLATION OF HIGH-QUALITY WINDOW SYSTEMS FOR WELFARE CENTERS IN NEED OF REPAIR. WE ALSO ENCOURAGE OUR PEOPLE TO GET INVOLVED IN WORTHY PROJECTS AS PART OF OUR ONGOING EFFORTS TO MAKE COMMUNITY SERVICE AN INTEGRAL PART OF OUR CORPORATE DNA.



#### **Special Initiatives**

We have a special place in our heart for the disabled and disadvantaged. In 2008, we began donating special wheelchairs for the severely physically disabled that are customized to the specific needs of each recipient. In 2016, we donated 33 wheelchairs to benefit 38 needy residents at 9 rehabilitation centers in the greater Seoul region.

Another initiative we started back in 2008 was a window replacement program for welfare centers in need of repair. In 2016, we donated and installed our premium Hugreen window systems at the "Peaceful Home" center for the disabled in Seoul, creating a more comfortable and attractive living and working environment for residents and staff.

We also operate a variety of programs to help the visually disabled. We distribute easy-touse telescoping canes, tactile ground surface indicators, and braille keyboards to schools for the blind and welfare centers serving the disabled nationwide. In 2016, we donated funds to produce 1,650 telescoping canes to the Korea Welfare Foundation for the Visually Handicapped.

#### **Volunteer Participation Across all Programs**

2016	— 5 <b>,</b> 772 <sub>+1.9%</sub>
2015	5,662 -5.5%
2014	— 5,002 -5.5% — 5,989

#### **Community Initiatives**

Our focus on community service doesn't end with corporate donations. We encourage our people to actively participate in serving their local communities in a variety of ways. We also recognize outstanding service each year by both individuals and teams through an internal awards program as we continue to promote an ethos of service across our organization.

Our entire family contributes to the less fortunate by voluntarily choosing to round off their paycheck to the nearest KRW 1,000 and donate the rounded sum to a general welfare fund. Many also choose to make monthly fixed-amount charitable donations. All of these employee donations are matched by the company, doubling their impact for good. In 2016, these funds benefited the Eastern Social Welfare Society and 9 other welfare facilities and organizations across Korea.

Beyond these charitable contributions, we are also involved in numerous community service projects and organizations. We enjoy making baby care kits, corn sock dolls, and other toys to help brighten the lives of less-fortunate children at home and abroad. We also partner with the Korean Red Cross to sponsor annual in-house blood drives, gathering the blood donation cards for donation to places where they are urgently needed.

#### **Special Initiatives**

Custom wheelchairs for the

severely disabled



Assistance devices for the visually disabled

#### Community Initiatives



Employee donations and matching grants



# Research & Business Development

OUR SOLID, LONG-TERM FOUNDATION
FOR COMPETITIVENESS AND GROWTH IS
BUILT ON A TIRELESS COMMITMENT TO
RESEARCH AND DEVELOPMENT. OUR TWO
RESEARCH CENTERS SPECIALIZING IN
CHEMICALS AND ELECTRONIC MATERIALS
PLAY A KEY ROLE IN KEEPING US ON
THE LEADING EDGE OF TECHNOLOGY IN
THOSE RESPECTIVE FIELDS, ENABLING
US TO RAPIDLY RESPOND TO CUSTOMER
NEEDS TO DELIVER PRODUCTS WITH THE
POTENTIAL TO LEAD THE INDUSTRY.

# R&

#### **R&BD** Organization

Since 2005, we have referred to our R&D activities as "R&BD" or research and business development. This reflects the common sense idea that business strategy as well as marketing and commercialization considerations must be taken into account from the R&D planning phase to ensure that each project makes a concrete contribution to the bottom line.

Our R&BD activities revolve around two main centers—the Kumho Petrochemical R&BD Center in Daejeon and the Kumho Electronic Materials Laboratory in Asan. Looking beyond past and present successes, these centers are tasked with developing the next generation of technologies and materials that will define our future.

#### R&BD Manpower & Investment



#### Kumho Petrochemical R&BD Center

Our R&BD organization dates back to 1985 when we opened our first R&D center at our Yeosu plant. In 1994, we opened the Kumho Petrochemical R&BD Center in Daejeon. In 2003, we relocated our Icheon R&D center and Ulsan latex R&D center to the present Daejeon campus, completing the integration of our R&BD operations.

In addition to its primary mission of securing technical and cost competiveness for our synthetic rubbers and other existing businesses, the center focuses on developing the products and businesses that will drive future growth. The center is tasked with making the technical breakthroughs that will make us a top-tier player in product categories where we are a latecomer as well as creating first-to-market products that meet specific customer needs.

The center was the Korean chemical industry's first to adopt a comprehensive R&D project management system. This system plays a key role in maximizing the effectiveness of project execution, involving the entire organization from the project selection stage through feasibility analysis, basic research, development, and commercialization.

#### **Kumho Electronic Materials Laboratory**

Opened in 1998, this laboratory conducts research in a broad range of fields from semiconductor processing materials such as photoresist, BARC (bottom anti-reflective coatings), and PSPI (photosensitive polyimide) to LCD sealants and other materials for the display industry. Its ceaseless efforts are key to improving the quality of existing products and developing and bringing new ones to market.

Among the lab's notable achievements in recent years is the development of technology to produce ArF (argon fluoride) photoresist for 193-nm lithography, the advanced process used to create nanometer-scale semiconductor circuits. We continue to work closely with major global semiconductor makers to develop products that meet their specific needs. Building on synergy with other existing product areas, our research in the display field is aimed at fostering economies of scale in this growing industry.

In the display field, research on sealants for OLED and LCD panels continues to be the focus of our efforts. Since becoming Korea's first commercial manufacturer of sealant for the small and medium panel market in 2012, we have continued to expand our sealant lineup to include products for the large LCD and OLED panel segments. For LCD panels, sealant is used as an adhesive in the LCD cell assembly process to join the color filter and TFT substrates together, containing and protecting the liquid crystal. For OLED panels, sealant blocks moisture and oxygen so the OLED cells are able to work properly. We are also developing sealants for narrow bezel displays and an encapsulation solution for flexible OLED displays as we keep pace with the evolution of the industry.

## **Major Innovations**



#### High-Performance SSBR Grades

With rising demand for ecofriendly tires and tire labeling requirements becoming increasingly common, demand for SSBR (solution styrene butadiene rubber), a material recognized for its superior silica filler dispersion characteristics, is growing rapidly. We produce a variety of SSBR grades that are expected to generate steady sales growth in the coming years. Through ongoing R&D, we have acquired proprietary manufacturing technologies for synthetic rubber denaturant, polymer structure control, and new compounds that enable us to develop and produce unique SSBR grades with superior properties.

We continue to work closely with major tiremakers on joint projects. These technical exchanges with both customers and universities at home and abroad position us to quickly respond to changing customer requirements and develop market-leading products. We aim to sharpen our technical capabilities in the years ahead through ongoing investment.

#### **Industrial NB Latex**

Recognized for its excellent tensile strength and processability characteristics, our NB latex has enjoyed steadily rising sales since introduction. In the medical glove market, our NB latex continues to maintain an edge on the competition and we are continually developing new grades to meet the specific needs of our customers. We are also expanding our product portfolio by developing NB latex grades for high-quality industrial-use gloves as we expand our customer base and grow sales.



Expected to enjoy strong growth in the coming years, industrial-use latex gloves are highly resistant to wear and chemicals, making them essential safety wear in the automobile, metal, and chemical industries.



