



K-Momentum



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FORWARD LOOKING STATEMENTS

Some of the information in this report constitute 'forward looking statements' which reflect current intentions, plans, forecasts, expectations, assumptions and beliefs about future events or results and are subject to risks, uncertainties and other factors of Kumho Petrochemical Co., Ltd. (KKPC). These statements may be identified by words such as "aim", "believe", "estimate", "expect", "plan", "seek", "target", "will", or words of similar meaning. These statements are not guarantees of future results or performance and involve certain risks, uncertainties and assumptions that are difficult to predict and often are beyond the KKPC's control. Actual outcomes and results may differ materially from those expressed in, or implied by, the KKPC's forward-looking statements.

Since its founding in 1970, Kumho Petrochemical Co., Ltd. (KKPC) has consistently defined the markets in which we operate, driven by outstanding innovation.

KKPC stands for innovative petrochemical solutions and customer-focused services, and this has made us one of the world's largest and most competitive producers of synthetic rubbers, synthetic resins, phenol derivatives and specialty chemicals. We are also expanding our portfolio to include energy, electronic materials and building materials.

In addition, KKPC and our eight affiliates have set an ambitious goal – to become a global leading chemical group, with annual consolidated sales of KRW 20 trillion and 20 products which are ranked in the top 5 worldwide in their respective categories by 2020.

In 2017, we took further steps towards realizing our vision, and building our own 'K-Momentum'.



Contents

INTRODUCTION	04 Financial Highlights
	06 Stock Information
	08 Message from the Chairman
	12 Vision 2020
	14 2017 Highlights
MANAGEMENT REVIEW	30 Corporate Governance
	34 Key Executives
	36 Shareholder Value
	38 Risk Management
	40 Business Ethics
	42 Environmental Management
	44 Social Responsibility
	46 Research & Business Development
	48 Major Innovations
BUSINESS REVIEW	54 2017 Overview
	56 Synthetic Rubbers
	58 Synthetic Resins
	60 Other Businesses
	62 2018 Outlook
FINANCIAL REVIEW	64 Independent Auditors' Report
	66 Consolidated Financial Statements
	74 Independent Auditors' Report
	76 Separate Financial Statements
APPENDIX	84 Corporate History
	86 Chemical Affiliates
	88 Global Partnerships
	90 Global Network

Financial Highlights

INCOME STATEMENTS

(Unit: KRW billion)

	2017	2016	Change
Sales	5,064.7	3,970.4	1,094.3
Operating Income	262.6	157.1	105.5
Income before Income Tax	289.8	112.9	176.9
Net Income	217.6	80.8	136.8
Net Financing Cost	27.5	67.2	-39.7

BALANCE SHEETS

(Unit: KRW billion)

	2017	2016	Change
Total Assets	4,579.8	4,546.1	33.7
Total Liabilities	2,623.0	2,818.2	-195.2
Total Equity	1,956.8	1,727.9	228.9

KEY FINANCIAL RATIOS

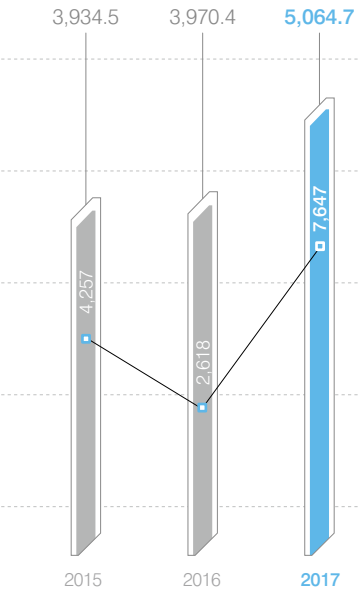
(Unit: %)

	2017	2016	Change (%p)
Operating Margin	5.2	4.0	1.2
Debt-to-Equity Ratio	134.0	163.1	-29.1
Return on Equity	11.8	4.8	7.0
Interest Coverage Ratio	4.01	2.67	1.34
Earnings per Share (KRW)	7,647	2,618	5,029

*Based on K-IFRS consolidated financial statements

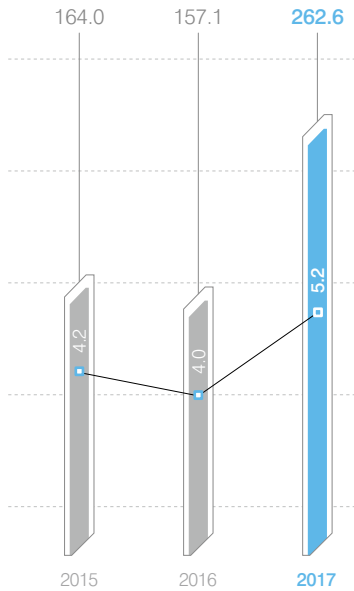
GROWTH

■ Sales (KRW billion)
■ Earnings per Share (KRW)



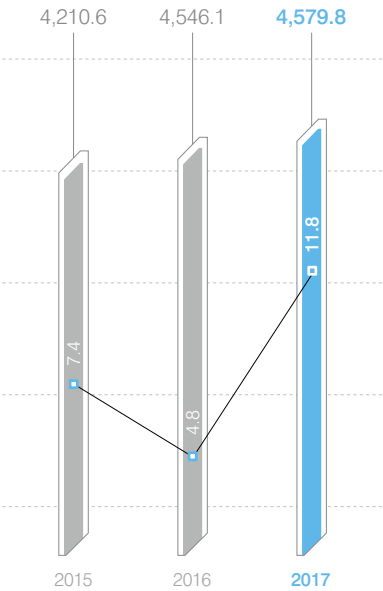
PROFITABILITY

■ Operating Income (KRW billion)
■ Operating Margin (%)

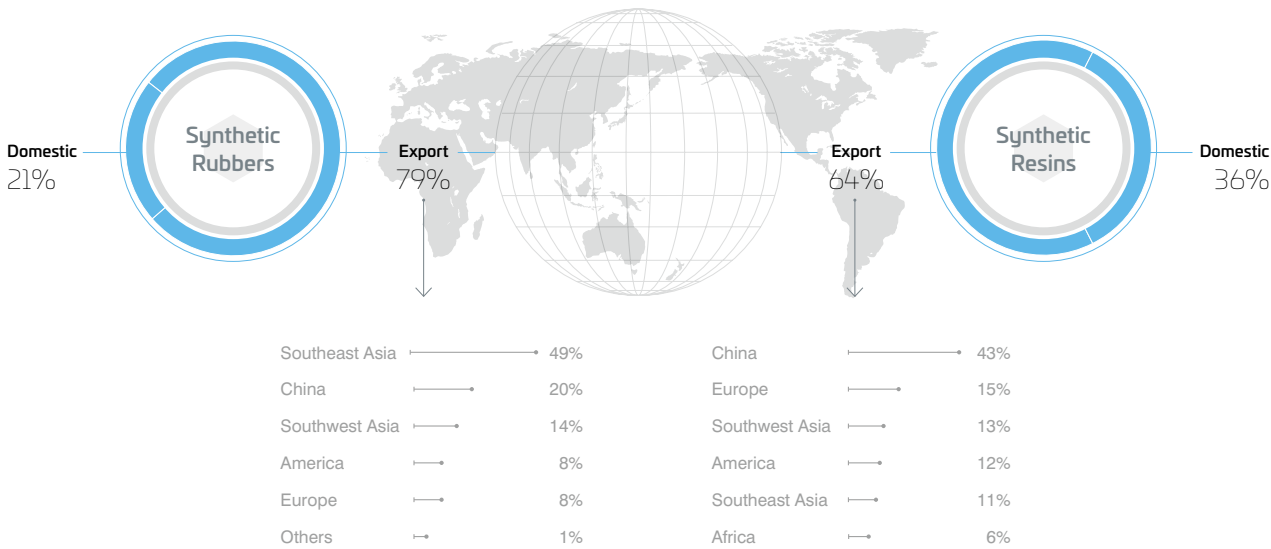


STABILITY

■ Total Assets (KRW billion)
■ Return on Equity (%)



SALES BREAKDOWN & EXPORT BY REGION



Stock Information

SHARE DATA

	2017	2016
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 (KRW million)	3,140,230	2,586,939
Credit Rating from Korea Information Service	A-	A-

PER SHARE DATA

(Unit: KRW)

	2017	2016
Net Income	7,647	2,618
Book Value	74,076	65,115
Dividend	1,000	800
Share Price		
Year-end	99,500	82,000
High	99,700	83,000
Low	67,100	47,850

SHAREHOLDER STRUCTURE

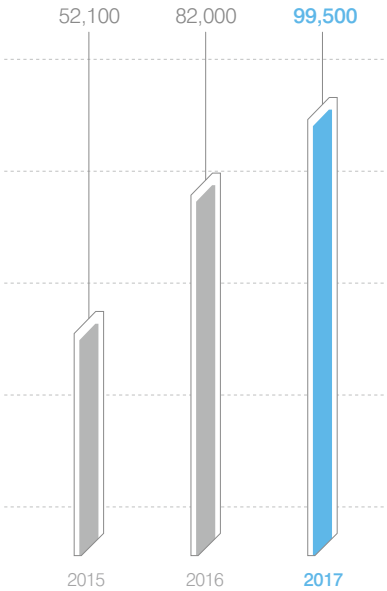
(Unit: %)

	2017	2016
Major Shareholders	24.68	24.61
Free Float	47.45	44.38

* Based on K-IFRS consolidated financial statements

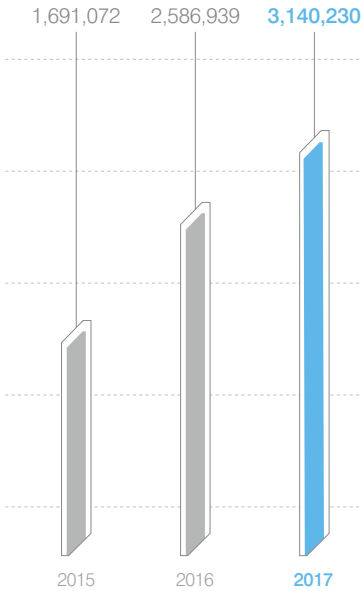
STOCK PRICE

(Unit: KRW)



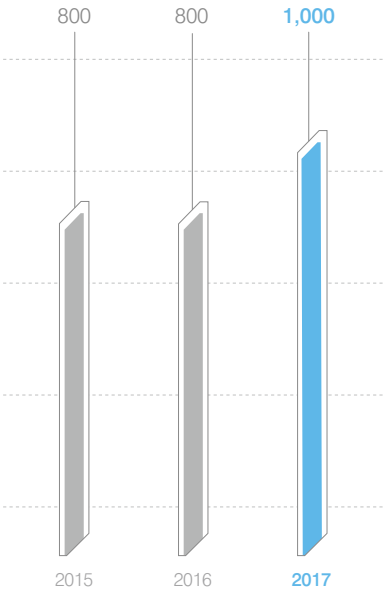
MARKET CAPITALIZATION

(Unit: KRW million)

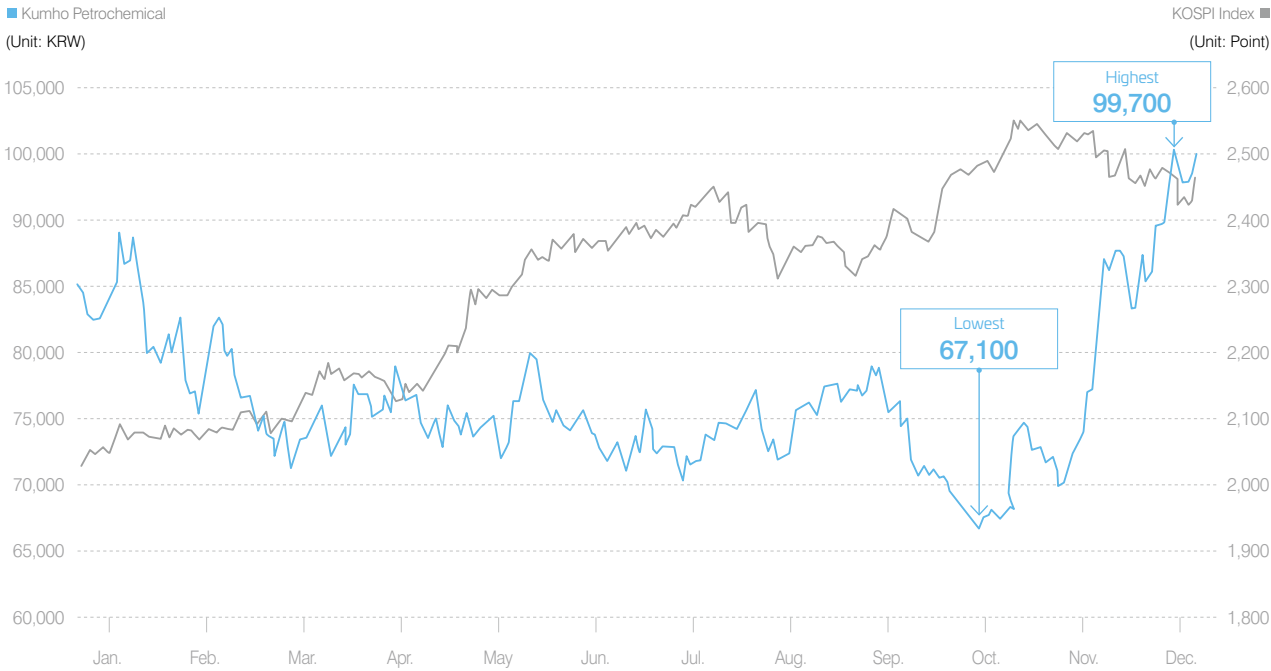


DIVIDEND

(Unit: KRW)



STOCK PRICE IN 2017



Message from the Chairman



We will completely commit ourselves to change, and continually challenge ourselves to take on uncertainties and discover new possibilities for growth. This will not only enhance our corporate value, but also move KKPC a step closer to becoming a 'global leading chemical group'.

“ ”

Dear Valued Stakeholders,

In 2017, Kumho Petrochemical (KKPC) saw the fruits of the efforts we have made over the last six years of intense challenge. After achieving record performances in the early 2010s when the synthetic rubber industry was enjoying an unprecedented boom, we have since endured much greater challenges, mainly due to falls in international oil prices and substantial over-supply across the industry as a result of our competitors' over-expansion. However, we were able to meet the targets we set for 2017 and also achieved our best performance for past six years thanks to the global economic recovery, stronger international oil prices, and the encouragement and support of our stakeholders.

Consolidated sales for 2017 were KRW 5,064.7 billion, up 27.6% compared to 2016, and operating income was KRW 262.6 billion, a 67.2% increase year-on-year. Net income reached KRW 217.6 billion, the highest figure since 2011, mainly attributable to increased equity method gains backed by improved performances across our major chemical affiliates. These achievements also led to the improvement of our financial stability. As we completed major expansion projects, we were able to repay borrowings, and so our debt-to-equity ratio decreased considerably, from 163% at the end of 2016 to 134% in 2017. Our financial structure also improved, including an improved current ratio.

I believe that these achievements came about thanks to the consistent efforts we have made over recent years, always reminding ourselves that 'Many drops make a shower', and all of us made continued efforts to innovate in 2017. We improved the properties of our commodity rubber products and developed new grades in order to make our products distinct in the market. In addition, having expanded capacity for acrylonitrile butadiene (NB) latex in 2016, we widened its range of applications, and thus established a foundation for increased sales. In synthetic resins, we reduced costs through production process improvements, and we also increased generation in energy business by increasing facility efficiency.

Major Initiatives

Although the global economy is gradually recovering, growth in major economies is still sluggish, and so there are still uncertainties in business environment. China, for example, a major axis of global economic growth, is now concentrating more on qualitative growth than its previous drive for quantitative growth. In addition, full vertical integration of companies with naphtha cracking centers (NCC) is likely to trigger even fiercer competition. Therefore, rather than resting on the laurels of our achievements in 2017, we will implement the following strategies to prepare ourselves for more advances in the future.

First, we will seek to further strengthen our market dominance to face the competitive business environment. Because our most critical tasks are to ensure the supply of key feedstocks and to improve the profitability of commodity products, we will aim to improve our self-sufficiency in various ways. We will also do our best to differentiate our commodity products with an aim to achieve higher margins. In particular, we will focus on strengthening our customer management, reducing costs for our high value-added rubber products, and increasing sales and the overall competitiveness of acrylonitrile butadiene styrene (ABS) powder, as well as other products for which we plan to expand their production capacity.

Second, we will ensure the sustainability of our company by laying the foundations for sustainable future growth. We will optimize our business structure by assessing the sustainability and competitiveness of all our businesses. We are also aware of that real growth can only be achieved when we move beyond existing businesses, and continually develop new products and businesses. We will therefore actively look at entering new business areas through M&A, so that we can further diversify our portfolio.

Third, we will focus on strengthening our capabilities for change. Change by each individual at the company drives change at the company level. Every one of our employees will therefore demonstrate their abilities to the fullest, with an aim to establish an optimal system, which will enable the company as a whole to respond to changing business environment and customer demands across sales, production, research and management. In addition, we will make sure that we have an organizational culture which facilitates internal change, including right mindset, job attitude and core values. We will create strong internal communications channels which promote communications and collaboration, and we will also establish a healthy organizational culture that focuses on fostering talent, improving training, and increasing opportunities for self-development, so that everyone at KKPC has pride in the company and in their work.

Fourth, we will strengthen our safety and environmental management. Our supervision efforts in these areas are based on safety and environmental management systems at each plant site, and have enabled us to maintain a record of zero industrial accidents and disasters. In order to maintain this record, we will continue to focus strongly on safety and the environment. We know that an essential prerequisite of a strong safety culture is undertaking work duties in strict adherence to work manuals; we will therefore ensure that all our work is always handled based on the latest manuals, and that those manuals consist of fundamentals and principles.



KKPC is determined to explore all new possibilities that will lead us to enhance our corporate value and achieve further growth, all the while pushing ourselves to take on the challenges ahead by focusing on how we change and innovate. In doing so, we will make 2018 our first year of major advance after the difficulties of recent years, and we will continue our drive towards becoming a global leading chemical group.

I ask that all of our stakeholders stand by our side as we progress, trusting in our experience and business capabilities. I also ask for your unwavering interest and continued support.

Thank you.

Chan-koo Park

Chairman & CEO
Kumho Petrochemical

Vision 2020

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

20

Sales in KRW trillions

SLOGAN

*beyond
the best*

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

World-class products

20

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

MISSION

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.

INNOVATION FOR SATISFACTION

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.

 More information is available on our website at <http://www.kkpc.com/eng/>

K-Momentum

2017 was a year of significant achievements and innovations for KKPC, and demonstrated the strengths of our company. These achievements included not only strong financial results, but also investment into R&BD aimed at bringing about stronger years ahead.

