



# Shin-Etsu Polymer Sustainability Report 2015



## Corporate Mission Statement

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**The Group strictly complies with all laws and regulations, conducts fair business practices, and contributes to people's daily lives as well as to the advance of industry and society by providing key materials and technologies.**

**The Shin-Etsu Group places safety and fairness first in its business and targets becoming a group of companies that develops together with society.**

### Corporate Action Policy

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**Unlimited challenges and growth!  
We work to become a company full of creativity and vitality by realizing hopes and visions toward the future.**

- 1 We serve as a strong and reliable partner with companies challenging to grow in their markets through innovative products and services.
- 2 We always consider and make proposals from the viewpoint of our customers and globally provide products and services that contribute to their value creation and growth.
- 3 We assume our corporate responsibilities toward shareholders, customers, employees, communities, and the global environment.

### About the symbol mark

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The symbol mark expresses our feeling of "creating our brilliant value in a 'green environment'" with the green leaf and bright morning dew.

The combination of indigo water, green trees and blue sky symbolize our commitment to "continuously develop vitality," while the Shin-Etsu color provides an image of the development of Shin-Etsu Polymer.



### Corporate Action Policy

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- 1 We have pride and awareness as employees of Shin-Etsu Polymer Co., Ltd. and its Group companies and do our best to become a company trusted by society by always maintaining a law-abiding spirit, complying with laws, regulations, internal codes and rules and conducting fair and highly transparent corporate activities.
- 2 We disclose a comprehensive range of corporate information where necessary and appropriate and promote communication with society as well as stockholders, investors, customers, and communities as an "open company."
- 3 We respect the histories, cultures, customs, etc. of individual countries and regions, work at developing business based on mutual trust, and make efforts to coexist with communities.
- 4 We recognize global environmental preservation as one of our first priority challenges and, by fulfilling social responsibilities required, actively participate in the establishment of a recycling-oriented economic society aiming for sustainable development.
- 5 Through business activities, we try to develop and manufacture environmentally friendly products with high performance, contribute to an affluent society and preservation of the environment. Furthermore, we implement green procurement, properly control chemical substances, and comply with regulations on substances contained in products.
- 6 We commit ourselves to meet the requirements of customers and consumers and make efforts to provide attractive, safe, and quality products and services that are highly satisfactory. Furthermore, we carefully handle personal information associated with customer's privacy and strictly control such information so that no information leakage or illegal use should occur.
- 7 We respect the principle of free competition and always promote fair trade. We also build transparent, fair, and healthy relations with customers and consumers.
- 8 We respect human rights, personality, and diversity of employees, realize fair treatment, and establish a working environment where they can exert their abilities, skills, and vitality. We comply with occupational laws and regulations and conduct no inhumane labor practice such as child or forced labor.
- 9 We maintain healthy and normal relations with governments and their administrations.
- 10 We confront antisocial groups and organizations that threaten social order and security with a resolute attitude.
- 11 We, as "good corporate citizens" carry our social action programs in a positive manner.

## Editorial Policy

The Shin-Etsu Polymer Group started publishing its "Sustainability Report" from 2001. In this report, we provide our view, initiatives and achievement of the global environmental preservation and environmental management as main subjects as well as CSR-related activities.

The editorial principles of the 2015 Version are as follows:

- 1 This Report conforms to the "Environmental Reporting Guidelines (Fiscal Year 2012 Version)" of the Ministry of the Environment in its reporting.
- 2 In Episode, we introduce our "environmentally friendly and contributing products" which contribute to the realization of a safe and secure society by providing information on products from each segment. "EXELAST™" is resin excellent in slidability and highly rated in the automobile field. We also provide information on "Shin-Etsu TWSS", which helps reduce operation process related to semiconductors.
- 3 The CSR Report sums up the group's organization and activities in relation to engagement with "corporate governance," "customers," "employees," "communities," "environment" in a configuration that is easy to read and understand.
- 4 The information in this Report (including the English Version) and details of environmental data are all disclosed on our website. We also provide additional information on our website.
- 5 We received third-party comments from Mr. Kozuma, Professor of Sophia University, as was the case with previous editions, and we shall take advantage of them for our future efforts and initiatives.

**Website URL:** <http://www.shinpoly.co.jp/english/environment/report/index.html>

- **Period subject to report**  
April 2014 - March 2015
- **Issued**  
September 2015 (Next issue: September 2016 (Scheduled))
- **Organizations subject to report**  
Shin-Etsu Polymer Group\* For further detail, please refer to page 29.
- **Field of reporting**  
This Report covers the fields of environmental conservation and social activities. For the overview of our business, please refer to our Corporate Profile.
- **Contact**  
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Sotetsu Kandasudacho Building 1-9 Kanda-Sudacho, Chiyoda-ku,  
Tokyo 101-0041 Japan  
TEL: 81-3-5289-3712 FAX: 81-3-5289-3707  
URL <http://www.shinpoly.co.jp/english/>

## About the design

The Shin-Etsu Polymer Group is striving to think about the realization of a sustainable society with people in the community and to put it into practice. In the design of the Sustainability Report, we express our commitment by combining the "Bird of a prefecture" of a location of one of our plants and published it in the 4th Red List of the Ministry of Environment with an image of four seasons and the bird's habitat. The 2015 Version shows an ibis flying in an autumn sunset in Niigata Prefecture where Niigata Polymer Co., Ltd. is located. The common keyword with the "Flower of a prefecture" series (2005 to 2008 Versions), "Tree of a prefecture" series (2009 to 2012 Versions) and "Bird of a prefecture" series (2013 to 2016 Versions) is "bio-diversity."



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### Business overview of Shin-Etsu Polymer Group

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#### ● Company profile

Trading name: Shin-Etsu Polymer Co., Ltd.

Founded: September 15, 1960

Headquarters address: Sotetsu Kandasudacho Building 1-9  
Kanda-Sudacho, Chiyoda-ku, Tokyo  
101-0041 Japan

Paid-in capital: 11,635,950,000 yen

Employees: Total for all group companies:

3,962 (of them, 2,284 are women)

Independent: 608 (of them, 107 are women)

(as of March 31, 2015)

Domestic production bases: Tokyo Plant, Nanyo Plant,  
Kodama Plant

Consolidated subsidiaries: 17 companies

#### Domestic production bases

Shinano Polymer Co., Ltd.

Urawa Polymer Co., Ltd.

Niigata Polymer Co., Ltd.

SAN-ACE Co., Ltd.

#### Domestic non-production bases

Shin-Etsu Finetech Co., Ltd.

#### Overseas production bases

Suzhou Shin-Etsu Polymer Co., Ltd.

Dongguan Shin-Etsu Polymer Co., Ltd.

Shin-Etsu Polymer (Malaysia) Sdn.Bhd.

P.T. Shin-Etsu Polymer Indonesia

Shin-Etsu Polymer India Pvt. Ltd.

Shin-Etsu Polymer Hungary Kft.

#### Overseas non-production bases

Shin-Etsu Polymer Shanghai Co. Ltd.

Shin-Etsu Polymer Hong Kong Co., Ltd.

Shin-Etsu Polymer (Thailand) Ltd.

Shin-Etsu Polymer Singapore Pte. Ltd.

Shin-Etsu Polymer America, Inc.

Shin-Etsu Polymer Europe B.V.

#### ● Main Business Activities

Ever since our foundation as a polyvinyl chloride processing manufacturer, Shin-Etsu Polymer has been engaged in the development and application of basic technologies for "material mixtures and compounding," "design," "manufacturing process" and "evaluation and analysis" of silicone rubber and various plastics.

We support various customer needs in a comprehensive range of fields from automobiles and information equipment to semiconductors and construction.

#### Electronic devices business

##### • Input devices

Automobile key switch, laptop PC touch pad, remote control input device, electronic home appliance switch,

##### • Display-related devices

Electronic device connector, Privacy filters prevention films for ATMs / PCs

##### • Component-related products

Waterproof products for smartphones, Parts inspection connector, wiper blades

#### Precision molding products business

##### • OA equipment parts

various rollers for printers, faxes, and PPCs

##### • Silicone rubber molded products

Medical catheter, silicone plug, adhesive plate, fire-proof gasket

##### • Semiconductor-related containers

Wafer case, Semiconductor-related containers

##### • Carrier tape-related products

Emboss carrier tape, top cover tape

#### Living environment and life-related materials business

##### • Wrapping films

Wrapping film for fresh food, self-adhesive film

##### • Plastic sheet-related products

Industrial sheets, Puraten sheet for copier, flame-resistant sheet

##### • Functional compounds

Items for various electrical cable (communication cable, robot cable etc.), Interior and exterior equipment for automobiles

##### • PVC pipe-related products

Water supply and sewerage piping, general drain piping, agricultural piping, piping joints

##### • Exterior material-related products

PVC / PolyCarbonate corrugated sheet, PVC siding

#### Others

##### • Construction

Commercial facility, interior and exterior design and construction of bathrooms etc.

##### • Packaging materials

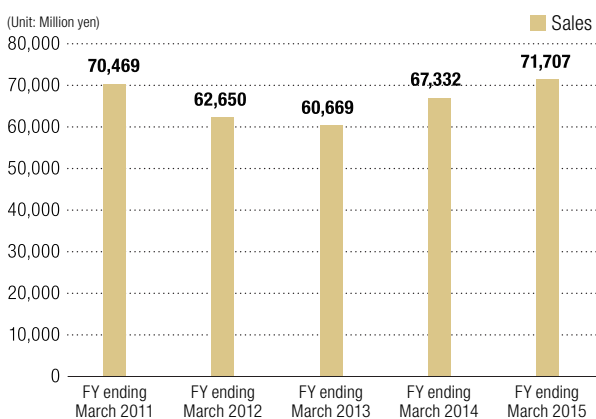
Industrial trays, packaging for fruits, agricultural materials, shopping bags, container washing

## Summary of Key Performance Indicators

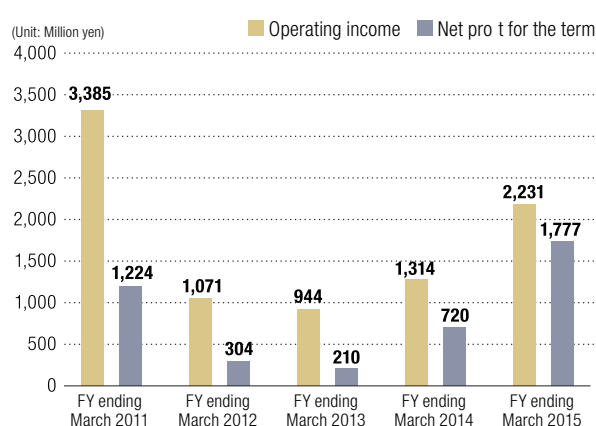
In market conditions surrounding the Shin-Etsu Polymer Group, the production in the automobile industry and demand in the semiconductor and OA equipment-related industries has witnessed a smooth progress. Under these conditions, we have expanded our business by taking

advantage of the comprehensive strength of our new organizational frameworks. We also have developed global sales activities focusing on new product proposals, and our technology department and manufacturing department have come together to improve quality and production efficiency.