#### **MSP Epoxy Paint Additive**

Mono-styrenated phenol is a low-viscosity phenol chemical compound developed as a replacement for hormone-altering phthalates commonly used as plasticizers and hardeners in epoxy paint coatings. In addition to its eco-friendly properties, our MSP eliminates several shortcomings of existing products and is the industry's first to offer enhanced hardener storage stability and auality

This technical leadership enabled our phenolic additives products to win the "World-Class Product of Korea" designation in 2015 for achieving a global top-5 market share as well as Korea's prestigious IR52 Jang Young-sil Award for innovation in 2016.

We continued to expand our MSP lineup in 2016 with our new MSP500 product. This nonreactive diluent for epoxy paints is now opening new market and profit opportunities for us in the specialty chemicals field.



#### **Enerpor EPS Resin**

We have an exclusive manufacturing patent for this EPS resin, which has all the properties and strength of existing EPS resins with the added benefit of significantly improved thermal conductivity. Adopting the concept of radiant heat absorption through the crystal structure of conventional polystyrene foam, Enerpor offers 30% better insulation performance than standard white EPS foam insulation, setting a new standard for energy savings and ecofriendliness.

Enerpor has a high market share in Korea and we have received patents for the manufacturing technology in a number of major global markets including the United States, Canada, Russia. China, and the European Union.

n 2016, we developed a new manufacturing technology capable of producing the sub-1-millimeter resin bead size preferred by customers taking product competitiveness to the next level



#### **Butadiene Production**

1,3-butadiene (BD) is a widely used industrial chemical feedstock. In our operations, we use it to produce synthetic rubbers and resins. Tight supply in the industry in recent years has led us to increase our captive BD production capacity. Our R&DB teams have developed optimized process technologies that will enable us to do that, contributing to stable manufacturing costs and improved profitability for our core businesses.



#### **3D NAND Photoresist**

Although NAND flash memory manufacturing is structurally simple, volatile pricing has kept it out of the semiconductor industry spotlight. That has rapidly changed with the recent development of 3D NAND flash memory and its accompanying increases in memory density. boosting margins and industry interest. Resist manufacturers around the world are now focusing their development efforts on thick KrF (krypton fluoride) photoresist for 3D NAND production.

In 2016, we moved a step closer to completing development of a photoresist that meets the performance requirements of our global customer base and expect to complete commercialization during 2017.



#### ArF Immersion BARC

BARC (bottom anti-reflective coatings) are polymer coatings used on the lower layer of photoresist to control light reflectivity in high-resolution lithography. Since launching commercial production in 2015, we have upgraded the performance of our KrF immersion BARC product. In addition to attaining a higher refractive index than the original product, the new product also features improved etching performance.

We expect continued development of new materials like this designed for next-generation semiconductor production to drive sales growth in the coming years.



#### **OLED Panel Sealant**

In 2016, we continued to improve the properties of our OLED panel sealant during the ongoing development process. Having completed reliability testing with customers, the installation and optimization of production facilities, and the final audit, we are now awaiting final customer qualification. In 2017, we expect to further improve sealant properties as we work to wrap up commercialization and begin product deliveries during the year, becoming Korea's first domestic supplier in the process.

# BUSINESS REVIEW

58 2016 Overview <u>60</u>

Synthetic Rubbers

<u>62</u>

Synthetic Resins

<u>66</u>

Other Businesses

2017 Outlook







## 2016 Overview

THE GLOBAL ECONOMY CONTINUED TO BE VERY CHALLENGING IN 2016. FEW IF ANY COULD HAVE PREDICTED THE DRAMATIC POLITICAL AND ECONOMIC DEVELOPMENTS OF OIL HITTING ITS LOWEST PRICE IN A DECADE, THE UNITED KINGDOM VOTING TO LEAVE THE EUROPEAN UNION, AND THE OUTCOME OF THE UNITED STATES PRESIDENTIAL ELECTION. IN A SITUATION WHERE THE GLOBAL ECONOMY WAS ALREADY LIMPING ALONG, THIS POLICY UNCERTAINTY BROUGHT ON A SENSE OF CRISIS THAT SPREAD BEYOND THOSE ECONOMIC BLOCS TO TOUCH THE ENTIRE GLOBAL ECONOMY.

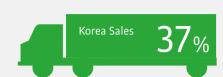
This uncertainty was certainly felt in the synthetic rubbers market, one of our core businesses. Here, the structural oversupply situation combined with tight feedstock supplies made it once again difficult to pass on rising costs to customers. Fortunately, rising selling prices in the first half of the year helped temporarily boost demand and margins, enabling us to stay profitable amid the challenging market situation.

In our synthetic resins business, improved margins in certain product categories enabled us to maintain overall profitability at 2015 levels. The completion of a capacity expansion project in our phenol derivatives business was instrumental in helping us maintain profitability there. Our energy business saw profits drop as selling prices fell in the face of continued low oil prices and plentiful supply in the electricity market.

Overall, our business performance was similar to 2015. We closed 2016 with consolidated sales of KRW 3,970.4 billion, a 0.9% year-on-year increase. Operating income declined 4.2% to KRW 157.1 billion. In terms of financial structure, our debt-to-equity ratio rose slightly from 153% to 163% as we wrapped up several major capacity expansion projects. We expect this ratio to improve in 2017 as investment spending declines and we pay down debt with revenues generated by these new facilities.

#### Sales by Market







#### **Exports by Region**





# Synthetic Rubbers

2016 Sales Revenue

# KRW 1,559.2 billion



#### Main Products

SBR, HBR, LBR, SSBR, NBR, HSR, NdBR, SB Latex, NB Latex, SBS, STE

#### **Key Applications**

Tires, Shoes, Automobile Parts, Sporting Goods, Asphalt, Waterproof Sheet, Plastics, Paper, Gloves

#### **Major Customers**

Hankook Tire
Kumho Tire
Nexen Tire
Goodyear Tire
Continental Tire
Bridgestone Tire
Michelin Tire
YTY
Hartalega
Moorim Paper

Hankuk Paper



SALES IN OUR SYNTHETIC RUBBERS BUSINESS ROSE SLIGHTLY TO KRW 1,559.2 BILLION IN 2016. OUR FOCUS IN 2017 WILL BE ON IMPROVING PROFITABILITY ACROSS-THE-BOARD, INCLUDING RAMPING UP PRODUCTION AT OUR RECENTLY EXPANDED NB LATEX PLANT.

#### 2016 Review

Synthetic rubbers accounted for 39.3% of total consolidated sales in 2016. Despite a challenging market environment, we recorded sales of KRW 1,559.2 billion, up slightly from the previous year. Profitability also improved, helping keep overall corporate profitability stable.

The synthetic rubbers market has seen competition intensify due to increasing oversupply during the past few years. At the same time, the supply for key feedstock BD (butadiene) has steadily tightened, leading to greater price volatility than changing market conditions would seem to warrant. Despite the above challenges, rising expectations for an improvement in the supply situation due to a decline in capacity expansion projects combined with easing oversupply in the natural rubber market helped demand for synthetic rubbers to make modest gains during the year. This enabled us to more easily pass on the cost of rising feedstock prices to customers in the first half of the year.

Overall, we were able to make encouraging profitability gains for the year in this business as we effectively responded to market conditions. Here, timely capacity expansion in more profitable product categories such as NB (acrylonitrile butadiene) latex combined with tight inventory management played a key role in boosting the proportion of higher margin products in our sales mix.

