

# Chemistry at Work

ANNUAL REPORT 2018





### **Business Principle**

We contribute to people's living, society and industry through value creation in materials and technologies, while observing all laws and regulations as well as conducting fair corporate activities.

As a company trusted by society, the Group engages in a variety of corporate activities that always place a priority on safety and the environment.

We are also making efforts to contribute to environmental conservation by providing key materials and technologies.

The Group will build upon products, sales capabilities, manufacturing technologies and development capabilities accumulated up to now and continue taking on a wide range of global challenges to contribute to the development of society.

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For more details:

#### Financial and IR information

▶ https://www.shinetsu.co.jp/en/ir/

### CSR information

▶ https://www.shinetsu.co.jp/en/csr/

## FY2017 Performance Highlights

(For the year ended March 31, 2018)

Billions of yen

| (For the year ended March 31, 2018)  | FY2015        | FY2016        | FY2017             |
|--|---------------|---------------|--------------------|
| Net Sales  | 1,279.8       | 1,237.4       | 1,441.4            |
|  |               |               |                    |
| Operating Income Income before Income Taxes and  | 208.5         | 238.6         | 336.8              |
| Non-Controlling Interests  | 220.0         | 242.1         | 340.3              |
| Net Income Attributable to Owners of Parent  | 148.8         | 175.9         | 266.2              |
|  |               |               | Yen                |
| Net Income per Share   | 349           | 413           | 624                |
| Cash Dividend per Share  | 110           | 120           | 140                |
|  |               |               | %                  |
| ROIC <sup>1</sup>  | 11.4          | 14.0          | 18.2               |
| ROE  | 7.5           | 8.5           | 11.9               |
|  |               |               | Billions of yen    |
| Operating Income by Segment  PVC/Chlor-Alkali Business Semiconductor Silicon Business Silicones Business Electronics and Functional Materials Business Specialty Chemicals Business Processing, Trading & Specialized Services Business² | 208.5 billion | 238.6 billion | 336_8 billion 93.2 |
|  | 44.6          | 55.9          | 92.9               |
|  | 41.5          | 42.5          | 51.9               |
|  | 51.4          | 55.2          | 61.6               |
|  | 18.1          | 22.2<br>-9.5  | 25.7<br>-11.4      |

<sup>1.</sup> ROIC (Return on invested capital): Net operating profit after tax / (Net assets + Interest-bearing liabilities - Cash)
2. The name of this business segment was changed from the previous name of "Diversified Business" to "Processing, Trading & Specialized Services Business" in FY2016. This change was made in order to make clearer the contents of this business segment. There is no change in the products and services that come under this business segment.

# HIGHLIGHTS

## **High market share**

Global rank

### Polyvinyl chloride

#### Semiconductor silicon

Advanced photomask blanks

Pheromone formulations

|              | Global rank  | Japan rank |
|--------------|--------------|------------|
| Cellulose    | No. <b>2</b> | No.        |
| Photoresists | NO. Z        | 140.       |
| Silicones    | No. <b>4</b> | No.        |

### **ESG** evaluation

2018 Constituent MSCI ESG Leaders Indexes

2018 Constituent MSCI Japan ESG Select Leaders Index







FTSE4Good **FTSE Blossom** Japan



As of January 4, 2018

### Started overseas business in 1960s

Manufacturing in

Sales at

Overseas sales ratio

70% or higher

Global employees

20.000 people

Including 8,000 people in Japan

### **Patents**

Patents acquired

2.200 patents

Patents held

20,000

Top 100 Global Innovator Award\*

\*Clarivate Analytics (head office: Philadelphia), a prominent global information services company in the United States, analyzes the trends in patents and intellectual property using its proprietary patent data to select the most innovative companies and organizations in the world for the "Top 100 Global Innovator 2017" award. We have received this award for seven years in a row since its inception.

## Chairman's Message

Striving to Strengthen Existing Businesses and Cultivate New Business to Maximize Corporate Value, Aiming to Build a Profit Structure Enabling the Realization of Stable Growth.

### We are pleased to report our results for the fiscal year ended March 2018 to our shareholders.

We are pleased to report our results for the fiscal year ended March 2018 to our shareholders. We achieved record-high profits as well as our eighth consecutive year of income growth by making every effort across our businesses. Shintech Inc., a U.S. subsidiary, significantly contributed to the record-high profits. Additionally, the semiconductor silicon business notably boosted its results by capturing strong demand. The silicones business performed at a high level by focusing on growing sales worldwide.

Our basic dividend policy is to return the results of our businesses appropriately to our shareholders. We decided on a cash dividend of ¥140 per share for the fiscal year ended March 2018, which is a ¥20 increase from the previous year, and our third consecutive year of increased dividend payments.

The Shin-Etsu Group continues to exert every effort to maximize our corporate value, and among these efforts we have placed a top priority on profit growth. Currently, the global economic environment is undergoing dramatic changes and is becoming more and more uncertain. Therefore, to maintain stable growth, we shall continue reinforcing our existing businesses to build a profit structure not overly dependent on any specific sector.

We have focused on our core businesses, "PVC," "semiconductor silicon" and "silicones" as they have been our group's pillars of growth and have continued to exhibit our strengths in each market. However, in order to achieve even greater growth going forward, we need to strengthen each and every business. To this end, we are committed to what we do best by maintaining our basic principles, including quick decision-making, aggressive investment and the dispersion of risks.

PVC is a general-purpose resin. It is considered very hard to differentiate in terms of profitability. However, Shintech has achieved remarkable profitability in the PVC industry and stable profit growth. This is due to the unceasing efforts made over many years, including innovation in manufacturing equipment, full production and full sales, a streamlined and lean organizational structure, punctual delivery and proactive expansions by capturing growing global demand of PVC. Now Shintech is building a new plant that will produce ethylene, one of the key raw materials of PVC. This will further reinforce Shintech's PVC integrated production process starting from raw materials, and will strengthen its position as the world's largest PVC manufacturer. As this case shows, we continue striving to reinforce our existing businesses to raise the level of profitability still further.

In addition to strengthening our existing businesses, it is also necessary to develop new businesses in order to ensure our future growth. We understand the importance of developing new businesses by effectively utilizing our resources. Therefore, we are developing new products in fields where we can apply our technologies and expertise that have been cultivated through our existing businesses and are focusing on commercializing such products.

Based on these efforts, our targets in all business fields shall be higher, and we aim to be the global leader in our respective businesses. We shall also endeavor to maximize our corporate value by structuring a balanced business portfolio and achieving the continuous growth of the Shin-Etsu Group.

We are grateful to you for your support and understanding of our businesses.



Chihiro Kanagawa

### President's Message

Meeting Customer Needs with Sincerity Enabled the Achievement of Record Profit. Going Forward, We Will Continue Contributing to Social Development Through Improvements and Innovation in All Business Activities.

President Yasuhiko Saitoh

A year ago, I mentioned to you that comparing the earnings for the last fiscal year (FY2016) with those in the fiscal year of April to March 2008, when we had a record profit, the recovery had been slightly over 80% and we were executing and planning on various initiatives to reach and exceed the record earnings. I am very pleased to inform you that in this fiscal year (FY2017) we not only closed the 20% gap but also renewed the record earnings.

In FY2017 we grew the sales turnover by 13.5% over the year before (FY2016) on a local currency basis and 16.5% on a Japanese yen denominated basis. Each of the business segments achieved top-line and bottom-line growth. We worked diligently to meet our customers' increasing needs throughout our operations. In the process, we also worked on pricing for our products so as to have prices more properly reflect value the products provide. The initiatives and efforts certainly contributed to yet another and strong double-digit increase in earnings segmentally and companywide. We increased the operating income by 41.2% to ¥336.8 billion, income before income taxes by 40.5% to ¥340.3 billion and net income by 51.3% to ¥266.2 billion. Since March, 2010, the cumulative growth in earnings was ¥213.3 billion on a pretax basis and ¥182.4 billion on an after tax basis, which equates a compound annual growth rate of 13.1% and 15.5%, respectively.

We succeeded in raising return on invested capital (ROIC) by 4.2 percent point to 18.2% and return on equity (ROE) by 3.4 percent point to 11.9%. We increased the annual dividend by 20 yen to 140 yen for FY2017. In this last May, we retired our treasury stocks in an amount equal to 1% of the outstanding shares.

I refer you to segmental earnings, in comparison with the FY2007.

#### Operating Income and Composite Rate by Segment

(Billions of yen)

| Business Segment                           | FY2017 |        | FY2007 |        |
|--|--------|--------|--------|--------|
| PVC/Chlor-Alkali                           | 93.2   | 27.7%  | 33.9   | 11.8%  |
| Semiconductor Silicon                      | 92.9   | 27.6%  | 141.3  | 49.2%  |
| Silicones                                  | 51.9   | 15.4%  | 37.4   | 13.0%  |
| Electronics and Functional Materials       | 61.6   | 18.3%  | 40.7   | 14.2%  |
| Specialty Chemicals                        | 25.7   | 7.6%   | 17.4   | 6.1%   |
| Processing, Trading & Specialized Services | 11.4   | 3.4%   | 16.6   | 5.8%   |
| Total                                      | 336.8  | 100.0% | 287.1  | 100.0% |

Note: Segment categories were changed in the fiscal year ended March 31, 2011. Amounts in the fiscal year ended March 31, 2008 (FY2007), were reclassified to conform to current segment categories.

We now have more balanced earnings profile than before. We are leveraging what we accomplished in this last fiscal year to raise the earnings. It is not an easy task but we are challenging ourselves to it, as we speak.

## President's Message

We have been very busy running all the plants worldwide. We do so with our strong commitment to safety and quality. We have 20,000 motivated and dedicated people working day in day out to deliver our commitments. We invest in our employees through managerial interactions, various training programs and career development opportunities.

While we are vigorously and attentively serving our customers' growing needs for our products, we are being engaged in a growing list of capital projects. We forecast the amount of capital investments will be 250 billion yen in FY2018, about 40% greater than FY2017. The breakdown of the forecast by segment in comparison with last year is as follows:

#### Capital Investments by Segment

(Billions of yen)

| Business Segment                           | FY2018<br>(Forecast) | FY2017 | Increase    |
|--|----------------------|--------|-------------|
| PVC/Chlor-Alkali                           | 89.0                 | 63.6   | 40% 👚       |
| Semiconductor Silicon                      | 68.0                 | 51.5   | 32% 👚       |
| Silicones                                  | 33.0                 | 29.1   | 13% 🎓       |
| Electronics and Functional Materials       | 40.0                 | 20.2   | 2.0 times 🁚 |
| Specialty Chemicals                        | 11.0                 | 7.0    | 57% 👚       |
| Processing, Trading & Specialized Services | 9.0                  | 5.0    | 80%         |
| Total                                      | 250.0                | 176.2  | 42% 👚       |

Our technical and engineering expertise is the backbone of our operation. Coupled with our employees' commitment to safety and quality, it enables us to deliver quality products consistently in a timely manner.

Our research and development activities are on the rise. We invested ¥51.7 billion or 3.6% of the yearly sales in the FY2017. Roughly twenty-five thousand products were newly developed and/or qualified and 2,182 patents were granted. More than thirty percent of our revenue comes from patent-advantaged product sales. Our researchers are eager to devise solutions for our customers. Our R&D efficiency measured by ratio of operating income for recent five year period to R&D expenses for five year period prior to the period is very high among peers.

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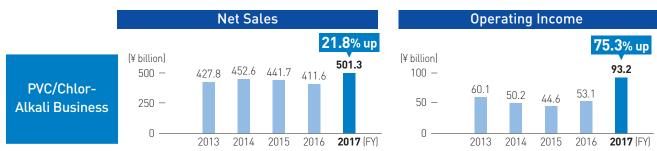
Our product portfolio and developmental direction are in line with SDGs. We are mindful of SDGs. Our product offerings facilitate the achievement thereof and SDGs will help our business in turn. For instance, our silicone products are widely used in applications which help reduce greenhouse gas effects. To give you another example, we have been working on developing materials for EV batteries. Such initiatives will reduce consumption of fossil fuels, which will result in better availability and affordability of raw materials for our operations.

We commit to apply, improve and innovate what we have throughout our operation to help advance our society. Our products are building blocks for industries, societies and human life. Through our products, we continue to strive to present solutions and ideas so that we can make difference in everyone's life.

In order for this great company to continue to do what it has been able to do for our customers, our shareholders and communities we are in, the company will have to grow. We are working on various initiatives to broaden our business portfolio and expand our footprints. We will remain focused on our customers and their needs to be relevant to them, will remain committed to governance to be relevant to our shareholders and will remain responsible to be relevant to our communities.

I sincerely thank our shareholders for your confidence and support, our customers for their business and partnership and our Shin-Etsu team for their commitment to our high standards.

## Business at a Glance



In the U.S. Shintech continued at full operation, while at the same time, in addition to PVC, the supply and demand relationship with respect to caustic soda improved, resulting in significant growth. Bases in Japan and Europe also achieved favorable business results. Thorough sales efforts resulted in increased sales, both in the regions surrounding our production bases and globally, contributing to growth in profit.



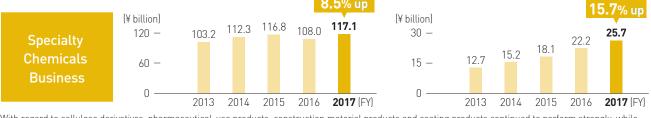
Driven by robust demand for semiconductor devices, 300mm and other diameter silicon wafers experienced strong demand, while the implementation of product price adjustments substantially enhanced segment performance.