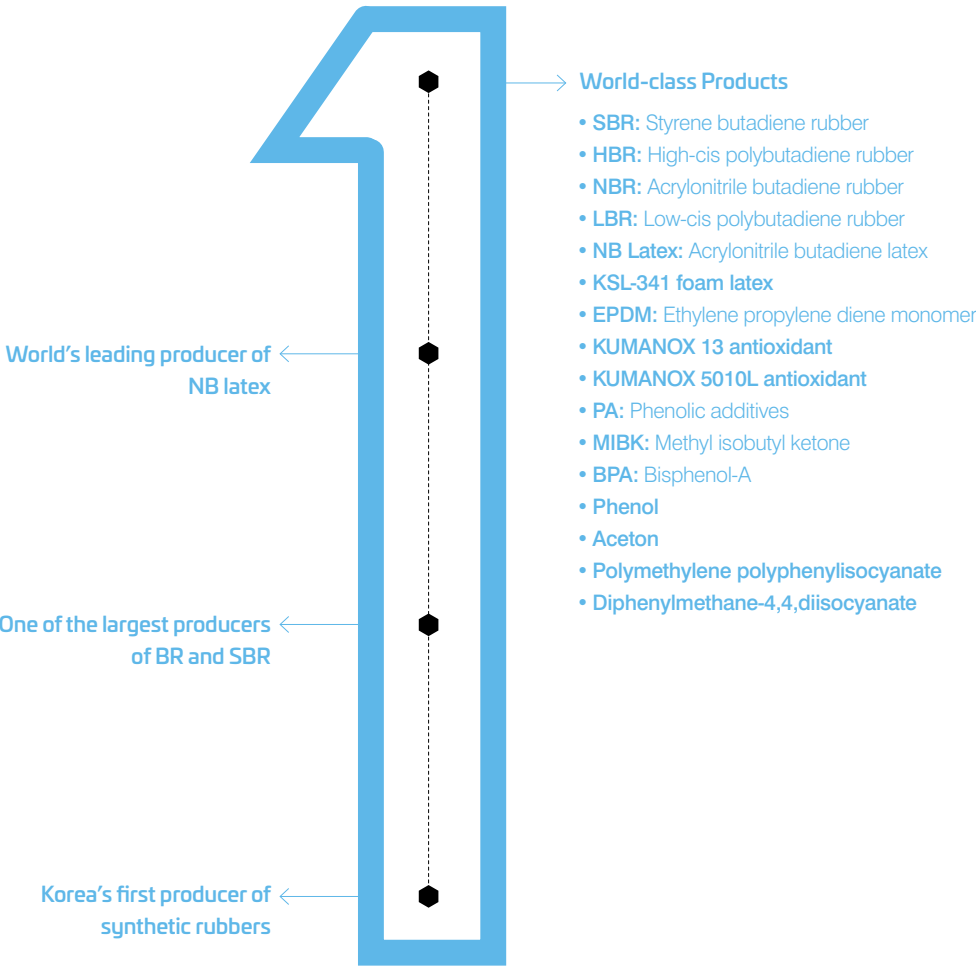
Over the following pages we report on our 2017 in more detail, and show how our unique form of corporate innovation – KINNOVATION – has translated into tangible returns for our stakeholders, thus building a new momentum for growth – K-Momentum.

2017 Highlights

RETURN ON INNOVATION

Lead global markets

In 1970, KKPC became the first company in Korea to produce synthetic rubbers, and we have since grown into a global petrochemical company with the world's leading production capacity for butadiene rubber (BR) and styrene butadiene rubber (SBR). In 2017, we completed an expansion project that doubled our production capacity for acrylonitrile butadiene (NB) latex, which made us the world's No. 1 in production, thereby securing a strong market advantage. And now we are preparing for the future of the synthetic rubber industry by focusing our R&D on solution styrene butadiene rubber (SSBR) and completing the development of a pilot technology for foam-type acrylonitrile butadiene rubber (NBR).



No.1

2017 Highlights

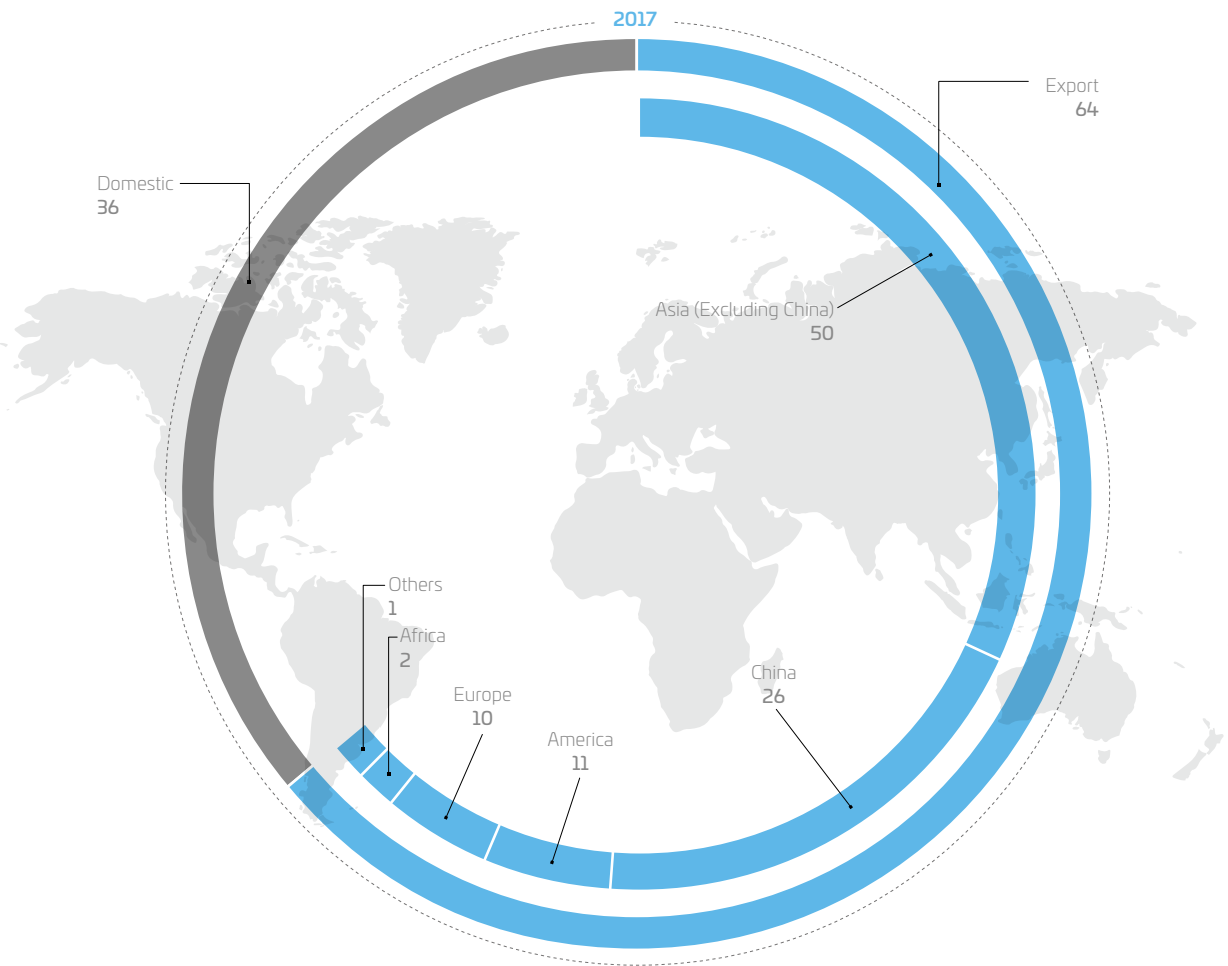
Expanding global presence

KKPC is a global comprehensive chemical company that exports its core products – synthetic rubbers and synthetic resins – as well as specialty chemicals and electronic materials, to Asia, China, the Americas, Europe and other regions around the world. Exports made up 64% of total sales, and by business, exports account for 79% of our synthetic rubber business and 64% of the synthetic resin business. In 2017, exports led corporate growth and strengthened our presence in global markets thanks to a year-on-year rise of 1%p, driven by supply-demand balance and strong demand.

Sales Breakdown

(Unit: %)

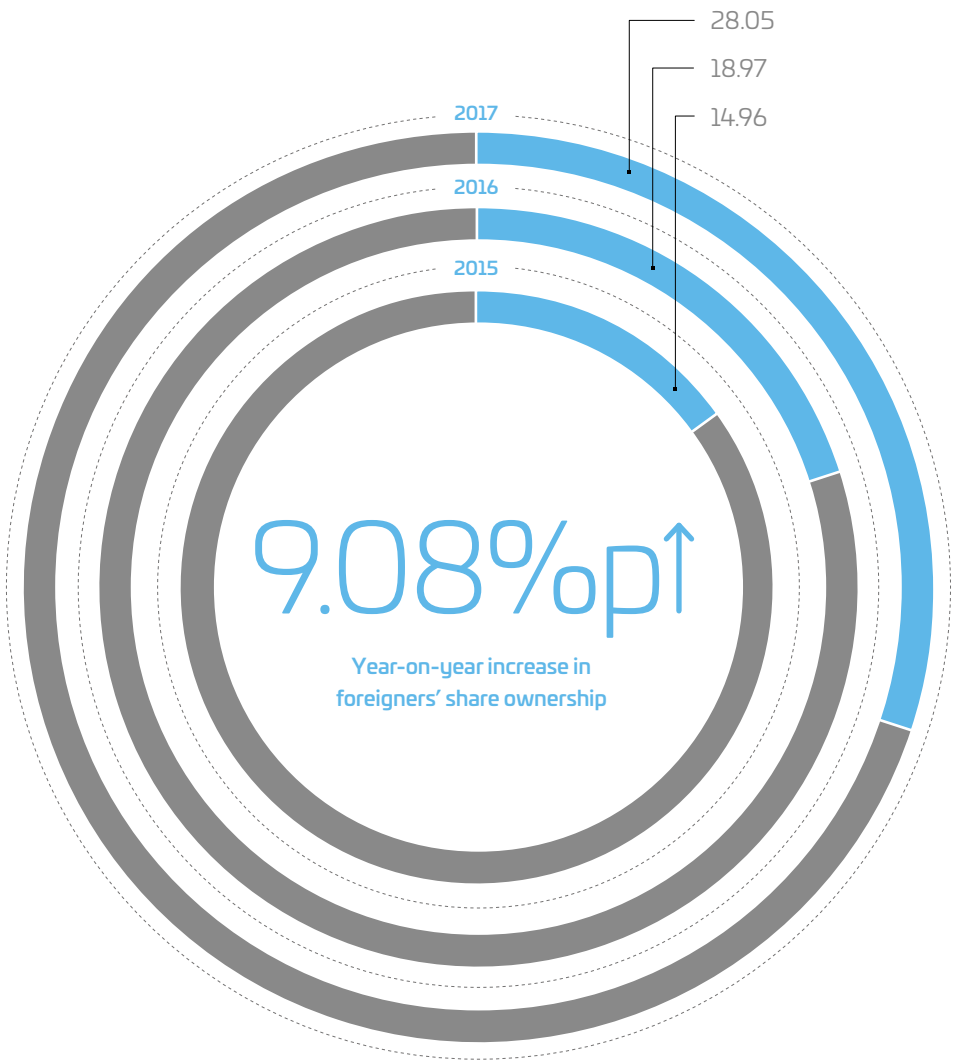
- Export
- Domestic



The proportion of KKPC's shares held by foreign investors has been increasing in recent years, thanks to our strong financial structure, consistent improvements in business performance and global product competitiveness. The proportion of shares held by foreigners rose 4.01%p year-on-year in 2016 from 14.96% at the end of 2015 to 18.97%, and then again in 2017 to peak as high as 29.20%, the highest level recorded in the past decade. The figure grew 9.08%p year-on-year to stand at 28.05% at the end of 2017, showing the confidence that overseas investors have in our company.

Share Ownership by Foreigners

(Unit: %)



GLOBALITY

PROFITABILITY

SUSTAINABILITY

2017 Highlights

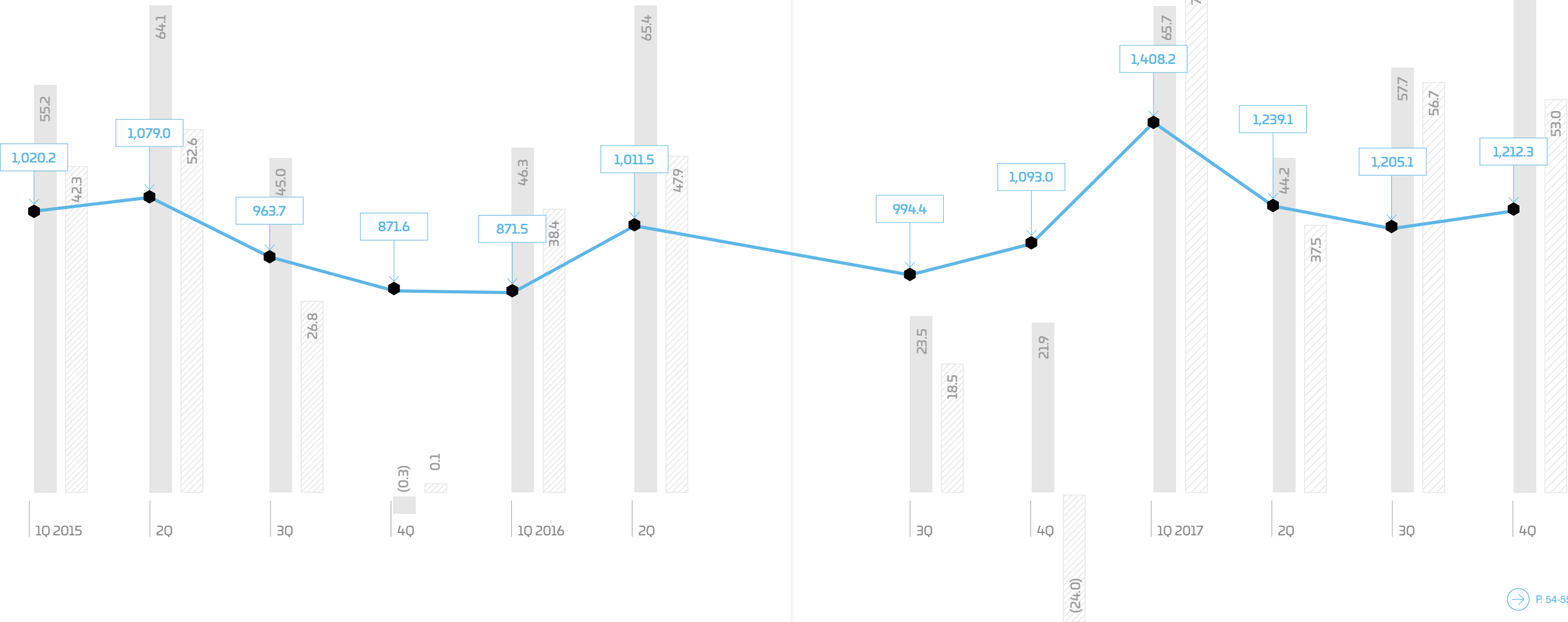
Robust profitable growth

In 2017, KKPC beat market expectations for our business performance, thanks to continuing leadership in the synthetic rubber market and remarkable growth in the synthetic resin market. Despite difficult industry conditions, the synthetic rubber business improved profitability through strategic product sales, and has built a foundation to take a quantum leap in 2018. Our consolidated sales for 2017 stood at KRW 5,064.7 billion, with operating income of KRW 262.6 billion and net income of KRW 217.6 billion, year-on-year increases of 27.6%, 67.2% and 169.3%, respectively.

Quarterly Performance Trend

(Unit: KRW billion)

■ Operating Income ▨ Net Income ● Sales



67.2%↑

Year-on-year growth of operating income

169.3%↑

Year-on-year growth of net income

PROFITABILITY

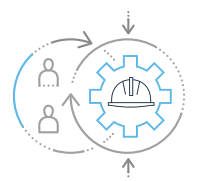

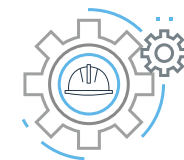
SUSTAINABILITY

2017 Highlights

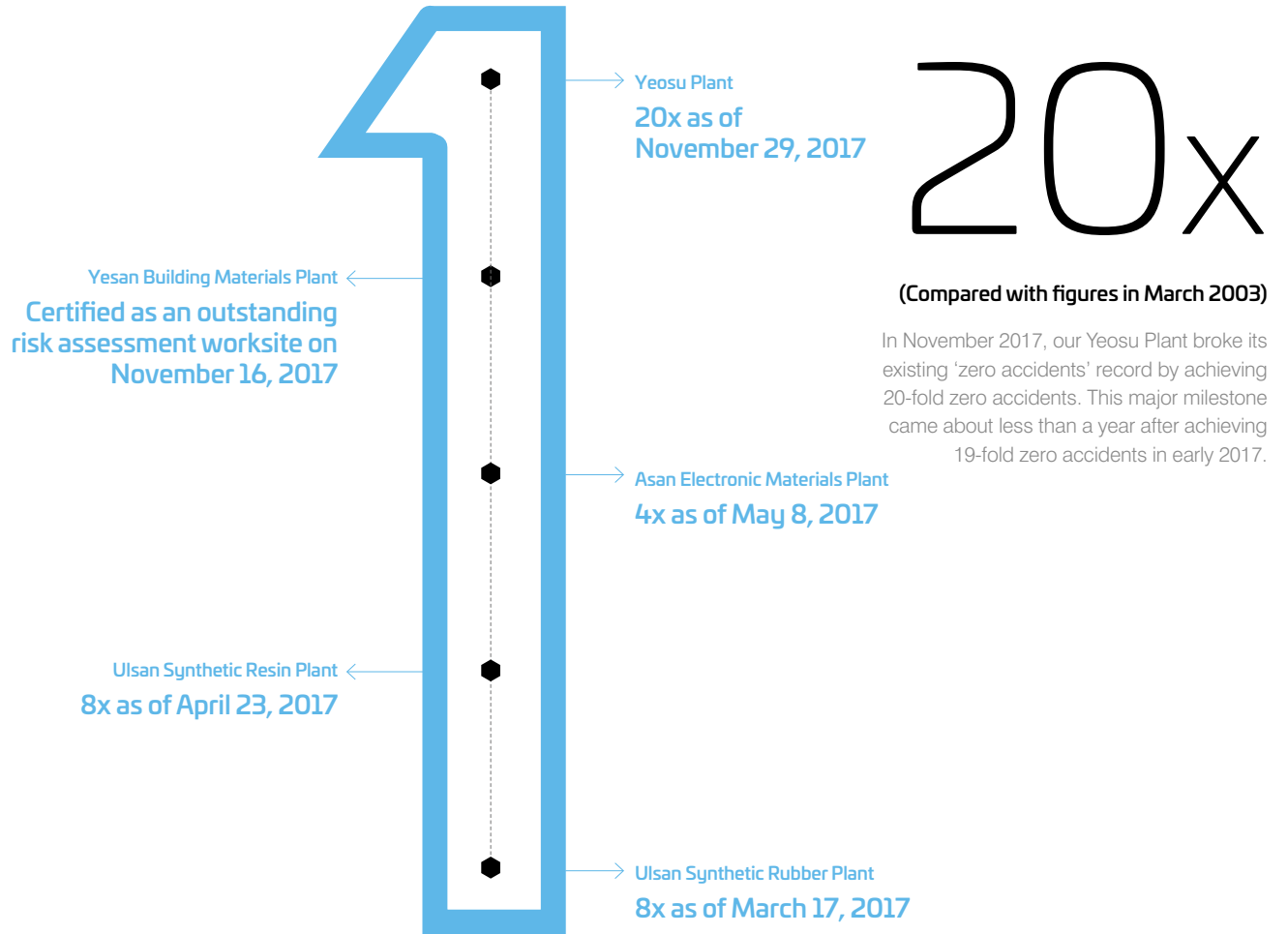
Safety-first culture

Safety is our top priority. In order to create a safe and healthy workplace, our CEO leads a company-wide integrated environment, health and safety (EHS) management system, and the Safety and Environment Committee discusses and makes prompt decisions on EHS management policy, plans and regulations. In addition, we strive to prevent and respond to accidents by strengthening operational systems for emergency situations, supported by establishing emergency organizations at each plant site and by conducting emergency response training. We will continue to improve our EHS management systems and training programs to build a safe, eco-friendly work environment.

Promoting a Safety Culture

		
Safety management system	Safety training, campaigns and activities	Suppliers' safety management
<ul style="list-style-type: none"> Integrated safety and environmental management meetings led by the CEO Industrial Safety and Health Committee, EHS Committee Safety zone certification for plant sites Operate safety and health management programs, including KOSHA 18001 and OHSAS 18001) Establishment an emergency response system and emergency scenarios 	<ul style="list-style-type: none"> Provide safety trainings and measure performance on a regular basis Provide safety trainings to new employees and managing supervisors Provide outsourced professional safety trainings Three zero – zero accident, zero disease, zero pollution – campaign jointly conducted by labor and management Safety inspections and patrols Safety work management 	<ul style="list-style-type: none"> Meetings for permanently-stationed suppliers Safety and health meetings attended by representatives from suppliers Joint safety inspections with suppliers Implement win-win cooperation programs for safety and health

Zero Accident Status at KKPC



2017 Highlights

This relentless focus on globality, profitability and sustainability, combined with our drive to innovate, has enabled KKPC to win the trust of a growing number of customers, shareholders and other stakeholders over recent years. As we marked a year of strong growth in 2017, we are also building momentum for the future by focusing on what matters most to our stakeholders and making further strides towards realizing our vision.