#### 2017 Outlook

The global auto industry is projected to see continued growth in the 2% to 3% range in 2017. Global tire production is also expected to grow at the same rate, driven by steady growth in China, home to approximately one-third of global production capacity, as well as projected substantial production volume growth in other Asian markets. Although China's growth has slowed slightly due to environmental issues, that country's share of the global auto and tire markets will continue to grow.

We continue to work tirelessly to improve our performance in the synthetic rubbers business, a field beset by structural oversupply that has worsened with the addition of new capacity over the past few years. We will improve the profitability of major product categories such as BR and SBR by pursuing a flexible, profit-focused sales strategy. The completion of an NB latex capacity expansion project in 2016 will enable us to increase both capacity and profitability, boosting sales volume as well as our market clout. We will also be focusing on strengthening strategic relationships with our customers as we build a stronger, more robust sales network.

Securing a stable supply of BD feedstock for our operations is another area of ongoing focus. The recent trend toward vertical integration and a relative lack of capacity expansion in the BD market have created a tight supply situation and market volatility. We are strengthening our relationships with existing BD suppliers as we work to expand procurement channels where possible. We will also raise the utilization rate of our own captive BD plant to actively mitigate market volatility.

# Synthetic Resins

2016 Sales Revenue

# KRW 1,035.7 billion



#### Main Products

PS, ABS, EP, SAN, EPS, ENERPOR, PPG

#### **Key Applications**

Automobile Parts Home Appliances Food and Beverage Containers Office Supplies Building Materials

#### **Major Customers**

Hyundai Motors, Kia Motors, GM Korea, Korea Yakult, Namyang Dairy Products, Samsung Electronics, LG Electronics, Dongbu Daewoo Electronics, Kingfa, Sabic, Haier, Arcelik, Vestel, KCC, Noroo Paint & Coatings



SALES IN OUR SYNTHETIC RESINS BUSINESS DECLINED SLIGHTLY TO KRW 1,035.7 BILLION. OUR FOCUS IN 2017 WILL BE ON MAINTAINING PROFITABILITY WITH AN EMPHASIS ON HIGHER-MARGIN PRODUCT SALES AND UPGRADING QUALITY ACROSS-THE-BOARD.

#### 2016 Review

Synthetic resins accounted for 26.1% of total consolidated sales in 2016. We recorded sales of KRW 1,035.7 billion, a decline of approximately 4% from the previous year.

As international oil prices remained lower overall than 2015, synthetic resin prices similarly trended lower, leading to a slight decline in sales for the year. Although international oil prices began to rebound in 2016 and feedstock prices rose, the market situation made it difficult to pass on these costs to customers, limiting our ability to improve profitability. On a positive note, our flexible response to markets and stronger sales to major customers enabled us to improve the profitability of products that underperformed in 2015, allowing us to maintain profitability amid concerns about weakening market demand in the second half of the year.

#### 2017 Outlook

Global production capacity in the synthetic resins market is projected to stay flat in 2017 with no concerns about significant new capacity coming online. The supply situation is not expected to change significantly as manufacturers appear set to maintain utilization at appropriate levels. Regarding SM (styrene monomer) feedstock supplies, new capacity is projected to come online this year, steadily easing the supply imbalance and setting the stage for prices to stabilize in the second half of the year.

Maintaining profitability will be the focus of our efforts in 2017. We will focus on growing sales of higher-margin products as we expand our market focus to boost market share. We will strive to improve the quality of our existing products through intensive R&D. We will also be partnering more closely with competitive feedstock suppliers to ensure our supply needs are met and sharpen our cost competitiveness.

# Other Businesses

2016 Sales Revenue

# KRW 1,375.5 billion



#### PHENOL DERIVATIVES

#### Main Products

Phenol, Acetone, BPA, MIBK, Epoxy Resin

#### **Key Applications**

Chemical Intermediates, Home Appliances, Automobile Parts, Solvents. Paint

#### SPECIALTY CHEMICALS

#### Main Products

Antioxidants, Vulcanization Accelerators, Paint Additives

#### **Key Applications**

Tires, Belts, Hoses, Electric Wire, Shoes, Marine Paint

#### ENERGY

#### Main Products

Steam and Electricity

#### **ELECTRONIC MATERIALS**

#### Main Products

Photoresist, BARC, PSPI, Sealant, CNT

#### **Key Applications**

Semiconductors, Displays, Rechargeable Batteries, Plastic Composites

#### BUILDING MATERIALS

#### Main Products

Window Systems, Interior Materials



#### 2016 Review

Other businesses accounted for 34.6% of total consolidated sales in 2016. Consisting of phenol derivatives, specialty chemicals, energy, electronic materials, and building materials, these businesses recorded sales of KRW 1,375.5 billion, a 5.7% increase for the year. Although the energy business saw performance weaken due to lower international oil prices and lower-than-expected demand from customers as they ran at lower utilization rates, the phenol derivatives business recorded a modest increase following the completion of a capacity expansion project, helping offset lower profits by other businesses.

Our phenol derivatives business wrapped up a multiyear vertical integration project with the completion of major capacity expansion projects to increase production of phenol, acetone, and cumene. Despite concerns about the steady stream of new capacity coming online, we successfully ramped up production and grew our business in a challenging environment. We did this by entering new markets to boost sales volume and reducing costs through improved productivity, increasing profitability in the process.

Our specialty chemicals business faced the same market oversupply challenge that many chemical makers are experiencing, but to a slightly greater extent. Although additional increases in supply during the year were not major, they did add to the oversupply situation, leading to tougher competition and lower performance.

Our energy business completed its Yeosu Energy II expansion project in the first half of the year and began commercial production. However, continued low international oil prices led to weaker market prices for steam and electricity. This, combined with lower-than-expected sales as customers ran their operations at lower utilization rates prevented us from improving profitability.

Our electronic materials business faced difficulties advancing into new markets. Despite this performance setback, we were able to stay profitable for the year.

Our building materials business delivered its best performance to date, continuing to steadily improve in line with its rising utilization rate.

Beyond the above businesses, we continued to move forward with investments in a number of energy-related businesses and vertical integration as we continued to lay the foundation for sustainable long-term growth.

#### 2017 Outlook

Our phenol derivatives business expects to ramp up production at its recently expanded facilities in 2017, further intensifying competition in the Asia region. We aim to take maximum advantage of this expansion by growing our market base, strengthening customer relationships, and tapping opportunities in niche markets. We will also continue to focus on cost reduction, securing a stable supply of feedstocks, and optimizing our utilization rate to further enhance competitiveness.

Our specialty chemicals business is expected to face a continued supply imbalance, although the situation is projected to steadily improve with no new capacity scheduled to come online. With the oversupply situation not anticipated to improve substantially in the short-term, we will be focusing on improving our sales organization to better respond to market realities. Here, we will focus on sales to global tiremakers as we cultivate stable, long-term customer relationships with them.

Our energy business is expected to face a stable pricing environment as international oil prices and demand remain flat. Fuel prices are expected to rise, leaving limited opportunities to improve performance. Accordingly, we will focus on boosting operational efficiencies to improve profitability.

Our electronic materials business will focus on growing sales across-the-board as we carefully evaluate the fast-changing market and aggressively move into areas with growth potential.

Our building materials business will focus on extending its growth trajectory with an emphasis on both qualitative and quantitative growth built on cost reduction and distribution network expansion.

## 2017 Outlook

UNFOLDING POLITICAL AND ECONOMIC
DEVELOPMENTS IN THE UNITED STATES
AND EUROPE WILL PLAY A MAJOR ROLE IN
THE DIRECTION OF THE GLOBAL ECONOMY
IN 2017. OUR FOCUS WILL BE ON FINDING
THE OPPORTUNITIES THAT THE CHALLENGES
AHEAD WILL INEVITABLY BRING.