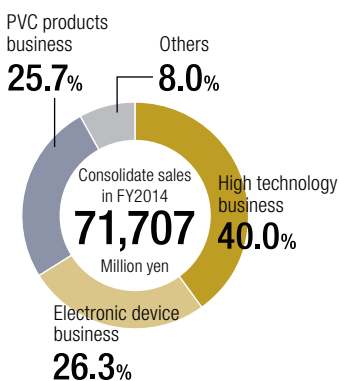
### Changes in sales (Consolidated)



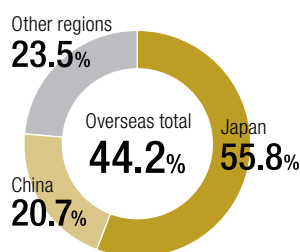
### Changes in operating income and net profit (Consolidated)



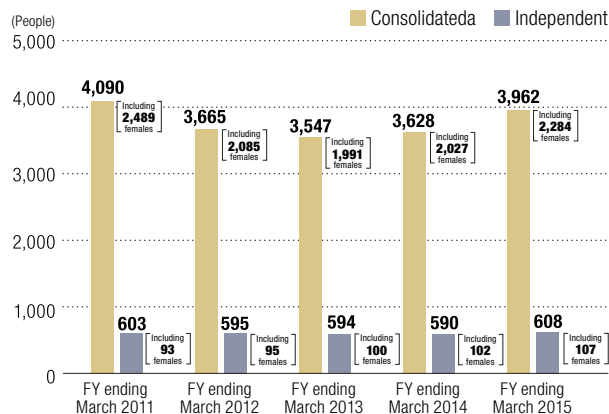
### Distribution of consolidated sales by business segment



### Distribution of consolidated overseas sales



### Changes in the number of employees



### Changes in key indicators

| Period (fiscal year end)   | 51th Period (Ending in March 2011) | 52th Period (Ending in March 2012) | 53th Period (Ending in March 2013) | 54th Period (Ending in March 2014) | 55th Period (Ending in March 2015) |
|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Net sales (Million yen)  | 70,469                             | 62,650                             | 60,669                             | 67,332                             | 71,707                             |
| Operating income (Million yen)   | 2,231                              | 1,314                              | 944                                | 1,071                              | 3,385                              |
| Total assets (Million yen)   | 81,326                             | 81,017                             | 81,342                             | 88,644                             | 93,889                             |
| ROE (%)  | 2.0                                | 0.5                                | 0.3                                | 1.1                                | 2.6                                |
| Domestic basic units of CO <sub>2</sub> emissions against produced weight (t-CO <sub>2</sub> /t) | 0.6763                             | 0.6048                             | 0.6878                             | 0.7144                             | 0.7102                             |
| Overseas basic units of CO <sub>2</sub> emissions against produced weight (t-CO <sub>2</sub> /t) | 13.59                              | 10.17                              | 11.64                              | 11.59                              | 11.83                              |
| Emission rate (%)  | 0.36                               | 0.52                               | 0.24                               | 0.22                               | 0.29                               |
| Number of accidents (Including number of lost time accidents)                                    | 9 (5)                              | 11 (3)                             | 14 (6)                             | 8 (3)                              | 11 (1)                             |

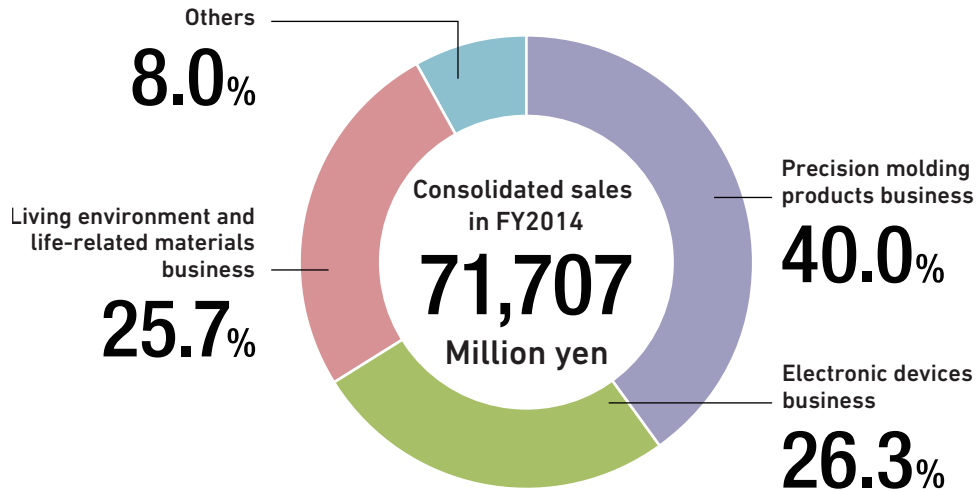
1. Sales do not include consumption tax.
2. For other key management indicators etc., please refer to our financial report.
3. Emission rates refer to domestic production sites of the group.
4. The accident frequency ratios refer to domestic and overseas production sites of our group in a calendar year.

## Product Introduction

Using silicone rubbers, numerous plastics and conductive materials, we are engaged in the development and application of basic technologies such as "material mixtures and compounding," "design," "manufacturing process" and "evaluation/analysis". In a comprehensive range of fields including automobiles, information equipment, office

equipment, medical devices, semiconductors, electronic parts and life-related materials, we respond to a wide variety of customer needs not only in Japan but all over the world through production and sales activities making use of our global network.

### Distribution of sales by business segment



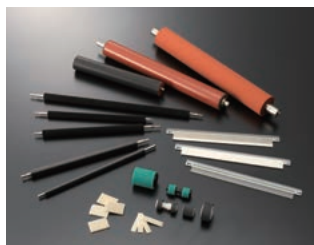
## Electronic devices business

This business segment is developing business by focusing on electronics industries such as input devices for automobile electric components and information equipment, while leading overseas businesses in the whole company by developing overseas sales and production from the early stage.

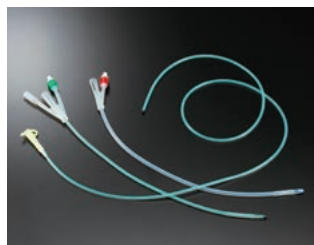
|                       | Key switches                        | Touch switches                      | View angle control films                          |
|-----------------------|-------------------------------------|-------------------------------------|---|
| Automobile            | <p>Remote keyless entry systems</p> | <p>For consoles</p>                 | <p>Reflection preventive films for navigation</p> |
| Information equipment | <p>Key switches</p>                 | <p>For electric home appliances</p> | <p>Privacy filters prevention films for ATMs</p>  |

## Precision molding products business

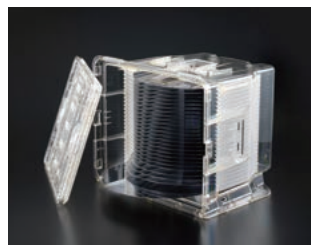
We sell precision molding products taking advantage of our unique technologies within and outside Japan, including OA equipment parts and medical equipment parts made of silicone rubber, shipping / carrying cases for semiconductor silicon wafer, and automatic mounting materials for electronic devices.



Rollers for OA equipment



Medical silicone rubber products



Semiconductor silicon wafer  
Shipping / carrying cases



Mounting materials for electronic devices

## Living environment and life-related materials business

We are developing wide-range business with molded products made of vinyl chloride resin, such as residential construction materials, food packaging materials, as well as Compound, an in-process material for molding process. Compound is one of the growing products that is incrementally used for the automobile industry, and we aim for steady profits with this product.



Vinyl chloride  
pipes



Exterior  
decorative board  
"Polymer Panel"



Conductive  
polymers  
"SEPLEGYDA®"



"Polymer Wrap"



Compound

## Others

We operate construction-related business including the renovation of commercial facilities, and develop and sell industrial and food packaging materials. In our construction-related business, we offer comprehensive services under consistently responsible construction structures, from store launch planning, design, construction to after-sales care of supermarkets, restaurants and other facilities. In our development / sales business, we develop and sell industrial trays that convey industrial parts and products, fruit packaging materials and agricultural materials.



Store launch  
planning, design  
and construction of  
supermarkets

Top Commitment

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We contribute to the realization of a sustainable, safe and secure society by exerting the utmost total strength and growing strongly.



**What our group is aiming at**

The Shin-Etsu Group places safety and fairness first in its business and targets becoming a group of companies that develops together with society. Our company was founded as a processing manufacturer of Shin-Etsu Chemical Co., Ltd. and will celebrate the 55th anniversary this September. The matter we, as a processing manufacturer, are always aware of is to “contribute to protecting the global environment.” “Green Activities” that started in 2000 as the group-wide unique activities are aiming for energy saving, resource saving and reduction of environmental burdens. We will continue to contribute to the realization of a sustainable society through “Green Activities”. In addition, we enhanced our quality control system last fall for our costumers to use our group’s products without worry. We will keep contributing to the realization of a better society by continuously offering safe and reliable products.

《CSR-based management》

● **Always safety first**

Safety is the foundation of all our corporate activities and one of the highest priority issues for management. We are positively proceeding with the activities toward the realization of a human-friendly workplace. Although occurrence of work time accidents in FY2014 increased compared to that of the last fiscal year, the number of accidents that require time off from work decreased.

One of the causes of accidents is a lack of safety awareness and we continue to aim at an achievement of “zero accidents” by cultivating sensitivity to risks and improving safety awareness with promoting risk prediction training (KYT), etc. **Please refer to page 20.**

● **Aiming at highly transparent management and fair corporate activities**

Our group is making efforts to improve corporate governance and strengthen a compliance system in order to enhance corporate values.

We added one more independent outside director this June, having a total of two, to strengthen the supervisory function of management. In addition, we will further improve the auditing functions of auditors and internal audit systems to conduct internal control as a group of companies.

We will realize highly transparent and fair corporate activities through proper disclosure of important information in a timely and proper manner to stakeholders such as shareholders and customers.

**Please refer to page 14.**

● **Respect for human rights**

We rule out any unfair discrimination based on race, gender, education, career or handicaps. We also pay close attention to human resource management so that no forced or child labor should occur while developing our global corporate activities. **Please refer to page 18.**



President

*Yoshiaki Ono*

September 2015



## 《Global environmental preservation and management with environmental considerations》

### ● Contribute to global environmental preservation

Our group actively promotes our group-wide “Green Activities” and sets medium term targets once every three years.