GROWTH DRIVERS

Advancing Our Global Momentum

High value-added and eco-friendly products and next-generation growth businesses are at the core of our innovation. KKPC is accelerating the pace of innovation in our quest to become a global leading chemical group, based on the excellence of our product quality and business operations, and supported by a corporate culture in which our people have no fear of failure, but a constant commitment to challenge and innovation.

GAME CHANGER

Our high value-added products have constantly redefined excellence in the global synthetic rubber and synthetic resin markets. Our outstanding products can enrich people's everyday lives, which in turn ensures solid growth for KKPC.



SSBR – increasing abrasion resistance and fuel efficiency

KKPC has been further strengthening our leadership position in the synthetic rubber market, backed by the success of SSBR, a high-value-added synthetic rubber which improves a tire's wear resistance and fuel efficiency. In order to overcome the limitations caused by a tire's fuel efficiency performance being in inverse proportion to braking power, we acquired a technology for manufacturing synthetic rubber denaturants and continue to release new products. In particular, we have focused on securing cutting-edge synthetic rubber technologies since 2016, as demand for SSBR has been forecast to increase considerably with the launch of a tire efficiency grading system in China. Based on these technologies, we are aiming to dominate the global SSBR market, including in China.



NB Latex – increasing eco-friendliness and durability

Used in the manufacture of medical rubber gloves, NB latex is a major new product for KKPC. The NB latex market has considerable potential for growth, which is why we undertook a 200,000 ton capacity expansion project in 2016. Fully expanded operations were launched in 2017, with an annual production capacity of 400,000 tons, which has established KKPC as a world-leading NB latex company. In addition, we have focused on developing NB latex for ultra-thin gloves and, and released KNL 834, a new product with increased tensile strength and stability, at the end of 2017.



ABS Resin – increasing distinctive competitive advantages

ABS resins are used in various industries, including electronics, automobiles and semiconductors. KKPC focuses more on automobile and compound markets, which require high-value-added products. In particular, we have been strengthening our market position based on outstanding product quality, and thus we have the largest market share for ABS powder in China. In addition, we recently launched a new product which delivers impact strength improvements of at least 10%, and also developed a new technology with the world-leading productivity through our exclusive proprietary hard core polymerization process. Moreover, continued research has been underway to develop a powder with high extrusion productivity.



TREND SETTER

Our products set trends and break records. KKPC focuses our R&BD efforts on the development of eco-friendly products which have both a smaller ecological footprint and better functionality, thereby setting standards worldwide.



Enerpor – setting new standards for insulating materials

Enerpor is an insulation material and black expandable polystyrene (EPS) for which we have an exclusive manufacturing patent. It offers all the properties and hardness of existing white EPS, while delivering insulation performance that is approximately 20% better than that of previous products. In 2016, we successfully developed the sub-1-millimeter Enerpor manufacturing technology for diameter of fine particles and this will be commercialized in the near future. Enerpor reduces CO₂ emissions by saving energy and reducing fuel consumption, and uses eco-friendly additives. In addition, it is well received as a 'well-being' insulation material, safe from bacteria and corrosion, thanks to its low absorption rate.



MSP – setting high goals to make paint additives greener

Mono-styrenated phenol (MSP) is an epoxy paint additive developed by KKPC. This product replaces Nonylphenol (NP) which was used as a paint plasticizer and hardener, but is now thought to disrupt the endocrine system. MSP has been recognized for its outstanding technology, and thus being selected as a world-class product in 2015. We are expanding the applications of MSP, and particularly focusing on developing a new product that can be used as a non-reactive diluent for heavy duty epoxy paints.



PATH FINDER

At KKPC, we keep challenging the ways in which we think and act. We stand out for being innovative, agile and flexible in our development of next-generation materials, which enables us to achieve stronger and more sustainable growth.

OLED technology – shining a light on innovation

KKPC has been establishing itself as a leader in display materials. We developed a sealant for OLEDs which protects OLED devices, and have completed customer verification and evaluation. As the full production is expected to be launched in 2018, we have set a plan to increase sales by widening sales channels. We are also on track to develop a transparent resin that can be applied to a rollable display, which has been in the spotlight recently, with a goal to commercialize it in 2018. In addition, we have verified its use for automotive rear-view mirrors and completed pilot sales, thereby expanding the scope of application.



Green energy technology – lighting the way to a sustainable future

In order to respond rapidly to fast-changing markets and to ensure the sustainability of the company as well as wider society, KKPC is preparing itself for the new energy environment of the future. The focus of our energy business is on enhancing energy efficiency and making our processes more eco-friendly. With the recent steady recovery in system marginal prices for electricity, we have been researching measures that could both improve our facility output and reduce electricity consumption. In order to strengthen the competitiveness of our eco-friendly energy business, we focus on improving the operational efficiency of our wind and photovoltaic power generation businesses, and actively look into using next-generation eco-friendly fuels.



CNT technology – moving into the future at the speed of light

Carbon nanotube (CNT) is a major new development in material science, as it is not only lightweight but also delivers 100 times the tensile strength of steel and 1,000 times the electrical conductivity of copper. We successfully commercialized production of CNT in 2013, and we are currently looking for ways to generate synergy with our core businesses by expanding our related technological capabilities, in an effort to create new growth drivers. In particular, we are working on using CNT convergence technology to make synthetic rubbers and synthetic resins stronger and lighter. We are also looking for synergy through research into areas of strong expected demand, including secondary batteries.



INNOVATOR'S DNA

Innovators rely on courage to innovate – an active bias against the status quo and an unflinching willingness to take smart risks – to transform ideas into a powerful impact.

Our people are best assets, and also vital to our future growth. Individually, our employees are the best in the industry, equipped with the spirit of challenge, expertise and integrity. Together, they share the core values of KKPC, and work in unison to achieve our corporate vision. KKPC is making strides towards its vision of becoming a 'global leading chemical group', supported by core values of a passion to become the best, innovation to satisfy customers, communication and collaboration to build trust, and a sense of responsibility towards society and the company.

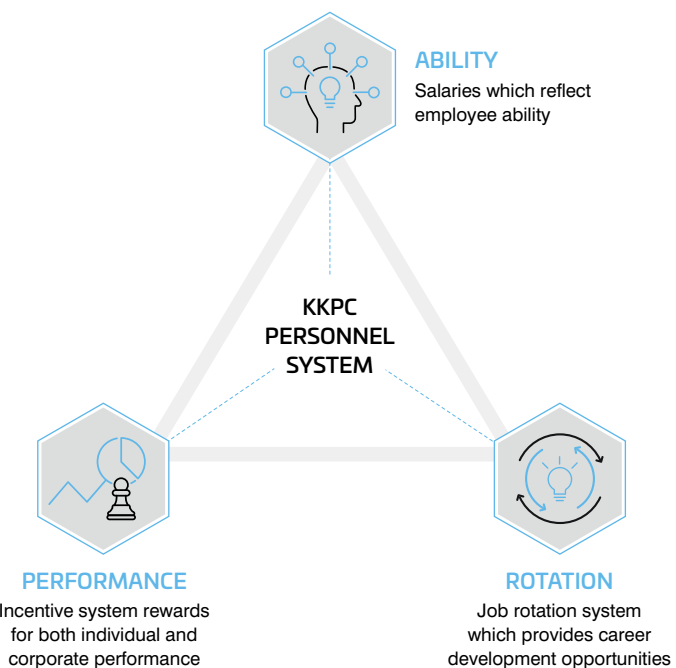
In order to achieve our goals, all employees of KKPC seek to internalize our core values, and perform their duties based on common sense and principles. We operate an integrated human resources (HR) management system to help our employees become global talents, including a wide array of training programs. Moreover, we make the utmost effort to create the optimal working environment for the best talent by creating a safe and clean workplace, achieving the right work-life balance, and implementing fair HR and salary systems.



People with a shared vision – to be a global leading chemical company



Corporate culture to nurture innovators and support their innovations



MENTORING PROGRAMS – HELPING NEW EMPLOYEES ADJUST

KKPC has set a new employee mentoring system in place, which enables new employees to adapt successfully to working at KKPC. Each new employee has two mentors over their first year; the mentor for the first six months is designated by the company, and the mentor for the second six months is chosen personally by the new employee. We provide funds for mentoring activities, and host mentoring workshops to help mentors and new employees build strong bonds and to ensure that the mentoring process meets its objectives.

EDUCATION AND TRAINING PROGRAMS – FOSTERING GLOBAL LEADERS

KKPC aims to support our employees in becoming the best global talents in their respective fields. We operate the WinK Academy, an internal online training system, which helps employees with their self-development in their own time, at their own pace and with no sense of burden. Lectures are offered on a wide range of subjects, including the humanities, business manners, foreign language courses and a reading management course. Lectures on around 15 foreign languages, including English, Chinese and Japanese, are made available for free.

MANAGEMENT REVIEW

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

FOR OUR
CUSTOMERS

FOR OUR
SHAREHOLDERS

PAVING THE WAY TO
FUTURE GROWTH

FOR OUR
EMPLOYEES

FOR HUMANITY &
THE ENVIRONMENT

Corporate Governance

Strong corporate governance is a differentiator in how we run our company. KKPC has therefore established an advanced corporate governance system with the Board of Directors taking a central role. Through this system, we operate our business ethically and transparently, and earn the trust of shareholders, employees, customers, local communities and other stakeholders.

BOARD OF DIRECTORS

KKPC’s Board of Directors (BOD) is a decision-making body that makes important decisions and provides advice on business activities. All BOD decisions represent shareholder interests, and are aimed at maximizing corporate value from a long-term, sustained perspective. As of the end of 2017, the BOD consisted of five directors, including three outside directors who were recommended by the Outside Director Nominating Committee and elected at the annual general meeting (AGM).

A BOD meeting is held approximately once a month to conduct detailed reviews of the company’s major matters, with active participation of outside directors, recording an attendance rate well above 90%. We plan to look into measures to form the Board members in order to ensure more stable BOD operations and to help them make decisions from various perspectives. In 2017, there were 11 Board meetings to decide on 33 agenda items related to major business matters.

BOARD COMMITTEES

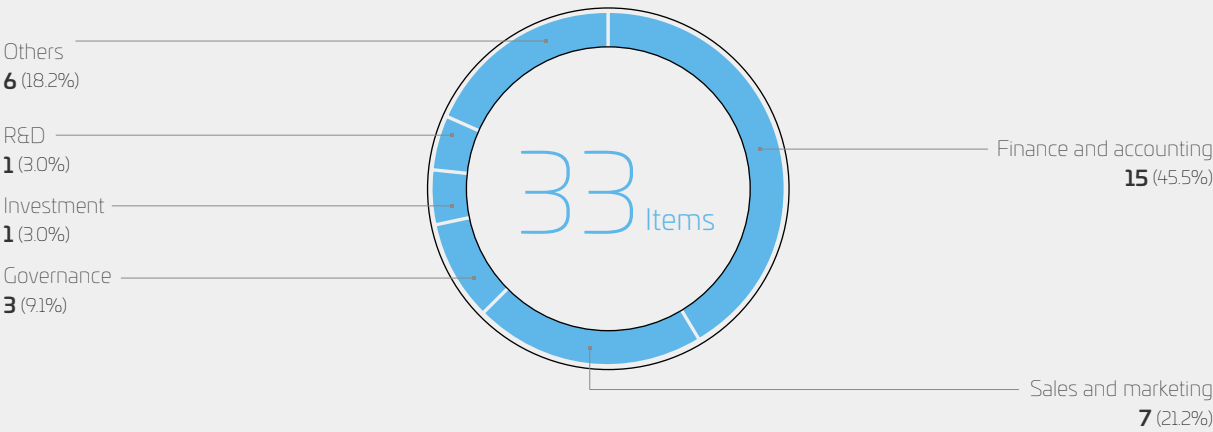
To guarantee the BOD’s independence and expertise, outside directors hold a majority of seats. There are two committees with in the BOD – the Audit Committee and the Outside Director Nominating Committee. The Audit Committee consists only of outside directors, and is focused on increasing transparency in the management of the company and ensuring the accuracy and credibility of accounting information. The Outside Director Nominating Committee uses an impartial process to identify, screen and recommend suitable candidates as outside directors.



OUTSIDE DIRECTORS’ ATTENDANCE RATE

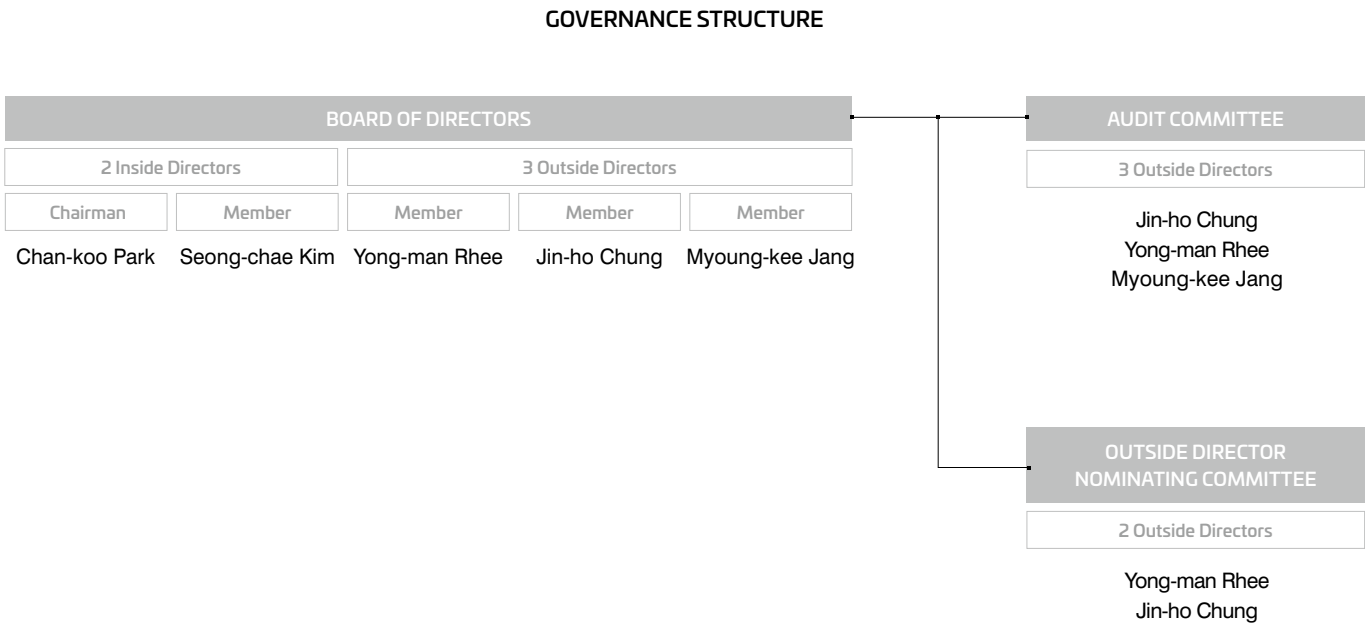
	Yong-man Rhee	Jin-ho Chung	Myoung-kee Jang
Board Meetings	91%	100%	100%
Audit Committee Meetings	100%	100%	100%
Outside Director Nominating Committee Meetings	100%	100%	–

BOARD AGENDA OVERVIEW



BOARD STRUCTURE





BOD COMPOSITION

Inside Directors

Chan-koo Park

- Chairman & CEO, Kumho Petrochemical

Chan-koo Park chairs the KKPC BOD and is also the Chairman of KKPC, the top decision maker in corporate management. Mr. Park graduated from Iowa State University in the U.S. with a degree in statistics. He then joined KKPC and has served as the CEO of several chemical companies, including KKPC and Kumho Mitsui Chemicals. During his more than four decades at KKPC, he has made major decisions in the company’s corporate development. He also served as chair of the International Institute of Synthetic Rubber Producers (IISRP) from 2010 to 2011, leading the development of the synthetic rubber industry.

Seong-chaе Kim

- President & CEO, Kumho Petrochemical

Seong-chaе Kim is the President & CEO of KKPC, making decisions on major business matters for the company. Mr. Kim graduated from Yonsei University in Korea with a degree in chemical engineering and then joined KKPC. He has led a wide range of sales activities in Korea and overseas throughout his career, which has given him extensive experiences in the synthetic rubber industry. He has been part of KKPC’s corporate management as President & CEO since 2010 and continues to lead the company’s development.

Outside Directors

Yong-man Rhee

- Chair, Outside Director Nominating Committee
- Member, Audit Committee
- Former Minister, Korean Ministry of Strategy & Finance

Yong-man Rhee is an incumbent outside director of KKPC. Mr. Rhee has extensive experiences in finance and policy, having previously served as Secretary in Korea’s Presidential Secretariat and Minister of Strategy & Finance. He is also a member of both the Audit Committee and the Outside Director Nominating Committee, and contributes to the stability and independence of KKPC’s corporate governance.

Jin-ho Chung

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

Jin-ho Chung is an incumbent outside director of KKPC. He has extensive experiences in finance and investment through his career at Nomura Securities, and he was also formerly President & CEO of Prudential Investment & Securities. He is now the incumbent Chairman & CEO of The Wells Investment. As an expert in accounting and finance, Mr. Chung is a member of both the Audit Committee and the Outside Director Nominating Committee, and contributes to the stability and independence of KKPC’s corporate governance.

Myoung-kee Jang

- Member, Audit Committee
- Former Director, Korea Exchange Bank
- Chairman & CEO, Fidelis Partners

Myoung-kee Jang is an incumbent outside director of KKPC. He has served as a deputy director of major banks in Korea, including Shinhan Bank and Korea Exchange Bank, and is currently Chairman of Fidelis Partners. With his considerable experience in the financial sector, he provides extensive help and advice on decision-making on the company’s funding and investment policy, and contributes to the stability and independence of KKPC’s corporate governance.

Key Executives

Our management team consists of leading experts with a broad range of experience. They are always searching for new ways to make KKPC stronger, more resilient and more sustainable. By acting with the integrity, foresight and professionalism that our stakeholders expect, they make decisions and lay foundations that ensure the future growth of the company, as we move in one direction towards one goal – becoming a global leading chemical group.



Seong-chaе 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



Jin-yong Park
• Executive Vice President
• Planning & Coordination Division



Young-hoon Ko
• Executive Vice President
• Kumho Petrochemical R&BD Center



Kab-jong Chang
• Executive Vice President
• Yeosu Synthetic Rubber Plant



Young-do Ko
• Vice President
• Purchasing & Accounting



Chul-wan Park
• Vice President
• Synthetic Rubber Overseas Sales



Jun-kyung Park
• Vice President
• Synthetic Resin Overseas Sales



Dong-kook Kim
• Vice President
• Electronic Materials



Kwun-wook Heo
• Vice President
• Building Materials Business Unit



You-sun Song
• Vice President
• Technology & Energy Business Unit



Wang-geun Oh
• Vice President
• Administration & Management



Joo-hyung Park
• Vice President
• Purchasing & Finance



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



Jung-chan Lee
• Vice President
• Yeosu Specialty Chemicals Plant



Min-ho Kim
• Vice President
• Strategic Planning



Young-chan Jang
• Vice President
• Research Planning



Jong-sub Byun
• Vice President
• Yeosu Energy Plant



Young-ho Chun
• Vice President
• Synthetic Resin Research



Taek-young Lee
• Vice President
• Ulsan Synthetic Resin Plant



Han-won Hong
• Vice President
• IT Strategic Center



Gwang-hoon Kwag
• Vice President
• Synthetic Rubber Research



Ha-gil Kim
• Vice President
• Synthetic Resin Sales



Bon-jae Ku
• Vice President
• Synthetic Rubber Sales

Shareholder Value

KKPC communicates with our stakeholders from a long-term perspective through consistent IR activities, with the aim of ensuring that our shares are accurately valued in the market and also deliver greater value to shareholders. Backed by our successful share price performance in 2017 thanks to these efforts, we will continue to focus on enhancing shareholder value.