Political issues are likely to contribute to continued global economic uncertainty in 2017. Presidential elections are scheduled to be held in France and other countries in the Eurozone, and there are growing concerns about a hard landing as the United Kingdom exits the European Union. Policy uncertainty also remains regarding trade protectionism in the wake of last year's US presidential election, raising concerns about possible exchange rate volatility and a US interest rate hike, visibly weakening the global economic outlook. In China, the current main driver of global economic growth, the market is undergoing restructuring for long-term growth, necessarily limiting it to medium-speed growth for the foreseeable future.

We are committed to upgrading our competitiveness across the board in 2017. In every business field, we will eliminate unproductive practices and focus on turning challenges into opportunities. In our core chemicals fields, we are aiming for all-around stable growth for our existing products. Here, ensuring a stable supply of key feedstocks and strategically strengthening ties with our customers are essential. At the same time, we will be looking for new businesses with the potential to drive future growth, focusing on areas closely related to existing businesses. In these ways, we will take the next step toward our vision of becoming a global leading chemical group.

# FINANCIAL REVIEW

<u>68</u>

Independent Auditors' Report <u>70</u>

Consolidated Financial Statements

Independent Auditors' Report

78

80

Separate

Financial Statements



# KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES Independent Auditors' Report

Based on a report originally issued in Korean

## The Board of Directors and Stockholders Kumho Petrochemical Co., Ltd.

#### **Audited financial statements**

We have audited the accompanying consolidated financial statements of Kumho Petrochemical Co., Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position of at December 31, 2016, the consolidated statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Korean International Financial Reporting Standards("K-IFRS"), and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion

#### Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Group as of December 31, 2016 and its financial performance and its cash flows for the year then ended in accordance with Korean International Financial Reporting Standards.

#### Other Matter

The consolidated financial statements of the Group for the year ended December 31, 2015, presented for comparative purposes, were audited by BDO Daejoo LLC whose report dated February 25, 2016, expressed an unqualified opinion on those consolidated financial statements

Seoul, Korea March 6, 2017

This report is effective as of March 6, 2017, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

#### Letter of Confirmation

To whom it may concern

We have audited the accompanying consolidated financial statements of Kumho Petrochemical Co., Ltd. and its subsidiaries (the "Group"), which comprise the consolidated statements of financial position as of December 31, 2016, the consolidated statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

We expressed an unqualified opinion on those consolidated financial statements dated March 6, 2017 in accordance with Korean International Financial Reporting Standards.

We confirm those accompanying consolidated financial statements of the Group, translated into English, accord with the consolidated financial statements of the Group originally issued in Korean.

Please note that the accompanying consolidated financial statements do not include notes to the consolidated financial statements which are an integral part of consolidated financial statements.

March 6, 20

## **KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES Consolidated Statements of Financial Position**

In millions of won

As of December 31, 2016 and 2015

III IIIIIIIOIIS OI WOII		2013
Assets		
Non-current assets		
Property, plant and equipment	₩ 2,564,778	2,505,694
Investment property	5,600	5,601
Intangible assets	17,264	16,151
Investments in associates and joint ventures	417,770	395,841
Available-for-sale financial assets	231,968	251,298
Derivative financial assets	2,224	2,417
Loans and other receivables	14,563	16,946
Deferred tax assets	26,827	30,213
Other non-current assets	9,797	18,818
	3,290,791	3,242,979
Current assets		
Inventories	445,542	394,695
Held-for-trading financial assets	271	-
Available-for-sale financial assets	-	1
Derivative financial assets	7,566	5,924
Trade receivables	520,901	435,348
Loans and other receivables	73,632	40,853
Cash and cash equivalents	196,977	47,292
Other current assets	10,431	15,338
Non-current assets held for sale	-	28,000
Current tax assets	3	125
	1,255,323	967,576
Total assets	₩ 4,546,114	4,210,555

In millions of won	2016	2015
Equity		
Equity attributable to owners of the Group		
Capital	₩ 167,456	167,456
Capital surplus	266,517	267,824
Capital adjustment	(40,358)	(40,323)
Accumulated other comprehensive income	18,198	15,802
Retained earnings	1,207,923	1,145,722
Notanica carrings	1,619,736	1,556,481
Non-controlling interests	108,165	107,267
Total equity	1,727,901	1,663,748
Liabilities		
Non-current liabilities		
Other payables	1,546	50
Long-term accrued expenses	3,960	4,396
Borrowings	559,536	882,265
Liabilities for defined benefit plans	48,749	64,093
Deferred tax liabilities	54,493	49,319
Financial guarantee liabilities	120	545
Derivative financial Liabilities	808	1,073
Other non-current liabilities	3,441	3,809
	672,653	1,005,550
Current liabilities		
Trade payables	373,698	219,197
Other payables	220,532	261,432
Borrowings	1,521,119	1,032,326
Current tax liabilities	10,669	13,011
Provision	5,302	7,326
Other current liabilities	14,240	7,965
	2,145,560	1,541,257
Total liabilities	2,818,213	2,546,807
Total equity and liabilities	₩ 4,546,114	4,210,555

## **KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES Consolidated Statements of Income**

For the years ended December 31, 2016 and 2015

In millions of won, except earning per share information	2016	2015
Sales	₩ 3,970,435	3,934,509
Cost of sales	3,637,513	3,600,583
Gross profit	332,922	333,926
Selling, general and administrative expenses	175,846	169,976
Operating income	157,076	163,950
Other income	96,758	78,483
Other expenses	101,354	48,611
Financial income	37,401	42,488
Financial expenses	104,641	109,842
Share of profit of equity accounted investees	27,636	43,163
Net profit before income tax	112,876	169,631
Income tax expense	32,112	47,765
Net profit for the year	₩ 80,764	121,866
Profit attributable to:		
Owners of the Group	73,246	118,904
Non-controlling interests	7,518	2,962
Net profit for the year	80,764	121,866
Earnings per share (In Korean won)		
Basic and Diluted earnings per share(class1)	₩ 2,618	4,257
Basic and Diluted earnings per share(class2)	₩ 2,683	4,307

## KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES Consolidated Statements of Comprehensive Income

In millions of won		2016	2015
Net profit for the year	₩	80,764	121,866
Other comprehensive income (loss) for the year, net of income tax		11,165	(63,589)
Items that will not be reclassified subsequently to profit or loss		10,305	(13,903)
Defined benefit plan actuarial income(losses)		10,305	(13,903)
Items that will be reclassified subsequently to profit or loss		860	(49,686)
Net change in fair value of available-for-sale financial assets		1,291	(48,858)
Foreign currency translation differences for foreign operations		(818)	94
Net change in unrealized gain on valuation of investments in associates		457	(581)
Net change in retained earnings of investments in associates		(995)	455
Effective portion of changes in fair value of cash flow hedges		925	(796)
Total comprehensive income for the year	₩	91,929	58,277
Total comprehensive income attributable to:	-		
Owners of the Group		87,066	56,033
Non-controlling interests		4,863	2,244
Total comprehensive income for the year	₩	91,929	58,277

# KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES Consolidated Statements of Changes in Equity

Capital	Capital surplus			Retained earnings	Non- controlling interests	Total equity
₩ 167,456	265,199	(40,285)	64,445	1,102,565	82,202	1,641,582
				-		
-	-	-	-	118,904	2,962	121,866
-	-	-	(48,387)	-	(471)	(48,858)
-	-	-	297	-	(203)	94
-	-	-	(581)	-	-	(581)
-	-	-	410	-	45	455
-	-	-	-	(796)	-	(796)
-	-	-	-	(13,814)	(89)	(13,903)
-	(14)	-	-	-	309	295
-	2,639	(38)	-	-	(6)	2,595
-	-	-	-	-	1	1
-	-	-	(382)	(19,138)	22,517	2,997
	-	-	-	(41,999)	-	(41,999)
₩ 167,456	267,824	(40,323)	15,802	1,145,722	107,267	1,663,748
•	* 167,456	* 167,456 265,199  (14) - 2,639	** 167,456 265,199 (40,285)	Surplus   adjustment   Comprehensive income	w         167,456         265,199         (40,285)         64,445         1,102,565           -         -         -         -         118,904           -         -         -         -         -           -         -         -         -         -           -         -         -         -         -           -         -         -         -         -         -           -         -         -         -         -         -         -         -           -	w 167,456         265,199         (40,285)         64,445         1,102,565         82,202

In millions of won	Capital	Capital surplus	Capital adjustment	Accumulated other comprehensive income	Retained earnings	Non- controlling interests	Total equity
Balance at January 1, 2016	<b>₩</b> 167,456	267,824	(40,323)	15,802	1,145,722	107,267	1,663,748
Total comprehensive income for the year							
Net profit for the year	-	-	-	-	73,246	7,518	80,764
Net change in fair value of available-for-sale financial assets	-	-	-	3,670	-	(2,379)	1,291
Foreign currency translation differences for foreign operations	-	-	-	(881)	-	63	(818)
Effective portion of changes in fair value of cash flow hedges	-	-	-	457	-	-	457
Net change in unrealized gain on valuation of investments in associates	-	-	-	(850)	-	(145)	(995)
Net change in retained earnings of investments in associates	-	-	-	-	925	-	925
Defined benefit plan actuarial income(losses)	-	-	-		10,500	(195)	10,305
Transactions with owners of the Group, recognized directly in equity	-						
Changes in a parent's ownership interest in subsidiaries	-	(1,307)	(23)	-	-	(3,964)	(5,294)
Other capital adjustment	-	-	(12)	-	-	-	(12)
Dividends	-	-	-	-	(22,470)	-	(22,470)
Balance at December 31, 2016	₩ 167,456	266,517	(40,358)	18,198	1,207,923	108,165	1,727,901

## **KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES Consolidated Statements of Cash Flows**

As of December 31, 2016 and 2015

In millions of won	2016	2015
Cash flows from operation activities:		
Cash generated from operation activities	₩ 370,541	568,929
Interest received	1,056	5,776
Interest paid	(63,629)	(68,304)
Dividends received	14,422	14,276
Income tax paid	(25,634)	(37,486)
Net cash provided by operating activities	296,756	483,191
Cash flows from investing activities:		
Increase in short-term financial instruments	(23,000)	(2,500)
Proceeds from sales of short-term financial instruments	5,000	-
Increase in long-term financial instruments	-	(5,000)
Proceeds from sales of long-term financial instruments	-	1
Increase in short-term loans	-	(6,000)
Collection of short-term loans	-	6,000
Increase in long-term loans	(608)	(864)
Collection of long-term loans	286	9,395
Acquisition of property, plant and equipment	(272,707)	(389,767)
Proceeds from sales of property, plant and equipment	1,640	842
Acquisition of intangible assets	(1,648)	(1,774)
Proceeds from sales of intangible assets	120	202
Acquisition of investments in associates and joint ventures		(7,020)
Acquisition of investments in subsidiaries	(1,880)	-
Acquisition of held-for-trading financial assets	(252)	-
Acquisition of available-for-sale financial assets	(7)	(2)
Proceeds from sales of available-for-sale financial assets	31,336	4,134
Proceeds from sales of non-current assets held for sale	4,187	-
Proceeds from sales of other investments	28	605
Increase in cash due to change in scope of consolidation	6,828	400
Net cash used in investing activities	(250,677)	(391,348)

In millions of won	2016	2015
Cash flows from financing activities:		
Net proceeds(repayments) of short-term borrowings	258,640	(42,130)
Proceeds from issuance of bonds	111,706	-
Proceeds from long-term borrowings	84,480	330,192
Repayments of current portion of long-term borrowings	(310,760)	(428,609)
Repayments of long-term borrowings	(12,270)	(76,101)
Dividends paid	(22,470)	(41,998)
Capital increase from non-controlling interests	-	300
Increase of parent's ownership interests	(5,686)	-
Proceeds from sales of parent's ownership interests	1	-
Payment for share issuance costs	(53)	(55)
Net cash provided by (used in) financing activities	103,588	(258,401)
Effect of exchange rate fluctuations on cash held	18	207
Net increase(decrease) in cash and cash equivalents	149,685	(166,351)
Cash and cash equivalents at beginning of year	47,292	213,643
Cash and cash equivalents at end of year	₩ 196,977	47,292

## **KUMHO PETROCHEMICAL CO., LTD. Independent Auditors' Report**

Based on a report originally issued in Korean

The Board of Directors and Stockholders Kumho Petrochemical Co., Ltd.

#### **Audited financial statements**

We have audited the accompanying separate financial statements of Kumho Petrochemical Co., Ltd.(the "Company"), which comprise the separate statements of financial position as of December 31, 2016, the separate statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these separate financial statements in accordance with Korean International Financial Reporting Standards ("K-IFRS"), and for such internal control as management determines is necessary to enable the preparation of separate financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' Responsibility

Our responsibility is to express an opinion on these separate financial statements based on our audits. We conducted our audits in accordance with Korean Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the separate financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the separate financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the separate financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the separate financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the separate financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion

#### Opinion

In our opinion, the separate financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2016 and its financial performance and its cash flows for the year then ended in accordance with Korean International Financial Reporting Standards.

#### Other Matter

The separate financial statements of the Company for the year ended December 31, 2015, presented for comparative purposes, were audited by BDO Daejoo LLC whose report dated February 25, 2016, expressed an unqualified opinion on those separate financial statements

Seoul, Korea March 6, 2017

This report is effective as of March 6, 2017, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

#### Letter of Confirmation

To whom it may concern

We have audited the accompanying separate financial statements of Kumho Petrochemical Co., Ltd.(the "Company"), which comprise the separate statements of financial position as of December 31, 2016, the separate statements of income, comprehensive income, changes in equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

We expressed an unqualified opinion on those separate financial statements dated March 6, 2017 in accordance with Korean International Financial Reporting Standards.

We confirm those accompanying separate financial statements of the Company, translated into English, accord with the separate financial statements of the Company originally issued in Korean.

Please note that the accompanying separate financial statements do not include notes to the separate financial statements which are an integral part of separate financial statements.