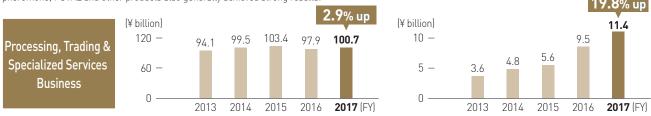
Demand increased for all product lines and applications, and in addition to functional products, sales of general-purpose products also expanded worldwide, which increased segment performance



With regard to rare earth magnets, shipments of products for automotive applications, including hybrid cars and industrial equipment, remained strong as sales expanded. With regard to photoresist products, KrF resists, ArF resists and trilayer materials all performed favorably as photomask blanks also expanded. Optical fiber preform sales were increased by taking advantage of a rise in global demand as well as by contributions from the production at our new joint-venture company in China starting in the second half of FY 2018. Shipments of materials for LED packaging were also firm.



With regard to cellulose derivatives, pharmaceutical-use products, construction material products and coating products continued to perform strongly, while pheromone, POVAL and other products also generally achieved strong results



Shin-Etsu Polymer Co., Ltd., input devices for automobiles and semiconductor wafer-related cases continued to perform well

## PVC/Chlor-Alkali Business

#### **Business Overview**

Polyvinyl chloride resins (PVC) are general-purpose resins used in a wide range of applications, from everyday products to all kinds of industrial materials. This is one of the Group's core businesses. The Group became one of the first Japanese chemical manufacturers to establish a polyvinyl chloride manufacturing base overseas. Shintech in the U.S. from the time it began operations in 1974 with yearly production of 100,000 tons of PVC has carried out numerous expansions, and today it has expanded its annual PVC production capacity to 2.95 million tons. The Shin-Etsu Group, the world's largest maker of PVC, has PVC manufacturing plants in the U.S., Europe and Japan with annual production of 4.15 million tons, and is reliably supplying this superior material throughout the world.





## Contributing to the Achievement of Sustainable Development Goals (SDGs) Through Product Supply

Approximately 60% of the raw materials used in PVC are salts that are practically inexhaustible resource. Compared to other general-purpose resins, the merits of PVC include a low dependence on petroleum resources, placing a relatively small burden on the environment. The process of manufacturing PVC from raw materials uses only 60% of the energy required to make other general-purpose resins. Highly durable and easy to recycle, PVC is used for a wide range of social infrastructure materials, including vinyl windows, water and sewerage pipes, construction and civil engineering.

#### PVC







#### Sodium hypochlorite

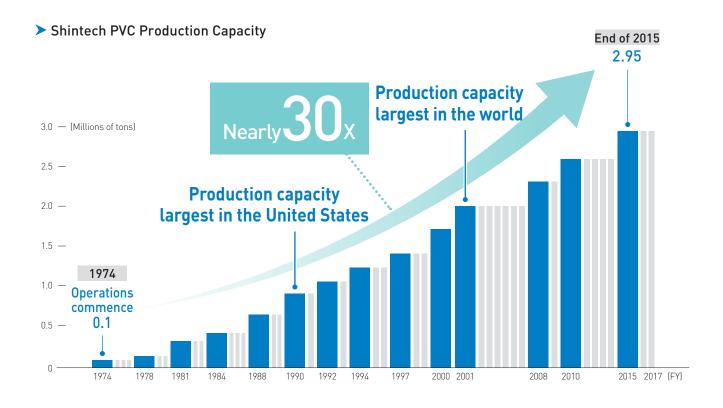








### PVC/Chlor-Alkali Business SHINTECH . Shintech's Integrated Production Facilities Integrated Production to Begin with Raw Materials In-House Production External Procurement Ethylene Vinyl chloride In-house production to start in 2018 monomers **Natural PVC** gas Vinyl chloride Ethylene monomers Chlorine Rock salt **Worldwide Sales** Caustic soda



#### **Application**

#### **PVC**

#### **PVC** pipes

PVC water and sewerage pipes can be used for more than 50 years without requiring replacement, contributing to a long working life for this infrastructure.



#### Plastic greenhouses for agriculture

PVC is easy to recycle and thus helps save resources. In Japan, more than 50% of the plastic used for agricultural greenhouses is recycled.



#### Electric wire coating material

PVC, which is superior in insulation properties, durability and pliability, and is difficult to damage, is used as a sheathing material for electric wires.



#### Vinyl windows

This material is an excellent insulator that can reduce the amount of heat lost through windows by 71%, contributing to reductions in energy consumption as well.



#### Siding materials

These decorative materials made from PVC are lightweight and easy to use for construction. They also provide excellent resistance to weather, shocks, rust and deterioration.



#### Caustic Soda



#### Alumina

Aluminum hydroxide, made by dissolving bauxite with caustic soda, is a raw material for alumina (aluminum oxide).



#### Paper and pulp

Caustic soda is used for digesting and bleaching wood chips in the dissolved pulp manufacturing process.



#### Soaps and detergents

Caustic soda reacts with fats and oils to become a raw material for soap or a raw material for synthetic detergents.



#### Super-absorbent polymers

These absorption agents are an essential element of paper diapers. Caustic soda is one of the raw materials used to manufacture these polymers.



#### Sodium Hypochlorite



#### Sodium hypochlorite

As a chemical for protecting the safety of foodstuffs and tap water, this substance contributes to a safe and comfortable lifestyle.

## Semiconductor Silicon Business

#### **Business Overview**

As the world's leading company providing silicon wafers for integrated circuits, the Shin-Etsu Group continues be in the technological forefront with regard to cutting-edge large-diameter and super-flat wafers. We have succeeded ahead of others in the mass production of 300mm wafers and silicon-on-insulator (SOI) wafers that realize high speed and low power consumption, and we are stably supplying these superior products. In addition to our company's high-precision single-crystal technology and high-level processing technology, our high-quality epitaxial growth technology for cutting-edge image sensor devices and our systems for product quality control and evaluation analysis are highly valued by our customers around the world. By further developing our world's No.1 technology, we will continue to provide a stable supply of the silicon wafers that support the development and manufacture of semiconductor devices.



#### Contributing to the Achievement of Sustainable Development Goals (SDGs) Through Product Supply

As a basic material supporting our modern high-speed information society, silicon wafers contribute to society by reducing the size and weight of electronic equipment, reducing power consumption, improving automobile fuel efficiency, driving support systems and other safety controls and contributing to advancements in medical equipment. Furthermore, they are useful for the stable supply of electric power mainly to electronic equipment, as power semiconductors can minimize power consumption and accommodate high voltage and high currents. Group products are also used to accurately regulate motor drive controls from high to low speeds and as power-saving transistors enabling the efficient transfer of power from generators to transmission lines.











#### **Application**



#### Various types of silicon wafers

Electrical components for digital equipment and automotive parts

Used as a substrate material for semiconductor devices in electronic devices such as personal computers, smartphones and televisions, as well as automobiles.

#### Compound semiconductor products

#### LED components

Used in a wide range of applications including outdoor displays, traffic lights, in-vehicle stop lamps and sensor light sources.



#### **Application**

#### Communication/Computers



**Smartphones** 



Tablet-type devices



Personal computers



Data center

#### Automobile



**Hybrid** cars



**Electric vehicles** 



Car navigation systems



Electronic toll collection system

#### Consumer



**Televisions** 



Game devices



**Smart watches** 



Digital cameras



Drum-type washing machines



**Energy-saving air conditioners** 



Rice cookers



Microwave ovens

#### Industry



**Industry robots** 

#### Other



**Bullet trains** 



Bank ATM



Vending machines

## Silicones Business

#### **Business Overview**

Since becoming the first Company to commercialize silicones in Japan in 1953, the Group has captured more than a 50% share in Japan through strong technological capabilities and detailed support for market needs. Silicone is a highly functional material that has both organic and inorganic characteristics and has many superior distinguishing features. The Shin-Etsu Group currently provides more than 5,000 silicone products to a wide range of industries from electronics and electric to automobiles, construction, cosmetics, chemicals, health care and food.



#### Contributing to the Achievement of Sustainable Development Goals (SDGs) Through Product Supply

Using silicones has the effect of reducing greenhouse gas emissions. It is estimated that the effect is nine times as large as the emission volume of silicone production and waste disposal, according to a study commissioned by the Global Silicones Council in 2012. Among these, the use of silicones for automobile, construction and solar cell applications account for a large proportion of greenhouse gas emission reductions from the silicone product cycle.

This constitutes a substantial contribution toward the realization of an environmentally friendly and sustainable society.



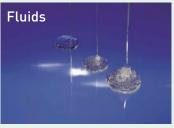


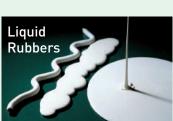


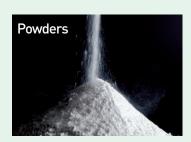




#### Silicone Representative Configurations









- Numerous Characteristics of Silicone
  - Heat resistance
  - Cold resistance
  - Electrical insulation properties
  - Release properties
  - Adhesion properties
  - Defoaming properties
  - Water repellency
  - Weather resistance

#### **Application**

#### Cosmetics

Improving the usability and functionality of various cosmetics to meet the diverse needs of the marketplace.





#### Solar cells

Used as modifying agents for the resins in the encapsulating material for solar cells, thus helping to improve their functionality.

#### **Bullet trains**

Used as an insulating oil material for the transformers of bullet trains and contribute to the safe operation of these trains.





#### **Electronic devices**

Thermal interface materials for electronic devices widely used in such areas as electronic product.



Essential as a material for contact lenses because of its oxygen permeability characteristics.





#### Herbarium

Silicone oil is clear, colorless and unaffected by temperature changes. For this reason, it improves the quality of herbarium specimens.



Durable and safe with no rubber-specific odor. Used in various products for babies such as the nipples of baby bottles and pacifiers.





#### Textile treatments

Add various advantageous properties such as softening, water repellency, etc.



Silicone-enhanced tires can lower rolling resistance and help improve fuel efficiency.





#### Ship-bottom paints

Contributes to the environmental conservation of the seas and the improvement of fuel efficiency by preventing marine organism adhesion.

## Electronics and Functional Materials Business

#### **Business Overview**

The Shin-Etsu Group's rare earth magnets are used in a wide range of applications including automobile motors, industrial robots, home appliances and hard disk drives. We also develop and provide photoresists, photomask blanks, encapsulation materials and pellicles that are used in the semiconductor manufacturing process. We have also successfully launched the world's first mass production of synthetic quartz products, used as a substrate for photomasks. Furthermore, we successfully developed liquid fluoroelastomers.\*

\* Employs silicone addition reaction technology and hardens into a flexible solid synthetic rubber upon heating. Offers outstanding functionality and processability, and far more resistance to cold, oil, solvents and chemicals than conventional products. This material is expected to be applied in a wide range of fields, from automobiles and aircraft to electronic equipment and optical applications.



At the "24 Hours of Le Mans" traditional automotive race held in 2018, two Toyota hybrid cars achieved a dazzling 1st and 2nd place finish. Our rare earth magnets were used in the drive motors installed at both the front and rear of both of these cars.

#### Contributing to the Achievement of Sustainable Development Goals (SDGs) Through Product Supply



Various types of rare earth magnets in shapes such as squares, rings and cylinders

Rare earth magnets have about 10 times the magnetic force of conventional ferrite magnets. Even small rare earth magnets generate a powerful magnetic field.

They are used in hybrid and electric cars to realize smaller size and weight as well as increased power regeneration. Rare earth magnets are also used in compressors for energy-saving air conditioners.

They raise electric power efficiency in a variety of products and contribute to the reduction of greenhouse gas emissions.

#### Rare earth magnets











LED, semiconductor device



#### Photoresists, Photomask blanks





#### Synthetic quartz







#### Oxide single crystal



#### Anode materials of lithium-ion batteries



#### Major Products and Application







#### Rare Earth Magnets

Rare earth magnets are used in such products as automobile motors, compressor motors for air conditioners, industry robots and motors for the hard disk drives of digital home appliances, thus helping to contribute to saving energy. Shin-Etsu Chemical is engaged in the manufacture of these magnets from separation and refinement to processing of the rare earth raw materials. Furthermore, Shin-Etsu is reliably supplying high-quality rare earth magnets with highly advanced features by means of the development of its own grain boundary diffusion method, which reduces the amount of heavy rare earth used, while keeping the high performance level of the magnets.



#### **Epoxy Molding Compounds**

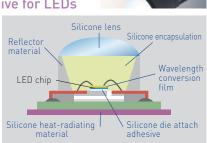
Based on its high technologies that were cultivated through the development of various kinds of silicones, Shin-Etsu has developed encapsulating materials for applications in semiconductor devices. In recent years, epoxy molding compounds are being usefully applied not only in general-use semiconductors but also as a highly reliable



encapsulating material in power modules for automobiles and various sensors.

#### **Coating Resin and** Die Attach Adhesive for LEDs

Shin-Etsu's various silicone encapsulation materials for LED lights feature such superior characteristics as being heat-resistant, high transparency and preventing a decline in brightness for a long period of time.



LED Structure (Blue characters are products provided by Shin-Etsu)



#### Reflector for LEDs

Shin-Etsu's reflector material for LEDs greatly improves brightness, and such reflectors are superior in heat resistance and weatherability, thus contributing to the long operating life of LED lighting. With Shin-Etsu's high-level processing technologies, our reflector material for LEDs makes it possible to freely design packaging shapes.



#### Wavelength Conversion Film

Wavelength conversion films are adhesive film materials that mix silicones with a fluorescent substance. By attaching it to the LED chip surface, the blue color light that LEDs emit can easily change to various colored lights, including white light, and can make a uniform color. In addition, the films are superior in heat-resistant and light-stability properties and it is possible to use them for long-term usage applications.



#### **Optical Fiber Coatings**

Extremely fine optical fibers have a cross-sectional diameter of only 125 microns. Optical fiber coatings provide a protective coating for these fine optical fibers to protect the surface while providing greater strength.