CAPITAL MARKET OVERVIEW

In 2017, markets around the world rose in general, with risks forecast at the end of 2016, including political uncertainties in various countries and slower growth in China, not being as severe as expected. In addition, despite concerns over the impact of interest rate rise by the US Federal Reserve in 2017, it had limited impact because it rose in a gradual manner, and the US government's market-friendly actions caused stock markets to reach new highs. In Europe, elections in various countries did not yield major shocks, economic growth reached its highest levels over the last decade, and stock markets rose. There were concerns over potential slower economic growth in China due to structural reforms, but in fact economic growth actually rose year-on-year for the first time in seven years and thus met market expectations. Countries around the world saw solid economic growth and upward trends in stock markets throughout the year.

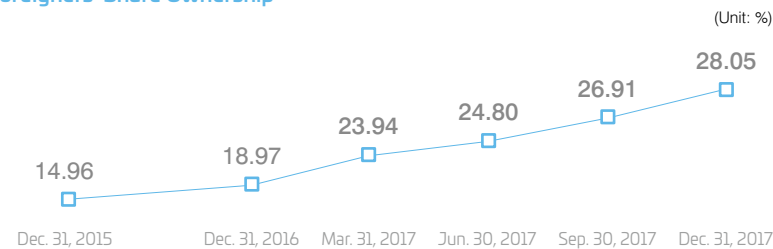
Stock markets in Korea also reached record levels. The KOSPI index began 2017 at 2,026.46 points and closed the year at 2,467.49 points, a sharp year-on-year increase of 21.8%. This was the result of continued foreign buying as economic conditions improved worldwide, and the increased attractiveness of the Korean market thanks to strong corporate performance. New governance codes also improved investor sentiment. All these factors added liquidity to the Korean stock market, with the KOSPI index peaking at a record closing price of 2,557.97 points.

SHARE PRICE PERFORMANCE

In 2017, our corporate performance was improved, which in turn attracted more interest in our shares from investors. Performances in our core business – synthetic rubbers and synthetic resins businesses – were improved over the previous year, and profits went up in phenol derivatives despite increases in industry supply.

Our continued efforts to make improvements across all business areas led to higher expectations of investors, and increased holdings by foreign shareholders in particular. The proportion of our shares held by foreigners has increased steadily over the last three years, and recorded year-on-year growth of 9.08%p in 2017 to reach 28.05% at the end of the year. Thanks to the inflow of investment from long-term and high-quality foreign institutional investors, our share price rose from KRW 82,000 at the beginning of the year to reach KRW 99,500 at the end of 2017, an increase of 21%.

Foreigners' Share Ownership



AWARDS FOR KKPC ANNUAL REPORT

Our 2016 annual report received the Diamond prize at the The International Annual Report Design Awards (IADA), an annual report evaluation contest held in the UK. We also won Bronze in the Traditional Annual Report category at the International Annual Report Competition (ARC) Awards, our eighth success at those awards. We have entered our annual reports in global evaluation contests since 2008 and have consistently won awards. This reflects our commitment to using annual reports to communicate with stakeholders, and we will continue to make efforts to improve how we share information about our company.

MAJOR IR ACTIVITIES IN 2017

We communicate with investors through a wide range of channels by listening to their opinions so as to build consensus with them, earn the trust of the market, and thus contribute to our corporate development. We publish public notices about the company's performance and major business matters, and share performance and other data on our website, in addition to holding regular meetings with investors. Moreover, we collect opinions of investors by publishing our annual reports before holding an annual general meeting (AGM) and through other means, in order to help them make decisions based on accurate information.

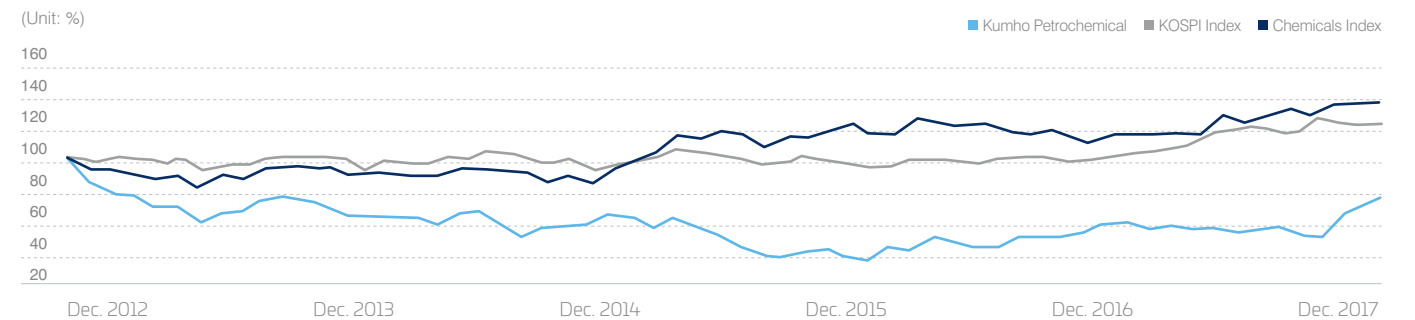
In 2017, we hosted weekly small group meetings in order to share information about KKPC with as many investors as possible, to have a dialogue with them and to listen to market opinion. We also held one-on-one meetings and conference calls with investors with language, timing or geographical constraints, as part of our efforts to make sure that domestic and overseas investors have the same level of communications. Given the increased proportion of our shares held by foreign investors, we particularly focused on strengthening our overseas IR activities, to the extent

that the number of meetings held with domestic and overseas institutions was about the same. We also focused on overseas IR activities such as attending conferences in the Americas and Asia, and used these as opportunities to attract more foreign investors.

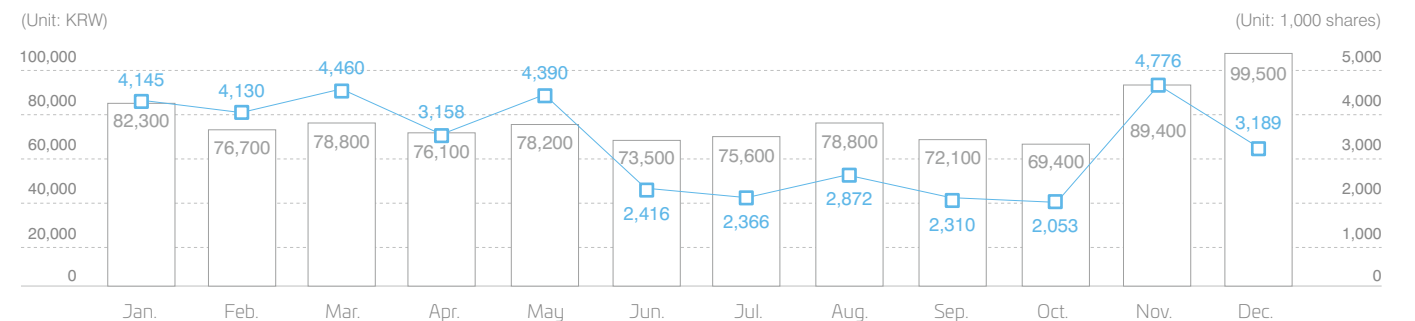
DIVIDENDS

KKPC does its utmost to ensure that increases in its corporate profits are shared with shareholders. We maintained a level of cash dividends even when we were experiencing challenges in our business environment, and we were able to increase the dividend by 25% over the previous year in 2017 thanks to strong performance. Cash dividends for 2017 were declared at KRW 1,000 per common share and KRW 1,050 per preferred share, representing 20% (KRW 1,000) and 21% (KRW 1,050) of par value (KRW 5,000), respectively. This cash dividend increase has particular significance because we also paid back debt in order to improve our financial structure. Our largest shareholders received a different cash dividend of 18% (KRW 900), similar level of common shares, in order to support our corporate development. We will continue to aim for further increases in dividend payments by continuing to improve profits.

KKPC Stock Price vs. Key Indexes



Stock Performance in 2017



Risk Management

KKPC manages risk at the company level to preemptively respond to major changes in global markets, which in turn enables us to run stable business operations. We categorize risks into financial, currency and raw material risks, so that we can systematically and efficiently manage them, thus preparing for uncertainties and developing new opportunities to create value.

FINANCIAL RISK

As of the end of 2017, our net debt stood at KRW 1,575 billion, a year-on-year decrease of around KRW 300 billion, and our debt-to-equity ratio was around 134%, down 29%p year-on-year. There will be further investment activities this year, but we do not expect the same level of large-scale investments as those which took place before 2016. We do not expect significant changes in the business environment for our major businesses, and we anticipate generating similar operating cash flows to last year's, which should enable us to further reduce our borrowings and lower debt-to-equity ratio. We expect that this will be the foundation for improving our corporate credit rating. We also plan to diversify our funding sources in order to reduce financing costs. Considering our long-term holdings of available-for-sale securities in Daewoo Engineering & Construction and Asiana Airlines, as well as treasury shares, our financial liquidity position is satisfactory.

CURRENCY RISK

Exports in 2017 accounted for 64% of our total sales. Around 68% of sales were in foreign currencies, including 5% of domestic local sales, 96% of which were in US dollars. Although our foreign currency incomes are higher than expenses due to the high level of exports, the gap is less than 15% which is a long cash position. Exchange rate fluctuations therefore have a relatively small impact on the company's overall profits and losses.

RAW MATERIAL RISK

Butadiene Butadiene (BD) prices in Asia began 2018 in an upward trend, mainly in the Chinese market. This was caused by the improved competitiveness of imported BD due to the weak dollar and ABS manufacturers building up inventories ahead of the Lunar New Year holiday in China. There is the possibility of a correction in prices around the Lunar New Year period, but with regular maintenance by major local Asian cracker and BD suppliers being concentrated in the second and third quarters, prices are forecast to continue to trend upwards. However, due to continuing excess supply of synthetic and natural rubbers in the market, there is no significant possibility of a sharp rise in prices except in exceptional circumstances, such as major problems at a plant. The expectation is thus for a gradual upward trend in prices throughout the second half of the year.

Therefore, we will increase our BD plant utilization rate in order to ensure consistent supply of BD, and also bring in BD through offshore contracts which will improve our self-sufficiency. By doing so, we will secure stable supply of raw materials.

Year-on-year decrease in net debt

16%↓

Year-on-year decrease in debt-to-equity ratio

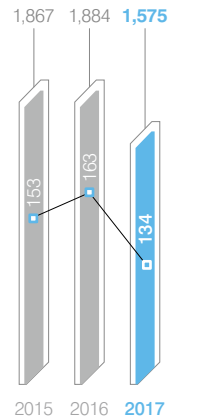
29%p↓



Net Debt & Debt-to-equity Ratio

(Unit: KRW billion, %)

■ Net Debt ▣ Debt-to-equity Ratio



Styrene Monomer Due to the anti-dumping issues around styrene monomer (SM), imports from Korea, the US and Taiwan by China, the largest importer of SM, are expected to fall in 2018 compared with the previous year. In addition, the regular maintenance by SM manufacturers that began in the first quarter and steady demand for derivatives are forecast to result in continuing tight supply, similar to the situation prevailing last year. However, there is the possibility of improved supply if new SM plants in China are able to resolve their environmental regulation and feedstock supply issues and thus begin normal operations, and also if there is additional further capacity expansion. Strong international oil prices at the beginning of the year led to higher prices for the raw materials for SM, such as benzene and ethylene, which has in turn increased prices for SM.

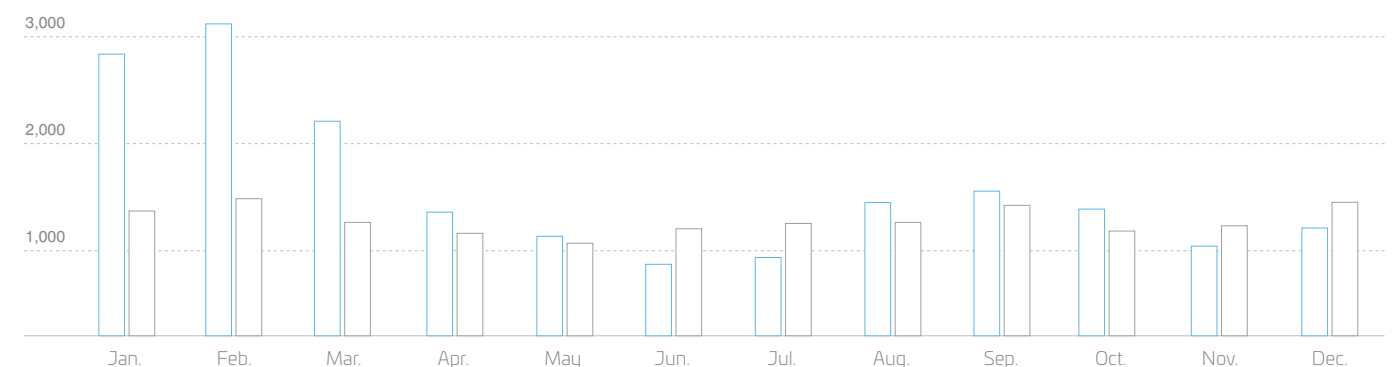
Given this business environment, we will enhance our supply stability of raw materials by increasing our purchases from domestic SM suppliers compared to last year.



2017 Butadiene Price / 2017 Styrene Monomer Price

(Unit: USD/ton)

■ Butadiene Price ■ Styrene Monomer Price



*Source: ICIS 2017

Business Ethics

KKPC carries out business transparently and fairly, based on unwavering commitment to ethical management and active employee participation. We also create a win-win culture in partnership with internal and external stakeholders, including establishing mutually beneficial relationships with suppliers, and constructive labor-management relations. We will continue to fulfill our roles and responsibilities as a trusted company by staying true to both common sense and formal principles based on high ethical standards.

ETHICAL MANAGEMENT

Ethical Management System KKPC declared our commitment to ethical management in September 2002, and since then has built an institutional infrastructure, so that we can adhere to all international, national and social regulations and norms as a trusted company. We have also put into place 'codes of ethics' and 'rules of ethics', which serve as criteria by which our employees can determine appropriate actions and values, and thus established solid foundations for implementing ethical management. In addition, based on the belief that ethical management is not only a prerequisite for a company's survival but also core competitiveness, we continue to strengthen our ethical management systems, in an effort to enhance our corporate value.

Ethical Management Activities KKPC has set the 'Cyber Report Center' in place on our company homepage, which enables employees or anyone else to report violations of our codes or rules of ethics at any time. We also hold the 'Transparent National Holiday Campaigns' on major national holidays every year, including on New Year's Day and at Chuseok (Korean Thanksgiving Day). We send notices to our suppliers as part of our commitment to fair and transparent business relationships, and we prohibit our employees from receiving improper gifts from stakeholders. Moreover, the 'Gift Report Center' has been established so that if an employee receives a gift due to unavoidable circumstances, that gift can be dealt with appropriately. In cases that absolutely require gifts or expenditure, such as the sending of traditional wreathes or gifts for congratulations or condolences, we adhere strictly to the letter and spirit of the 'Improper Solicitation and Graft Act' regulations.

Key Areas of Ethical Management



TRUST

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



WIN-WIN

We are creating a culture of win-win 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 to be in harmony with nature and create a safe and pleasant work environment.



WIN-WIN RELATIONSHIPS

Our suppliers are also important business partners and stakeholders. We therefore focus on strengthening mutual trust and cooperative relationships with them. Our basic policy on supporting suppliers is to help them improve their management stability and operational efficiency, as well as to engage in technological cooperation. Based on that, we are increasing the number of payments made to small to mid-sized suppliers in cash, providing financial and training support, sharing information, developing technologies together, and offering technical support. In addition, we have made the 'win-win index', established by Korea Commission for Corporate Partnership, one of major focuses for our work.

In May 2017, we hosted the 'KKPC Partnership Academy' in partnership with the Korea Foundation for Cooperation of Large & Small Business, Rural Affairs, and approximately 50 employees from 45 suppliers were invited. We will continue to increase exchanges with suppliers through the Academy, which will act as a professional training program to improve the skills of both KKPC and supplier employees. The Academy will also promote the consignee-consignor council, and reinforce our overall cooperation network.

Environmental Management

Safety and the environment are essential for a company's sustainable growth, which is why KKPC has set out our environmental vision of being 'a company that creates the future as a partner of humanity and the environment'. We undertake a range activities in support of this vision, to protect and look after the environment. Safety is also a top priority, so we make continued efforts throughout the company to create safe and clean workplaces.

EHS VISION & INITIATES

Environment, health and safety (EHS) are vital priorities for the international community and also among our stakeholders. We therefore not only keep up with current trends by actively implementing international environmental agreements, but also stay ahead by observing internal environmental regulations that are stricter than legally required. To support this, we undertake a wide range of environmental management and protection activities.

We established our environmental vision as being 'a company that creates the future as a partner of humanity and the environment' in 2008 when we prepared for another leap forward sustainable growth. We have since set our environmental goals based on this vision, and managed them in a systematic manner. Our major environmental safety goals for 2017 were zero environmental and safety accidents, reducing the emission of pollutants, maintaining the 'green company' certification from the Ministry of Environment, improving our Productivity Management System (PMS) grade, and reinforcing the culture of safety.

As part of our multifaceted efforts to achieve those goals, in order to make all our plant sites accident-free in particular, we identify risk and hazard factors by conducting annual safety inspections both within individual plant as well as cross-safety inspections between plant sites, and make facility improvements wherever necessary. In 2017, we undertook field assessments to examine compliance with the facility management criteria contained in the Chemicals Control Act. In addition, and removed asbestos, a class 1 carcinogen, from buildings that had used asbestos. We also monitor the enactment and amendment of laws every day, and share the relevant information on internal bulletin boards, so that we can rapidly respond to regulatory changes.

EHS MANAGEMENT SYSTEM

KKPC operates an integrated EHS management system that is run by each plant site's environmental and safety team under the Senior Executive Vice President of Production, with the CEO taking the overall lead. The CEO also supervises the integrated safety and environmental management meetings that take place twice a year. These meetings underline our commitment to safety and environmental management, share information on relevant activities, and address issues that we face at the company level. Integrated safety and environmental management meetings were held in June and December 2017, at which reports were presented on each plant site's safety and environmental performance for the previous year and plans for the year ahead, and other relevant information was shared.

We have obtained and maintained EHS-related certification of our plant sites. In 1996, KKPC became the first company in the petrochemical industry across the world to obtain ISO 14001 certification, an international environmental management system certification presented by DNV GL. We are also preparing for the transition to ISO 14001:2015 in 2018.

Increase in Environmental Investment



Moreover, we undertake internal audits to constantly assess and improve our EHS management system, and encourage all employees to be part of corporate-wide initiatives to build a safe workplace by offering regular trainings and creating a detailed emergency response system.

RESPONSE TO CLIMATE CHANGE

In recognition of the importance and needs to counter climate change, KKPC has built a corporate-wide system that aims to reduce our greenhouse gas emissions, and the taskforce formed in support of this system has formulated mid- to long-term strategies in response. In addition, we partner with outside professional organizations to implement greenhouse gas emission reduction projects, including by inspecting emissions levels and analyzing the potential and marginal abatement costs. For example, we invested approximately KRW 1,510 million in 2016 and 2017 to curtail energy costs by replacing 16,008 light fixtures with LED equivalents.

REGULATORY COMPLIANCE

KKPC actively complies with all laws established by the Korean government to strengthen chemical safety, including the Act on Registration, Evaluation, Etc. of Chemicals, and the Chemicals Control Act. For example, KKPC Chemical Management System (KCMS) was substantially improved during 2015 to 2016, so that we could transparently and systematically manage information on all the chemicals that we handle, as part of our response to the Act on Registration, Evaluation, Etc. of Chemicals. In response to the Chemicals Control Act, we created an inventory of all our chemicals, and we also won approval for our offsite risk assessment reporting and risk management plans which include planning for toxic chemicals accident scenarios, and countermeasures for each plant site.

In order to satisfy the facility management criteria for the reduction of emissions of hazardous air pollutants (HAPs) stipulated in the Clean Air Conservation Act, we have built an inventory of all possible leakage points, including valves, flanges, and gaskets, and operate a leak detection and repair (LDAR) system. In 2017, we replaced all HAP pumps and installed a new regenerative thermal oxidizer (RTO). We also changed all our pumps to either dual mechanical seal or sealess equipment, in line with the stricter facility management criteria for pumps relating to controlled substances.