March 6 20

# KUMHO PETROCHEMICAL CO., LTD. Separate Statements of Financial Position

As of December 31, 2016 and 2015

In millions of won	2016	2015
Assets		
Non-current assets		
Property, plant and equipment	₩ 1,786,488	1,760,932
Intangible assets	12,814	11,595
Investments in subsidiaries, associates and joint ventures	413,534	397,663
Available-for-sale financial assets	216,050	207,426
Derivative financial assets	2,224	2,417
Loans and other receivables	12,615	15,143
Deferred tax assets	18,963	19,951
Other non-current assets	786	8,223
	2,463,474	2,423,350
Current assets		
Inventories	356,945	299,458
Derivative financial assets	7,565	5,924
Trade receivables	384,761	338,185
Loans and other receivables	45,466	25,921
Cash and cash equivalents	166,412	2,922
Non-current assets held for sale	-	28,000
Other current assets	4,499	9,436
	965,648	709,846
Total assets	₩ 3,429,122	3,133,196

In millions of won	2016	2015
Equity		
Capital	₩ 167,456	167,456
Capital surplus	276,206	276,206
Capital adjustment	(40,066)	(40,066)
Accumulated other comprehensive income	17,020	6,424
Retained earnings	815,749	797,696
Total equity	1,236,365	1,207,716
Liabilities		
Non-current liabilities		
Other payables	1,563	68
Borrowings	309,480	574,088
Long-term accrued expenses	2,868	3,322
Liabilities for defined benefit plans	31,712	45,796
Financial guarantee liabilities	120	756
Derivative financial Liabilities	808	1,073
	346,551	625,103
Current liabilities		
Trade payables	310,733	166,342
Other payables	177,316	191,078
Borrowings	1,335,676	918,056
Current tax liabilities	10,147	12,150
Provision	-	6,474
Other current liabilities	12,334	6,277
	1,846,206	1,300,377
Total liabilities	2,192,757	1,925,480
Total equity and liabilities	₩ 3,429,122	3,133,196

## **KUMHO PETROCHEMICAL CO., LTD. Separate Statements of Income**

For the years ended December 31, 2016 and 2015

In millions of won, except earning per share information		2016	2015
Sales	₩	3,138,617	3,159,552
Cost of sales		2,858,105	2,867,846
Gross profit		280,512	291,706
Selling, general and administrative expenses		147,262	147,407
Operating income		133,250	144,299
Other income		60,641	49,183
Other expenses		94,674	39,520
Financial income		32,858	37,844
Financial expenses		86,047	92,443
Net profit before income tax		46,028	99,363
Income tax expense		16,612	21,894
Net profit for the year	₩	29,416	77,469
Earnings per share (In Korean won)			
Basic and Diluted earnings per share(class1)	₩	1,047	2,771
Basic and Diluted earnings per share(class2)	₩	1,112	2,821

## **KUMHO PETROCHEMICAL CO., LTD. Separate Statements of Comprehensive Income**

In millions of won	2016	2015	
Net profit for the year	w 29,416	77,469	
Other comprehensive income (loss) for the year, net of income tax	21,703	(61,183)	
Items that will not be reclassified subsequently to profit or loss	11,107	(13,495)	
Defined benefit plan actuarial income(losses)	11,107	(13,495)	
2. Items that will be reclassified subsequently to profit or loss	10,596	(47,688)	
Net change in fair value of available-for-sale financial assets	10,139	(47,107)	
Effective portion of changes in fair value of cash flow hedges	457	(581)	
Total comprehensive income for the year	₩ 51,119	16,286	

# KUMHO PETROCHEMICAL CO., LTD. Separate Statements of Changes in Equity

In millions of won	Capital	Capital surplus	Capital adjustment	Accumulated other compre- hensive income	Retained earnings	Total equity
Balance at January 1, 2015	₩ 167,456	276,206	(40,066)	54,112	775,721	1,233,429
Total comprehensive income for the year						
Net profit for the year	-	-	-	-	77,469	77,469
Net change in fair value of available-for-sale financial assets	-	-	-	(47,107)	-	(47,107)
Effective portion of changes in fair value of cash flow hedges	-	-	-	(581)		(581)
Defined benefit plan actuarial losses	-	-	-	-	(13,495)	(13,495)
Transactions with owners of the Company, recognized directly in equity						
Dividends	-	-	-	-	(41,999)	(41,999)
Balance at December 31, 2015	₩ 167,456	276,206	(40,066)	6,424	797,696	1,207,716

In millions of won		Capital	Capital surplus	Capital adjustment	Accumulated other compre- hensive income	Retained earnings	Total equity
Balance at January 1, 2016	₩	167,456	276,206	(40,066)	6,424	797,696	1,207,716
Total comprehensive income for the year							
Net profit for the year		-	-	-	-	29,416	29,416
Net change in fair value of available-for-sale financial assets		-	-	-	10,139	-	10,139
Effective portion of changes in fair value of cash flow hedges		-	-	-	457	-	457
Defined benefit plan actuarial income		-	-	-	-	11,107	11,107
Transactions with owners of the Company, recognized directly in equity							
Dividends		-	-	-	-	(22,470)	(22,470)
Balance at December 31, 2016	₩	167,456	276,206	(40,066)	17,020	815,749	1,236,365

# **KUMHO PETROCHEMICAL CO., LTD. Separate Statements of Cash Flows**

In millions of won	2016	2015
Cash flows from operation activities		
Cash generated from operation activities	₩ 291,457	435,059
Interest received	604	1,996
Interest paid	(46,838)	(52,562)
Dividends received	12,091	10,481
Income tax paid	(24,558)	(37,335)
Net cash provided by operating activities	232,756	357,639
Cash flows from investing activities		
Increase in short-term loans	(6,189)	-
Increase in long-term loans	(454)	(664)
Cash from decrease of long-term loans	266	350
Increase in short-term financial instruments	(1,500)	-
Cash from sales of short-term financial instruments	5,000	-
Increase in long-term financial instruments		(5,000)
Cash from sales of long-term financial instruments	-	1
Acquisition of property, plant and equipment	(176,592)	(227,129)
Proceeds from sales of property, plant and equipment	1,428	237
Acquisition of intangible assets	(1,648)	(1,730)
Proceeds from sales of intangible assets	32	202
Acquisition of investments in subsidiaries and associates	(5,686)	(16,855)
Proceeds from sales of available-for-sale financial assets	1	-
Proceeds from sales of other investments	4,187	-
Net cash used in investing activities	(181,155)	(250,588)

In millions of won	2016	2015
Cash flows from financing activities		
Net proceeds(repayments) of short-term borrowings	247,302	(3,871)
Proceeds from long-term borrowings	50,000	142,300
Repayments of current portion of long-term borrowings	(254,719)	(359,990)
Proceeds from issuance of bonds	91,726	-
Dividends paid	(22,470)	(41,998)
Net cash provided by(used in) financing activities	111,839	(263,559)
Effect of exchange rate fluctuations on cash held	50	(4)
Net increase(decrease) in cash and cash equivalents	163,490	(156,512)
Cash and cash equivalents at beginning of year	2,922	159,434
Cash and cash equivalents at end of year	₩ 166,412	2,922
Effect of exchange rate fluctuations on cash held  Net increase(decrease) in cash and cash equivalents  Cash and cash equivalents at beginning of year	50 163,490 2,922	(156,51 159,43

### Corporate History

1970s

**DECEMBER 1970** 

Established as Korea Synthetic Rubber Industries Co., Ltd.

#### **JUNE 1973**

Commissioned Ulsan SBR plant

#### OCTOBER 1979

Commissioned Yeosu BD plant

1980s

**JUNE 1980** 

Commissioned Yeosu BR plant

DECEMBER 1983

Commissioned Ulsan SB latex plant

JUNE 1985

Merged with Korea Kumho Chemical Co., Ltd. and changed corporate name to Kumho Petrochemical Co., Ltd.