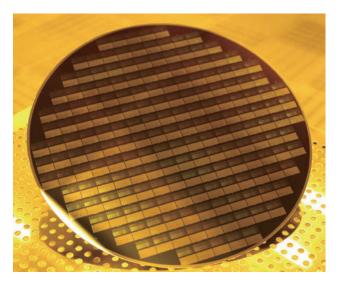


#### High-Purity Silane for Semiconductors

We provide high-purity silane that is used in such products as insulating film for semiconductors and epitaxial wafers. We meet the various needs of our global customers by providing a stable supply and a high level of product purity, which are supported by strict product quality and container control in addition to our own high-level refining technology.

### Electronics and Functional Materials Business

#### Main Products and Applications



#### **Photoresists**

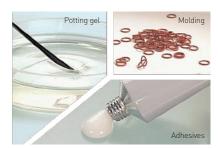
Shin-Etsu Chemical, by utilizing its strengths as a materials maker, carries out integrated manufacturing from raw materials' polymer synthesis to compounding. We make photoresists (KrF, ArF) for excimer lasers that are used as photosensitive material for etching on semiconductor circuits, and our thick film I-Line photoresists are used widely for thin-film magnetic heads and MEMS applications. Furthermore, for cutting-edge miniaturization processes we have lineups of multilayer material products. These are used as essential key materials in lithography processes for semiconductor manufacturing, and they help to enable the high integration, high speed and high functions of semiconductors. To steadily capture the growth of the photoresist market, construction of a new plant is under way in Taiwan, one of the main areas of demand. In combination with our existing Naoetsu Plant, we will have two production bases. As a result, we will be able to disperse business risk and strengthen our business foundation.



Wafers

#### **Photomask Blanks**

Photomask blanks are the base material of photomasks that are used as the patterning templates when etching circuits on silicon wafers during the semiconductor lithography process. The light-shielding layer is formed on the surface of photomask blanks for which the substrate is synthetic quartz. Instead of the chromium (Cr) used for the conventional light-shielding layer of photomask blanks, Shin-Etsu has developed new manufacturing processes that use cutting-edge molybdenum-silicon binary (OMOG: Opaque MoSi on Glass) for the light-shielding layer. Shin-Etsu has established the mass-production technology of these advanced photomask blanks with its superior etching characteristics. Shin-Etsu's photomask blanks are highly evaluated by device makers as an essential material for cutting-edge semiconductor manufacturing processes. In addition, Shin-Etsu supplies attenuated phase-shift photomask blanks for ArF and KrF, which respond to customers' needs.



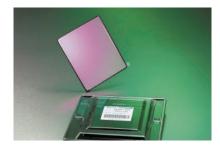
#### Liquid Fluoroelastomers SHIN-ETSU SIFEL®

Shin-Etsu Chemical was the first company in the world to succeed in developing the liquid fluoroelastomers SHIN-ETSU SIFEL®, which by using silicone addition-reaction technology can be made into a form that hardens into a flexible, solid synthetic rubber upon heating. SHIN-ETSU SIFEL® possesses excellent process ability and such superior properties as resistance to oils, solvents and chemicals together with good durability against heat and stability at cold temperatures. SHÍN-ETSU SIFEL® contributes to the improvement of products in a wide range of fields, including the automotive, aircraft, electronics, office equipment and petrochemical industries.



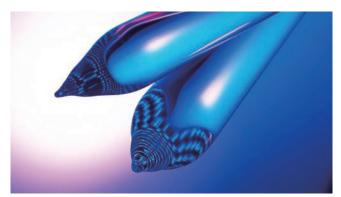
#### Fluorinated Anti-Smudge Coating

Shin-Etsu's fluorinated anti-smudge coating is applied to the surface of eyeglasses and cover glasses/protective films for smartphones. A nano-scale fluorinated thin layer formed on the surface repels water and oil, and stains such as fingerprints can be wiped off easily. Due to its low dynamic friction, fluorinated coating contributes to improving the operability of smartphones. In addition, Shin-Etsu supplies a fluorinated anti-smudge additive that can obtain excellent surface properties by adding to hard coatings.



#### **Pellicles**

Shin-Etsu Chemical supplies high-quality pellicles for ArF and KrF excimer laser lithography. Shin-Etsu pellicles support customers' semiconductor device production with their excellent performance, such as high light resistance, good transmission uniformity and low outgassing. In addition, Shin-Etsu has succeeded in the development of super-large-size pellicles for the production of liquid crystal display (LCD) panels.



Preform for optical fiber



Optical fiber made of preform



Synthetic quartz photomask substrates for LSI and FPD lithography



Large photomask substrate for FPD

#### Synthetic Quartz

Synthetic quartz, the key raw material of optical fiber, has the characteristic of superior light transmission. In an ordinary glass sheet, light attenuates in about 2 meters. However, in the case of synthetic quartz, light can reach a distance of about 100 km. The Shin-Etsu Group was the first company in the world to mass-produce synthetic quartz that is higher in purity than natural quartz. So it is used as a preform for optical fiber, a photomask substrate for semiconductor lithography and a stepper lens for semiconductor lithography. In addition, it is used as a large-scale photomask substrate for flat-panel display (FPD) lithography. It is supporting the development of the advanced information society.



Oxide Single Crystals (Lithium Tantalite: LT)

Lithium tantalite (LT) is used in mobile communication devices as SAW devices that screen electromagnetic waves and pick up only specific frequencies. Oxide single crystals are currently contributing to the popularization of mobile phones and smartphones and serve an important role in the modern information society.



## Pyrolytic Boron Nitride (PBN)

PBN is a high-purity ceramic with excellent chemical resistance and strength at high temperatures. Shin-Etsu Chemical was the first company to successfully produce PBN domestically. In addition to making use of PBN's excellent characteristics in crucibles for compound semiconductors and molecular-beam epitaxy, PBN's application fields are expanding to such areas as MOCVD systems and organic EL systems.



Anode Material of Lithium Ion Batteries

SiO is a greatly promising material as an anode material of next-generation lithium-ion batteries that have high capacity and excellent power properties. Shin-Etsu has succeeded in putting electrical conductivity on SiO particles via our own proprietary method. Shin-Etsu's anode material is highly evaluated by our customers.

# Semiconductor Manufacturing Process and Products of the Shin-Etsu Group

#### From raw materials to completed semiconductor devices

#### Products supplied by Shin-Etsu group

Raw materials



Polysilicon is produced from silicon metal (Si), made by removing the oxygen from quartzite, as the base material.



Silicon metal

Single crystal silicon



Single crystal silicon is produced in a cylindrical format by melting Polysilicon.



Quartz glass crucibles

**Cutting and polishing** 



Single crystal silicon is cut into thin slices and polished to a mirror finish.



Silicon carbide fine-ground powder

Silicon wafers



The processes above are used to create silicon wafers.



Silicon wafers

Wafers are shipped to device manufacturers.

Wafer cases are also used for transporting materials within the device manufacturers' production line.



Wafer cases

Oxidation



Wafers are put into a high-temperature furnace to produce a thin oxidation film on their surface.



Quartz glass for use in the semiconductor manufacturing process

Pattern formation



Special sensitive materials (photoresists) are applied, circuit patterns are baked in and developed, and the surface is processed.



Dicing



Individual wafers are cut away and made into integrated circuit chips.

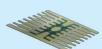






Photoresist

**Assembly** 



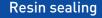
Using wire, the chips are connected electrically to a circuit board.

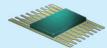


Photomask blanks fpattern plates for use in drawing circuits)



Pellicles Idust protection covers for photomask substrates





The chip is coated in resin to protect it from heat and shocks.



Encapsulating materials

Semiconductor devices



The completed semiconductor device is now embedded in the final product.



Heat releasing silicone rubber products

Final product



## Specialty Chemicals **Business**

#### **Business Overview**

Our main specialty chemical products are cellulose derivatives, environmentally friendly materials made from natural polymer cellulose. Cellulose derivatives have several versatile applications in a variety of fields, ranging from pharmaceuticals and foods to construction materials, engineering projects, coatings, ceramics, paper processing, cosmetics and toiletries. The Shin-Etsu Group began manufacturing





cellulose derivatives in 1962. Currently, we have the largest share in Japan and meet global needs as the world's foremost manufacturer with bases in Japan, Europe and the United States. In addition, we provide synthetic pheromones used for agricultural pest control and functional resin POVAL. We also provide a variety of other products, including silicon metal, a main ingredient in silicones and synthetic quartz.

#### Contributing to the Achievement of SDGs Through Product Supply



Industrial cellulose derivatives reduce the separation of concrete in water, enabling concrete to be poured without polluting water. This contributes to environmental preservation by preventing water pollution. Synthetic pheromones are very safe, environmentally friendly and eliminate agricultural pests. They are useful for making food safer through the reduction of insecticides and agricultural chemicals sprayed in fields.

#### Cellulose derivatives











#### Artificial pheromones







#### Major Products and Application





#### Cellulose derivatives

Provide a variety of functions such as controlling the location in the body where drugs dissolve and slowing the rate at which they dissolve.

Used as a binding agent for the molding process to manufacture exhaust gas purifiers for automobiles, technology that contributes to the prevention of global warming.



#### Synthetic pheromones

Synthetic pheromones disturb the communication of male and female insects and thus obstruct their mating process.



#### Aroma chemical

We manufacture leaf alcohol by breaking down natural fragrance compounds. These fragrances are used in a wide variety of products such as aroma products cosmetics and foodstuffs.



#### Silicon metal

Silicon metal is a key raw material of silicone, semiconductor silicon, synthetic quartz and solar cells. Simcoa Operations, our group company, manufactures silicon metal in Australia.



#### Polyvinyl alcohol (POVAL)

JAPAN VAM & POVAL CO., LTD., manufactures and sells this material. Due to its properties as a water-soluble synthetic resin, it is used in a wide range of applications such as adhesives, various types of films, fiber treatment agents, paper processing agents, and additives for cosmetics and pharmaceuticals.



This is a denatured resin supplied by Nissin Chemical Industry Co., Ltd., with excellent adhesion and solubility. Used in products such as paints inks and adhesives.

## Processing, Trading & Specialized Services Business

#### **Business Overview**

Shin-Etsu Polymer Co., Ltd., develops and supplies highly operable and functional products making use of materials processing technologies. Shin-Etsu Engineering Co., Ltd., which is involved in the design and construction of the Group's product manufacturing plants, has a strong reputation for engineering with customers outside the Group.



#### Contributing to the Achievement of Sustainable Development Goals (SDGs) Through Product Supply

The construction material (corrugated rigid polycarbonate sheets) manufactured by Shin-Etsu Polymer Co., Ltd. is used as an exterior roofing material. Using more than 50% reclaimed raw materials, this product contributes to recycling.













#### Major Products and Application

#### Input devices

Providing input devices such as automobile dashboard audio and air conditioners.



#### Wafer cases

Providing containers used for transportation from silicon wafer makers to device makers and silicon wafer transport containers within the device manufacturing process.



Glasses made of silicone rubber.





#### Various rollers for OA equipment Providing semi-conductive

developing rollers and fuser rollers making use of proprietary processing technologies including conductivity, foaming and compositing using silicone rubber



The engineering business of Shin-Etsu Engineering Co., Ltd., is involved in the design, construction and maintenance of various Shin-Etsu Group product manufacturing plants.





#### Vacuum superposition equipment

Shin-Etsu Engineering Co., Ltd., carries out the design and manufacturing of the alignment machines for LED panels that support large-scale liquid crystal panel production.

## Silicone catheters

Making use of the silicone processing technology we have developed, we provide catheters that offer important advances in their application.

## R&D and Quality Control

#### Research and Development

Without new challenges, a company cannot grow. Shin-Etsu Chemical values the power of R&D as an important asset, carving a path into the future. Then, based on questions such as "What do our customers need now?" and "What is the market looking for?" we tackle research and development to fulfill the demands of the times and actively undertake further research to raise the quality and production efficiency of our previously developed products.

# Materials Development with Originality, Creating New Value

In conducting R&D, we focus on themes aimed at the creation of new products with originality. These themes attempt, first, to meet the next generation of needs and, second, to show originality in doing something that no one else has attempted. Some of these carefully selected themes have led to the invention of new materials that we produced for the first time in the world, solving problems in various industrial fields by providing materials with distinct properties and excellent functionality, and leading to epoch-making breakthroughs. Wherever there are needs, we will continue taking on the challenge of developing new materials.

## The Triangular Link: Sales, R&D and Production

Shin-Etsu Chemical's R&D is managed in a way that closely suits our customers' needs. What makes this possible is Shin-Etsu's R&D system, which integrates Sales, R&D and Production.

Market demands generated by our business activities are relayed to our development divisions to estalish research themes. The development divisions follow



The Triangular

these themes as they progress with development, while at the same time on the basis of close ties with the manufacturing divisions, they conduct practical R&D aimed at utilizing our plants and facilities for mass production. To do this efficiently, Shin-Etsu Chemical has established R&D centers at each plant.

#### **Quality Control**

At Shin-Etsu Chemical, as a materials manufacturer, we consider the stable supply of high-quality products to be the most important factor in our quality control framework. We supply a large number of items used for applications such as raw materials for industrial products and materials targeted to use in the latest cutting-edge products. In recent years, we are getting an increasing number of requests from our customers for ultra-high purity materials and strict cleanliness requirements. To meet all of our customers' needs for each of our products, Shin-Etsu Chemical has introduced the latest state-of-the-art analysis and evaluation equipment, and we are developing proprietary quality control technology in-house. At the same time, we are reviewing our manufacturing processes and making efforts to minimize variation within the steps involved in each of our products.