Environmental Vision System



Social Responsibility

KKPC is committed to sincere, participatory social contribution activities that can bring about positive change to our society. We focus on sharing from a long-term perspective, rather than just running one-time events, in our efforts to contribute to the healthy development of society. We also encompass more active forms of support that extend beyond financial aid by expanding the scope of our social contributions based on employee participation.

SOCIAL CONTRIBUTIONS

KKPC uses our unique strengths as a global petrochemical company to fulfill our responsibilities as a corporate citizen, and to generate value in corporate social contribution activities. We encourage active participation of employees, so that sharing can be a vital part of the corporate culture of KKPC, including by offering substantial and systematic support for employee volunteer activities and by presenting awards to employees every year based on their social contribution activities.

MAJOR CSR ACTIVITIES

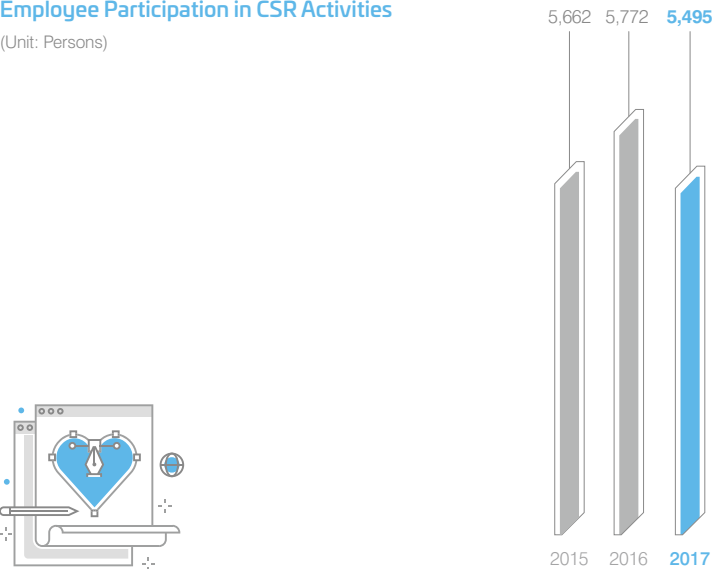
Special Initiatives We are leveraging our core competencies in cutting-edge technologies and outstanding products to help resolve a wide range of social issues. One example is the program we have in place to offer customized aids to people with severe disabilities. Initiated in 2008, this program has been providing assistive devices that are specially designed to deal with the degree of disability and the specific needs of the disabled. In 2017, we donated customized wheelchairs to 23 disabled people at 22 residential facilities for the disabled. We also have in place a support program for the visually disabled. We improve the quality of white canes, which are essential for the visually disabled, to ensure easy portability and storage, and provide them to those in need across the nation. In 2017, we donated the funds to produce 1,650 white canes through the Korea Welfare Foundation for the Visually Handicapped. In addition, we manufactured easy-to-use yellow braille blocks, and braille readers to help the visually disabled – these were then donated to schools for the blind and welfare facilities across the nation.

Another core social contributions program that has been in place since 2008 is to replace old windows at social welfare facilities with our premium 'Hugreen' window systems. In 2017, we replaced 117 window systems at the Silloam Care Center, located in Yangju, Gyeonggi Province, which helped resolve issues with dew condensation, heat retention and noise.

In order to promote science education, and thus foster the young talent that will shape the future of our society, we launched the 'Chemical Frontier Festival' in 2004 under the slogan 'Dream of a future created through chemistry'. This program is designed to help high school students by increasing their interest in chemistry, and also contributes to the development of chemistry over the long-term. We donate around KRW 100 million to the program every year, and provide expert judges on experiments and the contents of research.

Employee Participation in CSR Activities

(Unit: Persons)



Community Initiatives KKPC operates a wide range of social contribution programs to encourage employee participation. For example, all employees round their monthly salary down to the nearest KRW 1,000 and donate the rounded sum, in addition to fixed-amount donations. The funds collected through these campaigns are donated to the underprivileged at the end of every year, and in response to our employees' commitment to helping others, the company raises funds through a matching grant and donates to local communities in need of a helping hand. In 2017, we delivered donations to ten facilities and groups across Korea, including the Eastern Social Welfare Society, a welfare organization for infants and the local community.

In partnership with the Korean Red Cross, we hold annual blood donation drives and collect employees' blood donor cards to give them to people in need. KKPC employees also actively participate in volunteer activities throughout the year, including year-end volunteering for employees who have not yet been able to take part in that year's social contribution activities. In 2017, there were two year-end volunteer activities through which employees built 20 bookshelves and 40 bookcases to support the education of children from multicultural families, and 2,000 heating briquettes were delivered to ten households to help the energy deprived.



Main CSR Activities



SPECIAL INITIATIVES

- 1 Provide customized assistive devices to people with severe disabilities
- 2 Provide assistive devices to the visually disabled
- 3 Support social welfare facilities through Hugreen window systems
- 4 Support educational programs



COMMUNITY INITIATIVES

- 1 Employee donations of small changes from salaries or fixed amount, and a matching grant of the company
- 2 Blood donation campaign
- 3 Employee volunteer programs

Research & Business Development

Research & Business Development (R&BD) is a unique, specialized R&D concept and strategy that combines our determination to develop advanced technologies that can lead global markets with an innovative approach that will bring us closer to our customers and develop solutions which start right at the initial phase of business development. By focusing on R&BD investments and innovation, KKPC will become a global leading chemical group.

R&BD ORGANIZATION

In 2005, KKPC moved away from typical R&D and adopted a new concept called Research & Business Development. R&BD goes beyond simple R&D activities to undertake technological development which aims at creating value by connecting the project and commercialization right from the initial selection of the research project, and then planning for marketing, commercialization, etc. R&BD activities drive our sustainable growth, and revolve around two major pillars – the Kumho Petrochemical R&BD Center and the Kumho Electronic Materials Laboratory. Each of these focuses on maximizing synergy in core areas, and uncovering our next generation growth engines.

KUMHO PETROCHEMICAL R&BD CENTER

The Kumho Petrochemical R&BD Center was first established at our Yeosu plant in 1985, and it was subsequently expanded and relocated to Daedeok Innopolis in 1994. This was then followed by the integration of our Icheon R&D center and the Ulsan Latex R&D center in 2003 to launch the present Kumho Petrochemical R&BD Center.

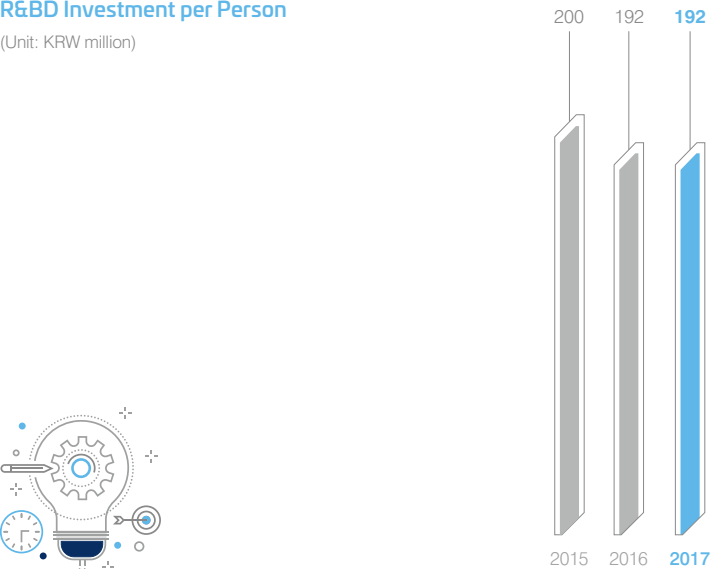
The Kumho Petrochemical R&BD Center is a comprehensive chemical materials research center which undertakes research to develop technological and price competitiveness for existing products, including synthetic rubbers, and also conducts R&D activities into future strategic areas. The Center became the first in chemicals research to build a research project management system, based on our unique R&BD, and it conducts company-wide feasibility analysis beginning with the selection of research projects. All projects are divided into basic research, development, and commercialization phases, and them managed in a systematic manner,

thus maximizing the efficiency of our R&BD activities. In addition, the Center aims to make technological breakthroughs that enable our products to become the best in the world by improving quality competitiveness, and it also develops market-leading products that meet customer needs.

In 2017, the research organization was reorganized in order to accelerate the development of new growth drivers. The Kumho Petrochemical R&BD Center will continue to operate flexibly, with a focus on research projects, so that we can respond promptly to the market environment and the technological changes of the future, in addition to strengthening our current core businesses. By doing so, the Center will identify and develop more world-class products, and it will also move beyond past success and develop next-generation technologies with an aim to create new synthetic materials.

R&BD Investment per Person

(Unit: KRW million)



KUMHO ELECTRONIC MATERIALS LABORATORY

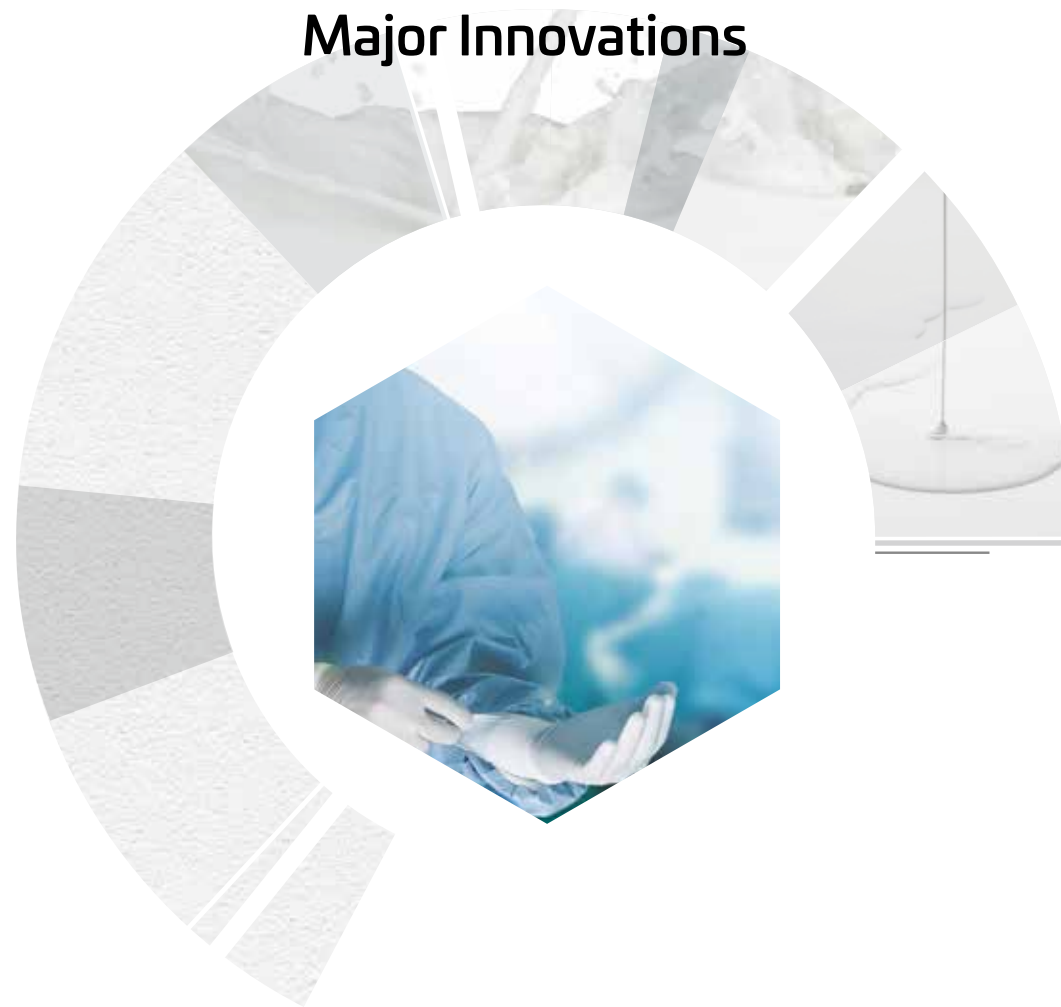
The Kumho Electronic Materials Laboratory was opened in Asan, South Chungcheong Province, in 1998 alongside our electronic materials plant, in order to enter the high-value-added semiconductor chemical business. Its location next to a production plant gives the Laboratory strengths and focus, including efficiency and quality improvements, new product development and commercialization for semiconductor products such as photoresist (PR), bottom anti-reflective coating (BARC) and photosensitive polyimide (PSPI), as well as materials for displays, such as sealants. The Kumho Electronic Materials Laboratory focuses on developing next-generation products that will lead the evolution of semiconductor technology in line with semiconductor technology evolution, and in displays, the Laboratory aims to build economies of scale which will enable us to generate synergy with existing product groups.

With the global semiconductor market booming, the Laboratory is looking for new opportunities in the relevant materials. Our focus in 2018 will be 3D NAND flash memory, which arranges circuits of flat (2D) NAND flash memory vertically. Flat micro-processing technology reached its limit at around 10 nm, which has led to the development of 3D NAND flash memory. It is faster than 2D NAND flash memory, and with a much greater capacity. In addition to outstanding stability and durability, 3D NAND flash memory also consumes less electricity. The Laboratory is therefore focusing on developing KrF thick PR, which can increase the number of layers of 3D NAND flash, and is now nearing completion.

We have relocated the CNT Research Team, which was previously affiliated with the Kumho Petrochemical R&BD Center, to the Asan plant site, where our CNT production plant is located, and from 2018 the Team will be part of the Kumho Electronic Materials Laboratory. This has enabled the integrated operation of our overall CNT business, including research, production and quality assurance, and has also promoted convergence research between CNT and electronic materials. The Laboratory will therefore continue to develop ideas for new businesses.



Major Innovations



Synthetic Rubbers

Developed pilot technology for foam-type NBR

Foam-type acrylonitrile butadiene rubber (NBR) is a rubber foam insulation material that is used in automobiles, ships and heavy industry facilities. We have completed the development of a pilot technology for foam-type NBR, and undertaken customer evaluations. These evaluations indicate improvements in foam cell size uniformity compared to competitor products, as well as a 10-15% increase in the number of foam cells. Improvements were also made in the smoothness and tensile strength of the foam surface. Indications suggest that the inner and outer wall shapes of the foam cells are stable, and also that there are improvements in thermal conductivity and specific gravity. In addition, it has been confirmed that foam-type NBR can be used in soft products, which was not an option with general NBR products, and approval has been received for using this material in automotive parts. We have completed production of foam-type NBR for commercialization, and we are now working on quality approval from overseas customers, including in Europe and China. We will continue to put our R&BD efforts into special NBR product groups in 2018, so that we can respond quickly to customer requirements and develop pioneering products.

Features _ Foam-type NBR

Improvements in size uniformity and number of foam cells



Improvements in tensile strength of foam surface and smoothness



Can be used to produce automotive parts



Developed and commercialized a new NB latex product for ultra-thin gloves

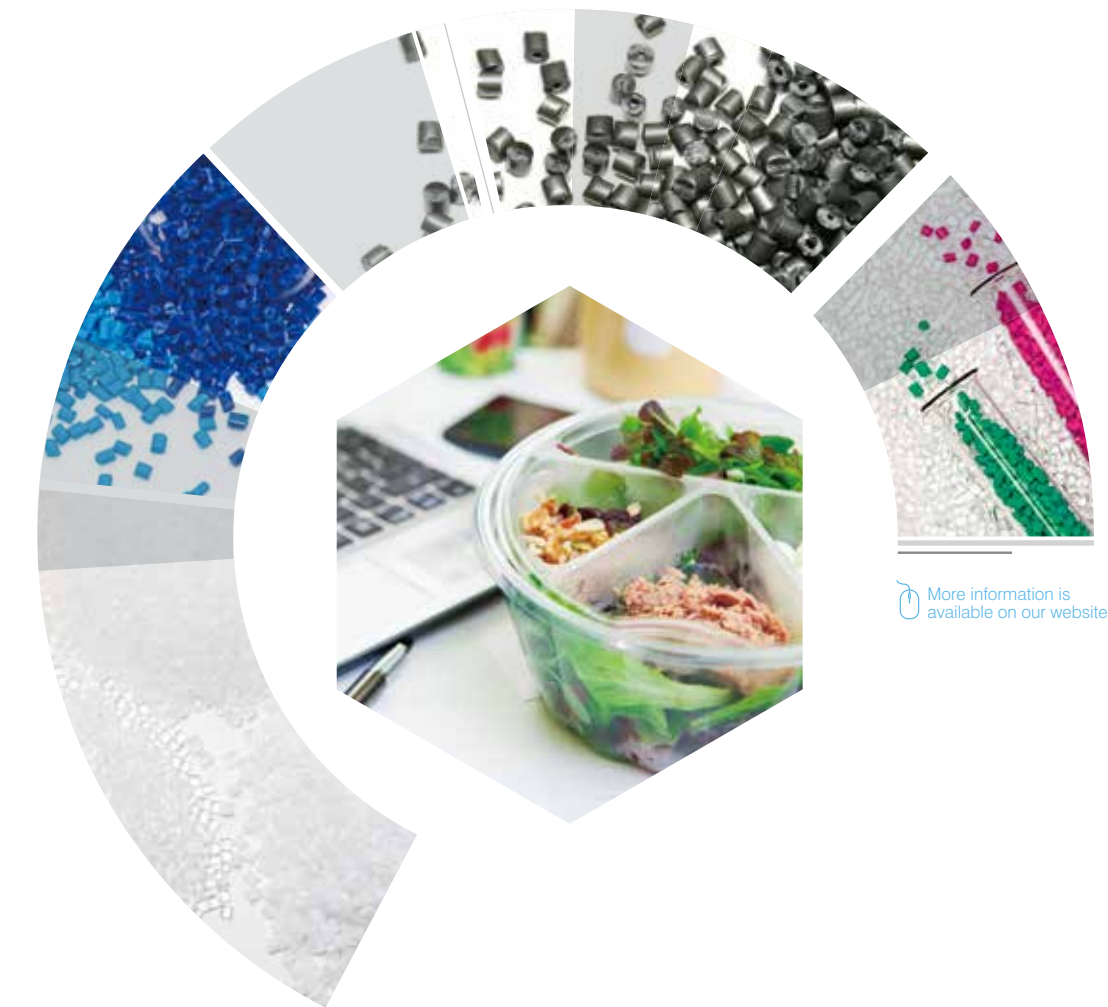
Most glove manufacturers have been aiming to manufacture an ultra-lightweight glove which weighs less than 3.0g, in order to differentiate quality and improve price competitiveness. Ultra-lightweight gloves have to satisfy one particular essential requirement, which is force-at-break of no less than 6N. Latex manufacturers have released various new products with increased tensile strength, but only one product has satisfied this criterion so far. However, backed by our outstanding technological know-how in NB latex, in late 2017 KKPC launched 'KNL 834', a new product with a more than a 10% improvement in tensile strength over our existing latex product KNL 830. Thanks to its high tensile strength and stability, KNL 834 can be used easily under various production conditions of a wide range of customers. KNL 834 is also getting good reviews from customers for its extremely low defect rate. Supported by our new product development, we will win new customers and improve productivity while increasing sales and profitability by developing distinctive product competitiveness.

Features _ KNL 834

High tensile strength and stability



Low defect rate



Synthetic Resins

[More information is available on our website](#)

Improved product competitiveness through HIPS catalytic polymerization

Polystyrene (PS) is mostly manufactured by thermal polymerization. KKPC, however, has developed a manufacturing technology that combines our unique continuous process control with catalytic polymerization technology to create catalytic polymerization. This manufacturing technology upgrades both cost and quality competitiveness, with cost reductions being achieved in both special and general grades. In addition, the manufacturing of highly functional products has become easier thanks to our polymerization technology, which uses a multi-functional catalyst. We are also establishing the basis for the production of plastic materials which are suitable for eco-friendly food containers by reducing the weight of oligomers. Moreover, we plan to continue related research to improve cost competitiveness.