**JUNE 1985** 

Established Kumho Petrochemical Research Center

**JANUARY 1988** 

Listed on the Korea Stock Exchange JULY 1997

**NOVEMBER 1988** 

Commissioned Yeosu multi-purpose BR plant

**APRIL 1992** Commissioned Ulsan BD plant

19905

**JULY 1993** 

Opened office in Jakarta, Indonesia

**APRIL 1994** 

Opened Kumho Chemical Laboratories in Daejeon, Korea

AUGUST 1994

Launched SBS production

MAY 1997

Changed Miwon Petrochemical Co., Ltd. name to Kumho Chemicals, Inc.

Commissioned Yeosu Energy I cogeneration plant

SEPTEMBER 1997

Opened office in Shanghai, China

**DECEMBER 1997** 

Opened office in San Diego, USA

**APRIL 1998** 

Commissioned Yeosu SBS plant

OCTOBER 1998

Commissioned Asan electronic materials plant

OCTOBER 2000

2000s

Established Shanghai Kumho-Sunny Plastics, China

JANUARY 2001

Merged with Kumho Chemicals, Inc. (Synthetic resins)

JANUARY 2002

Merged with Kumho Monsanto Co., Ltd. (Specialty chemicals)

FEBRUARY 2002

Opened office in Frankfurt, Germany

OCTOBER 2004

Launched commercial production at Yeosu SSBR plant

**NOVEMBER 2005** 

Received USD 1 billion Export Tower Award from the Ministry of Commerce, Industry, and Energy

OCTOBER 2006

Established Nanjing Kumho GPRO Chemical, China

**JUNE 2007** 

Established Rizhao Kumho Jinma Chemical, China

**JUNE 2007** 

Opened office in Qingdao, China

**JULY 2007** 

Opened office in Charlotte, USA

#### 2010s

#### OCTOBER 2008

89

Established Kumho Petrochemical Shenyang, China

#### **DECEMBER 2008**

Received USD 2 billion Export Tower Award from the Ministry of Knowledge Economy

#### MAY 2009

Commissioned Yeosu Energy II cogeneration plant

#### SEPTEMBER 2009

Established Kumho Terminal & Logistics

#### **FEBRUARY 2011**

Commissioned second Yeosu synthetic rubbers plant

#### MARCH 2011

Commissioned Yesan building materials plant

#### **DECEMBER 2011**

Received USD 3 billion Export Tower Award from the Ministry of Knowledge Economy

#### SEPTEMBER 2012

Relocated Seoul headquarters

#### MAY 2013

Purchased equity stake in Korea Energy Power in Sacheon, Korea (Solar power)

#### OCTOBER 2013

Commissioned carbon nanotube plant in Asan, Korea

#### DECEMBER 2013

Launched commercial production at Asan carbon nanotube plant

#### **JULY 2014**

Completed 55,000 mtpy expansion of Ulsan PPG plant

#### MAY 2015

Participated in Korea Energy Power capital increase (92.6% equity stake)

#### **JUNE 2015**

Yeonggwang Baeksu wind farm begins commercial operations

#### **JULY 2015**

Korea Energy Power wind turbines 3, 4 and 5 begin commercial operations

#### **JULY 2015**

Acquired Korea Energy Power wind turbine 6

#### OCTOBER 2015

Acquired 32.5% equity stake in Yeonggwang Baeksu wind farm

#### OCTOBER 2015

Completed Shanghai Kumho-Sunny Plastics Minhang plant

#### APRIL 2016

Recognized as a major business conglomerate by the Korean government

#### **APRIL 2016**

Commissioned Yeosu Energy II cogeneration plant expansion

#### **AUGUST 2016**

Completed 200,000 mtpy expansion of the Ulsan NB latex plant

#### AUGUST 2016

Acquired 100% equity stake in Kangwon School Solar Power through subsidiary Korea Energy Power

### Chemical Affiliates

### Kumho P&B Chemicals, Inc.

Kumho Mitsui Chemicals, Inc. Kumho Polychem Co., Ltd.

Established in 1976. Kumho P&B Chemicals is a joint venture with Nippon Steel Chemical Company of Japan that produces a broad range of basic petrochemical products used in the construction, shipbuilding, automobile, electric, electronics, pharmaceutical, and paint industries including BPA (bisphenol A), phenol, acetone, epoxy resin, and MIBK (methyl isobutyl ketone). Since starting out in the phenol and acetone businesses in the mid-1970s, the company has continued to innovate and grow by providing customers both in Korea and abroad with highquality products.

Continuous expansion over the years has made the company the world's No. 5 producer of BPA and No. 1 producer of MIBK, driving its rapid growth. With investment focused on continuous high-tech development, the environmental and safety fields, and capacity expansion to achieve economies of scale, the company aims to be a global leader in the phenol and phenol derivatives field, delivering greater customer value with the industry's highest quality.

Established in 1989, Kumho Mitsui Chemicals is a leading manufacturer of MDI (methylene diphenyl diisocyanate), the main feedstock used to produce polyurethane. MDI is an advanced chemical product in growing demand in a diverse and growing array of applications ranging from car seats and dashboards, refrigerator insulation, construction panels, and synthetic wood to synthetic leather, spandex, and sneaker soles.

The company completed a 140,000 mtpy expansion project in 2009 and an additional 50,000 mtpy expansion in 2012. A new 100,000 mtpy expansion project currently on track for completion by the end of 2017 will make it Korea's No. 1 MDI maker. With an emphasis on customer satisfaction, the company is now refocusing on quality and environmental safety as it aims to aggressively enter overseas markets in its quest to become a global polyurethane

Established in 1985, Kumho Polychem is Korea's No. 1 producer of EPDM (ethylene propylene diene monomer), a synthetic rubber widely used in auto parts and industrial goods, as well as TPV (thermoplastic vulcanizate) and KEPA (modified EPDM).

In July 2007, the company completed a plant expansion that adopted a proprietary ultralow temperature polymerization process, an industry first. The company became the global industry's No. 3 EPDM producer in June 2015 when it commissioned its second plant, raising production capacity to 220,000 mtpy as it took a step closer to being the world's No. 1 EPDM maker.

897.8 KRW hillion 78.2 %

kpb.co.kr

519.6 KRW hillion 50.0%

kmci.co.kr

389.0 KRW hillion 50.0%

kumhopolychem.co.kr

Kumho Terminal & Logistics Co., Ltd.

Korea Energy Power Co., Ltd.

Established in 2009, Kumho T&L operates a logistics terminal in the Yeosu National Industrial Complex focused on reducing logistics costs and ensuring a stable supply of bituminous coal and other fuel sources to serve the needs of KKPC's Yeosu Energy cogeneration plants as well as plants owned by Korea South-East Power and Korea East-West Power.

The company operates a sealed system to handle and store bituminous coal to reduce costs and protect the environment. In addition to port logistics and storage, the company provides coastal and inland transportation services. The company aspires to become a total logistics provider, providing reliable, cost-effective, onestop solutions to meet any logistics need.

Korea Energy Power was established to operate solar PV generation facilities. In July 2013, the company commissioned a solar PV plant in Sacheon, Korea. The company is now generating revenue through sales of both electricity and renewable energy certificates (REC).

Today, the company's Sacheon plant, which was considered the largest regional rooftop solar project in Korea when it was completed in 2013, and its affiliates now have a total installed capacity of 27.2 MWh. The company's plants are capable of generating 34,000 MWh of electricity annually, enough to meet the needs of roughly 8,200 homes while reducing CO<sub>2</sub> emissions by over 14,000 metric tons.

KKPC plans to expand beyond solar into wind and other renewable energy businesses in Korea and beyond in the coming years.

50.8 KRW hillion 95.0 %

3.1 KRW hillion 96.1%

2016 Sales KKPC Ownership

ktnl.co.kr

### Global Partnerships

Shanghai Kumho Sunny Plastics Co., Ltd.