## The Deming Prize is Just One Example of Shin-Etsu Chemical's Commitment to Quality Control.

Shin-Etsu Chemical has actively carried out quality control (QC) since 1950, a relatively early start in comparison with its peers, working to establish proprietary methods for ensuring consistent quality. Just three years later in 1953, the company was awarded the Deming Prize. The statistical quality control achieved at this time was praised by Dr. Deming himself, who called it "the highest level in the world." Since then, Shin-Etsu Chemical has been working to develop technology and systems for maintaining and improving product quality. The ISO 9000 series of international standards for quality management systems was established by the International Standards Organization (ISO) in 1987, and the Shin-Etsu Chemical Group has achieved these certifications at the majority of its production facilities. In addition, we are focused not only on discharge prevention (avoiding the shipment of defective products) but also occurrence prevention (avoiding the manufacturing of defective products), and carry out regular quality surveillance from both of these perspectives at all of our factories. Through our continuing efforts to maximize and control quality, we will continue to meet the needs of the modern era.

## Fulfilling the High-Level Requirements of Our Customers with the Shin-Etsu Six Sigma Method.

Based on statistical methods, "Six Sigma\*" is a quality control system that uses data analysis to determine defect rates in our products and has been the focus of attention as part of our management methods. At Shin-Etsu Chemical, the Six Sigma concept has been used in combination with our experience in business thus far to create a proprietary composite method for quality control called "Shin-Etsu Six Sigma," which was introduced in 2000 and has steadily improved our results ever since. We will continue to strive for further improvement in quality control by approaching problems from a variety of perspectives, fulfilling the high-level requirements of our customers while simultaneously improving awareness of quality among each and every one of our employees as part of our personnel development efforts.

\*Six Sigma: The "sigma" in the name Six Sigma is statistical terminology for standard deviation, an expression of variability. Six Sigma is an extremely rigorous quality control system that accepts no more than three or four defects in 1 million products.

## **Basic Policy and Promotion System**

The Shin-Etsu Group will fulfill its social responsibility and strive to create and expand the new value demanded by society through all our business activities based on products and technologies.

#### **ESG Promotion Engine**

The Group's social responsibility is to execute its Business Principle and contribute to shareholders, investors, customers, business partners, regional communities, employees and all other stakeholders. To achieve this, we promote ESG activities based on the establishment of a Basic CSR Policy and various internal regulations. We reorganized the former CSR Promotion Committee and formed the ESG Promotion Committee in 2017, which is now chaired by the president of Shin-Etsu Chemical, comprising managers from relevant divisions and departments, to promote companywide ESG activities in all aspects of corporate activities.

#### **Basic CSR Policy**

The Shin-Etsu Group:

- 1. Will do our best to increase the Group's corporate value through sustained growth and make multifaceted contributions to society.
- 2. Will carry out all of our company activities by always making safety our utmost priority.
- 3. Will constantly pursue energy-saving, resource-saving and the reduction of the environmental impact, and seek to help create a sustainable future world in which we all live in harmony with the Earth.
- 4. Will endeavor to contribute to the prevention of global warming and the conservation of biodiversity by means of our cutting-edge technologies and products.
- 5. Will strive to respect human dignity, assure equality in employment opportunities and support the self-fulfillment of our employees.
- **6.** Will appropriately disclose information in a timely manner.
- 7. Will carry out trustworthy corporate activities that are based on the integrity of the Group's ethical values.

#### **Activities in FY2017**

#### ▶ Agreement with the "Tokyo Principles for Strengthening Anti-Corruption Practices"

In December 2017, we signed onto the "Tokyo Principles for Strengthening Anti-Corruption Practices" of the GCNJ\* to show our Group's commitment to conducting anti-corruption activities.

It agrees with our position of anti-corruption stated in the Business Principle.

\*GCNJ (Global Compact Network Japan): A Japanese local branch of the United Nations Global Compact.

Tokyo Principles for Strengthening Anti-Corruption Practices

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#### ▶ ESG Promotion Committee Kicked Off

In December 2017, we held a kickoff meeting of the ESG Promotion Committee and shared basic ideas of the Group's ESG promotion. At the meeting, the United Nations SDGs (sustainable development goals) and the GCNJ's "Tokyo Principles for Strengthening Anti-Corruption Practices" were introduced and various issues were discussed for each Committee member to address.



http://www.ungcjn.org/activities/tca/data/tca\_6.pdf

#### Supporting and Implementing Principles and Global Charters

The Group signed and put into practice the Responsible Care Global Charter of the International Council of Chemical Associations (ICCA) in 2006. In 2014, we signed the revised Responsible Care Global Charter. In 2010, the Group became a participant in the United Nations Global Compact (UNGC) and has been voluntarily supporting and practicing in its business operations and strategies the UNGC's Ten Principles with regard to human rights, labor standards, the environment and the prevention of corruption. Furthermore, since November of the same year, we also have participated in Global Compact Network Japan and incorporate the latest trends in CSR obtained from the

Supply Chain and ESG Subcommittees to promote ESG throughout the Group. These principles are all in line with the Group's Business Principle and Basic CSR Policy. The Group will

continue to uphold these initiatives and charters and will endeavor to build even deeper relationships of trust with people around the world.



**WE SUPPORT** 



### Identifying Key Issues (Materiality)

Since the establishment of the CSR Promotion Committee in 2005 (reorganized as the ESG Promotion Committee in 2017), the Group has promoted CSR initiatives within all its business activities. In 2015, we conducted a careful examination of our global CSR guidelines and the demands from stakeholders. The CSR Promotion Committee conducted a survey of all divisions and major Group companies to identify key issues facing the Group. Then, the Managing Directors' Meeting, the

decision-making body for the execution of operations comprising all directors, deliberated to define key CSR issues that require specific attention.

The Group targets "Contributions to the Earth's Future" by addressing all these issues equally and putting the Business Principle into practice. In most cases, these efforts conform to the UN's Sustainable Development Goals (SDGs).

## Shin-Etsu Group Aims Contributions to the Earth's Future

Strengthen existing businesses Create new businesses

Employees and contractor health and safety

Product quality improvements and product safety control

Respect for human rights, the development of human resources and the promotion of diversity

Contribution to industry and social initiatives

Energy-saving, resource-saving and the reduction of the environmental impact

Promoting CSR procurement and the diversification of supply sources

Respect for and protection of intellectual property

Accurate and timely information disclosure and communication with stakeholders

The cornerstone of all activities: Legal compliance, Fair corporate activities

Environment
Social
Governance

## **Shin-Etsu Group Key Issues**

Please visit the CSR section of our Web site for detailed information on each initiative.

WEB https://www.shinetsu.co.jp/en/csr/

#### The Cornerstone of All Activities: Legal Compliance, Fair Corporate Activities

The opening lines of the Group's Business Principle include the concepts" legal compliance" and "fair corporate activities." In recognition of issues related to all eight key issues comprising the cornerstone of all these activities, all group companies engage in legal compliance and fair corporate activities.





Key Issue

Energy-saving, resource-saving and the reduction of the environmental impact







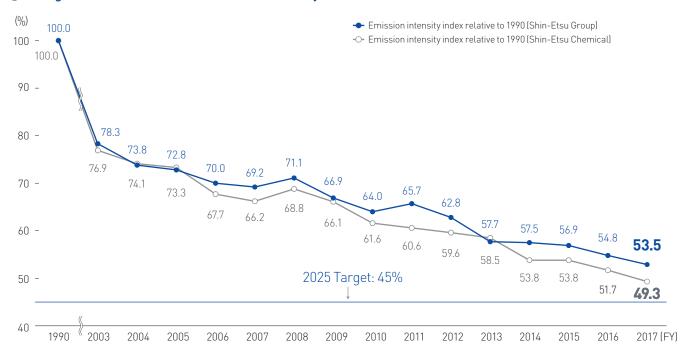




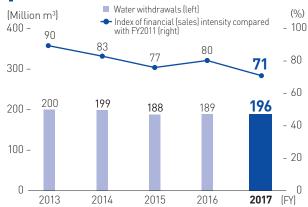
Products provided by the Group have become indispensable aspects of global industries and people's daily lives. For this reason, we are aware that it is critical to reduce environmental burdens not only during manufacturing but also during use, disposal and throughout all processes. The Group strives not

only to ensure thorough reduction of environmental burdens in manufacturing processes but also for product development and sales of eco-friendly products such as rare earth magnets and PVC. Rare earth magnets are used in eco-cars, and PVC has a low dependency on petroleum resources.

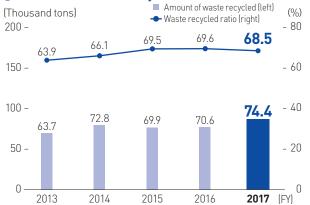
#### Changes in Greenhouse Gas Emission Intensity Relative to FY1990 Levels



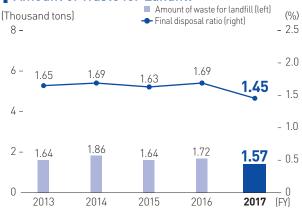
#### Water Withdrawals



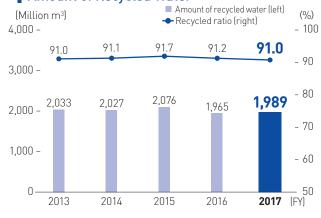
#### Amount of Waste Recycled



#### Amount of Waste for Landfill



#### Amount of Recycled Water



### Rare Earth Magnet Recycling Aimed at Resource

### Conservation

The Shin-Etsu Group utilizes separation and refinement technologies to extract rare earth metals from used materials. Since 2013, we have used the latest technologies to recover rare earth magnets used in energy-saving air conditioners and hybrid cars. This ensures a stable source of valuable rare earth metals and contributes to protecting the environment by reducing waste and reusing resources.

### Rare-Earth Magnet Resource Recycling Process Rare-earth Rare-earth magnet magnet material processing plant processing plant Magnet powder recovery Rare-earth Rare-earth magnets Rare-earth magnet recovery Rare-earth raw Rare-earth separation material and refinement plant

## Social

#### Key Issue

#### Employees and contractor health and safety

As a chemicals company, we recognize the importance of issues related to employee safety and health. To this end, we engage in environmental preservation at each plant, occupational safety and health and process safety and prevention plans. The Group is engaged in creating safe and comfortable workplaces that aim to prevent the occurrence of serious accidents and reduce lost time incidents to zero.

#### Number of Lost-Time Injuries and Changes in Frequency Rates (Group companies in Japan)



#### Participants of Safety Education Programs

(People)

| Coverage                | FY2014 | FY2015 | FY2016 | FY2017 |
|-------------------------|--------|--------|--------|--------|
| Shin-Etsu<br>Chemical   | 7,224  | 7,531  | 7,970  | 9,751  |
| Consolidated companies* | _      | _      | 22,166 | 24,829 |

<sup>\*</sup>Started to compile the consolidated data from FY2016.

### **Environmental Control and Safety Audits**

To confirm that activities such as environmental conservation, occupational safety and health, process safety and prevention planning are carried out as mandated, the Group conducts an audit and the audit result is reported to the top management. In referring to cases from other companies in fiscal 2013, we communicated revisions to the "Nonroutine Work Safety Measures" within the company. Their

implementation status review in fiscal 2017 was conducted as a special audit theme.



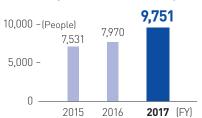
Audit conducted at Shin-Etsu Silicones of America, Inc., in January 2018

#### Key Issue

### Product quality improvements and product safety control

The Group's products are used in people's daily lives and to support society. At the same time, there is a critical focus on the safety of chemical substances as a global social issue. The Group strictly manages product safety and improves quality control in line with the laws and regulations of each country.

#### Participants of Product Safety Related Training Programs



#### Key Issue

### Promoting CSR procurement and the diversification of supply sources

There is a critical focus on appropriate procurement of raw materials throughout the global supply chain as a global social issue. The Group promotes fair procurement activities based on its Basic Procurement Policy in an effort to create supply chains that consider the environment.

#### Creation of the CSR Procurement Guidelines

The Shin-Etsu Group formulated the CSR Procurement Guidelines. In accordance with these guidelines, we educate staff in the Purchasing Department and conduct briefings to inculcate an understanding of Group initiatives among business partners and companies upstream. Through these activities, the Group will contribute to the realization of a sustainable society.





Briefing on CSR Procurement Guidelines held in July 2017





#### Key Issue

2.00 - ....

## Respect for human rights, the development of human resources and the promotion of diversity

The Group is engaged in realizing the creation of a comfortable work environment that respects basic human rights where each employee can achieve health, self-realization and follow a career path.

## Employment Rate of Persons with Disabilities



| 1 50 - |      |      |      |      |           |
|--------|------|------|------|------|-----------|
| 1.50 - | 2013 | 2014 | 2015 | 2016 | 2017 (FY) |

#### Number of Employees Who Have Taken Child-Care Leave

|                                 | FY2014 |      | FY2015 |      | FY2016 |      | FY2017 |      |
|---------------------------------|--------|------|--------|------|--------|------|--------|------|
| (People)                        | Female | Male | Female | Male | Female | Male | Female | Male |
| Shin-<br>Etsu Chemical          | 8      | 2    | 6      | 0    | 9      | 0    | 8      | 0    |
| Consolidated companies in Japan | 44     | 3    | 36     | 2    | 35     | 0    | 31     | 0    |
| Consolidated companies total    | 86     | 56   | 73     | 44   | 72     | 68   | 69     | 77   |

#### Number of People Obtaining Nursing Care Leave

| (People)                        | FY2014 | FY2015 | FY2016 | FY2017 |
|---------------------------------|--------|--------|--------|--------|
| Consolidated companies in Japan | 3      | 3      | 1      | 2      |

Note: Data of the Shin-Etsu Group includes employees and secondees.

### Fund-Raising for UN World Refugee Day

The UNHCR (Office of the United Nations High Commissioner for Refugees) supports refugees worldwide who are driven out of their homes by conflict, persecution and disaster. Since 2006, we have supported refugees worldwide through the collection of donations in the company for World Refugee Day (June 20), which was established by the United Nations, and we have made those donations to the UNHCR through the Japan Association for the UNHCR. Furthermore, we have implemented donation by the company since 2012.