We conduct countermeasures against global warming by means of energy-saving and waste reduction for the effective use of resources to contribute to global environmental preservation.

FY 2014 was the final year of the 4th Mid-term Targets. As results, while we couldn't achieve the target of the basic unit of CO<sub>2</sub> emission due to reduction of produced weight, etc., compared with that of FY2008, we were able to achieve the target of the basic unit of waste emissions. As we set the 5th Mid-term targets for the second challenge to unachieved items and maintaining/improving achieved items, we will work on to ensure that all targets are achieved.

Please refer to page 25.

### ● Enhance eco-friendly management

For the realization of a sustainable society, our group is promoting the development of eco-products which are to meet market needs and solve customers' issues, oriented

at “environmentally friendly and contributing products”. The applicable products are “products with environmental considerations” to reduce environmental burdens or “products to contribute” to reducing environmental burdens in customers' products.

We will keep developing products that are need by customers by applying all basic technologies of “material mixtures and compounding,” “design,” “manufacturing process” and “evaluation and analysis.”

Please refer to page 27.

This Report conforms to the “Environmental Reporting Guidelines (Fiscal Year 2012 Version)” of the Ministry of the Environment and includes the targets and results of the Key Performance Indicators (KPI) as status of activities of Green Activities. We would very much appreciate any feedback, opinions or comments from our stakeholders. We received third-party comments from Mr. Yoshinao Kozuma, Professor of Economics Department, Sophia University, as was the case with previous editions, and we shall take advantage of them for our future efforts and initiatives.

Our group will actively promote efforts and initiatives to contribute to the realization of a sustainable, safe and secure society.

We do appreciate your further guidance and support.

Episode Environmentally friendly and contributing products 1

Improved usage for highly slidable compound for energy-saving and resource-saving purpose

# Highly slidable compound “EXELAST™”

Highly slidable (\*) compound “EXELAST™” was developed by adding silicone for extra slidability. Given the current market in which “highly slidable” functions are required, we are expanding our field of performance by increasing the variation of resin being a base to respond to the customers’ needs courteously.

\* Slidability: to slide easily with less friction



## Wide-range lineup tailored to various markets

Highly slidable compound “EXELAST™” is made from silicone and various other materials to add slidability to the base materials. The product was originally developed 20 years ago, and has expanded to various lineups such as PVC (vinyl chloride resin)-type SE grade, PO (Olefin resin)-type SX grade and TPU (urethane resin)-type EC grade. Each type has customized firmness and slidability according to intended use, and we have made more than 100 types of the product so far.

**Katada:** “We have no general-purpose ‘EXELAST™’ (standard product). We blend and design the product in accordance with the need and specification from each customer. Every grade of the product can be used for extrusion molding and injection molding for your various purpose of use.”

## Contribution to the energy-saving and light weight automobile


SX grade is the most popular grade in the market. It is used for the sliding surface of glass run channels that contact the glass, which smoothen the up-down movement of power windows. Traditionally, this part was made more slidable by applying it with silicone paint and urethane

paint, or planting nylon piles. Using the highly slidable “EXELAST™” eliminated these processes performed by customers. It can also reduce energy burden to move door glass of some kinds of automobiles, which leads to the reduction of the size of motors and thus energy-saving and light weight of whole body of automobiles.

**Noda:** “The slidability of the glass varies according to the shape of glass run channels, even if the composition of the product is same. We change composition and configuration seeking for the maximum slidability. This is our strong point. We offer services which are not possible at any other companies, by using our unique silicone compounding technologies.”

## Contribution to reduction of energy consumption by increasing airtightness and improving air conditioning efficiency of buildings

“EXELAST™” is used in the field of construction materials. The shield parts of sashes, which improve airtightness of a sash, usually get more slidable by coating the vinyl chloride resin of the shield parts with fluorine. Replacing fluorine with highly slidable “EXELAST™” eliminated fluorine coating, reducing the number of processes. The coating process normally requires the use of organic solvents that harm the environment and human bodies,

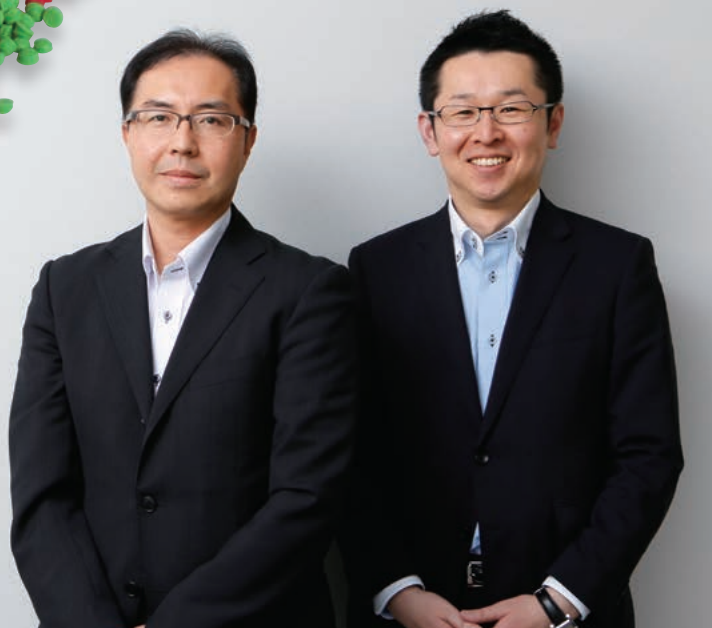


Sales Unit  
Sales & Marketing Division IV  
Group III  
Chemical Product Sales Team  
Manager

**Kosuke Katada** (right)

Technology & Production Unit  
Technology & Production Division II  
Group I  
Manager

**Nobuyasu Noda** (left)



and produces coated portions with less recyclability. Changing the coating material to “EXELAST™” can lead to the reduction of environmental burdens and wastes. “EXELAST™” is also used for resin sashes. Resin sashes have low heat conductivity and high airtightness, so they can improve air conditioning efficiency and contribute to energy conservation in houses.

### Continuing to evolve and expand the field of playing actively

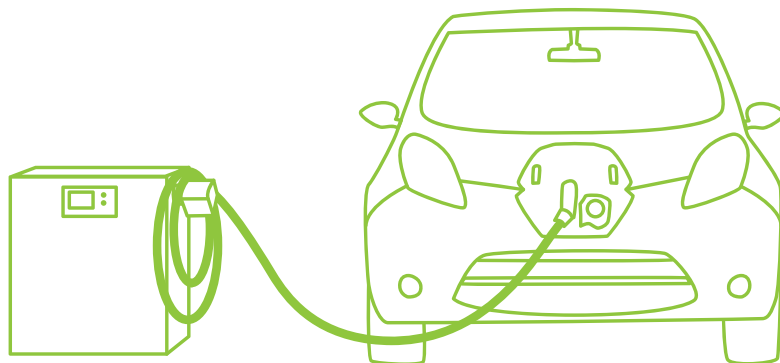
“EXELAST™” is also used for various cables. SE grade is used as the coating material of cables which are used inside cable bears of industrial robots. It is more slidable and resistant to abrasion than traditional coating materials, which enhance the durability of the cables and reduces the frequency of periodic replacement. EC grade is used as the coating material for cables of fast chargers of EVs. The ease of taking the cable in and out is required at downtown charging stations, so its slidability contributes to easy handling of the cables.

**Katada:** “EXELAST™ is highly evaluated by domestic and overseas

customers. Though there are still some challenges, we will enhance the recognition of ‘EXELAST™’ so that the product can be recognized as the global standard product.”

**Noda:** “We are developing the product to enhance its variation other than the current three resin grades so that the product can be used in other fields. We will further enhance our technologies to develop products more acceptable for markets.”

“EXELAST™” is enhancing its variations and functions and expanding its field of performance. It will respond to needs such as energy-saving, resource-saving and reduction of environmental burden, and contribute to customers’ manufacturing activities.



Episode Environmentally friendly and contributing products 2

Proposal of environmentally contributing products for the process of manufacturing semiconductors

# Shin - Etsu TWSS (Thin-Wafer-Support-System)

Semiconductor wafers are getting thinner and thinner. Semiconductors of several tens of  $\mu\text{m}$  thinness are not unusual anymore, and they will even get thinner and thinner. In such advancement, handling the product is an issue in the manufacturing process. Since 2008, we have developed the jigs that support thin wafer: Shin-Etsu TWSS (Thin-Wafer-Support-System). We currently offer disk type and ring type jigs, which contribute to the reduction of the number manufacturing processes of semiconductors.



Shin-Etsu TWSS™ Ring Type

## Dry process reduces the number of processes at customer

In recent years, many semiconductor wafers are often laminated to respond to demands for more capacity and function. Semiconductor wafers are getting extremely thin to realize these technologies. Some of them are thinner than  $100\ \mu\text{m}$  and some are even in the range of several tens of  $\mu\text{m}$  thinness. Extremely thin wafers are easy to warp and break, so such wafers require supporting materials that fix them.



Shin-Etsu TWSS™ Disk Type

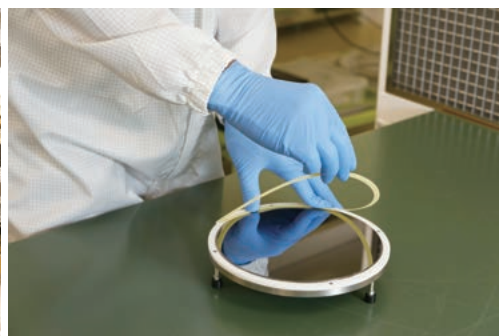
Sales Unit  
Sales & Marketing Division III  
Group I  
FI Team II

**Ryo Wakabayashi** (left)

Technology & Production Unit  
Technology & Production Division IV  
Group I

**Tomo Odajima** (right)

How to peel TWSS:  
TWSS can be peeled by bending it.



Engineers are developing technologies that can fix and reinforce wafers to the rigid supporting materials with adhesive agent. However, adopting this fixing method requires the addition of wet process in the end that peel and wash adhesion agents with organic solvent which harm environment and human bodies.

In 2008, we developed a whole new supporting jig that does not require adhesion agents nor solvent: Shin-Etsu TWSS Grip Ring Type. We released this Grip Ring Type that fixes the thin wafer with grip rings and self-stick film.

When the TWSS Grip Ring Type was originally developed, it was highly evaluated in the market as a groundbreaking product since it does not require adhesion agents, solvent and facilities for wet processes. After that, however, some issues emerged; the enlarged exterior shape caused worse throughput\*, and equipment for mating and releasing the grip rings themselves would be required.