Features _ HIPS catalytic polymerization manufacturing technology

Improvements in cost competitiveness



Improvements in quality competitiveness



Easier production of highly functional products



Enhanced CPP productivity by applying high solid technology

Copolymer polyol (CPP) is a product used for strengthening the hardness of urethane foam, and there have been active R&D activities to develop a low-viscosity high solid CPP polymerization technology which can manufacture CPP products with high styrene acrylonitrile (SAN) content at low viscosity. KKPC has completed the development of a manufacturing process that can effectively produce low-viscosity high solid CPP by leveraging our exclusive technology. We also became the first company in Korea to successfully commercialize 'CS850', a product with a solid content as high as 49%. In addition, we are expanding the application of our high solid technology to commodity CPP products, which has resulted in increased productivity and quality. We are now aiming to lead the CPP market at home and abroad by further enhancing quality and actively increasing sales of low-viscosity high solid CPP products.

Features _ High solid CPP polymerization technology

Enhanced efficiency in producing the low-viscosity high solid CPP product



Improved productivity and quality of commodity CPP products





Electronic Materials

Developed KrF thick PR for 3D NAND flash memory

Although NAND flash memory manufacturing is structurally simple, volatile pricing has prevented it from gaining much traction in the semiconductor market. However, the recent development of 3D NAND flash memory, which can increase the degree of integration per unit area, has boosted margins compared to manufacturing costs, depending on the number of layers. As a result, all photoresist (PR) manufacturers in Korea and overseas are focusing on developing KrF thick PR for 3D NAND flash memory, which can increase the number of layers. In 2017, we acquired the basic properties needed for the development of KrF thick PR for 3D NAND flash memory, in our efforts to satisfy the performance requirements of our domestic and overseas customers. As of the end of 2017, we have satisfied the performance requirements for one layer each for a Korean and a Chinese semiconductor company, and we are now working on meeting the requirements for additional processes.

Developed a new ArF immersion BARC product

Bottom anti-reflection coating (BARC) is a polymer coating that is used on the lower layer of PR to control light reflectivity, which enables higher resolution. We succeeded in the mass production of an ArF immersion BARC product in 2015 and sell it. Based on this technology, we have developed a new ArF immersion BARC product that has a higher refractive index and better etching performance than the existing product, and we are awaiting customer evaluation. Our future plan is to develop product groups that are applicable to next-generation semiconductor processes. In particular, we have been targeting the growing semiconductor market in China by developing product groups especially for the local market, including ArF Dry BARC and KrF BARC, and we are now moving forward with customer evaluations.

Features _ KrF thick PR for 3D NAND flash memory

Used for 3D NAND flash memory

Easy to be used in layer structure



Features _ ArF Immersion BARC

High refractive index

High etching performance



16 World-class Products

Styrene butadiene rubber (SBR)

This synthetic rubber product is manufactured by the emulsion polymerization of styrene and butadiene at low temperature. SBR delivers more consistent quality, as well as excellent heat and wear resistance, when compared with natural rubber, and is widely used as a feedstock for tires, shoes and industrial goods.

High-cis polybutadiene rubber (HBR)

HBR is manufactured through the solution polymerization of 1,3-butadiene. With more than 96% cis content, it has outstanding wear resistance, rebound resilience, aging resistance and water resistance. Its glass transition temperature (Tg) is very low, at around -100°C, which means it is a widely used synthetic rubber product.

Acrylonitrile butadiene rubber (NBR)

This copolymer is manufactured by emulsion-polymerizing acrylonitrile and butadiene at low temperatures. NBR is a synthetic rubber product with excellent oil and chemical resistance, and is easy to process due to its good usability, including roll-winding, mixing dispersibility, and extrudability, and its proper vulcanization characteristics.

Low-cis polybutadiene rubber (LBR)

LBR is manufactured by using lithium catalysts. It features a cis content of 34.5%, good elasticity, and a vinyl bonding structure of around 14.5%, all of which combine to offer good reactivity. It is mainly used as a base polymer in manufacturing high impact polystyrene (HIPS).

Acrylonitrile butadiene latex (NB Latex)

This carboxy-modified acrylonitrile butadiene latex is used for making latex gloves, including for medical purposes, and abrasive paper. It is replacing natural latex, and the market is growing sharply thanks to its durability, wear resistance, high tensile strength and outstanding color hold.

KSL-341 foam latex

This styrene-butadiene latex is used for foam rubber. Compared with other latex, it has high density, low flow and outstanding stability, which is why it can be used on its own to manufacture foam rubber. It is used for mattresses, shoes, cosmetic powder puffs and impact resistance reinforcing agents for various plastics.

Ethylene propylene diene monomer (EPDM)

This amorphous polymer material is manufactured through the copolymerization of ethylene and propylene. It delivers outstanding heat resistance, ozone resistance, insulation characteristics and a low specific gravity, making it perfect for lightweight materials. Because of its stable chemical characteristics, it is used for a wide variety of purposes, including in automobiles, electricity and electronics, as well as general industrial goods.

KUMANOX 13 antioxidant

This commodity antioxidant enables basic attributes of a product to be maintained, such as ozone resistance, flexibility resistance, oxidation resistance and cracking prevention. Because of its coloration and staining characteristics, it is widely used in rubber, tires and belts.

KUMANOX 5010L antioxidant

This high-performance phenolic antioxidant delivers outstanding discoloration and coloration-prevention. It is a non-staining antioxidant with low volatility, and offers both high quality and excellent price competitiveness. It is used for a wide range of purposes, including tires, belts and medical gloves.

Phenolic additives (PA)

This fine chemical product is added to polymers such as rubber, resin and paint, in order to maintain their performance for a longer period of use or a wider temperature range, and thus improve their unique properties. It prevents oxidation of the double bonds of rubber and improves the viscosity of resin and paints, which improves processing quality and reduces processing time.

Methyl isobutyl ketone (MIBK)

MIBK is made through an acetone and hydrogen reaction using a catalyst. This colorless, transparent liquid is flammable and has an unusual odor. It is used as a feedstock for vinyl, acryl, alkyd, polyester, epoxy resin solvents and various chemical reactions.

Bisphenol-A (BPA)

This white crystalline solid is created through a condensation reaction between phenol and acetone, in the presence of a catalyst. It is used as a feedstock for polycarbonate, phenolic, polyester and other resins, and is used in automobiles, electricity and electronics, as well as IT industries.

Phenol*

Cumene is used as the feedstock to manufacture this colorless raphide or white crystalline aggregate with a unique odor. It is used as a feedstock for phenolic resin, BPA, caprolactam, alkylphenol, adipic acid and plasticizer, and is used in automobiles, electricity and electronics, as well as IT industries.

Aceton*

Aceton is manufactured using cumene as its feedstock, and is co-produced with phenol. This colorless liquid has a unique odor, and is flammable with a low boiling point. It is used as a feedstock for MIBK, BPA and methyl acrylate, and in the manufacture of a wide range of coatings and plastics.

Polymethylene polyphenylisocyanate*

This material is obtained by the phosgene treatment of diphenylmethane diamine, created through the condensation of aniline and formaldehyde. It is in liquid form at room temperature, and is used in a range of products, including hard foam, semi-hard foam and CASE.

Diphenylmethane-4,4,diisocyanate*

This pure monomeric MDI is the result of high-purity refinement. It is in white solid form at room temperature, and has water-like transparency in liquid form. It features outstanding discoloration resistance against high temperatures and UV rays, and is used in spandex fibers and TPU.

* Newly selected in 2017

BUSINESS REVIEW

- 54 2017 Overview
- 56 Synthetic Rubbers
- 58 Synthetic Resins
- 60 Other Businesses
- 62 2018 Outlook



WITH
RESPONSIBILITY
FOR INTEGRITY

WITH PASSION
FOR EXCELLENCE

LEADING THE WAY
TO GLOBAL GROWTH

THROUGH
INNOVATION FOR
SATISFACTION

THROUGH
COLLABORATION
FOR UNITY

2017 Overview

In 2017, KKPC achieved increases in sales across all its businesses, and operating income rose substantially by 67.2% year-on-year, thanks to the efforts made by every business to improve their product competitiveness and boost profitability. This strong performance led in turn to improvements in our financial structure and enhanced financial stability.

The global economy saw a gradual recovery in 2017. International oil prices, which had dropped to the USD 20 range, recovered to USD 50-60 range, and while the year began with uncertainties in the global economy due to geo-political issues across the world, many of these were resolved in ways that were market-friendly, without any major unexpected negative events, which helped the global economic recovery. The world economic growth rate therefore exceeded both expectations and the previous year's figure.

KKPC also recorded its best performance in six years. Although business conditions remained difficult due to oversupply and other factors, each business unit strived to improve performance, which resulted in KKPC being able to achieve strong profits. Our synthetic rubber business had experienced years of challenges from excessive competition and oversupply, but it was able to improve profitability by making profit-focused product portfolio adjustments and improving cost structures such as enhanced productivity. In the synthetic resin business, strong demand has enabled us to transfer production cost increases on to selling prices, which further lifted profits.

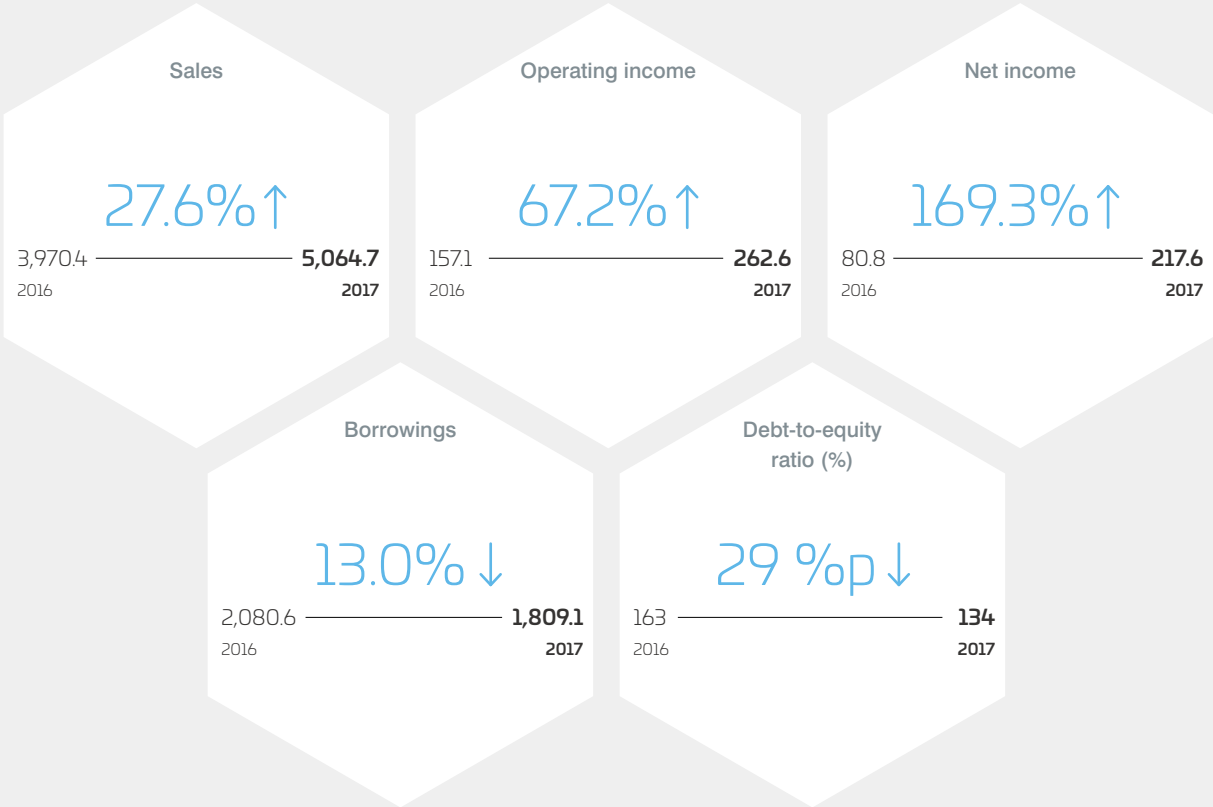
Our phenol derivatives business also improved profitability thanks to rising demand and despite expanding supply. Profits were increased in our energy business as well, mainly attributable to higher international oil prices and stronger unit costs of sales. Thanks to these, KKPC achieved substantial improvements in performance, with consolidated sales of KRW 5,064.7 billion and operating income of KRW 262.6 billion in 2017, year-on-year increases of 27.6% and 67.2%, respectively.

Our financial structure improved as well. With performance improvements in our major businesses generating strong cash flow, we continued to pay back borrowings, so our debt-to-equity ratio dropped from 163% at the end of 2016 to 134% at the end of 2017, thereby enhancing financial stability.



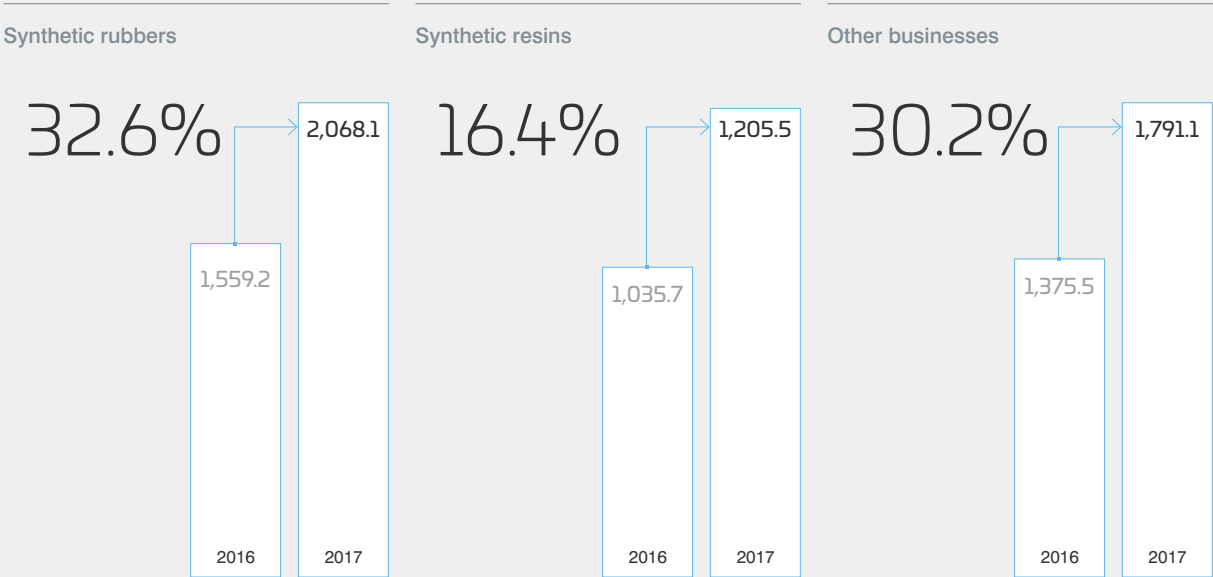
KEY FIGURES

(Unit: KRW billion)



SALES BY BUSINESS

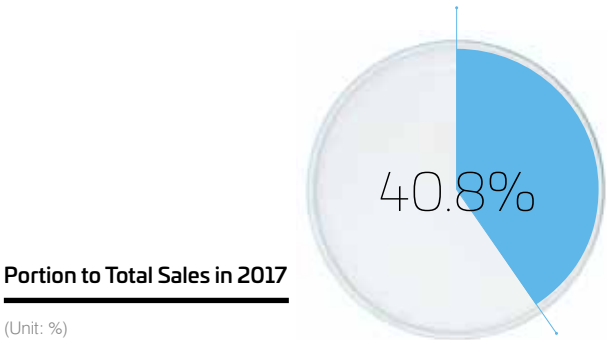
(Unit: KRW billion)



Synthetic Rubbers



In synthetic rubbers, we focused on diversifying product portfolio and improving productivity in 2017, which resulted in a significant improvement in profitability, and thus contributed to the improvement in overall performance of the company.



2017 REVIEW

Synthetic rubber is KKPC’s key business, accounting for 40.8% of total sales, it therefore has a considerable influence on our corporate performance. In 2017, the synthetic rubber business achieved solid growth compared to the previous year despite difficult business conditions. Sales rose by 32.6% to reach KRW 2,068.1 billion, and there was a slight improvement in profitability, which in turn contributed to the overall performance of the company.

Large-scale expansion of facilities in the industry has led to an on-going oversupply situation. Recently, however, there has been less facility expansion and also a small but steady increase in demand, around the 2 to 3% range, which has somewhat eased the oversupply situation. In addition, there have been reductions in production as a result of environmental regulations in China, and these factors have combined to cause synthetic rubber prices to move with greater flexibility in a general upward trend.

In order to overcome the challenging business environment, KKPC has diversified our product portfolio to focus on profitability. We have also improved productivity and put into place an efficient production/sales system, including appropriate inventory management, which has been an important factor in improving profitability.

2018 OUTLOOK




The synthetic rubber market is forecast to grow by approximately 3% in 2018 mainly thanks to increasing demand for replacement equipment (RE) tires due to the tire replacement cycle. With automobile production still seeing low growth, however, there will be slower growth in demand for original equipment (OE) tires. The supply situation is still unfavorable, including the synthetic rubber supply/demand rate expected to reach about 140% in 2018. In addition, the economic environment will continue to be challenging for KKPC, with the Korean Won remaining strong against the US Dollar, and higher trade barriers.

We will continue to strive to overcome these difficult business conditions and generate stable profits by focusing on profit-centered portfolio

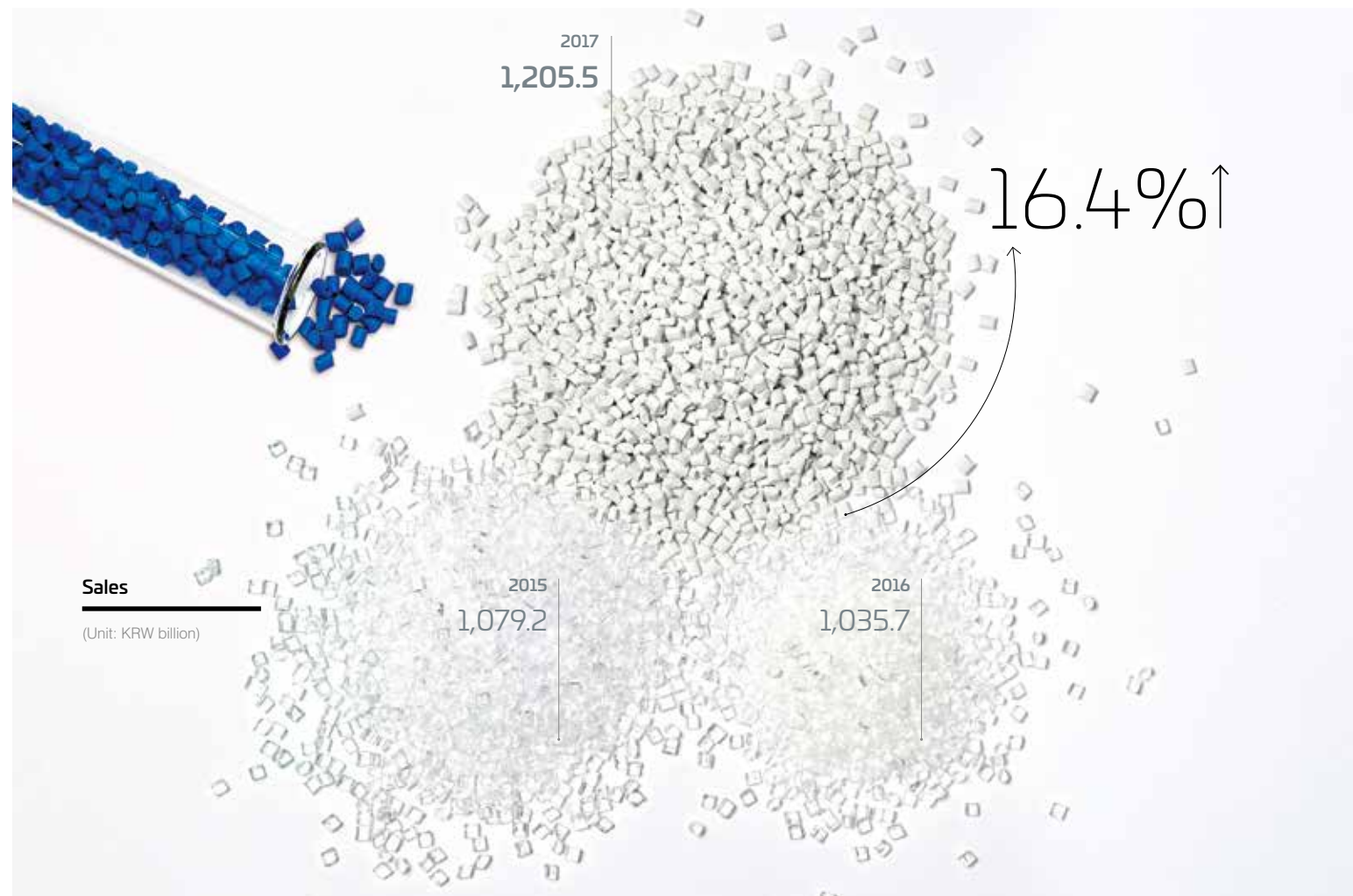


management. In addition to establishing a full sales system by diversifying our customer pool for NB latex products, we will further solidify our sales system by strengthening a sales basis for such products as NBR and SSBR. We will also flexibly adjust our production schedule and improve inventory control in order to minimize the inventory burdens caused by fluctuations in feedstock prices.