#### Key Issue

### Respect for and protection of intellectual property

We maintain the confidentiality, integrity and availability of information assets possessed by the Group and engage in the acquisition and use of intellectual property and appropriately manage and protect information assets to strategically execute corporate management focused on intellectual assets.

### Number of Patents Acquired and Held (Major group companies)

| (Number of paterits) |                  |        |        |              |        |        |
|----------------------|------------------|--------|--------|--------------|--------|--------|
| Breakdown            | Patents Acquired |        |        | Patents Held |        |        |
|                      | FY2015           | FY2016 | FY2017 | FY2015       | FY2016 | FY2017 |
| Japan                | 616              | 697    | 591    | 7,027        | 7,355  | 7,562  |
| Overseas total       | 1,163            | 1,325  | 1,591  | 10,102       | 10,951 | 12,007 |
| Asia/Oceania         | 602              | 642    | 724    | 4,190        | 4,707  | 5,314  |
| North America        | 282              | 220    | 265    | 2,850        | 2,924  | 3,077  |
| Europe               | 270              | 458    | 595    | 3,035        | 3,286  | 3,578  |
| Other                | 9                | 5      | 7      | 27           | 34     | 38     |
| Total                | 1,779            | 2,022  | 2,182  | 17,129       | 18,306 | 19,569 |

# 1 NO POVERTY

#### Key Issue

### Contribution to industry and social initiatives

Group companies and employees proactively promote social contribution activities rooted in local communities throughout the world. For example, for the past nine years Shintech (U.S. Group company) has collaborated with several local business partners to conduct the "Safety Town" safety education program targeting local kindergarten and elementary school students.

#### Governance G

#### Key Issue

### Accurate and timely information disclosure and communication with stakeholders

The Shin-Etsu Group believes the appropriate and timely disclosure of Company information promotes stakeholder understanding and leads to appropriate market valuation. We engage in fair and transparent disclosure through information posted on our corporate Web site, announcements in the media and at stock exchanges and publications including the annual report and reports for shareholders.

We also participate in a pilot project\* for a non-financial disclosure system focused on environmental information, the first of its kind in the world, created by the Ministry of the

Environment in 2013. This information is viewed by a wide range of stakeholders. As ESG investment is expected to increase going forward, we will make an effort to provide even more non-financial information.

\* Environmental Information Disclosure Platform Development Project: In light of the growing global trend of environmental, social and governance (ESG) investment, the Ministry of the Environment launched a project aimed at developing a non-financial information disclosure system focused on environmental information in 2013, the first of its kind in the world. In 2016, we launched a pilot program assuming full-year operations aiming to further invigorate dialogue with companies and investors. Reference: http://www.env.go.jp/press/102683.html (Japanese language only)

#### **Outside Assessments**

#### Selected for the MSCI Global ESG Select Leaders Index

A leading global socially responsible investment (SRI) index created by Morgan Stanley Capital International (MSCI). This index is composed of companies having excellent ESG ratings within each industry from among the top 500 companies by market capitalization.





#### Selected for the Morningstar Socially Responsible Investment Index

Morningstar Japan K.K. created the first socially responsible investment stock index in Japan, which selects 150 companies assessed for their excellent social performance out of approximately 3,700 domestic listed companies.



As of January 4, 2018

#### Selected for the SNAM Sustainability Index

This index consists of companies with above-standard ESG scoring derived from corporate research related to environmental (E) factors conducted by Sompo Risk Management & Health Care, and corporate research related to social (S) and governance (G) factors conducted by IntegreX Inc.



#### Selected for the FTSE4Good Index Series

On the socially responsible investment (SRI) index calculated and made public since 2001 by the London Stock Exchange group index calculation company, FTSE Russell, we have achieved a globally competitive score.



#### Selected for the TSE Blossom Japan Index

This stock price index calculated and made public by FTSE Russell is made up of listed Japanese companies considered excellent from the perspectives of environmental, social and governance (ESG) factors.



#### **Corporate Governance**

For more detailed information, please see the Governance section on the Group's Web site.

WEB https://www.shinetsu.co.jp/en/csr/csr\_governance.html

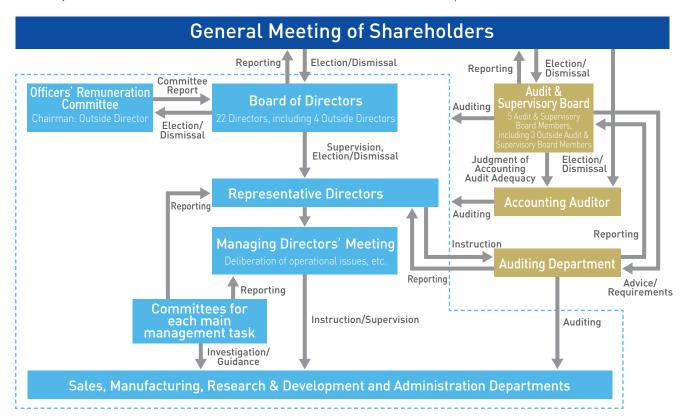
#### **Basic Approach**

Shin-Etsu Chemical develops various systems and has an efficient organizational structure able to quickly respond to changes in the business environment to realize the basic management policies of meeting shareholder expectations and continuously enhancing corporate value. Furthermore, our basic approach to corporate governance is focused on efforts to disclose accurate information to shareholders and investors from the perspectives of improving management transparency and enhanced monitoring functions, which we position as one of our most important management priorities.

#### Corporate Governance Structure (as of June 30, 2018)

Outside Audit & Supervisory Board members strive to ensure a sufficient auditing function by Audit & Supervisory Board members through collaborations between members and internal audit departments. We also strive to enhance the system and the staff members supporting the audits conducted by the Audit & Supervisory Board members. Furthermore, the four highly independent Outside Directors have an effective mechanism to strengthen management supervisory functions. The Outside Directors conduct sufficient management supervision with help by the Audit & Supervisory Board members and the internal audit departments. In this way, the Company employs a statutory auditor system as our corporate governance system to ensure the governance structure desired by the Company and earn the confidence of shareholders and investors.

Shin-Etsu Chemical's Board of Directors consists of 22 members (of which four are Outside Directors) and five Audit & Supervisory Board Members (of which three are Outside Audit & Supervisory Board members). In addition to the Board of Directors, the legally designated deliberator of business execution and the decision-making body, we have established a Managing Directors' Meeting, both of which meet once each month, in principle. Furthermore, the Officers' Remuneration Committee, chaired by an Outside Director, deliberates and evaluates executive remuneration and reports to the Board of Directors.



#### Officers' Remuneration

To ensure the transparency and fairness of executive remuneration, the Officers' Remuneration Committee was established in 2002 as an advisory body to the Board of Directors. This committee, chaired by Outside Director Frank Peter Popoff, assesses the overall degree of contribution by each Director to performance and general management each fiscal year, reporting the results of these evaluations to the Board of Directors.

#### About Decision Making Related to the Remuneration Amount and Calculation Method

Shin-Etsu Chemical Director remuneration is within the scope of the compensation framework approved by the General Meeting of Shareholders and determined by the Board of Directors in light of assessments and evaluations by the Officers' Remuneration Committee chaired by an Outside Director. Director remuneration consists of "basic remuneration" reflecting position and duties, a bonus based on annual performance and stock options.

Audit & Supervisory Board member remuneration is within the scope of the compensation framework approved by the General Meeting of Shareholders and is determined through consultation with Audit & Supervisory Board members in light of the duties as an Audit & Supervisory Board member, and consists of basic remuneration and a bonus.

Moreover, Outside Directors and Audit & Supervisory Board members do not receive stock options. Outside Directors and Outside Audit & Supervisory Board members also do not receive a bonus.

## Remuneration Amount by Director Type and Its Detail, Number of Applicable Directors (For the year ended March 31, 2018)

| Designation   | Amount of Rer | uneration by Type (¥ million) |       | Amount of Remuneration by Type (¥ million) |              |          | Amount of<br>Remuneration<br>(¥ million) | Number of<br>Recipients |
|---|---------------|-------------------------------|-------|--|--------------|----------|--|-------------------------|
|   | Base Amount   | Bonus                         | Total | Recipients<br>(People)                     | Stock Option | (People) |  |                         |
| Directors<br>(excluding Outside Directors)  | 1,048         | 566                           | 1,615 | 19   | 198          | 18       |  |                         |
| Audit & Supervisory Board Members<br>(excluding outside Audit &<br>Supervisory Board Members) | 31            | 9                             | 40    | 2  | _            | _        |  |                         |
| Outside Directors and Outside Audit & Supervisory Board Members                               | 149           | _                             | 149   | 7  | -            | _        |  |                         |

#### Notes

- 1. Includes one Director who resigned at the conclusion of the 140th General Shareholders' Meeting held on June 29, 2017.
- 2. The bonus indicates the amount accrued in the current fiscal year.
- 3. The Officers' Retirement Benefits Program was repealed at the conclusion of the 131st General Shareholders' Meeting held on June 27, 2008.
- 4. The amount for stock options is an expensed amount calculated for the current fiscal year based on the accounting standards. Therefore, it does not represent the amount paid in cash and the amount the company guarantees to pay in cash, either. In addition, the salary amounts for Directors' concurrently held nositions are not included.
- 5. Payments to Directors do not include employee salary amounts (including bonuses) equivalent to concurrently held positions. Salary amounts for concurrently held positions are immaterial.
- 6. The total amount of remuneration to Directors (excluding Outside Directors) consisting of "basic remuneration," "bonus" and "stock options" was ¥1,814 million

#### Compliance

#### Internal Control System

#### Status of Internal Control System Development

Shin-Etsu Chemical has formulated a Basic Policy on Internal Controls to comply with Japanese law, Article 362, Paragraph 4, Item 6, of the Companies Act. In line with this basic policy, we have established and operate an internal control system that undergoes constant review in an effort to enhance its appropriateness and efficiency.

#### Status of Audit and Supervisory Board Auditing and Internal Auditing

Shin-Etsu Chemical's Audit & Supervisory Board members attend important internal meetings and conduct audits on the execution of operations through the review of important documents and physical observation of plants in Japan and overseas. As necessary, regarding audits conducted by the accounting auditor, the Audit & Supervisory Board members request reports and explanations, sitting down with them for research, and exchange information and opinions several times throughout the year. The staff from the Auditing Department and the Legal Department also assist the Audit & Supervisory Board members with their duties.

In terms of the internal auditing organizational structure, the Auditing Department is constantly engaged in the operational auditing of each department from the perspectives of legal compliance and the rationality of business activities. The results of these activities are reported to management, the Outside Directors and the Audit & Supervisory Board members.

The Audit & Supervisory Board members hold regular monthly meetings with the Auditing Department where they receive progress reports on activities, internal auditing results and other matters. They provide advice on topics including these activities and the selection of key auditing themes and request investigations. They also exchange information and opinions on an ongoing basis if necessary. The Auditing Department also attends meetings where Audit & Supervisory Board members receive reports and explanations from the Accounting Auditor in an effort to strengthen the auditing function based on more effective tripartite cooperation.

#### Tax Compliance

The Group's Business Principle refers to strict compliance with all laws and regulations and conducting fair business practices. Based on this, employees within the group each work sincerely and faithfully at their tasks day by day. One of our goals as the group is contributing to society by paying the taxes required by the applicable laws of each country in which we do business, as calculated based on the profits earned from our activities. In the 2017 fiscal year, our consolidated companies paid a total of approximately 74.7 billion yen in taxes.

#### Compliance with the Corporate Governance Code

The Group is in compliance with the Tokyo Stock Exchange Corporate Governance Code and implements all 11 principles therein.

WEB https://www.shinetsu.co.jp/en/csr/csr\_governance.html#governance

## Outside Directors and Outside Audit & Supervisory Board Members

(As of March 31, 2018)





From the left: Toshihiko Fukui, Hiroshi Komiyama, Frank Peter Popoff, Tsuyoshi Miyazaki From the left: Yoshihiko Kosaka, Kiyoshi Nagano, Taku Fukui

|   | Important Concurrent Positions<br>(As of March 31, 2018)   | Status of Activities  | Attendance at<br>Board Meetings<br>(Year Ended March 31, 2018)                   |
|---|--|---|--|
| Outside Director<br>Frank Peter Popoff                          | Senior Adviser,<br>American Express<br>Company   | Mr. Popoff's opinions and practical advice, from a broad perspective based on his management experience as CEO of the former Dow Chemical Company, a U.S. company that has a long history as a global company, have been of significant importance for the Company to expand its business overseas and enhance its corporate value. | Board of<br>Directors Meetings<br>100%   |
| Outside Director<br>Tsuyoshi Miyazaki                           | Adviser,<br>Mitsubishi Logistics<br>Corporation  | He shared his comments from a broad,<br>high-level perspective capitalizing on his<br>management experience at Mitsubishi Logistics<br>Corporation. He also provided thorough<br>supervision from an independent standpoint.  | Board of<br>Directors Meetings<br>100%   |
| Outside Director<br>Toshihiko Fukui                             | President, Canon Institute for Global Studies Outside Director, Kikkoman Corporation   | He shared his comments from a broad, high-level perspective capitalizing on his outstanding knowledge and wealth of experience related to global finance and economy as an ex-Governor of the Bank of Japan. He also provided thorough supervision from an independent standpoint.  | Board of<br>Directors Meetings<br>93%  |
| Outside Director<br>Hiroshi Komiyama                            | Chairman,<br>Mitsubishi Research<br>Institute, Inc.  | He shared his comments from a broad, high-level perspective capitalizing on his outstanding knowledge and wealth of experience in a wide range of disciplines, including chemical engineering, the global environment, and natural resources and energy. He also provided thorough supervision from an independent standpoint.      | Board of<br>Directors Meetings<br>86%  |
| Outside Audit &<br>Supervisory Board Member<br>Taku Fukui       | Lawyer  Managing Partner, Kashiwagi Sogo Law Offices Professor, Keio University Law School Outside Director, Yamaha Corporation              | At the Audit & Supervisory Board meetings, he shared his comments from a legal specialist's point of view and contributed to the establishment of a compliance structure.   | Board of Directors Meetings 100%  Audit & Supervisory Board Members Meeting 100% |
| Outside Audit &<br>Supervisory Board Member<br>Yoshihito Kosaka | C.P.A.  Certified Public Tax Accountant  Counselor, Kisaragi Audit Corporation  Audit and Supervisory Committee  Member, Star Mica Co., Ltd. | At the Audit & Supervisory Board meetings, he shared his comments from a finance and accounting specialist's point of view and contributed to the establishment of a compliance structure.  | Board of Directors Meetings 100%  Audit & Supervisory Board Members Meeting 100% |
| Outside Audit & Supervisory Board Member Kiyoshi Nagano         | Outside Director,<br>LEC, INC.   | At the Audit & Supervisory Board meetings, he shared his comments from an extensive viewpoint based on his management experience at the former Jasdaq Securities Exchange, Inc., and contributed to the establishment of a compliance structure.  | Board of Directors Meetings 100%  Audit & Supervisory Board Members Meeting 100% |

## Board of Directors and Audit & Supervisory Board Members

(As of June 28, 2018)



Representative Director-Chairman Chihiro Kanagawa

Director, Chairman and Founder of SHINTECH Inc.