Nanjing Kumho GPRO Chemical Co., Ltd.

SINCE THE EARLY
2000S, WE HAVE
BEEN BUILDING
PARTNERSHIPS IN
CHINA, ASIA'S LARGEST
GROWTH MARKET.
TODAY, WE CONTINUE
TO BUILD A BUSINESS
PORTFOLIO THAT WILL
MAXIMIZE SYNERGY
WITH OUR EXISTING
BUSINESSES IN THIS
KEY MARKET.

#### Purpose

- •Secure local production, sales, and distribution base in China
- •Increase sales of colored and specialized products that meet the changing demands of the ABS market
- Increase sales of base resin

#### **Key Products**

Heat-resistant automotive ABS, heat-resistant ABS for electrical and electronic products

#### Location

Shanghai, China

#### Establishment

October 19, 2000

#### Purpose

Achieve dominance in Chinese polyurethane market through early entry

#### **Key Products**

PO (propylene oxide), PPG (polypropylene glycol), CS (caustic soda)

#### Location

Nanjing, China

#### Establishment

September 28, 2006

1.64 RMB billion

50 %

1.12 RMB billion

50 %

through Kumho Petro-Holdings

Rizhao Kumho Jinma Chemical Co., Ltd. Kumho Petrochemical Shanghai Co., Ltd.

#### Purpose

93

Achieve dominance in Chinese paper latex market through early entry

#### **Key Products**

SB latex

#### Location

Rizhao, China

#### Establishment

June 8, 2007

#### Purpos

Maximize sales and profitability by expanding KKPC product distribution in the Chinese market

#### **Key Products**

Synthetic rubbers (SBR, BR), synthetic resins (ABS, PS), affiliate chemical products(EPDM, MDI, epoxy resin), Chinese affiliate products (PPG, IS)

#### Location

Shanghai, China

#### Establishment

June 1, 2008

480 RMB million 22.6 RMB million (commission) 2016 Sales
50 % KKPC Ownership
through Kumho Petro-Holdings

### Global Network



#### Overseas

1 Kumho Petro-Holdings (H.K.) Co., Ltd.
Room 1808, 18/F, Tower II, Admiralty Centre
8 Harcourt Road, 1 Admiralty, Hong Kong
TEL +852-2528-9899
FAX +852-2804-1004

#### 2 Shanghai Kumho-Sunny Plastics Co., Ltd.

No. 1399, Jigao Road, Huacao Town Minhang District, Shanghai 201107, China TEL +86-21-6296-9609 FAX +86-21-6296-9611

#### 3 Nanjing Kumho GPRO Chemical Co., Ltd.

No. 139, Fenghua Road
Nanjing Chemical Industry Park
Luhe District, Nanjing 210047, China
TEL +86-25-5830-0998
FAX +86-25-5830-0999

#### 4 Rizhao Kumho Jinma Chemical Co., Ltd.

Taoluo Industrial Park, Donggang District Rizhao, Shandong 276805, China TEL +86-633-867-7868 FAX +86-633-867-7858

#### 5 Kumho Petrochemical Shanghai Co., Ltd.

THE PLACE Room 2606~2608, Tower B, No. 100 Zun Yi Road, Shanghai 200051, China TEL +86-21-6237-1835 FAX +86-21-6237-1838

#### 6 Guangzhou Office

Suite 3704, Taikoo Hui Tower 1 385 Tianhe Road, Tianhe District Guangzhou 510620, China TEL + 86-20-3847-7265 FAX + 86-20-3839-9710

#### 7 Qingdao Office

Room 21-A, Int'l Finance Center, No. 59 Hong Kong Middle Road Qingdao 266071, China TEL +86-532-8503-0002 FAX +86-532-8503-0023

#### 8 San Diego Office

910 Hale Place, Suite 205, Chula Vista CA 91914, USA TEL +1-619-216-6200 FAX +1-619-216-6277

#### 9 Charlotte Office

10800 Sikes Place #120, Charlotte NC 28277, USA TEL +1-704-849-2959 FAX +1-704-849-2979



#### 10 Jakarta Office

95

Menara Jamsostek 3rd floor, Jl. Jend Gatot Subroto No. 38 Jakarta Selatan 12710 Indonesia TEL +62-21-522-8174 FAX +62-21-522-8184

#### 11 Frankfurt Office

Lyoner Strasse 34, Frankfurt am Main 60528, Germany TEL +49-69-6605-9985 FAX +49-69-6605-9986

#### 12 Kuala Lumpur Office

Lot 12-03, Level 12, Block B, HP-Towers No. 12, Jalan Genlenggang, Bukit Damansara 50490 Kuala Lumpur, Malaysia TEL +60-3-2011-1813 FAX +60-3-2011-1816



#### Domestic

#### 13 Seoul Head Office

Signature Towers Seoul 100 Cheonggyecheon-ro, Jung-gu Seoul, Korea TEL +82-2-6961-1114 FAX +82-2-6961-1449

#### 14 Hwaseong Foam Plant

1093 Baran-ro, Jeongnam-myeon Hwaseong, Gyeonggi, Korea TEL +82-31-831-6600 FAX +82-31-831-6619

#### 15 Asan Electronic Materials Plant

958 Oncheondae-ro, Shinchang-myeon Asan, Chungnam, Korea TEL +82-41-423-3114 FAX +82-41-423-3199

#### 16 Yesan Building Materials Plant

1033-9 Yedeok-ro, Godeok-myeon Yesan, Chungnam, Korea TEL +82-41-330-8640 FAX +82-41-330-8699

#### 17 R&BD Center

1557 Yuseongdae-ro, Yuseong-gu Daejeon, Korea TEL +82-42-865-8600 FAX +82-42-862-5651

#### 18 Yeosu Energy I

46-51 Yeosusandan-2-ro, Yeosu Jeonnam, Korea TEL +82-61-690-8614 FAX +82-61-690-8608

#### 19 Yeosu Energy II

223-84 Yeosusandan-2-ro, Yeosu Jeonnam, Korea TEL +82-61-688-7104 FAX +82-61-688-7199

#### 20 Yeosu Synthetic Rubber Plant I

118 Yeosusandan-3-ro, Yeosu Jeonnam, Korea TEL +82-61-688-3004 FAX +82-61-688-3166

#### 21 Yeosu Synthetic Rubber Plant II

331 Sandanjungang-ro, Yeosu Jeonnam, Korea TEL +82-61-688-7206 FAX +82-61-688-7219

#### 22 Yeosu Specialty Chemicals Plant

227 Yeosusandan-2-ro, Yeosu Jeonnam, Korea TEL +82-61-688-3935 FAX +82-61-688-3939

#### 23 Ulsan Synthetic Rubber Plant

64 Sanggae-ro, Nam-gu Ulsan, Korea TEL +82-52-259-6114 FAX +82-52-275-6547

#### 24 Ulsan Synthetic Resin Plant

260-257 Cheoyong-ro, Nam-gu Ulsan, Korea TEL +82-52-279-8600 FAX +82-52-273-1148

#### **KINNOVATION**

Published by Kumho Petrochemical Co., Ltd. (KKPC)
Printed by Sehwa Printing Co., Seoul, Korea
Transwritten by Kevin Newhart
Photographed by Chun-Ho Kim
Created by Mecayours (www.mecayours.co.kr)

# kkpc.com

### **KUMHO PETROCHEMICAL**

Signature Towers Seoul 100 Cheonggyecheon-ro, Jung-gu, Seoul, Korea