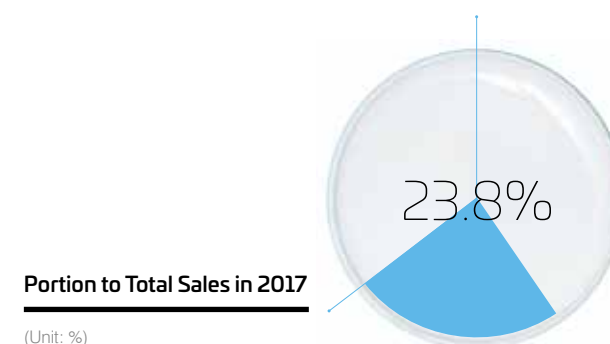
Given the vital nature of feedstock supply to our business, we will continue focus on competitive, stable butadiene (BD) supply. Although BD prices are expected to increase steadily, there is the possibility of increased availability from outside Korea, so KKPC will aim to acquire competitively-priced BDs, whether from inside Korea or imported. In addition, we will continue to improve and expand operations of our BD plant, so that we are prepared for the volatility in the BD market, and thus lay foundations for a more stable supply of feedstock.

- **KEY 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, Hankuk Paper

Synthetic Resins



In synthetic resins, we continued solid and stable growth pace in 2017, achieving increases in both sales and operating income, thanks to our efforts to further improve products backed by favorable market conditions.



2017 REVIEW

Our synthetic resin business accounts for 23.8% of total sales, with sales of KRW 1,205.5 billion in 2017, up 16.4% year-on-year. Profitability also increased.

KKPC was able to pass feedstock price fluctuations in our synthetic resin business onto selling prices, thanks to stable demand, and thus improved profitability. This was led by ABS products even though they are commodity products, and we also made improvements to the properties of PS and other resin products, including making them more eco-friendly. Our efforts were well received by the market, and we were therefore able to substantially increase our market share for some of these products, mainly for high-yield products, which in turn boosted sales and enhanced profitability.

2018 OUTLOOK

As some of our competitors expand capacity, supply in the synthetic resin market is expected to increase in 2018, but demand is also expected to increase, leaving the overall supply/demand situation much as it was in 2017. Companies in the market are also likely to maintain approximately the same utilization rates, another reason that the market is expected to be similar to last year. The market for styrene monomer (SM), a main feedstock, is expected to be strong in the first half of the year, when there is a concentration of regular maintenance, and then stabilize in the second half as operations across the industry normalize.

Against this backdrop, KKPC will strive to maintain the profitability of our synthetic resin business by actively expanding our customer base. We will build a full sales system for ABS powder, where our capacity expansion will be completed during 2018. For existing products, we will identify new overseas markets and develop new uses for them. We will also improve profitability by responding quickly to market trends and regulations and by sourcing our feedstock procurement in a competitive manner. These initiatives will enable KKPC to achieve our goals for 2018.



KEY PRODUCTS

PS, ABS, EP, SAN, EPS, Enerpor, PPG



KEY APPLICATIONS

Automobile parts, Home appliances, Food and beverage containers, Office supplies, Building materials

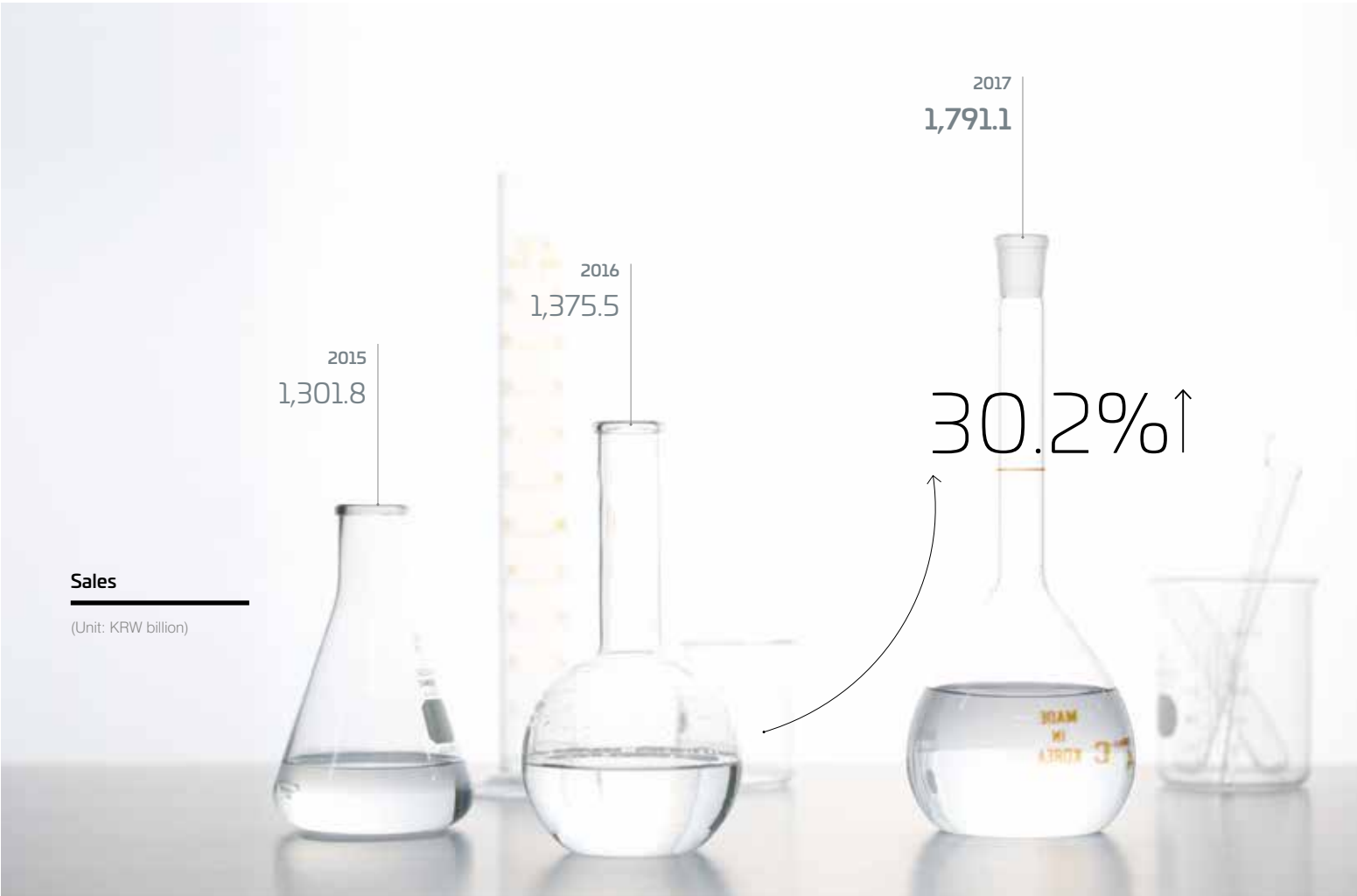


MAJOR CUSTOMERS

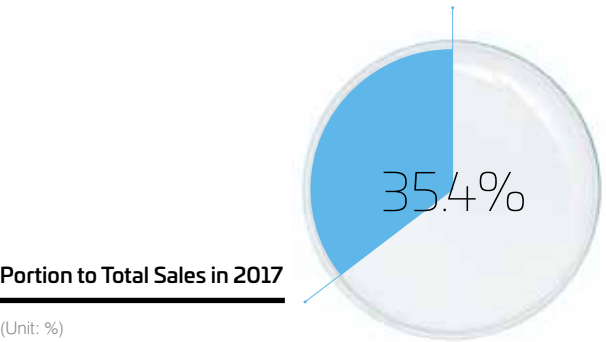
Hyundai Motor Company, Kia Motors, GM Korea, Korea Yakult, Namyang Dairy Products, Samsung Electronics, LG Electronics, Dongbu Daewoo Electronics, Kingfa, Sabic, Haier, Arcelik, Vestel, KCC



Other Businesses



In our other businesses, growth was stable in 2017, with phenol derivatives exceeding expectations, and our energy, specialty chemicals and building materials businesses all lifting their profitability despite a weak performance in the electronic materials business.



2017 REVIEW

Our other businesses consist of phenol derivatives, specialty chemicals, energy, electronic materials, etc. Other businesses posted sales of KRW 1,791.1 billion in 2017, a year-on-year increase of 30.2%, and accounted for 35.4% of KKPC's total consolidated sales. Most of these businesses achieved solid improvements, contributing to the company's overall performance.

In the phenol derivatives business, recently tightened regional environmental regulations and increased demand eased the supply/demand situation, which had been difficult in recent years due to production capacity expansion. As a result, we were able to improve profitability. In 2017, feedstock prices have been trending higher mainly attributable to higher international oil prices. KKPC however passed production cost increases onto selling prices thanks to strong demand, especially in the second half of the year, and thus performed better than expectations.

In the specialty chemicals business, oversupply continues to create difficulties, but strong prices for some feedstocks have enabled us to increase selling prices for major products. We also improved profitability by selectively targeting more profitable sales, enabling the specialty chemicals business to increase both sales and profits. Our energy business increased sales over the previous year thanks to the upward trend in international oil prices and a rise in the unit cost of sales.

Our electronic materials business increased its sales volume by diversifying the range of products for sale and by laying foundations for entry into overseas markets. However, stagnation in sales of major products caused a weaker performance than in the previous year. In contrast, our building materials business saw increases in both sales and operating income, thanks to higher sales volume combined with production cost improvements resulting from increased plant utilization rates.

- BUSINESS AREA**
- Phenol Derivatives
 - Specialty Chemicals
 - Energy
 - Electronic Materials
 - Building Materials



2018 OUTLOOK

Increased supply is forecast in phenol derivatives business, but demand is also expected to rise thanks to capacity expansion in the downstream market, including polycarbonate (PC). We will therefore continue to follow markets very closely, and adjust the supply of our products, which have been vertically integrated, so that we can flexibly adjust our portfolio to maximize profitability. Moreover, we will make sure the stability of feedstock supply and optimize operations for products which have seen recent expansions in capacity, as part of our efforts to increase profitability.

In the specialty chemicals business, we expect the supply/demand situation to improve steadily in the mid- to long-term, with no expectations of additional production capacity expansion. However, there is still oversupply in the industry, and so we will aim to expand our market share by increasing sales to global tire companies and by strengthening customer management in Korea. We will also broaden our customer base by focusing on reaching out to new customers.

In the energy business, we will stabilize power plant operations, improve output and make other efforts to optimize operations. In addition, we will improve utilization rates and diversify our customer base to enhance profitability. We will investigate the potential for expansion into related businesses and look for mid- to long-term synergy across the business.

In the electronic materials business, we will expand our market share by targeting more overseas customers for our main products and make inroads into new markets, thereby building a momentum for growth. Our building materials business will improve profitability by continuing to curtail production costs through product process improvements, and will diversify its sales/profit structure by developing new products.

2018 Outlook

In an ever-changing business environment where both possibility and uncertainty coexist, we continually change ourselves and lead changes in the market. In 2018, we will keep finding new ways to change for the better, based on our business policy ‘Deep Change’, and thus take a step closer to a global leading chemical group.

The global economy is expected to continue its gradual growth in 2018. There are still factors that could increase volatility, such as sharper interest rate hikes around the world and policy restructuring in China. However, the continued growth of developing nations is forecast to offset any possibility of slower growth in major economies. In addition, international oil prices, which are vital for the petrochemical industry, are forecast to continue a strongly upwards trend.

Against this business environment, KKPC will continue to aim to enhance the value of our company and grow further through ‘Deep Change’. We will therefore thoroughly identify and rapidly respond to changing customer requirements, in our efforts meet their needs and create a competitive advantage. We will also strive to generate synergy between our products and businesses through convergence between the different industries. Moreover, we will ensure the stable supply of feedstock and develop the ties between our businesses. We will also focus on talent development, in order to enhance our corporate value. These will bring about changes which will help KKPC take a step closer to its goal of becoming a global leading chemical group.



FINANCIAL REVIEW

- 64 Independent Auditors' Report
- 66 Consolidated Financial Statements
- 74 Independent Auditors' Report
- 76 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 as of December 31, 2017 and 2016, the consolidated statements of income, comprehensive income, changes in equity and cash flows for the years 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, 2017 and 2016, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.



Seoul, Korea
March 5, 2018

This report is effective as of March 5, 2018, 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.

KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Financial Position

As of December 31, 2017 and 2016

In millions of won

	2017	2016
Assets		
Non-current assets		
Property, plant and equipment	₩ 2,440,254	2,564,778
Investment property	5,598	5,600
Intangible assets	14,931	17,264
Investments in associates and joint ventures	487,906	417,770
Available-for-sale financial assets	255,710	231,968
Derivative financial assets	-	2,224
Loans and other receivables	26,007	14,563
Deferred tax assets	12,029	26,827
Other non-current assets	4,710	9,797
	3,247,145	3,290,791
Current assets		
Inventories	426,750	445,542
Held-for-trading financial assets	142	271
Derivative financial assets	-	7,566
Trade receivables	588,512	520,901
Loans and other receivables	48,437	73,632
Cash and cash equivalents	234,430	196,977
Non-current assets held for sale	25,622	-
Other current assets	8,776	10,431
Current tax assets	-	3
	1,332,669	1,255,323
Total assets	₩ 4,579,814	4,546,114

In millions of won

	2017	2016
Equity		
Equity attributable to owners of the Group		
Capital	₩ 167,456	167,456
Capital surplus	266,516	266,517
Capital adjustment	(40,372)	(40,358)
Accumulated other comprehensive income	46,075	18,198
Retained earnings	1,402,981	1,207,923
	1,842,656	1,619,736
Non-controlling interests	114,147	108,165
Total equity	1,956,803	1,727,901
Liabilities		
Non-current liabilities		
Other payables	4,963	1,546
Long-term accrued expenses	4,545	3,960
Borrowings	583,112	559,536
Liabilities for defined benefit plans	35,209	48,749
Deferred tax liabilities	77,465	54,493
Financial guarantee liabilities	117	120
Derivative financial liabilities	3,679	808
Other non-current liabilities	15	3,441
	709,105	672,653
Current liabilities		
Trade payables	398,184	373,698
Other payables	225,375	220,532
Borrowings	1,226,014	1,521,119
Current tax liabilities	38,990	10,669
Derivative financial Liabilities	7,149	-
Provisions	5,916	5,302
Other current liabilities	12,278	14,240
	1,913,906	2,145,560
Total liabilities	2,623,011	2,818,213
Total equity and liabilities	₩ 4,579,814	4,546,114

KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Income

For the years ended December 31, 2017 and 2016

In millions of won, except earning per share information

	2017	2016
Sales	₩ 5,064,779	3,970,435
Cost of sales	4,636,527	3,637,513
Gross profit	428,252	332,922
Selling, general and administrative expenses	165,626	175,846
Operating income	262,626	157,076
Other income	53,072	96,758
Other expenses	87,496	101,354
Financial income	76,868	37,401
Financial expenses	104,371	104,641
Share of profit of equity accounted investees	89,089	27,636
Net profit before income tax	289,788	112,876
Income tax expense	72,141	32,112
Net profit for the year	₩ 217,647	80,764
Profit attributable to:		
Owners of the Group	213,577	73,246
Non-controlling interests	4,070	7,518
Net profit for the year	217,647	80,764
Earnings per share (In Korean won):		
Basic and diluted earnings per share(common stock)	₩ 7,647	2,618
Basic and diluted earnings per share(preferred stock)	₩ 7,727	2,683

KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Comprehensive Income

For the years ended December 31, 2017 and 2016

In millions of won

	2017	2016
Net profit for the year	₩ 217,647	80,764
Other comprehensive income (loss) for the year, net of income tax	33,282	11,165
1. Items that will not be reclassified subsequently to profit or loss:		
Remeasurements of net defined benefit liability	5,031	10,305
2. Items that will be reclassified subsequently to profit or loss:		
Net change in fair value of available-for-sale financial assets	33,997	1,291
Foreign currency translation differences for foreign operations	(2,867)	(818)
Effective portion of changes in fair value of cash flow hedges	427	457
Net change in unrealized gain on valuation of investments in associates	(2,421)	(995)
Net change in retained earnings of investments in associates	(885)	925
Total comprehensive income for the year	₩ 250,929	91,929
Total comprehensive income attributable to:		
Owners of the Group	245,031	87,066
Non-controlling interests	5,898	4,863
Total comprehensive income for the year	₩ 250,929	91,929

KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Changes in Equity

For the years ended December 31, 2017 and 2016

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	₩ 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
Remeasurements of net defined benefit liability	-	-	-	-	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

In millions of won

	Capital	Capital surplus	Capital adjustment	Accumulated other comprehensive income	Retained earnings	Non-controlling interests	Total equity
Balance at January 1, 2017	₩ 167,456	266,517	(40,358)	18,198	1,207,923	108,165	1,727,901
Total comprehensive income for the year							
Net profit for the year	-	-	-	-	213,577	4,070	217,647
Net change in fair value of available-for-sale financial assets	-	-	-	32,488	-	1,509	33,997
Foreign currency translation differences for foreign operations	-	-	-	(2,874)	-	7	(2,867)
Effective portion of changes in fair value of cash flow hedges	-	-	-	433	-	(6)	427
Net change in unrealized gain on valuation of investments in associates	-	-	-	(2,170)	-	(251)	(2,421)
Net change in retained earnings of investments in associates	-	-	-	-	(885)	-	(885)
Remeasurements of net defined benefit liability	-	-	-	-	4,461	570	5,031
Transactions with owners of the Group, recognized directly in equity							
Additional acquisition of shares of subsidiaries	-	(1)	(14)	-	-	83	68
Dividends	-	-	-	-	(22,095)	-	(22,095)
Balance at December 31, 2017	₩ 167,456	266,516	(40,372)	46,075	1,402,981	114,147	1,956,803

KUMHO PETROCHEMICAL CO., LTD. AND SUBSIDIARIES

Consolidated Statements of Cash Flows

For the years ended December 31, 2017 and 2016

In millions of won

	2017	2016
Cash flows from operation activities:		
Cash generated from operation activities	₩ 488,542	370,541
Interest received	1,730	1,056
Interest paid	(64,850)	(63,629)
Dividends received	16,457	14,422
Income tax paid	(20,832)	(25,634)
Net cash provided by operating activities	421,047	296,756
Cash flows from investing activities:		
Increase in short-term financial instruments	(4,000)	(23,000)
Proceeds from sales of short-term financial instruments	14,000	5,000
Increase in long-term financial instruments	(10,598)	-
Proceeds from sales of long-term financial instruments	3	-
Increase in long-term loans	(383)	(608)
Collection of long-term loans	211	286
Acquisition of property, plant and equipment	(105,974)	(272,707)
Proceeds from sales of property, plant and equipment	5,182	1,640
Acquisition of intangible assets	(832)	(1,648)
Proceeds from sales of intangible assets	79	120
Acquisition of investments in subsidiaries	-	(1,880)
Acquisition of held-for-trading financial assets	-	(252)
Acquisition of available-for-sale financial assets	(3,400)	(7)
Proceeds from sales of available-for-sale financial assets	72	31,336
Proceeds from sales of non-current assets held for sale	-	4,187
Proceeds from sales of other investments	-	28
Acquisition of other investments	(370)	-
Increase in cash due to change in scope of consolidation	(13)	6,828
Net cash used in investing activities	(106,023)	(250,677)

In millions of won

	2017	2016
Cash flows from financing activities:		
Net repayments of short-term borrowings	(59,747)	258,640
Proceeds from issuance of bonds	217,905	111,706
Proceeds from long-term borrowings	147,540	84,480
Repayments of current portion of long-term borrowings	(541,476)	(310,760)
Repayments of long-term borrowings	(15,612)	(12,270)
Repayments of other payables	(220)	-
Payments of derivative instruments	(3,034)	-
Dividends paid	(22,094)	(22,470)
Capital increase from non-controlling interests	84	-
Increase of parent's ownership interests	-	(5,686)
Proceeds from sales of parent's ownership interests	-	1
Payment for share issuance costs	(22)	(53)
Net cash provided by(used in) financing activities	(276,676)	103,588
Effect of exchange rate fluctuations on cash held	(895)	18
Net increase(decrease) in cash and cash equivalents	37,453	149,685
Cash and cash equivalents at beginning of year	196,977	47,292
Cash and cash equivalents at end of year	₩ 234,430	196,977

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, 2017 and 2016, the separate statements of income, comprehensive income, changes in equity and cash flows for the years 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, 2017 and 2016, and its financial performance and its cash flows for the years then ended in accordance with Korean International Financial Reporting Standards.