\*Throughput: ability of processing

## Simple supporting jig that does not require mating / releasing equipment

So we developed Shin-Etsu TWSS Disk Type and Ring Type, which employs glass epoxy resin supporting materials and adhesive elastomers to overcome these weakness. This TWSS can be easily pasted on very thin wafers, and peeled with smaller load by bending the TWSS. When this TWSS is attached to the wafer, the exterior size is almost unchanged, so the throughput does not decrease. Surface of the Disk Type supports the entire wafer, and Ring Type supports the outer corner. These are used properly according to customers' intended use and processes.

**Odajima:** "Our first priority was to cover all materials by ourselves, but we reviewed the supporting materials and adopted glass epoxy resin used for electric circuit boards to progress our development."

**Wakabayashi:** "Disk Type and Ring Type can be introduced to the current equipment at a reasonable price, and are used in the customers' development phase of very thin wafers in many cases. I hope the TWSS Disk Type & Ring Type will contribute to the establishment of the manufacturing process of very thin wafer."

**Odajima:** "In the development of the Ring Type, we sought two conflicting characteristics: strongly-fixed and easy to peel. We realized a fine balance between these by self-developing the adhesive elastomer and repeatedly reviewing its position accuracy and dimensions. We had a difficult time in the beginning, but we can now cope with customers' requests."

## Increased usage with more variation

The product is currently adopted in such processes as washing, laser marking and metal film formation. We are further developing the product for more applications in other processes.

**Wakabayashi:** "The product is getting into more and more companies, but the recognition in the industry is not enough. We will disseminate this new concept that eliminates the need of installing wet process facilities, and the technologies and products unique to us. We will also seek the possibility for jigs that can be adopted to materials other than very thin wafers."

**Odajima:** "For more volume of sales, we will enhance the variation and functions of the composition of adhesive elastomer to satisfy the requirements of customers' processes."

By taking advantage of our specialty in resin composition technologies, Shin-Etsu TWSS, developed with whole new ideas and mechanisms, is used in the manufacturing process of semiconductor wafers. We will further develop the product to contribute to more streamlined customers' processes.

# Corporate Governance

Our group recognizes that improvement of corporate governance is the basis of management and the basic policy of corporate governance is to accelerate the speed of management decision-making, secure the transparency of management, and strengthen internal control functions to increase corporate value from the viewpoint of shareholders, customers, employees, etc.

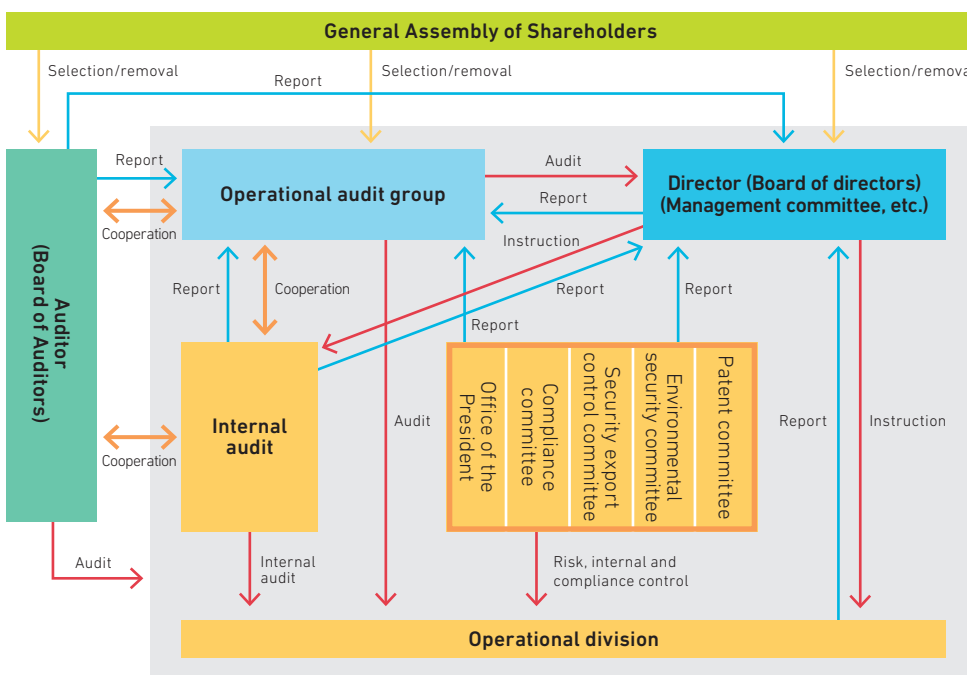
## Corporate Governance System

We adopt an auditor system where two organizations, the board of directors and the board of auditors, supervise and audit in regard to business execution in a multi-layered way. To realize a functional and effective function of management supervision and an audit function of secured objectivity and neutrality, we position specialists of business execution with superior abilities in management as directors and outside directors with supervising abilities, as well as personnel with superior capabilities in auditing, including outside statutory auditors as auditor.

## Management decision-making and business execution/supervision

The board of directors makes important decisions in management together with supervising business execution of directors properly. In the board of directors, two of them are outside directors. Outside directors have extensive experience and deep insights over the years as company owners and specialists in accounts/tax affairs and supervise our company's management from an overall view in an objective, proper manner.

### Shin-Etsu Group corporate governance system



#### Office of the President

Manages corporate-wide challenges and risks, comprehends management policies, measures all situations of the entire company and takes the appropriate measures. Furthermore, cooperates with other departments and operates as a contact center in case of an emergency.

#### Compliance committee

Issues in relation to the principle, policy and situation control of compliance

#### Security export control committee

Risks and issues in relation to export control laws and regulations

#### Environmental security committee

Risk and issues associated with environmental protection, disaster prevention control and occupational health & safety

#### Patent committee

Risks and issues in relation to industrial property rights

## Audit system

As for audits by auditors, three auditors comprise the board of auditors and audit in independent position from business execution. Auditors as a function to monitor management attend various meetings including the board of directors etc, and hold board of auditors meetings, needed to discuss important issues regarding an audit based on reports provided from each auditor.

As for internal audits, the Office of Internal Auditing audits the control/operation system and status of business execution from the view of legality, rationality and efficiency.

With regard to accounting audits, we have quarterly reviews where, from time to time, advice regarding accounting is received.

At audits by auditors, internal audits and accounting audits, they exchange information etc. closely based on mutual cooperation and collaboration to improve audits.

## Relationship with the parent company

Our parent company, Shin-Etsu Chemical Co., Ltd., is a controlling shareholder that holds 52.6% of the total number of our issued shares (excluding treasury shares). We maintain independence in business activities and properly decide trading conditions based on market prices in trades when we purchase materials, etc. from the parent company.

## Risk management and maintenance/promotion of internal control and compliance system

Based on the awareness that risk management is an important issue for the company's continuous growth, our group commits to risk management of the entire company group and the Office of the President monitors important risk measures for the entire group. In addition, we are working on maintenance and operation of a more proper and effective internal control system as positioning construction, maintenance and operation of the internal control system as important management responsibilities.

Furthermore, based on the idea that it is essential to "take action, respecting values and ethics required for citizens in addition to complying with laws, regulations, etc." to win trust as a member of society, we will continue to thoroughly fulfill compliance with blocking the relation with antisocial forces.

## Information disclosure system

We are always bearing in mind to enhance corporate governance and secure transparency of management and making efforts for fair, timely and proper information disclosure to shareholders/investors in accordance with applicable laws and regulations in relation with financial instruments trades, etc. and rules of the Tokyo Stock Exchange .

As for an information disclosure system, we stipulated "Information disclosure rules," set up a "Information disclosure committee," have everybody in the company informed thoroughly, arrange a system to collaborate affiliated departments such as the Office of the President (in charge of IR/PR), Accounting & Finance Department, Legal Department, etc. with "responsible persons for information disclosure" in charge and work for agile and speedy information disclosure.

## Communication with shareholders/investors

We hold explanatory meetings for analysts, investors and media at the time of announcements of financial statements of the end of each fiscal year and the 2nd quarter to explain our business status to shareholders/investors. We also offer information such as news releases, summaries of accounts, materials for explanatory sessions of accounts, annual reviews, notices for General Meeting of Shareholders, notices of resolution etc. using the web site as speedy and fair information disclosure methods to shareholders/investors.

Please visit our web site for "Report on corporate governance". We schedule to update/issue it by December to comply with the corporate governance code.

- <http://www.shinpoly.co.jp/company/corporate.html>

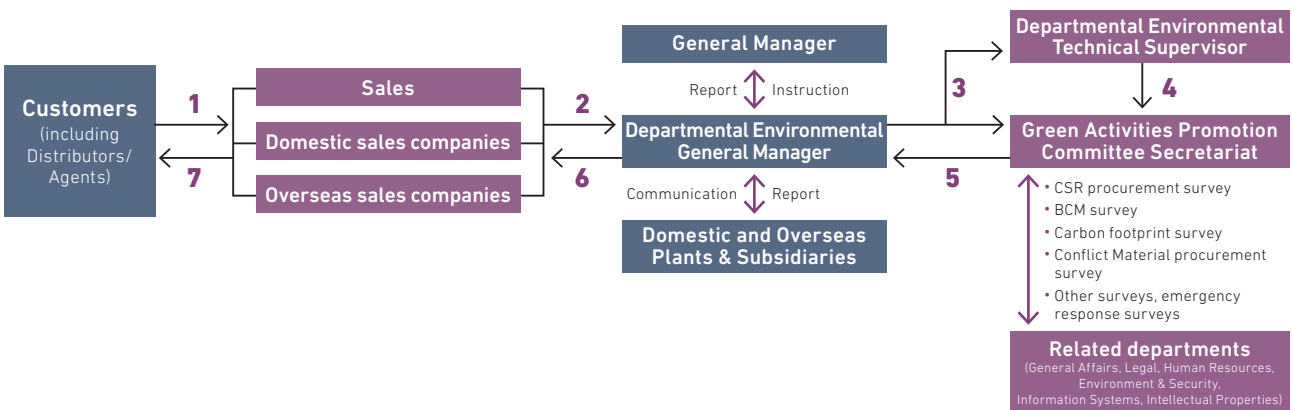


# Response to customers

In order to meet the requirements of customers and for the management rules of chemicals contained in our customers' products, the Shin-Etsu Polymer Group created the "Global Environmental Communication System" to centrally manage all Group companies including overseas plants. We also apply the Global Environmental Communication System to respond to items which the whole group gets involved in, such as customers' environmental quality system, CSR surveys and BCM surveys.