Representative Director-Vice Chairman Fumio Akiya

In charge of Semiconductor Materials, and Technologies Representative Director & President of Shin-Etsu Handotai Co., Ltd.



Representative Director-President Yasuhiko Saitoh

Director & President of SHINTECH Inc. Director & President of Shin-Etsu Handotai America, Inc.

| Senior<br>Managing Director         | Toshinobu Ishihara              | In charge of New Functional Materials, Special Functional Products  |
|-------------------------------------|---------------------------------|---|
| Senior<br>Managing Director         | Susumu Ueno                     | General Manager, Silicone Div.  |
| Senior<br>Managing Director         | Masahiko Todoroki               | General Manager, Planning & Administration Dept., Semiconductor Materials Div.,<br>Senior Managing Director of Shin-Etsu Handotai Co., Ltd. |
| Managing Director                   | Toshiya Akimoto                 | In charge of Office of the Secretariat, Office of the President,<br>Public Relations and Legal Affairs                                      |
| Managing Director                   | Fumio Arai                      | General Manager, Organic Chemicals Div.,<br>Director & President of Shin-Etsu PVC B.V. and SE Tylose GmbH & Co. KG                          |
| Managing Director                   | Yukihiro Matsui                 | General Manager of Electronics Materials Div.   |
| Managing Director                   | Masaki Miyajima                 | In charge of Advanced Materials, General Manager, PVC Div.  |
| Director                            | Shunzo Mori                     |   |
| Director                            | Frank Peter Popoff <sup>1</sup> | Senior Adviser, American Express Company  |
| Director                            | Tsuyoshi Miyazaki¹              | Adviser, Mitsubishi Logistics Corporation   |
| Director                            | Toshihiko Fukui¹                | President, Canon Institute for Global Studies<br>Outside Director, Kikkoman Corporation   |
| Director                            | Hiroshi Komiyama¹               | Chairman, Mitsubishi Research Institute, Inc.   |
| Director                            | Toshiyuki Kasahara              | General Manager, Finance & Accounting Dept.   |
| Director                            | Hidenori Onezawa                | In charge of Business Auditing  |
| Director                            | Kazumasa Maruyama               | General Manager, New Functional Materials Dept.   |
| Director                            | Kenji Ikegami                   | In charge of General Affairs,<br>Personnel & Labor Relations and Purchasing   |
| Director                            | Toshio Shiobara                 | In charge of R&D and Patents, Deputy General Manager of Electronics Materials Div. (in charge of Organic Electronics Materials)             |
| Director                            | Yoshimitsu Takahashi            | In charge of Environment Control & Safety,<br>General Manager, Business Development Dept.   |
| Director                            | Kai Yasuoka                     | General Manager, International Div.   |
| Audit & Supervisory<br>Board Member | Osamu Okada                     |   |
| Audit & Supervisory<br>Board Member | Hiroaki Okamoto                 |   |
| Audit & Supervisory<br>Board Member | Taku Fukui²                     | Managing Partner, Kashiwagi Sogo Law Offices, Professor, Keio University Law School Outside Director, Yamaha Corporation                    |
| Audit & Supervisory                 | Yoshihito Kosaka²               | Counselor, Kisaragi Audit Corporation Audit and Supervisory Committee Member, Star Mica Co., Ltd.   |
| Board Member                        | rosililito Nosaka               | Addit and Supervisory Committee Member, Star Mica Co., Ltd.   |

Notes: 1. Indicates an Outside Director as defined in Item 15, Article 2, of the Corporations Law.

<sup>2.</sup> Indicates an Outside Audit & Supervisory Board Member as defined in Item 16, Article 2, of the Corporations Law.

#### Financial Information

### Ten-Year Summary

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES For the fiscal years ended March 31, 2009 through 2018

For more detailed information, please see the Financial & IR Information on the Group's Web site

WEB https://www.shinetsu.co.jp/en/ir/ir\_data.html

| -  |            |            |               |            |  |
|--|------------|------------|---------------|------------|--|
|  | 2009       | 2010       | 2011          | 2012       |  |
| For the year:  |            |            |               |            |  |
| Net sales  | ¥1,200,813 | ¥ 916,837  | ¥1,058,257    | ¥1,047,731 |  |
| Cost of sales  | 853,433    | 700,902    | 803,574       | 798,592    |  |
| Selling, general and administrative expenses                       | 114,453    | 98,718     | 105,460       | 99,505     |  |
| Operating income   | 232,927    | 117,215    | 149,221       | 149,632    |  |
| Ordinary income  | 250,533    | 127,019    | 160,338       | 165,237    |  |
| Net income attributable to owners of parent                        | 154,731    | 83,852     | 100,119       | 100,643    |  |
| Capital expenditures   | 159,406    | 123,793    | 119,884       | 87,165     |  |
| R&D costs  | 37,469     | 33,574     | 37,321        | 35,725     |  |
| Depreciation and amortization                                      | 119,457    | 87,722     | 93,732        | 82,868     |  |
|  |            |            |               |            |  |
| At year-end:   | V1 /0/ 0// | V1 7/0 100 | V1 70 / 1 / / | V1 000 0/1 |  |
| Total assets   | ¥1,684,944 | ¥1,769,139 | ¥1,784,166    | ¥1,809,841 |  |
| Working capital (Current assets - Current liabilities)             | 606,632    | 612,447    | 638,493       | 694,803    |  |
| Common stock   | 119,419    | 119,419    | 119,419       | 119,419    |  |
| Net assets   | 1,407,353  | 1,474,212  | 1,469,429     | 1,494,573  |  |
| Interest-bearing debt  | 23,827     | 20,052     | 14,574        | 15,732     |  |
| Per share (Yen and U.S. dollars):                                  |            |            |               |            |  |
| Net income per share   | ¥ 362.39   | ¥ 197.53   | ¥ 235.80      | ¥ 237.03   |  |
| Diluted net income per share <sup>2</sup>                          | 362.35     | 197.50     | 235.80        | _          |  |
| Cash dividends   | 100.00     | 100.00     | 100.00        | 100.00     |  |
| Payout ratio (%)   | 27.6       | 50.6       | 42.4          | 42.2       |  |
| Net assets   | 3,218.28   | 3,370.56   | 3,360.39      | 3,422.93   |  |
|  |            |            |               |            |  |
| General:   |            |            |               |            |  |
| Operating income to net sales ratio (%)                            | 19.4       | 12.8       | 14.1          | 14.3       |  |
| Net income attributable to owners of parent to net sales ratio [%] | 12.9       | 9.1        | 9.5           | 9.6        |  |
| ROE (%)  | 11.0       | 6.0        | 7.0           | 7.0        |  |
| ROA (%)  | 13.9       | 7.4        | 9.0           | 9.2        |  |
| Equity ratio (%)   | 81.1       | 80.9       | 80.0          | 80.3       |  |
| Number of employees  | 19,170     | 16,955     | 16,302        | 16,167     |  |
| Number of shares issued (Thousands)                                | 432,106    | 432,106    | 432,106       | 432,106    |  |

Notes: 1. The U.S. dollar amounts represent conversion of yen, for convenience only, at the rate of ¥106 = US\$1, the approximate rate of exchange on March 31, 2018.

<sup>2.</sup> Diluted net income per share for the fiscal year ended March 31, 2012 is not presented as there were no securities with dilutive effect.

Millions of U.S. en dollars (Note 1)

|            |            |   |            |            | Millions of yen | Millions of U.S.<br>dollars (Note 1) |
|------------|------------|---|------------|------------|-----------------|--------------------------------------|
| 2013       | 2014       | 2015                                    | 2016       | 2017       | 2018            | 2018                                 |
|            |            |   |            |            |                 |                                      |
| ¥1,025,409 | ¥1,165,819 | ¥1,255,543                              | ¥1,279,807 | ¥1,237,405 | ¥1,441,432      | \$ 13,598                            |
| 769,427    | 873,879    | 940,399                                 | 930,019    | 868,404    | 963,008         | 9,084                                |
| 98,938     | 118,130    | 129,814                                 | 141,262    | 130,383    | 141,601         | 1,335                                |
| 157,043    | 173,809    | 185,329                                 | 208,525    | 238,617    | 336,822         | 3,177                                |
| 170,207    | 180,605    | 198,025                                 | 220,005    | 242,133    | 340,308         | 3,210                                |
| 105,714    | 113,617    | 128,606                                 | 148,840    | 175,912    | 266,235         | 2,511                                |
| 86,841     | 83,155     | 109,903                                 | 134,753    | 145,647    | 176,283         | 1,663                                |
| 37,671     | 43,546     | 47,165                                  | 53,165     | 49,020     | 51,768          | 488                                  |
| 80,961     | 91,445     | 96,918                                  | 100,466    | 93,087     | 112,016         | 1,056                                |
|            |            |   |            |            |                 |                                      |
| ¥1,920,903 | ¥2,198,912 | ¥2,452,306                              | ¥2,510,085 | ¥2,655,636 | ¥2,908,328      | \$ 27,437                            |
| 832,878    | 981,667    | 1,100,999                               | 1,170,679  | 1,232,607  | 1,356,638       | 12,798                               |
| 119,419    | 119,419    | 119,419                                 | 119,419    | 119,419    | 119,419         | 1,126                                |
| 1,623,176  | 1,822,135  | 2,012,711                               | 2,080,465  | 2,190,082  | 2,413,025       | 22,764                               |
| 13,929     | 15,638     | 14,328                                  | 13,470     | 14,642     | 15,814          | 149                                  |
|            |            | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |            |            |                 |                                      |
|            |            |   |            |            |                 |                                      |
| ¥ 248.94   | ¥ 267.20   | ¥ 302.05                                | ¥ 349.46   | ¥ 412.86   | ¥ 624.28        | \$ 5.889                             |
| 248.92     | 267.07     | 301.98                                  | 349.42     | 412.83     | 624.10          | 5.888                                |
| 100.00     | 100.00     | 100.00                                  | 110.00     | 120.00     | 140.00          | 1.321                                |
| 40.2       | 37.4       | 33.1                                    | 31.5       | 29.1       | 22.4            | 22.4                                 |
| 3,709.19   | 4,165.28   | 4,602.80                                | 4,761.48   | 5,002.16   | 5,511.98        | 52.000                               |
|            |            |   |            |            |                 |                                      |
| 15.3       | 14.9       | 14.8                                    | 16.3       | 19.3       | 23.4            | 23.4                                 |
| 10.3       | 9.7        | 10.2                                    | 11.6       | 14.2       | 18.5            | 18.5                                 |
| 7.0        | 6.8        | 6.9                                     | 7.5        | 8.5        | 11.9            | 11.9                                 |
| 9.1        | 8.8        | 8.5                                     | 8.9        | 9.4        | 12.2            | 12.2                                 |
| 82.0       | 80.6       | 79.9                                    | 80.8       | 80.3       | 80.8            | 80.8                                 |
| 17,712     | 17,892     | 18,276                                  | 18,407     | 19,206     | 20,155          | 20,155                               |
| 432,106    | 432,106    | 432,106                                 | 432,106    | 432,106    | 432,106         | 432,106                              |
|            |            |   |            |            |                 |                                      |