Seoul, Korea
March 5, 2018

This report is effective as of March 5, 2018, 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.

KUMHO PETROCHEMICAL CO., LTD.

Separate Statements of Financial Position

As of December 31, 2017 and 2016

In millions of won

	2017	2016
Assets		
Non-current assets		
Property, plant and equipment	₩ 1,684,229	1,786,488
Intangible assets	11,101	12,814
Investments in subsidiaries, associates and joint ventures	415,610	413,534
Available-for-sale financial assets	227,916	216,050
Derivative financial assets	-	2,224
Loans and other receivables	13,021	12,615
Deferred tax assets	7,111	18,963
Other non-current assets	786	786
	2,359,774	2,463,474
Current assets		
Inventories	328,842	356,945
Derivative financial assets	-	7,565
Trade receivables	431,908	384,761
Loans and other receivables	29,546	45,466
Cash and cash equivalents	198,147	166,412
Non-current assets held for sale	25,622	-
Other current assets	4,600	4,499
	1,018,665	965,648
Total assets	₩ 3,378,439	3,429,122

In millions of won

	2017	2016
Equity		
Capital	₩ 167,456	167,456
Capital surplus	276,206	276,206
Capital adjustment	(40,066)	(40,066)
Accumulated other comprehensive income	45,854	17,020
Retained earnings	932,066	815,749
Total equity	1,381,516	1,236,365
Liabilities		
Non-current liabilities		
Other payables	4,981	1,563
Borrowings	350,167	309,480
Long-term accrued expenses	3,748	2,868
Liabilities for defined benefit plans	25,897	31,712
Financial guarantee liabilities	117	120
Derivative financial liabilities	1,987	808
	386,897	346,551
Current liabilities		
Trade payables	316,695	310,733
Other payables	172,766	177,316
Borrowings	1,066,250	1,335,676
Derivative financial liabilities	7,149	-
Current tax liabilities	37,939	10,147
Provisions	-	-
Other current liabilities	9,227	12,334
	1,610,026	1,846,206
Total liabilities	1,996,923	2,192,757
Total equity and liabilities	₩ 3,378,439	3,429,122

KUMHO PETROCHEMICAL CO., LTD.
Separate Statements of Income

For the years ended December 31, 2017 and 2016

In millions of won, except earning per share information

	2017	2016
Sales	₩ 3,926,051	3,138,617
Cost of sales	3,567,608	2,858,105
Gross profit	358,443	280,512
Selling, general and administrative expenses	142,092	147,262
Operating income	216,351	133,250
Other income	48,099	60,641
Other expenses	65,994	94,674
Financial income	69,134	32,858
Financial expenses	84,193	86,047
Net profit before income tax	183,397	46,028
Income tax expense	47,975	16,612
Net profit for the year	₩ 135,422	29,416
Earnings per share (In Korean won):		
Basic and diluted earnings per share(common stock)	₩ 4,845	1,047
Basic and diluted earnings per share(preferred stock)	₩ 4,926	1,112

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

For the years ended December 31, 2017 and 2016

In millions of won

	2017	2016
Net profit for the year	₩ 135,422	29,416
Other comprehensive income (loss) for the year, net of income tax	31,824	21,703
1. Items that will not be reclassified subsequently to profit or loss:		
Remeasurements of net defined benefit liability	2,990	11,107
2. Items that will be reclassified subsequently to profit or loss:		
Net change in fair value of available-for-sale financial assets	28,385	10,139
Effective portion of changes in fair value of cash flow hedges	449	457
Total comprehensive income for the year	₩ 167,246	51,119

KUMHO PETROCHEMICAL CO., LTD.

Separate Statements of Changes in Equity

For the years ended December 31, 2017 and 2016

In millions of won

	Capital	Capital surplus	Capital adjustment	Accumulated other comprehensive 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
Remeasurements of net defined benefit liability	-	-	-	-	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

In millions of won

	Capital	Capital surplus	Capital adjustment	Accumulated other comprehensive income	Retained earnings	Total equity
Balance at January 1, 2017	₩ 167,456	276,206	(40,066)	17,020	815,749	1,236,365
Total comprehensive income for the year						
Net profit for the year	-	-	-	-	135,422	135,422
Net change in fair value of available-for-sale financial assets	-	-	-	28,385	-	28,385
Effective portion of changes in fair value of cash flow hedges	-	-	-	449	-	449
Remeasurements of net defined benefit liability	-	-	-	-	2,990	2,990
Transactions with owners of the Company, recognized directly in equity						
Dividends	-	-	-	-	(22,095)	(22,095)
Balance at December 31, 2017	₩ 167,456	276,206	(40,066)	45,854	932,066	1,381,516

KUMHO PETROCHEMICAL CO., LTD.

Separate Statements of Cash Flows

For the years ended December 31, 2017 and 2016

In millions of won

	2017	2016
Cash flows from operation activities		
Cash generated from operation activities	₩ 374,481	291,457
Interest received	957	604
Interest paid	(48,887)	(46,838)
Dividends received	11,006	12,091
Income tax paid	(18,491)	(24,558)
Net cash provided by operating activities	319,066	232,756
Cash flows from investing activities		
Increase in short-term loans	-	(6,189)
Increase in long-term loans	(213)	(454)
Collection of long-term loans	187	266
Increase in short-term financial instruments	-	(1,500)
Proceeds from sales of short-term financial instruments	-	5,000
Acquisition of property, plant and equipment	(49,565)	(176,592)
Proceeds from sales of property, plant and equipment	4,735	1,428
Acquisition of intangible assets	(672)	(1,648)
Proceeds from sales of intangible assets	68	32
Acquisition of investments in subsidiaries and associates	(2,076)	(5,686)
Acquisition of available-for-sale financial assets	(2,900)	-
Proceeds from sales of available-for-sale financial assets	72	1
Proceeds from sales of non-current assets held for sale	-	4,187
Net cash used in investing activities	₩ (50,364)	(181,155)

In millions of won

	2017	2016
Cash flows from financing activities		
Net proceeds(repaysments) of short-term borrowings	(34,907)	247,302
Proceeds from issuance of bonds	144,562	91,726
Proceeds from long-term borrowings	118,300	50,000
Repayments of current portion of long-term borrowings	(439,078)	(254,719)
Payments of derivative instruments	(3,034)	-
Repayments of other payables	(220)	-
Dividends paid	(22,094)	(22,470)
Net cash provided by(used in) financing activities	(236,471)	111,839
Effect of exchange rate fluctuations on cash held	(496)	50
Net increase(decrease) in cash and cash equivalents	31,735	163,490
Cash and cash equivalents at beginning of year	166,412	2,922
Cash and cash equivalents at end of year	₩ 198,147	166,412

Corporate History

1970s-1980s

- December 1970**
Established as Korea Synthetic Rubber Industries Co., Ltd.
- June 1973**
Commissioned Ulsan SBR plant
- October 1979**
Commissioned Yeosu BD plant
- 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
- November 1988**
Commissioned Yeosu multi-purpose BR plant

1990s

- April 1992**
Commissioned Ulsan BD plant
- 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.
- July 1997**
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

2000s

- October 2000**
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 the USD 1 Billion Export Tower Award from the Ministry of Commerce, Industry and Energy

- September 2006**
Established Nanjing Kumho GPRO Chemical, China
- June 2007**
Established Rizhao Kumho Jinma Chemical, China
- June 2007**
Opened office in Qingdao, China
- December 2008**
Received the 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

2010s

- February 2011**
Commissioned second Yeosu synthetic rubbers plant
- March 2011**
Commissioned Yesan building materials plant
- December 2011**
Received the 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 Minhong plant
- March 2016**
Opened office in Kuala Lumpur, Malaysia
- 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
- September 2017**
Opened office in Atlanta, USA

Chemical Affiliates

Kumho P&B Chemicals, Inc.

Kumho P&B Chemicals is a joint venture with Nippon Steel & Sumikin Chemical Co., Ltd. of Japan. It specializes in producing and selling key materials used in construction, shipbuilding, automobile, electric, electronics, pharmaceutical and paint industries, including BPA, phenol, acetone, epoxy resin and MIBK. The company launched its phenol and acetone businesses in 1976, and has since continued to innovate and expand, and now supplies high-quality products to industries in Korea that had previously depended on imports. It exports a significant amount of its production, and has achieved considerable growth through the continued expansion of production facilities. The company will continue to develop cutting-edge technologies and eco-friendly, highly-functional new materials even as the competitive environment sharpens. It will also actively invest in the environment and safety, and continue to expand capacity to become a leader in the international phenol and derivatives market, improving its customer value through the industry's highest quality and greatest technological prowess.

2017 Sales

KRW 1,233.6 billion

2017 Net Income

KRW 12.3 billion

KKPC Ownership

78.2%

www.kpb.co.kr



Kumho Mitsui Chemicals, Inc.

Established in 1989, Kumho Mitsui Chemicals is an industry leader in the production and sales of MDI, the main feedstock used in the production of polyurethane (PU). MDI is an advanced chemical product, used extensively across diverse product groups, including car seats and dashboards, refrigerator insulation, construction panels, synthetic wood, synthetic leather, spandex and sneaker soles. Demand for MDI continues to rise, and so the company completed a 100,000 ton expansion construction project in the second half of 2017, which has increased overall capacity to 350,000 tons, the largest MDI production capacity in Korea. In addition, Kumho Mitsui Chemicals has been developing new businesses, including beginning commercial production of phosgene derivatives (IPC), while continuing to put extra efforts into quality management as well as environmental and safety management. As the company makes active inroads into overseas markets, it will become a global PU producer.

2017 Sales

KRW 752.3 billion

2017 Net Income

KRW 152.9 billion

KKPC Ownership

50.0%

www.kmci.co.kr



Kumho Polychem Co., Ltd.

Kumho Polychem was founded in 1985 to produce and sell EPDM, a synthetic rubber widely used in automotive parts and industrial goods, as well as applied products such as TPV and KEPA. The company is Asia's No. 1 EPDM manufacturer, and has been a major contributor to supply/demand stability in the domestic and overseas EP rubber markets, as well as to the development of the Korean automotive industry. In July 2007, Kumho Polychem became the first company in the world to successfully complete a plant expansion that included a proprietary ultra-low temperature polymerization technology. With the completion of its second plant in June 2015, it became the world's No. 4 EPDM manufacturer, with an annual production capacity of 220,000 tons. In 2011, it won global first-class product certification for its EPDM, and was selected as a global first-class product manufacturer by the Ministry of Knowledge Economy. The company also continues to strengthen its R&BD activities, including establishing the Daejeon Research Center, thus reinforcing its position as a leading global producer of EPDM.

2017 Sales

KRW 423.1 billion

2017 Net Income

KRW -2.8 billion

KKPC Ownership

50.0%

www.kumhopolychem.co.kr



Kumho Terminal & Logistics Co., Ltd.

Established in September 2009, Kumho Terminal & Logistics is a dedicated logistics base for bituminous coal and other raw materials, for companies including Korea South-East Power and Korea East-West Power as well as KKPC's Yeosu Energy cogeneration plants in the Yeosu National Industrial Complex, to ensure stable supply of raw materials. By operating a sealed system for bituminous coal storage facilities, the company not only reduces logistics costs but also becomes more eco-friendly. In addition to port cargo handling and storage, Kumho Terminal & Logistics also provides inland transportation services for bituminous coal. The company aims to become a comprehensive logistics company by supporting its customers at all times and expanding its business areas to include a full array of logistics services.

2017 Sales

KRW 57.1 billion

2017 Net Income

KRW 6.5 billion

KKPC Ownership

95.0%

www.ktnl.co.kr



Korea Energy Power Co., Ltd.

Korea Energy Power was established to engage in the solar PV generation business. The company installed a solar PV plant in Sacheon, Korea, and began commercial power generation in July 2013. At the time, this plant was the largest regional rooftop solar project in Korea. The company generates revenues through sales of electricity and renewable energy certificates (REC) at the Korea Power Exchange. Including affiliates such as Cheoldo Solar and Kangwon School Solar Power, the company's total installed capacity is 31.4 MWh. Korea Energy Power's plants produce 44,000 MWh of electricity annually, which can be supplied to around 10,600 homes, thus contributing to the supply of clean electricity to regions throughout Korea. In addition, by achieving a CO₂ reduction of more than 18,100 tons annually, the company is contributing to environmental preservation. KKPC plans to strengthen and expand its new and renewable energy-related businesses in Korea and overseas, including wind power, fuel cell, energy storage system (ESS) and biofuel, beginning with PV generation in Korea.

2017 Sales

KRW 3.4 billion

2017 Net Income

KRW 1.0 billion

KKPC Ownership

96.1%

Global Partnerships

Shanghai Kumho Sunny Plastics Co., Ltd.

Purpose

Secure a base for local production, sales and distribution in China; Increase sales of colored and specialized products that meet the changing demands of the ABS market; and Increase sales of base resins

Key Products

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

Location

Shanghai, China

Establishment

October 19, 2000

2017 Sales

RMB 2.04 billion

KKPC Ownership



Nanjing Kumho GPRO Chemical Co., Ltd.

Purpose

Achieve market dominance in Chinese polyurethane market

Key Products

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

Location

Nanjing, China

Establishment

September 28, 2006

2017 Sales

RMB 1.35 billion

KKPC Ownership



50% through Kumho Petro-Holdings



Rizhao Kumho Jinma Chemical Co., Ltd.

Purpose

Achieve market dominance in Chinese paper latex market

Key Products

SB latex

Location

Rizhao, China

Establishment

June 8, 2007

2017 Sales

RMB 0.68 billion

KKPC Ownership



50% through Kumho Petro-Holdings



Kumho Petrochemical Shanghai Co., Ltd.

Purpose

Increase sales and profitability by establishing a base to expand business areas in China

Key Products

Synthetic rubbers (SBR, BR), synthetic resins (ABS, PS), Products of chemical affiliates (EPDM, MDI, epoxy resin), Products of joint ventures in China (PPG, IS)

Location

Shanghai, China

Establishment

May 19, 2008

2017 Sales

RMB 23.82 million (commission)

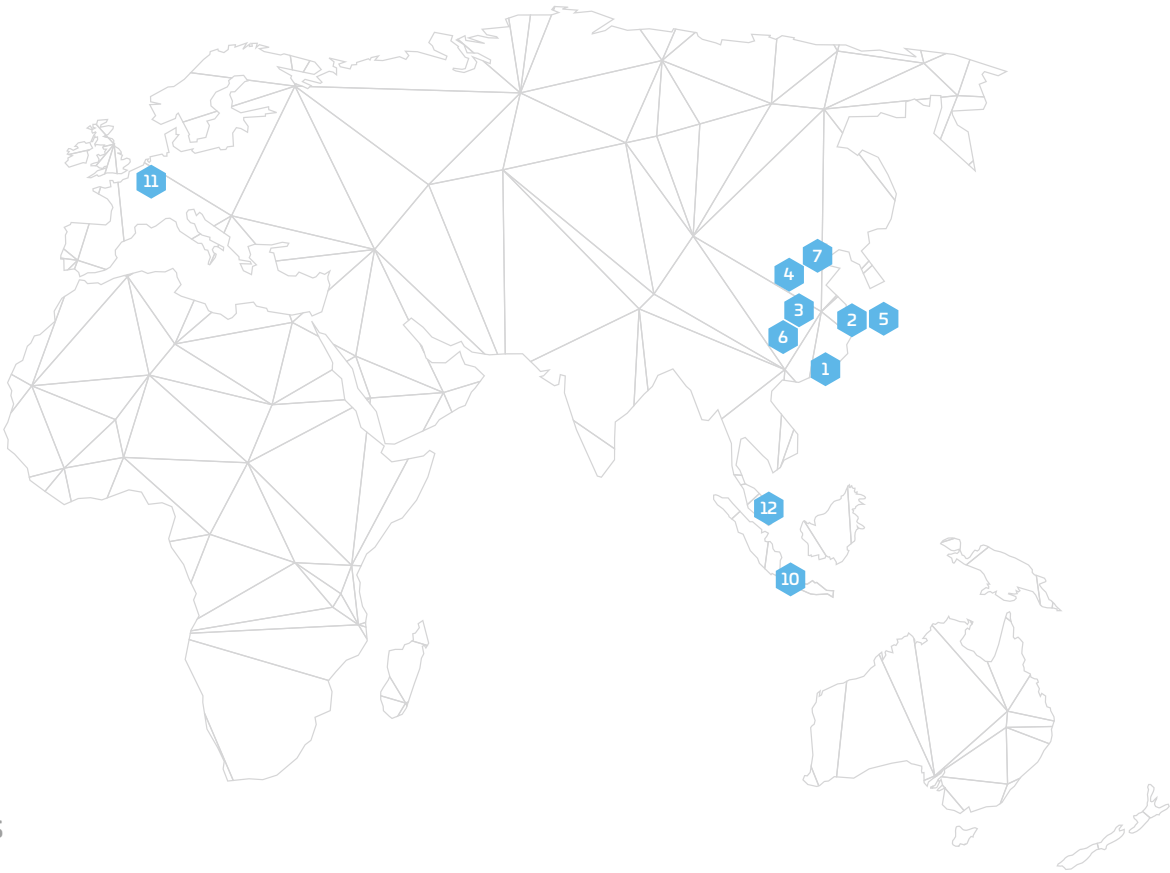
KKPC Ownership



100% through Kumho Petro-Holdings



Global Network

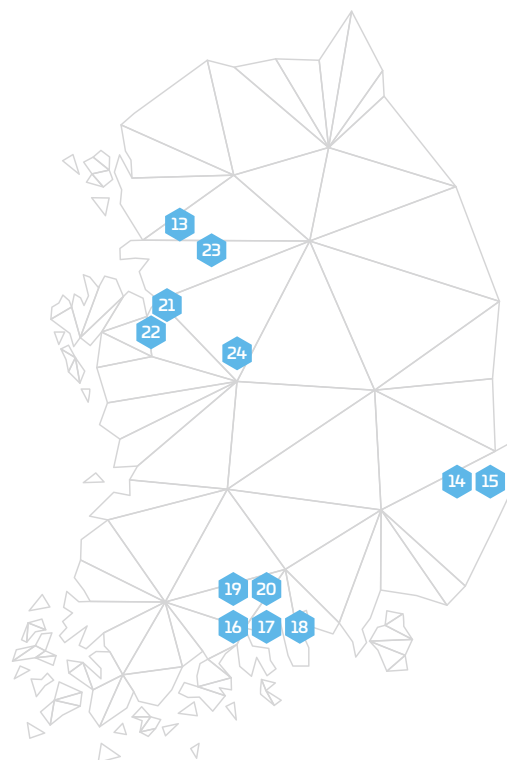


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