## Global Environmental Communication System

- 1 The "Environmental Management Representative" of our Group is appointed, and the Representative represents our Group with regard to customer's requirements in relation to the environmental quality of our products.
- 2 The "Environmental General Manager" and the "Environmental Technical Supervisor" are appointed at each division and respectively manage issues associated with the environmental quality of products of the division.
- 3 Submissions of such documents as Green Procurement Survey Responses, Certificate of non-use of environment-related substances, Conformation Form of the Changes in Management or Analysis Data are conducted in accordance with the rules set forth in the Global Environmental Communication System.
- 4 Materials with low environmental burdens (raw material, parts/components, packing material, etc.) are purchased from suppliers that promote environmental considerations in accordance with "Green Procurement Guidelines" and "Control Standards of Chemical Substances Contained in Products."
- 5 Part of this system is applied to customer's "CSR Procurement Survey (Supplier CSR Promotion Status Survey)" on human rights/labor, safety and welfare, environment, fair trade and ethics, quality and safety, information security and social contribution.



## Shin-Etsu Polymer Group Conflict Material Policy

The Shin-Etsu Polymer Group expresses the following in relation to conflict minerals:

- The Shin-Etsu Polymer Group agrees with and supports the objectives of the Wall Street Reform and Consumer Protection Act on conflict minerals.
- The Shin-Etsu Polymer Group has no intention to participate in human right violations or environmental destruction by procuring raw materials, parts, components, or products using such conflict minerals.
- The Shin-Etsu Polymer Group will continue to work with customers, business partners, and industry organizations to proceed with efforts to avoid such participation.
- If any conflict minerals are found in raw materials, parts, components, or products the Shin-Etsu Polymer Group procures, the group will promptly take the necessary measures.



# shupua

## Silicone-made products with high transparency comparable to glass, "shupua"

"Shupua" is the brand that the Shin-Etsu Group launched for the first time to develop silicone-made products with high transparency and high quality. Shin-Etsu Chemical Co., Ltd., the best silicone material manufacturer in Japan, supplies materials and we, the company having high silicone processing technology, produce them domestically. Today, we sell cups, glasses, glasses with flower-like cuts at bottoms (Hana), glasses with bud-like cuts at bottoms (Tsubomi), in total 20 kinds of products including ones with different colors as "Shupua" brand at our "Shupua" web site.



### <Specifications of products>

1. Name of products: "shupua"
2. Material: Silicone
3. Country of production: Japan

### shupua \*Trademark under application

It depicts soft image of silicone and consists of the two sounds, the sound "shu" silicon makes when it is bent and the sound "pua" it makes when it reverts to the original shape.

Top page of "shupua" web site



Employees involved in "shupua" brand

### Business Group, Sales Unit

## Chie Sato

\*Right in the back row in the picture

Name of the shop: shupua  
 Address: <http://www.shupua.com/>  
 In charge of the shop:  
 Shin-Etsu Polymer Co., Ltd.  
 Opened on November 28, 2014

The web site is the gateway where we can first contact and relate with customers. Especially, the first impression of the top page is so memorable that we try to create designs with a sense of the seasons using a little ingenuity for customers to enjoy. It has not been long since "Shupua" brand was launched and all of us involved will take the many demands of our customers seriously, including their sometimes critical opinions, as valuable ideas to make better products. We will keep offering products that can enrich the lives of customers.

## Features

### 1 Kitchenware with high transparency comparable to glass

Having a high transparency like glass while being superior in heat resistance and strength.



### 2 Low heat conductivity

Do not feel hot or cold when holding the products filled with cold or hot drinks. Ice in them hardly melts and dew uneasily condenses on them.



### 3 Deformable shapes

It is flexible so that its form can be changed by applying a proper force. It enables ways of use where glass containers cannot be used when pouring liquid and doing child rearing or nursing.

### 4 Unbreakable

It can be used both indoor and outdoor without worrying about breaking and also dropping because of not being slippery.

# Together with employees

With thinking that safety and environmental preservation are the foundation of company activities and one of the most important issues for management, the Shin-Etsu Polymer Group is positively working on activities to realize a human- and environment-friendly workplace with the aim for zero work time accidents and zero environmental accidents. Besides that, we are also committed to support work-life balance and create an environment for employees to work comfortably where they can live healthy lives and improve their skills, etc.



## Respect for human rights

### ● Human rights awareness raising activities

Based on respect for human rights, the Shin-Etsu Polymer Group eliminates unfair discrimination for race, gender, academic background, handicap, place of birth, philosophy, etc.

### ● Elimination of child or forced labor

Our Group complies with laws and regulations related to labor and applicable global rules and prohibits child or forced labor in all countries and regions. We have surveyed all group companies including the ones overseas and confirmed no existence of child or forced labor.

## Status of employment

### Changes in consolidated number of employees (Unit: Person)

| End of FY | Personnel (Independent) | Personnel (Consolidated) |
|-----------|-------------------------|--------------------------|
| 2010      | 603                     | 4,090                    |
| 2011      | 595                     | 3,665                    |
| 2012      | 594                     | 3,547                    |
| 2013      | 590                     | 3,628                    |
| 2014      | 608                     | 3,962                    |

\* Number of employees refers to working employees.

### Status of promotion to managerial positions (As Shin-Etsu Polymer Co., Ltd. independently. As of the end of FY2014)

(Unit: Person)

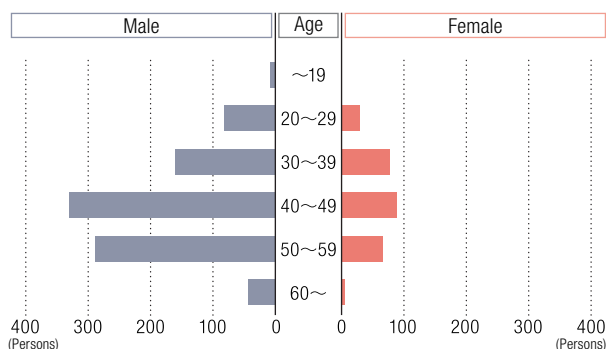
| End of FY | Managers (6th grade employee or higher) |        | Officers |        |
|-----------|---|--------|----------|--------|
|           | Male                                    | Female | Male     | Female |
| 2010      | 268                                     | 3      | 13       | 0      |
| 2011      | 250                                     | 3      | 14       | 0      |
| 2012      | 248                                     | 4      | 15       | 0      |
| 2013      | 245                                     | 4      | 17       | 0      |
| 2014      | 251                                     | 4      | 16       | 0      |

### Number of new graduate employees (As Shin-Etsu Polymer Co., Ltd. independently)

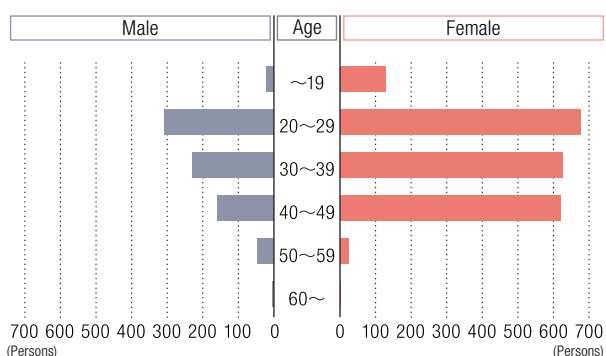
(Unit: Person)

| FY                   | Universities/colleges |        | Junior colleges, professional schools, etc. |        | High schools, etc. |        |
|----------------------|-----------------------|--------|---|--------|--------------------|--------|
|                      | Male                  | Female | Male  | Female | Male               | Female |
| Joined in April 2013 | 1                     | 1      | 0   | 0      | 0                  | 0      |
| Joined in April 2014 | 6                     | 0      | 0   | 0      | 0                  | 0      |
| Joined in April 2015 | 6                     | 2      | 0   | 0      | 2                  | 0      |

**Labor distribution by gender and age group  
(Domestic group companies)**



**Labor distribution by gender and age group  
(Overseas group companies)**



## Human Resource System

Shin-Etsu Polymer's human resource system is essentially based on performance. General office workers are mainly evaluated for their extent of growth in competency\*, which is directly linked to performance, while those in managerial positions are evaluated solely on their performance based on performance responsibilities. The records of employee performance evaluations are put into a database, ensuring that the system has fairness, objectivity and transparency.

\*Competency: Behavioral properties commonly observed among people who consistently achieve high performance.

## Support ways of working

Based on Act on Advancement of Measures to Support Raising Next-Generation Children, the Shin-Etsu Polymer Group has made our action plan and is working on creating a workplace where all employees can work comfortably.

### ● Child rearing/nursery care leave systems

The Shin-Etsu Polymer Group has introduced systems that go along with each employee's requests such as the short-time employment system to improve work-life balance after returning from child rearing/nursery care leaves. An accumulated total of 28 employees has taken child rearing leave and 3 employees took leave this year.

In the old child rearing system, the period of leave was defined as until a new born child "becomes one and a half years old" but in the new system started in October, 2010 as a support for child rearing, a child rearing leave period can be extended until "the first April 30 after a new born child "becomes one and a half years old" so that applicable employees can engage in child rearing without worrying about work. We will keep working on introducing systems that enable all employees to exert their abilities fully by creating an environment where employees can balance their work with child rearing and feel comfortable to work.

### Status of maternity leave, child rearing leave and nursery leave

|   | FY2012 | FY2013 | FY2014 |
|---|--------|--------|--------|
| Number of employees who took maternity leave (Persons)  | 2      | 2      | 3      |
| Number of employees who took childcare leave (Persons)  | 2      | 2      | 3      |
| Number of male employees who took childcare leave (Persons)                                       | 0      | 0      | 0      |
| Ratio of female employees who took maternity leave (%) (Number of acquirer/ Number of birth ×100) | 100    | 100    | 100    |
| Number of employees who took nursing care leave (Persons)   | 0      | 0      | 0      |

\*The applicable organization of this data is Shin-Etsu Polymer Co., Ltd. only.

### ● Employee Assistance Program (EAP)

To support employees and their families to lead a healthy life both physically and mentally, the Shin-Etsu Polymer Group introduced the Employee Assistance Program (EAP).

While protecting privacy by using toll-free calls and e-mail, professionals of different fields offer consultation on, among others, mental health, health, child rearing, nursery care, legal matters and financial matters. We also have a point of contact for consultation in relation to sexual harassment.

To raise awareness about mental health and health management, we regularly deliver information useful for health promotion via our in-house LAN.

## Environmental security management system

To achieve the managerial goal, "zero accidents", the environmental security committee organized with all group companies draws up the environmental security policy, targets and plans of the group. Each business office is operating based on the unified policy which the environmental security committee has decided.

### ● Aiming for zero work time accidents

We are performing risk assessment for our facilities and operations based on the occupational safety and health management system. We also implement safety suggestions, the near-miss activities and accident prediction trainings with the participation of all employees. Our target is to achieve "zero accidents" by means of establishing "safety" as a corporate culture/ climate and creating a workplace with safety awareness that is always promoted by enhancing and improving safety education.