### Consolidated Balance Sheet

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES As of March 31, 2017 and 2018

|  |                   | Millions of yen   | Millions of U.S. dollars |
|--|-------------------|-------------------|--------------------------|
|  | 2017              | 2018              | 2018                     |
| ASSETS                                       |                   |                   |                          |
| Current Assets:                              |                   |                   |                          |
| Cash and time deposits                       | ¥ 752,675         | ¥ 854,506         | \$ 8,061                 |
| Notes and accounts receivable-trade          | 287,853           | 332,880           | 3,140                    |
| Securities                                   | 186,591           | 197,339           | 1,861                    |
| Merchandise and finished goods               | 126,026           | 135,033           | 1,273                    |
| Work in process                              | 12,234            | 13,235            | 124                      |
| Raw materials and supplies                   | 128,896           | 133,808           | 1,262                    |
| Deferred taxes, current                      | 35,937            | 36,475            | 344                      |
| Other  | 33,941            | 48,313            | 455                      |
| Less: Allowance for doubtful accounts        | (14,549)          | (12,201)          | (115)                    |
| Total current assets                         | 1,549,607         | 1,739,392         | 16,409                   |
| Fixed Assets: Property, Plant and Equipment: |                   |                   |                          |
| Buildings and structures, net                | 174,923           | 176,323           | 1,663                    |
| Machinery and equipment, net                 | 437,775           | 454,846           | 4,291                    |
| Land   | 86,953            | 88,746            | 837                      |
| Construction in progress                     | 139,180           | 170,810           | 1,611                    |
| Other, net                                   | 7,737             | 9,001             | 84                       |
| Total property, plant and equipment          | 846,570           | 899,728           | 8,488                    |
|  |                   |                   |                          |
| Intangible Assets                            | 10,229            | 9,405             | 88                       |
|  |                   |                   |                          |
| Investments and Other Assets:                | 105 011           | 1/5 /55           | 1 272                    |
| Investments in securities                    | 135,311           | 145,455           | 1,372<br>23              |
| Net defined benefit asset                    | 1,928             | 2,440<br>21,584   | 203                      |
| Deferred taxes, non-current Other            | 22,562<br>91,265  | 92,518            | 203<br>872               |
| Utner Less: Allowance for doubtful accounts  | 91,265<br>(1,840) | 92,518<br>(2,197) | (20)                     |
| Total investments and other assets           | 249,228           | 259,801           | 2,450                    |
| Total fixed assets                           | 1,106,028         | 1,168,935         | 11,027                   |
| Total Assets                                 | ¥2,655,636        | ¥ 2,908,328       | \$ 27,437                |
| I VIUL AJJELJ                                | 1 2,000,000       | + 2,700,020       | Ψ 27,407                 |

|  |            | Millions of yen | Millions of<br>U.S. dollars |
|--|------------|-----------------|-----------------------------|
|  | 2017       | 2018            | 2018                        |
| LIABILITIES  |            |                 |                             |
| Current Liabilities:                                       |            |                 |                             |
| Notes and accounts payable—trade                           | ¥ 123,823  | ¥ 136,834       | \$ 1,290                    |
| Short-term borrowings                                      | 12,788     | 7,094           | 66                          |
| Accounts payable—other                                     | 54,671     | 65,750          | 620                         |
| Accrued expenses   | 61,611     | 68,805          | 649                         |
| Accrued income taxes                                       | 32,711     | 58,972          | 556                         |
| Accrued bonuses for employees                              | 2,898      | 3,147           | 29                          |
| Accrued bonuses for directors                              | 612        | 674             | 6                           |
| Other  | 27,881     | 41,474          | 391                         |
| Total current liabilities                                  | 317,000    | 382,753         | 3,610                       |
|  |            |                 |                             |
| Long-Term Liabilities:                                     |            |                 |                             |
| Long-term debt   | 1,578      | 8,430           | 79                          |
| Deferred taxes, non-current                                | 98,228     | 62,335          | 588                         |
| Net defined benefit liability                              | 35,809     | 32,282          | 304                         |
| Other  | 12,936     | 9,499           | 89                          |
| Total long-term liabilities                                | 148,553    | 112,549         | 1,061                       |
| Total Liabilities  | 465,553    | 495,302         | 4,672                       |
|  |            |                 |                             |
| NET ASSETS   |            |                 |                             |
| Stockholders' Equity:                                      |            |                 |                             |
| Common stock   | 119,419    | 119,419         | 1,126                       |
| Additional paid-in capital                                 | 129,626    | 129,937         | 1,225                       |
| Retained earnings  | 1,857,857  | 2,070,779       | 19,535                      |
| Less: Treasury stock, at cost                              | (31,213)   | (30,207)        | (284)                       |
| Total stockholders' equity                                 | 2,075,690  | 2,289,929       | 21,603                      |
|  |            |                 |                             |
| Accumulated Other Comprehensive Income:                    |            |                 | 2.0                         |
| Unrealized gains (losses) on available-for-sale securities | 22,887     | 26,446          | 249                         |
| Deferred gains (losses) on hedges                          | 862        | 1,671           | 15                          |
| Foreign currency translation adjustments                   | 35,154     | 34,611          | 326                         |
| Remeasurements of defined benefit plans                    | (1,761)    | (1,416)         | (13)                        |
| Total accumulated other comprehensive income               | 57,142     | 61,313          | 578                         |
| Share Subscription Rights                                  | 152        | 524             | 4                           |
| Non-Controlling Interests in Consolidated Subsidiaries     | 57,096     | 61,258          | 577                         |
| Total net assets   | 2,190,082  | 2,413,025       | 22,764                      |
| Total Liabilities and Net Assets                           | ¥2,655,636 | ¥ 2,908,328     | \$ 27,437                   |

### Consolidated Statement of Income

| SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES For the fiscal years ended March 31, 2017 and 2018 |            | Millions of yen | Millions of U.S. dollars |
|--|------------|-----------------|--------------------------|
|  | 2017       | 2018            | 2018                     |
| Net Sales  | ¥1,237,405 | ¥1,441,432      | \$ 13,598                |
| Cost of Sales  | 868,404    | 963,008         | 9,084                    |
| Gross profit   | 369,001    | 478,424         | 4,513                    |
| Selling, General and Administrative Expenses   | 130,383    | 141,601         | 1,335                    |
| Operating income   | 238,617    | 336,822         | 3,177                    |
| Other Income (Expenses):   |            |                 |                          |
| Interest income  | 4,714      | 6,122           | 57                       |
| Dividend income  | 2,602      | 4,817           | 45                       |
| Equity in earnings (losses) of affiliates  | 2,788      | 3,762           | 35                       |
| Interest expenses  | (529)      | (621)           | (5)                      |
| Loss on disposal of property, plant and equipment  | (974)      | (3,239)         | (30)                     |
| Foreign exchange gain (loss)   | (3,697)    | (6,140)         | (57)                     |
| Other, net   | (1,388)    | (1,215)         | (11)                     |
| Ordinary income  | 242,133    | 340,308         | 3,210                    |
| Income before income taxes and non-controlling interes   | ts 242,133 | 340,308         | 3,210                    |
| Income Taxes:  |            |                 |                          |
| Current  | 67,187     | 103,240         | 973                      |
| Deferred   | (3,363)    | (32,990)        | (311)                    |
|  | 63,823     | 70,249          | 662                      |
| Net income   | 178,309    | 270,058         | 2,547                    |
| Net income Attributable to Non-Controlling Interests   | (2,397)    | (3,822)         | (36)                     |
| Net income Attributable to Owners of Parent  | ¥ 175,912  | ¥ 266,235       | \$ 2,511                 |

| Earnings per Share:  |          | Yen      | U.S. dollars |
|--|----------|----------|--------------|
| Net income attributable to owners of parent—basic            | ¥ 412.86 | ¥ 624.28 | \$ 5.889     |
| Net income attributable to owners of parent—fully diluted    | 412.83   | 624.10   | 5.888        |
| Cash dividends   | 120.00   | 140.00   | 1.321        |
| Weighted-Average Number of<br>Shares Outstanding (Thousands) | 426,086  | 426,470  | 426,470      |

# Consolidated Statement of Comprehensive Income

| SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES<br>For the fiscal years ended March 31, 2017 and 2018 |           | Millions of yen | Millions of<br>U.S. dollars |
|---|-----------|-----------------|-----------------------------|
|   | 2017      | 2018            | 2018                        |
| Net income  | ¥ 178,309 | ¥ 270,058       | \$ 2,547                    |
| Other Comprehensive Income:   |           |                 |                             |
| Unrealized gains (losses) on available-<br>for-sale securities                                      | 9,149     | 3,549           | 33                          |
| Deferred gains (losses) on hedges   | (753)     | 806             | 7                           |
| Foreign currency translation adjustments  | (34,265)  | 14              | 0                           |
| Remeasurements of defined benefit plans   | (280)     | 337             | 3                           |
| Share of other comprehensive income (loss) of affiliates accounted for using the equity method      | (205)     | 370             | 3                           |
| Total other comprehensive income (loss)   | (26,356)  | 5,078           | 47                          |
| Comprehensive Income  | ¥ 151,953 | ¥ 275,137       | \$ 2,595                    |
| (Breakdown)   |           |                 |                             |
| Comprehensive income attributable to owners of parent   | ¥ 150,576 | ¥ 270,406       | \$ 2,551                    |
| Comprehensive income attributable to non-controlling interests                                      | 1,376     | 4,730           | 44                          |

## Consolidated Statement of Changes in Net Assets

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

|  | Thousands                        |              |                            |                   |                            | Millions of yen |
|--|----------------------------------|--------------|----------------------------|-------------------|----------------------------|-----------------|
| _  | Stockholders' Equity             |              |                            |                   |                            |                 |
|  | Number of shares of common stock | Common stock | Additional paid-in capital | Retained earnings | Treasury stock,<br>at cost | Total           |
| Balance at April 1, 2016                             | 432,106                          | ¥119,419     | ¥128,759                   | ¥1,731,042        | ¥(33,407)                  | ¥1,945,813      |
| Cash dividends                                       |                                  |              |                            | (48,987)          |                            | (48,987)        |
| Net income attributable to owners of parent          |                                  |              |                            | 175,912           |                            | 175,912         |
| Purchase of treasury stock                           |                                  |              |                            |                   | (19)                       | (19)            |
| Disposal of treasury stock                           |                                  |              | 878                        |                   | 2,213                      | 3,092           |
| Others   |                                  |              | [11]                       | (109)             |                            | [121]           |
| Net changes of items other than stockholders' equity |                                  |              |                            |                   |                            |                 |
| Balance at March 31, 2017                            | 432,106                          | ¥119,419     | ¥129,626                   | ¥1,857,857        | ¥(31,213)                  | ¥2,075,690      |

|  |   |   |  |   |          |  |                     | Millions of yen |
|--|---|---|--|---|----------|--|---------------------|-----------------|
|  | Acc   | Accumulated Other Comprehensive Income  |  |   |          |  |                     |                 |
|  | Unrealized gains<br>(losses) on available-<br>for-sale securities | Deferred gains<br>(losses)<br>on hedges | Foreign currency translation adjustments | Remeasurements<br>of defined<br>benefit plans | Total    | Share Non-controlling interests subscription in consolidated rights subsidiaries | Total<br>net assets |                 |
| Balance at April 1, 2016                             | ¥13,780   | ¥1,611                                  | ¥68,566                                  | ¥(1,480)                                      | ¥82,478  | ¥237   | ¥51,936             | ¥2,080,465      |
| Cash dividends                                       |   |   |  |   |          |  |                     | (48,987)        |
| Net income attributable to owners of parent          |   |   |  |   |          |  |                     | 175,912         |
| Purchase of treasury stock                           |   |   |  |   |          |  |                     | [19]            |
| Disposal of treasury stock                           |   |   |  |   |          |  |                     | 3,092           |
| Others   |   |   |  |   |          |  |                     | [121]           |
| Net changes of items other than stockholders' equity | 9,106   | [749]                                   | (33,412)                                 | (280)   | (25,335) | (84)   | 5,160               | (20,259)        |
| Balance at March 31, 2017                            | ¥22,887   | ¥862                                    | ¥35,154                                  | ¥(1,761)                                      | ¥57,142  | ¥152   | ¥57,096             | ¥2,190,082      |

|  | Thousands                        |              |                               |                      |                            | Millions of yen |
|--|----------------------------------|--------------|-------------------------------|----------------------|----------------------------|-----------------|
|  |                                  |              |                               | Stockholders' Equity |                            |                 |
|  | Number of shares of common stock | Common stock | Additional paid-in<br>capital | Retained earnings    | Treasury stock,<br>at cost | Total           |
| Balance at April 1, 2017                             | 432,106                          | ¥119,419     | ¥129,626                      | ¥1,857,857           | ¥(31,213)                  | ¥2,075,690      |
| Cash dividends                                       |                                  |              |                               | (53,301)             |                            | (53,301)        |
| Net income attributable to owners of parent          |                                  |              |                               | 266,235              |                            | 266,235         |
| Purchase of treasury stock                           |                                  |              |                               |                      | (30)                       | (30)            |
| Disposal of treasury stock                           |                                  |              | 410                           |                      | 1,036                      | 1,447           |
| Others   |                                  |              | [99]                          | [12]                 |                            | (112)           |
| Net changes of items other than stockholders' equity |                                  |              |                               |                      |                            |                 |
| Balance at March 31, 2018                            | 432 106                          | ¥119 419     | ¥129 937                      | ¥2 070 779           | ¥(30.207)                  | ¥2 289 929      |

|  |   |   |  |   |         |                                 |  | Millions of yen     |
|--|---|---|--|---|---------|---------------------------------|--|---------------------|
|  | Ассі  | Accumulated Other Comprehensive Income  |  |   |         |                                 |  |                     |
|  | Unrealized gains<br>(losses) on available-<br>for-sale securities | Deferred gains<br>(losses)<br>on hedges | Foreign currency<br>translation<br>adjustments | Remeasurements<br>of defined<br>benefit plans | Total   | Share<br>subscription<br>rights | Non-controlling interests<br>in consolidated<br>subsidiaries | Total<br>net assets |
| Balance at April 1, 2017                             | ¥22,887   | ¥862                                    | ¥35,154  | ¥(1,761)                                      | ¥57,142 | ¥152                            | ¥57,096  | ¥2,190,082          |
| Cash dividends                                       |   |   |  |   |         |                                 |  | (53,301)            |
| Net income attributable to owners of parent          |   |   |  |   |         |                                 |  | 266,235             |
| Purchase of treasury stock                           |   |   |  |   |         |                                 |  | (30)                |
| Disposal of treasury stock                           |   |   |  |   |         |                                 |  | 1,447               |
| Others   |   |   |  |   |         |                                 |  | (112)               |
| Net changes of items other than stockholders' equity | 3,559   | 809                                     | (543)  | 344   | 4,171   | 371                             | 4,161  | 8,703               |
| Balance at March 31, 2018                            | ¥26,446   | ¥1,671                                  | ¥34,611  | ¥(1,416)                                      | ¥61,313 | ¥524                            | ¥61,258  | ¥2,413,025          |