### ● Reports on work time accidents in 2014

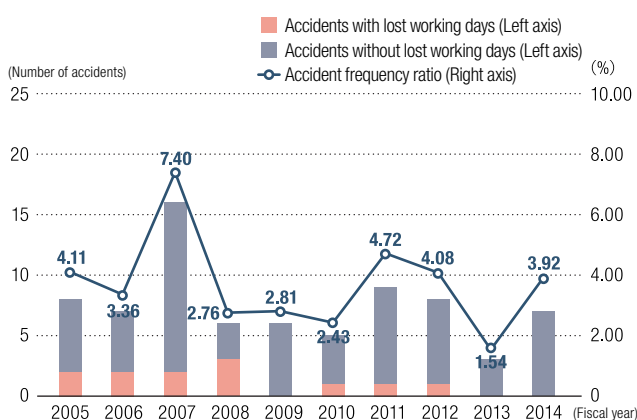
Although there was no accident that required time off from work in domestic production sites in succession to the last year, the number of accidents increased. In overseas production sites, both the number of accidents that required time off from work and the total number of accidents

### ● Environmental security audit

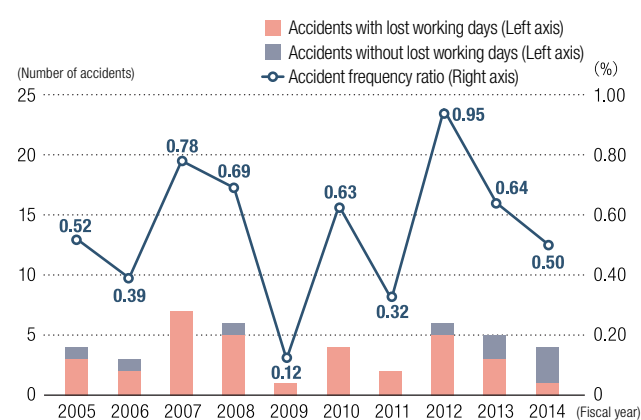
We regularly conduct environmental security audits to confirm if environmental security activities of each business office are certainly implemented. In the audits, compliance with applicable laws and regulations and current status of environmental security management activities are checked. In the audits of FS2014, we audited responses to facilities with potential risks of serious accidents and implementation of effective safety education toward zero accidents as the most important issues.

decreased. A lack of accident prediction and absence of safety awareness are the causes of most accidents and our important issue to achieve zero accidents is to cultivate sensitivity to risks by promoting risk prediction training (KYT) and improve safety awareness.

Transition in number and frequency ratio of industrial accidents (Domestic plants total)



Transition in number and frequency ratio of industrial accidents (Overseas plants total)



### Awards related to safety and labor environment

In July, 2014, Kodama plant received the Encouragement Award of the Director General of the Saitama Labor Bureau for its superior standards of safety and health and being an example for others.



Awarding ceremony of the Encouragement Award of the Director General of Saitama Labor Bureau

In November, 2014, Taketomo Uetake of Kodama plant was given the Award for Superior Worker in Kumagaya district of the Saitama Labour Standard Association.



The Award for Superior Worker

# Together with local community

Based on a concept of “making efforts to coexist with local communities,” we tackle health and safety, communication with communities, humanitarian and disaster relief activities, in addition to other environmental protection activities. In relation to the implementation status of such activities, we openly disclose all relevant information.



## Health and safety

### ● Kodama Plant is inspected by Kumagaya Labour Standards Inspection Office and other authorities

During the National Labour Health Weeks in every October, companies visit and inspect exemplary model businesses throughout Japan. This time, our Kodama Plant was awarded the Saitama Labour Bureau Director Award, an encouragement prize for the efforts in the plant, and selected as one of the exemplary businesses for the first time in our group. Kodama Plant was visited by 17 people, including the representatives of Kumagaya Labour Standards Inspection Office, Kumagaya Labour District Standards Association, and Kodama Chamber of Commerce and Industry, and the staff from private

companies. Plant Director Sugano introduced the role and production of Kodama Plant, and Arai Manager explained the management activities on occupational safety and health and the reduction in the number of occupational accidents after OHSAS was introduced. After that, visitors were divided into 2 groups to inspect the factory for about 1 hour. At the question-and-answer session in the end, we received questions regarding the improvement of the healthy environment for employees, such as the way the plant follow-ups the results of health checkups.



We explained the overview of Kodama plant, such as the production of valuable products with composite technologies of silicone and other materials in the plant



The inspection in the plant

### ● Blood donation

We conducted blood donation activities at domestic and international sites, with 202 employees participating at four different sites this year. The date of blood donation and the number of participants are as follows:

|  |            |
|--|------------|
| Tokyo Plant                            | 25 people  |
| Kodama Plant                           | 12 people  |
| Shinano Polymer Co., Ltd.              | 34 people  |
| Shin-Etsu Polymer (Malaysia) Sdn. Bhd. | 131 people |



Blood donation in Shin-Etsu Polymer (Malaysia) Sdn. Bhd. supported by Pusat Darah Negara (national blood bank)



Blood donation of Shinano Polymer Co., Ltd. in a mobile blood bank

## Communication with communities

### ● Humanitarian and disaster relief activities

At each domestic and overseas plant, our group strives to assist in humanitarian support and disaster relief activities around the world.

#### ● Suzhou Shin-Etsu Polymer Co., Ltd.

The branch of our company visited the asylum near the company and donated blankets to the residents in February before Chinese new year. The second visit two years in a row



In front of the asylum

#### ● Shin-Etsu Polymer America, Inc.

We donated \$1,000 to Nepal through the American Red Cross.

#### ● Shin-Etsu Polymer India Pvt. Ltd.

We collected donation in the company and donated 15 uniforms to local elementary schools with the donation for the first time.

### ● Offering workplace experience

All production sites provide local students with opportunities for hands-on experience at workplaces. This year, three plants accepted a total of 24 students.

|                           |           |
|---------------------------|-----------|
| Tokyo Plant               | 7 people  |
| Shinano Polymer Co., Ltd. | 4 people  |
| Niigata Polymer Co., Ltd. | 13 people |



Students from Itoigawa Higashi Elementary School in Niigata Polymer Co., Ltd.

### ● Factory tour

Each production base offers factory tour. This year, two plants accepted a total of 220 people.

|                                    |                          |
|------------------------------------|--------------------------|
| Tokyo Plant                        | 21 people                |
| Suzhou Shin-Etsu Polymer Co., Ltd. | Approximately 200 people |

### ● Beautification activities

All production sites conduct beautification activities in their vicinity, which was participated by 232 employees of 3 bases.

|                           |            |
|---------------------------|------------|
| Tokyo Plant               | 15 people  |
| Kodama Plant              | 14 people  |
| Shinano Polymer Co., Ltd. | 203 people |



Staff from Tokyo Plant collects garbage of three 45L disposal bags once a month.



Kodama plant conducts a cleaning activity named "Kodama Industrial Area Clean Mission"



Participated in the 14th Eco-Walk "Clean Shiojiri" Mission. Staff from Shinano Polymer Co., Ltd.

# Together with environment

Based on its Basic Environmental Principles, the Shin-Etsu Polymer Group addresses challenges such as global warming protection, energy saving, resource saving, waste reduction and recycling, positioning them as action items of the group-wide Green Activities and promoting environmental protection by reducing environmental burdens.

## Basic Environmental Principles

### ● Basic Policy

Shin-Etsu Polymer group recognizes that the work for environmental conservation is one of the highest priority issues for our operation. Therefore we are working hard to become a part of building a recycling economic society through our responsibilities required.

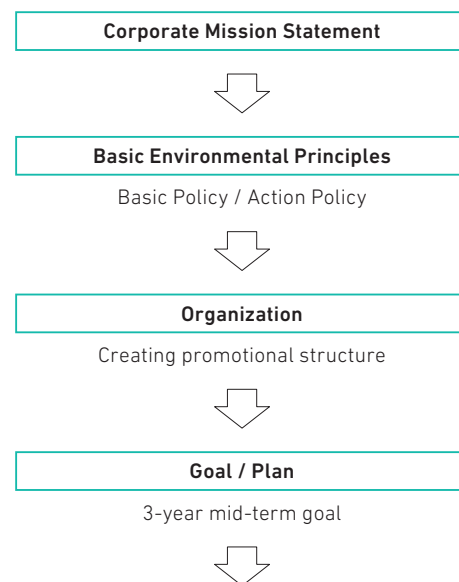
### ● Action Policy

- 1 We are rebuilding the organization and systems to work for efficient and continuous environmental activities.
- 2 We observe law and regulations for resource conservation, energy saving, waste reduction, recycling and the proper handling of environmentally harmful substances. In addition, we set challenging goals and try to achieve it within our own manner in technical and economic resources.
- 3 We evaluate the environmental impacts of all phases from purchase and production through usage and disposal during the new product development stage and thus reduce its environmental impact.
- 4 We strive for the conservation and sustainable use of biological diversity by understanding and evaluating the impact on ecosystems from business activities, and by reducing this impact.
- 5 We provide internal education programs to achieve understanding and awareness of basic environmental policies for all employees.
- 6 We disclose the information of our environmental activities and make efforts to coexist with the community.

## Company-wide activity: Green Activities

Green Activities refer to activities including the obtainment of "Environment Management System," the understanding and response for "Environmental Performance" such as global warming countermeasures and measures for effective uses of resources, "publicity" of this environmental / social reports, and "education / training" including company-wide briefing sessions. We promote environmental preservation and environmental management by promoting these activities.