#### Financial Information

## Consolidated Statement of Changes in Net Assets

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES

|  | Thousands                        |                      |                               |                   | Millions                   | s of U.S. dollars |  |  |
|--|----------------------------------|----------------------|-------------------------------|-------------------|----------------------------|-------------------|--|--|
|  |                                  | Stockholders' Equity |                               |                   |                            |                   |  |  |
|  | Number of shares of common stock | Common stock         | Additional paid-in<br>capital | Retained earnings | Treasury stock,<br>at cost | Total             |  |  |
| Balance at April 1, 2017                             | 432,106                          | \$1,126              | \$1,222                       | \$17,526          | \$(294)                    | \$19,581          |  |  |
| Cash dividends                                       |                                  |                      |                               | (502)             |                            | (502)             |  |  |
| Net income attributable to owners of parent          |                                  |                      |                               | 2,5117            |                            | 2,511             |  |  |
| Purchase of treasury stock                           |                                  |                      |                               |                   | (0)                        | (0)               |  |  |
| Disposal of treasury stock                           |                                  |                      | 3                             |                   | 9                          | 13                |  |  |
| Others   |                                  |                      | (0)                           | (0)               |                            | (1)               |  |  |
| Net changes of items other than stockholders' equity |                                  |                      |                               |                   |                            |                   |  |  |
| Balance at March 31, 2018                            | 432,106                          | \$1,126              | \$1,225                       | \$19,535          | \$(284)                    | \$21,603          |  |  |

|  |   |   |  |   |       |                                 | Millions   | of U.S. dollars     |
|--|---|---|--|---|-------|---------------------------------|--|---------------------|
|  | Ассі  | Accumulated Other Comprehensive Income  |  |   |       | _                               |  |                     |
|  | Unrealized gains<br>(losses) on available-<br>for-sale securities | Deferred gains<br>(losses)<br>on hedges | Foreign currency<br>translation<br>adjustments | Remeasurements<br>of defined<br>benefit plans | Total | Share<br>subscription<br>rights | Non-controlling interests in consolidated subsidiaries | Total<br>net assets |
| Balance at April 1, 2017                             | \$215   | \$8                                     | \$331  | \$(16)  | \$539 | \$1                             | \$538  | \$20,661            |
| Cash dividends                                       |   |   |  |   |       |                                 |  | (502)               |
| Net income attributable to owners of parent          |   |   |  |   |       |                                 |  | 2,511               |
| Purchase of treasury stock                           |   |   |  |   |       |                                 |  | (0)                 |
| Disposal of treasury stock                           |   |   |  |   |       |                                 |  | 13                  |
| Others   |   |   |  |   |       |                                 |  | [1]                 |
| Net changes of items other than stockholders' equity | 33  | 7                                       | (5)  | 3   | 39    | 3                               | 39   | 82                  |
| Balance at March 31, 2018                            | \$249   | \$15                                    | \$326  | \$(13)  | \$578 | \$4                             | \$577  | \$22,764            |

### Consolidated Statement of Cash Flows

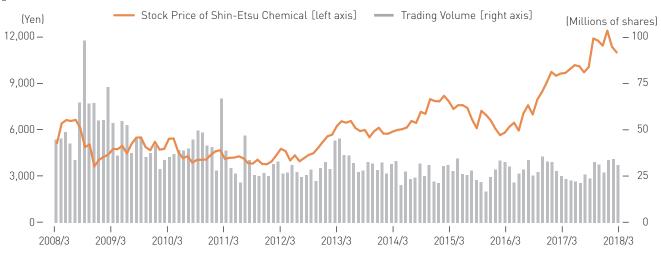
SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES For the fiscal years ended March 31, 2017 and 2018

|   | Millions of Millions of yen U.S. dollars |             |          |  |
|---|--|-------------|----------|--|
| Ī   | 2017                                     | 2018        | 2018     |  |
| Cash Flows from Operating Activities:   |  |             |          |  |
| Income before income taxes and non-controlling interests  | ¥ 242,133                                | ¥340,308    | \$ 3,210 |  |
| Adjustments to reconcile income before income taxes to net cash provided by operating activities: | ,  | ,           | , ,      |  |
| Depreciation and amortization   | 93,087                                   | 112,016     | 1,056    |  |
| Loss on impairment of fixed assets  | 2,028                                    | 1,460       | 13       |  |
| Increase (decrease) in net defined benefit liability  | 1,384                                    | (4,469)     | (42)     |  |
| (Gain) loss on sales of investments in securities   | (0)                                      | (17)        | (0)      |  |
| Increase (decrease) in allowance for doubtful accounts  | (165)                                    | (2,019)     | (19)     |  |
| Interest and dividend income  | (7,317)                                  | (10,939)    | (103)    |  |
| Interest expenses   | 529                                      | 621         | 5        |  |
| Exchange (gain) loss  | 2,370                                    | 6,148       | 58       |  |
| Equity in (earnings) losses of affiliates   | (2.788)                                  | (3,762)     | (35)     |  |
| Changes in assets and liabilities:  | (2,700)                                  | (0).02,     | (55)     |  |
| [Increase] decrease in notes and accounts receivable  | (23,501)                                 | (42,287)    | (398)    |  |
| (Increase) decrease in inventories  | 10,621                                   | (13,595)    | (128)    |  |
| (Increase) decrease in long-term advance payment  | 3,180                                    | 3,196       | 30       |  |
| Increase (decrease) in notes and accounts payable   | 9,606                                    | 12,017      | 113      |  |
| Other, net  | 15,351                                   | (2,256)     | (21)     |  |
| Subtotal  | 346,522                                  | 396,420     | 3,739    |  |
| Proceeds from interest and dividends  | 7,774                                    | 11,746      | 110      |  |
| Payments of interest  | (528)                                    | (599)       | (5)      |  |
| Payments of income taxes  | (62,895)                                 | (74,791)    | (705)    |  |
| Net cash provided by operating activities   | 290,872                                  | 332,776     | 3,139    |  |
| Cash Flows from Investing Activities:   | 270,072                                  | 002,770     | 5,157    |  |
| (Increase) decrease in time deposits  | 30,289                                   | (22,649)    | (213)    |  |
| Purchases of securities   | (74,001)                                 | (95,000)    | (896)    |  |
| Proceeds from redemption of securities  | 186,381                                  | 50,560      | 476      |  |
| Purchases of property, plant and equipment  | (134,897)                                | (162,311)   | (1,531)  |  |
| Proceeds from sales of property, plant and equipment  | 235                                      | 2,390       | 22       |  |
| Purchases of intangible fixed assets  | (1,377)                                  | (1,407)     | (13)     |  |
| Purchases of investments in securities  | (1,613)                                  | (7,516)     | (70)     |  |
| Proceeds from sales of investments in securities  | 53                                       | 26          | 0        |  |
| Proceeds from redemption of investments in securities   | 0  | 5,000       | 47       |  |
| Payments of loans   | (481)                                    | (809)       | (7)      |  |
| Proceeds from collection of loans   | 3,494                                    | 1,301       | 12       |  |
| Other, net  | (6,802)                                  | (7,188)     | (67)     |  |
| Net cash provided by (used for) investing activities  | 1,281                                    | (237,602)   | (2,241)  |  |
| Cash Flows from Financing Activities:   |  | ,           | .,,,     |  |
| Net increase (decrease) in short-term borrowings  | 520                                      | (114)       | (1)      |  |
| Proceeds from long-term debt  | 25                                       | 2,012       | 18       |  |
| Repayments of long-term debt  | (212)                                    | (792)       | (7)      |  |
| Purchases of treasury stock   | (19)                                     | (30)        | (0)      |  |
| Proceeds from sales of treasury stock   | 2,979                                    | 1,394       | 13       |  |
| Cash dividends paid   | (48,987)                                 | (53,301)    | (502)    |  |
| Cash dividends paid to non-controlling interests  | (615)                                    | (750)       | (7)      |  |
| Other, net  | 9,110                                    | 1,575       | 14       |  |
| Net cash used for financing activities  | (37,199)                                 | (50,006)    | (471)    |  |
| Effect of Exchange Rate Changes on Cash and Cash Equivalents                                      | (13,584)                                 | 1,952       | 18       |  |
| Net Increase (Decrease) in Cash and Cash Equivalents  | 241,369                                  | 47,119      | 444      |  |
| Cash and Cash Equivalents at Beginning of Year  | 487,604                                  | 733,306     | 6,917    |  |
| Increase (Decrease) in Cash and Cash Equivalents Resulting from Changes in Scope of Consolidation | 4,332                                    | 24          | 0        |  |
| Cash and Cash Equivalents at End of Year  | ¥ 733,306                                | ¥ 780,449   | \$ 7,362 |  |
|   |  | . , 00, 44, | Ψ 7,002  |  |

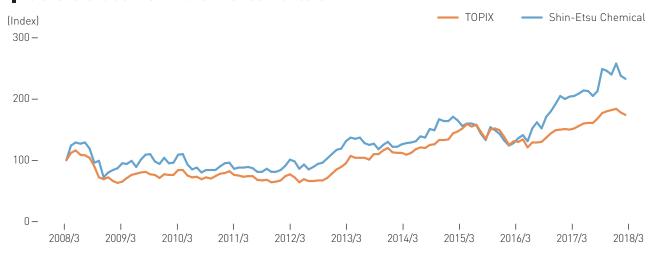
### Investor Information

(As of March 31, 2018)

#### Stock Price Movement



#### Total Shareholder Return over the Past 10 Years



|      | Shin-Etsu Chemical | TOPIX |
|------|--------------------|-------|
| 2008 | 100                | 100   |
| 2009 | 95                 | 65    |
| 2010 | 109                | 84    |
| 2011 | 86                 | 76    |
| 2012 | 101                | 77    |
| 2013 | 131                | 95    |
| 2014 | 126                | 112   |
| 2015 | 165                | 147   |
| 2016 | 128                | 131   |
| 2017 | 204                | 150   |
| 2018 | 233                | 174   |

Stock index of Shin-Etsu Chemical and TOPIX (March 31, 2008 = 100)

Note: The above chart and the table show the rate of return taking into consideration the dividend as of March 31, 2018, and the stock price when an investment was conducted on March 31, 2008. Investment performance including dividends has been added to the Shin-Etsu Chemical stock price and indexed at 100 as of March 31, 2008. The TSE Stock Price Index (TOPIX), which is a comparative index, also uses indexed data and is indexed in the same way.

#### Share Data (As of March 31, 2018)

| Company Name                             | Shin-Etsu Chemical Co., Ltd.  |  |  |  |  |
|--|---|--|--|--|--|
| Head Office                              | 6-1, Ohtemachi 2-chome, Chiyoda-ku,<br>Tokyo 100-0004, Japan  |  |  |  |  |
| Date of Establishment                    | September 16, 1926  |  |  |  |  |
| Capital                                  | ¥119,419 million  |  |  |  |  |
| Number of Employees                      | 20,155 (Consolidated)   |  |  |  |  |
| Common Stock                             | Number of Shares Authorized 1,720,000,000<br>Number of Shares Issued* 432,106,693<br>*Includes 6,127,692 treasury shares. |  |  |  |  |
|  | Share Unit of Exchange 100 stocks<br>Number of Stockholders 48,492  |  |  |  |  |
| Stock Listings                           | Tokyo, Nagoya (Ticker Code: 4063)   |  |  |  |  |
| Fiscal Year-End                          | March 31  |  |  |  |  |
| Ordinary General Meeting of Shareholders | June  |  |  |  |  |
| Transfer Agent                           | Mitsubishi UFJ Trust and Banking Corporation  |  |  |  |  |
| Contact                                  | Public Relations Phone: +81-3-3246-5091 Department Fax: +81-3-3246-5096 e-mail: sec-pr@shinetsu.jp                        |  |  |  |  |

The Company resolved to cancel the treasury shares of the Company at the Board of Directors Meeting held on April 27, 2018, and implemented a resolution as below.

| Type of cancelled shares                         | Common stock in the Company |
|--|-----------------------------|
| Number of cancelled shares                       | 4,500,000 shares            |
| Date of cancellation                             | May 2, 2018                 |
| Total number of issued shared after cancellation | 427,606,693 shares          |

#### Major Shareholders

(\*Rounded down to the nearest 1,000.)

| Name of Shareholder                                  | Number of<br>Shares Held<br>(Thousand<br>shares*) | Holding<br>Ratio<br>(%) |
|--|---|-------------------------|
| The Master Trust Bank of Japan, Ltd. (Trust Account) | 48,330  | 11.3                    |
| Japan Trustee Services Bank, Ltd. (Trust Account)    | 36,160  | 8.5                     |
| Nippon Life Insurance Company                        | 21,933  | 5.1                     |
| Japan Trustee Services Bank, Ltd. (Trust Account 4)  | 12,269  | 2.9                     |
| The Hachijuni Bank, Ltd.                             | 11,790  | 2.8                     |
| Meiji Yasuda Life Insurance Company                  | 10,687  | 2.5                     |
| JP MORGAN CHASE BANK 380055                          | 8,018   | 1.9                     |
| STATE STREET BANK WEST CLIENT -<br>TREATY 505234     | 7,193   | 1.7                     |
| Japan Trustee Service Bank, Ltd. (Trust Account 5)   | 6,664   | 1.6                     |
| GIC PRIVATE LIMITED-C                                | 6,663   | 1.6                     |

Note: Shin-Etsu Chemical, which owns 5,536,807 treasury shares, is excluded from consideration as a major shareholder as defined above. The holding ratios are computed net of this treasury stock.

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#### Corporate Information



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#### Financial & IR Information



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