## Environmental management system diagram



| Activity: Green Activities      |  |
|---------------------------------|--|
| Environmental management system | Obtainment of environmental management system                  |
| Environmental performance       | Countermeasures against global warming                         |
|                                 | Measures for effective use of resources                        |
|                                 | Measures to reduce environmental load substances               |
|                                 | Creation of environmentally friendly and contributing products |
| Publicity                       | Bio-diversity protection                                       |
|                                 | Sustainability report  |
| Education / training            | Environment accounting   |
|                                 | Environmental education  |
|                                 | Auditing   |
|                                 | Company-wide briefing  |

## Certifications of Environmental Management System

We have received ISO9001 and ISO14001 certification at all domestic and overseas production sites. Based on the ISO9001 standard, we will establish a quality management system and deliver products that satisfies our customers. With the acquisition of ISO14001, we also have an approach to environmental regulations of each country, and improve our performance to prevent problems related to environment.

|          | Plants & Subsidiaries   | ISO 14001:2004 | ISO 9001:2008 | ISO/TS 16949 | ISO 13485:2003 | ISO/IEC 17025:2005 | OHSAS 18001:2007 |
|----------|---|----------------|---------------|--------------|----------------|--------------------|------------------|
| Domestic | Tokyo Plant   | ●              | ●             |              |                |                    | ●                |
|          | Nanyo Plant   | ●              | ●             |              |                |                    |                  |
|          | Kodama Plant  | ●              | ●             |              | ●              |                    | ●                |
|          | Electronics Device Business Unit (Technology & Production Unit, Development Division III)   |                | ●             |              |                |                    |                  |
|          | Head Office, Shinano Polymer Co., Ltd.<br>Shiojiri Plant, Shinano Polymer Co., Ltd.<br>Miyabuchi Plant, Shinano Polymer Co., Ltd.<br>Nagano Plant, Shinano Polymer Co., Ltd.<br>KAKUMAESITE, Shinano Polymer Co., Ltd.        | ●              | ●             |              |                |                    |                  |
|          | Shiojiri Plant, Shinano Polymer Co., Ltd.<br>Electronics Device Business Unit (Sales Division)<br>Electronics Device Business Unit (Nagoya Branch)<br>Shin-Etsu Polymer Europe B.V.<br>KAKUMAESITE, Shinano Polymer Co., Ltd. | ○              | ○             | ●            |                |                    |                  |
|          | Nagano Plant, Shinano Polymer Co., Ltd.<br>Miyabuchi Plant, Shinano Polymer Co., Ltd.   | ○              | ●             |              | ●              |                    |                  |
|          | Chemical Analysis Center, Shin-Etsu Polymer Co., Ltd.   | ○              |               |              |                | ●                  | ○                |
|          | Business, Shin-Etsu Polymer Co., Ltd.<br>Niigata Polymer Co., Ltd.<br>West Plant, Niigata Polymer Co., Ltd.   | ●              | ●             |              |                |                    |                  |
|          | Kurihashi Plant, Urawa Polymer Co., Ltd.<br>Oomiya Plant, Urawa Polymer Co., Ltd.   | ●              | ●             |              |                |                    |                  |
| Overseas | Suzhou Shin-Etsu Polymer Co., Ltd.  | ●              | ●             | ●            |                |                    | ●                |
|          | Shin-Etsu Polymer (Malaysia) Sdn.Bhd.   | ●              | ●             | ●            | ●              |                    |                  |
|          | P.T.Shin-Etsu Polymer Indonesia   | ●              | ●             |              |                |                    |                  |
|          | Shin-Etsu Polymer Hungary Kft.  | ●              | ●             | ●            |                |                    |                  |
|          | Shin-Etsu Polymer India Pvt.Ltd.  | ●              | ●             | ●            |                |                    |                  |
|          | Dongguan Shin-Etsu Polymer Co., Ltd.  | ●              | ●             |              |                |                    |                  |

○ is included in the scope of the main plant.

\*For data of registered certificate numbers, please visit our website.

\*As of March 31, 2015

### List of Plants & Subsidiaries approved by the Sony Green Partner Environmental Quality Approval Program

| Partner Name                | Corporate ID | Plant Name                                 | Factory Code | Issuance   | Current Validity Period |
|-----------------------------|--------------|--|--------------|------------|-------------------------|
| Shin-Etsu Polymer Co., Ltd  | 410A         | Tokyo Plant                                | FC007742     | 2005.07.01 | 2017.08.31              |
|                             |              | Kodama Plant                               | FC002586     | 2003.07.01 | 2017.08.31              |
|                             |              | Shinano Polymer Co., Ltd. (Shiojiri Plant) | FC002584     | 2003.07.01 | 2017.08.31              |
|                             |              | Urawa Polymer Co., Ltd. (Kurihashi Plant)  | FC002585     | 2003.07.01 | 2017.08.31              |
|                             |              | Niigata Polymer Co., Ltd.                  | FC007726     | 2005.07.01 | 2017.08.31              |
|                             |              | Suzhou Shin-Etsu Polymer Co., Ltd.         | FC013450     | -          | 2017.08.31              |
|                             |              | Ta Yang Group Holdings Ltd.                | FC013237     | -          | 2017.08.31              |
| Shin-Etsu Finetech Co., Ltd | -            |  | FC006553     | 2007.04.01 | 2016.05.31              |



## Green activities organization (As of April 1, 2015)



## The 4th Mid-term Targets of the Green Activities of the Shin-Etsu Polymer Group Results for FY2015 (As of April 1, 2015)

| Target                                 |  | Indicator   |
|--|--|---|
| Countermeasures against global warming | Reduction of CO <sub>2</sub> emissions (Domestic plants)         | Basic unit of production weight (t-CO <sub>2</sub> /t)<br>Reference: FY2008 |
|  | Reduction of energy converted to crude oil (Domestic plants)     | Basic unit of production weight (kℓ/t)<br>Reference: FY2011                 |
|  | Reduction of energy consumed (Domestic non-plant business bases) | Basic unit of used area (kℓ/m <sup>2</sup> )<br>Reference: FY2011           |
|  | Reduction of energy consumed for logistics                       | Basic unit of transportation compared to the previous year (kℓ/ton)         |
| Effective use of resources             | Emission rate (Group domestic plants)(*1)                        | Less than 1%  |
|  | Emission rate (Domestic plants)                                  | Less than 1%  |
|  | Reduction of waste emissions (Group domestic plants)             | Basic unit of production weight (kg/t)<br>Reference: FY2011                 |
|  | Reduction of waste emissions (Domestic plants)                   | Basic unit of production weight<br>Reference: FY2011                        |

\*1. Emission rate = (amount of landfill + simple incineration)/total waste emissions x 100 (%)  
\*2. CO<sub>2</sub> emissions are calculated by the emission factor of each power company

| Control item                                      |  | Indicator  |
|---|--|--|
| Control of chemical substances                    | PRTR registration                                  | Registered amount  |
|   |  | Basic unit of production weight                              |
|   |  | Class I Specified Chemical Substance                         |
| Reduction of emissions of VOC into the atmosphere | Emissions into atmosphere                          |  |
|   | Basic unit of production weight                    |  |
| Water resources                                   | Domestic use of industrial water                   | Total amount of use by all domestic plants                   |
|   |  | Total basic unit of production weight by all domestic plants |
|   | Domestic industrial water drainage                 | Domestic industrial water drainage                           |
|   |  | Total basic unit of production weight by all domestic plants |
| Overseas industrial water use = drainage          | Basic unit of production weight at overseas plants |  |
|   | Basic unit of production weight at overseas plants |  |

| FY2014       |  |  | FY2014 activities   | FY2015 challenge   | FY2015 target                                    |
|--------------|--|--|---|--|--|
| Target       | Result                                       | Achievement                                      |   |  |  |
| 6% reduction | 1.9% reduction                               | Not achieved                                     | Promoted energy saving with the introduction of LED lighting and high efficiency air conditioners and investments in the renewal of production facilities | Continued energy saving and study investments for a reduction of peak power  | 7% reduction compared to FY2008                  |
| 0.6807       | 0.7102 (*2)                                  |  |   |  | 0.6734   |
| 3% reduction | Max. increase: 5.9%<br>Max. reduction: 27.0% | Achieved at 3 plants<br>Not achieved at 3 plants |   |  | 1% reduction compared to FY2014                  |
| 3% reduction | 11.8% increase                               | Not achieved                                     | Implementation of energy saving measures in the summer and winter   | Implementation of energy saving and power saving measures in the summer and winter (in cooperation with building management company) | 1% reduction compared to FY2014                  |
| 0.0791       | 0.0912                                       |  |   |  | 0.0902   |
| 1% reduction | 4.5% reduction                               | Achieved   | Upsizing vehicles for inter-base transportation, modal shifts (transportation by railway and sea) and review of plants                                    | Further review of business bases, and selection of items subject to modal shift (transportation by railway and sea)                  | 1% reduction compared to FY2014                  |
| 0.0133       | 0.0128                                       |  |   |  | 0.0127   |
| Less than 1% | 0.29%  | Achieved   | Reduction of simple incineration and landfill by sorted collection/disposal   | Thorough sorted collection   | Less than 1%                                     |
| Less than 1% | 0.67% or less                                | Achieved at all 6 plants                         |   |  | Less than 1%                                     |
| 3% reduction | 8.6% reduction                               | Achieved   | Affected by a decrease in production quantity, but implemented improvements of yield rate, review of packaging methods, etc                               | Further improvement of process yield and processes, and review of packaging subsidiary materials such as cardboard                   | 1% reduction compared to FY2014                  |
| 63.2         | 59.5   |  |   |  | 58.9   |
| 3% reduction | Between 17.8% increase and 33.3% reduction   |  |   |  | Achieved at 4 plants<br>Not achieved at 2 plants |

| FY2014               |   |   | FY2014 activities   | FY2015 challenge  |
|----------------------|---|---|---|---|
| Control value        | Result  | Achievement                             |   |   |
| 1,832kg              | 1,861kg<br>(29kg increase)                        | 2% increase compared to previous year   | Promotion of material replacement                                     | Study of appropriate alternative materials  |
| 0.049kg/t            | 0.051kg/t   | 4% increase compared to previous year   |   |   |
| 86kg                 | 71kg<br>(15kg reduction)                          | 17% reduction compared to previous year |   |   |
| 28.7t                | Emissions: 23.5t<br>(5.2t reduction)              | 18% reduction compared to previous year |   |   |
| 0.766kg/t            | 0.642kg/t   | 16% reduction compared to previous year |   |   |
| 552m <sup>3</sup>    | 474m <sup>3</sup><br>(78m <sup>3</sup> reduction) | 14% reduction compared to previous year | Promotion of the use of recycled water both domestically and overseas | Reduction of water consumption volume apart from industrial water used in production, and implementation of the evaluation of water risks at locations of individual plants |
| 15m <sup>3</sup> /kt | 13m <sup>3</sup> /kt                              | 13% reduction compared to previous year |   |   |
| 494m <sup>3</sup>    | 417m <sup>3</sup><br>(77m <sup>3</sup> reduction) | 16% reduction compared to previous year |   |   |
| 13m <sup>3</sup> /kt | 11m <sup>3</sup> /kt                              | 15% reduction compared to previous year |   |   |
| 189m <sup>3</sup>    | 191m <sup>3</sup><br>(2m <sup>3</sup> reduction)  | 1% increase compared to previous year   |   |   |
| 65m <sup>3</sup> /kt | 62m <sup>3</sup> /kt                              | 5% reduction compared to previous year  |   |   |

## Creation of environmentally friendly and contributing products

Our Group is tackling product development to reduce environmental burdens and conducts internal certification of environmentally friendly and contributing products based on Basic Environmental Principles (page 23).



### ● Concept of our environmentally friendly and contributing products

The concept of environmentally friendly and contributing products within our group based on Corporate Action Policy is as follows.

#### Concept

Environmentally friendly and contributing products in our group are new or existing products that solve customers' challenges and, upon confirmation that they are required by society and the environment (social needs), are evaluated and certified for seven items.

### ● Concept of activities

We add the ideas of ecology to QCD and take on the challenge of environmental burden reduction of products, from raw material procurement to its manufacture, use, and disposal.

#### The concept is to convert conventional QCD to QCD+E [environmental friendliness]

(Q stands for quality, C for cost, D for delivery and E for ecology (reduction of environmental burden))



By developing eco-friendly products, we target becoming a company that contributes to the realization of a recycling-oriented society and that is appreciated in society where environmental management is emphasized.

## Evaluation standards of environmentally friendly and contributing products

This shows the evaluation standards of environmentally friendly and contributing products.

| Category                   | Description   |
|----------------------------|---|
| ① Resource saving          | We have decreased the weight of products, reduced the use of raw materials, and/or improved yields. We have also used recycled materials or resources.  |
| ② Energy saving            | We reduced energy consumption, the amounts of various basic units and the generation of GHG at the time of energy-saving manufacturing. We have also reduced energy consumption at the time of use of products. |
| ③ Waste reduction          | We have suppressed the generation of waste in the waste-reducing manufacturing processes. We have also contributed to the reduction of waste after use.   |
| ④ Recycling                | In the manufacturing process, we have diverted waste from incineration and dumping to recycling process, etc.. After the use of products, reuse and recovery has become possible.                               |
| ⑤ Environmental pollutants | Products containing environmental pollutants satisfy laws, regulations, industry standards, etc. and we have reduced the use of environmental burdens in products and manufacturing processes.                  |
| ⑥ Safety                   | We improved the safety through the reduction of explosion and injuries in production processes. We also improved the safety at the time of the use of products.   |
| ⑦ Bio-diversity protection | We have reduced the amount of water use and VOC emissions in manufacturing processes. Products have also contributed to the protection of bio-diversity.  |

For the above seven categories, we have a total of 97 evaluation standards.

Since April 2013, we have started to internally certify "environmentally friendly and contributing products", judging them against these evaluation items.

## Environmental burdens accompanying our business activities

We believe the essence of environmental conservation activities is to precisely grasp environmental loads associated with our business activities. To effectively and continuously promote environmental conservation activities, we check the related numerical values and are engaged in activities based on the improvement themes to reduce environmental loads.

### INPUT

| Resources and energy            |                                    | () Figures within brackets show the percentage against the previous year |                                 |                     |                                   |
|---------------------------------|------------------------------------|--|---------------------------------|---------------------|-----------------------------------|
|                                 | Domestic production locations      | Domestic offices   | Foreign production locations    | Foreign offices     | Group Total                       |
| Energy (Converted to crude oil) | 11,763kℓ (3% reduction)            | 301kℓ (6% reduction)   | 16,619kℓ (8% increase)          | 39kℓ (9% reduction) | 28,722kℓ (3% increase)            |
| Water consumption               | 474km <sup>3</sup> (14% reduction) |  | 191m <sup>3</sup> (1% increase) |                     | 665m <sup>3</sup> (10% reduction) |

#### Raw materials

- PVC (polyvinyl chloride)
- Silicone rubber
- Other synthetic resins
- Indirect materials

### Shin-Etsu Polymer Group

| Domestic Plants & Subsidiaries  | Domestic non-plant business bases   | Overseas plants  | Overseas non-plant business bases   |
|---|---|--|---|
| <ul style="list-style-type: none"> <li>• Shin-Etsu Polymer Co., Ltd.                             <ul style="list-style-type: none"> <li>Tokyo Plant</li> <li>Nanyo Plant</li> <li>Kodama Plant</li> </ul> </li> <li>• Manufacturing subsidiaries                             <ul style="list-style-type: none"> <li>Shinano Polymer Co., Ltd.</li> <li>Urawa Polymer Co., Ltd.</li> <li>Niigata Polymer Co., Ltd.</li> <li>SAN-ACE Co., Ltd.</li> </ul> </li> </ul> | Shin-Etsu Polymer Co., Ltd. Head Office, etc.<br>Shin-Etsu Finetech Co., Ltd. Head Office, etc. | Suzhou Shin-Etsu Polymer Co., Ltd.<br>Dongguan Shin-Etsu Polymer Co., Ltd.<br>Shin-Etsu Polymer (Malaysia) Sdn.Bhd.<br>P.T. Shin-Etsu Polymer Indonesia<br>Shin-Etsu Polymer India Pvt. Ltd.<br>Shin-Etsu Polymer Hungary Kft. | Suzhou Shin-Etsu Polymer Co., Ltd. <br>Shin-Etsu Polymer Shanghai Co. Ltd.<br>Shin-Etsu Polymer Hong Kong Co., Ltd.<br>Shin-Etsu Polymer (Thailand) Ltd.<br>Shin-Etsu Polymer Singapore Pte. Ltd.<br>Shin-Etsu Polymer America, Inc.<br>Shin-Etsu Polymer Europe B.V. |

### OUTPUT

| To society  |                           | To the environment   |                                     |                                       |                                     |                                       |                                    |
|---|---------------------------|--|-------------------------------------|---------------------------------------|-------------------------------------|---------------------------------------|------------------------------------|
|   |                           | () Figures within brackets show the percentage against the previous year |                                     |                                       |                                     |                                       |                                    |
|   |                           | Domestic production locations  | Domestic offices                    | Foreign production locations          | Foreign offices                     | Group Total                           |                                    |
| <ul style="list-style-type: none"> <li>• Electronic devices                             <ul style="list-style-type: none"> <li>Input devices</li> <li>Display-related devices</li> <li>Component-related products</li> </ul> </li> <li>• Functional molded products                             <ul style="list-style-type: none"> <li>OA equipment parts</li> <li>Silicone rubber molded products</li> <li>Semiconductor-related containers</li> <li>Carrier tape-related products</li> </ul> </li> <li>• Living environment and life-related materials                             <ul style="list-style-type: none"> <li>Wrapping films</li> <li>Plastic sheet-related products</li> <li>Functional compounds</li> <li>PVC pipe-related products</li> <li>Exterior material-related products</li> </ul> </li> <li>• Others                             <ul style="list-style-type: none"> <li>Design and construction of buildings, interior/ exterior, shops, etc.</li> </ul> </li> </ul> | CO <sub>2</sub> emissions | 25,993t-CO <sub>2</sub> (3% reduction)                                   | 606t-CO <sub>2</sub> (6% reduction) | 36,537t-CO <sub>2</sub> (8% increase) | 79t-CO <sub>2</sub> (17% reduction) | 63,215t-CO <sub>2</sub> (3% increase) |                                    |
|   | Waste                     | Total emissions  | 2,179t (1% reduction)               |                                       | 2,062t (5% increase)(*)             |                                       | 4,241t (1% increas)                |
|   |                           | Recycled amount  | 2,173t (2% reduction)               |                                       |                                     |                                       |                                    |
|   |                           | Simple incineration  | 5.96t (26% increase)                |                                       |                                     |                                       |                                    |
|   |                           | Landfill   | 0.45t (221% increase)               |                                       |                                     |                                       |                                    |
|   |                           | Emission rate  | 0.29% (0.07 points increase)        |                                       |                                     |                                       |                                    |
|   |                           | Waste water  | 417km <sup>2</sup> (16% reduction)  |                                       | 191km <sup>2</sup> (1% increase)    |                                       | 608km <sup>2</sup> (11% reduction) |
|   |                           | PRTR emissions (Reported amount of subject substances)                   | 1.9t (6% increase)                  |                                       |                                     |                                       |                                    |

\*Aggregated value based on Group standard

## Countermeasures against global warming

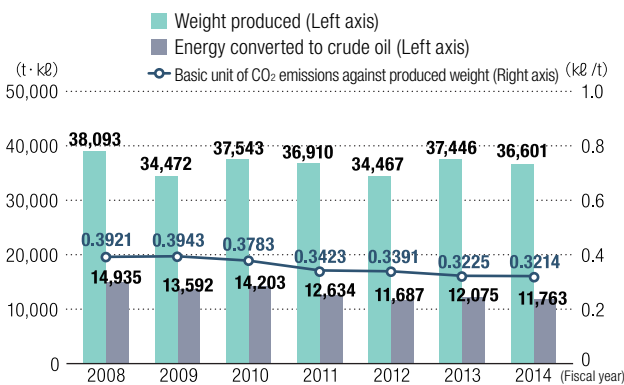
To prevent global warming, we proceed with energy saving at both our domestic and overseas plants. We also grasp CO<sub>2</sub> emissions in production and have started to calculate GHG Scope 3 of the entire supply chain since last year.

### ● Transition of basic units of production weight energy / CO<sub>2</sub> emissions

#### Transition of basic units of produced weight energy (Domestic plants)

The basic unit of CO<sub>2</sub> emissions of domestic plants in FY2014 was reduced to 0.3214kℓ/t against 0.3921kℓ/t in FY 2008, representing about 18% reduction. We will continue to make investments in high efficiency facilities.

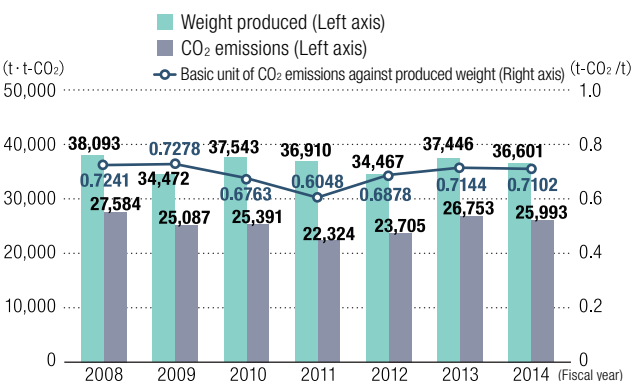
#### Transition of energy converted to crude oil and basic units of CO<sub>2</sub> emissions against produced weight (Domestic plants)



#### Transition of basic units of CO<sub>2</sub> emissions against produced weight (Domestic plants)

The basic unit of CO<sub>2</sub> emissions of domestic plants in FY2014 was reduced to 0.7102-tCO<sub>2</sub>/t against 0.7141-tCO<sub>2</sub>/t in FY 2008, representing about 1.9% reduction. We reduced energy basic units by 18% through active energy-saving measures such as the installation of LED lights and new facilities. However, the reduction of CO<sub>2</sub> emission basic units was only 1.9% due to the reduction of produced weight and the effects of emission factors. We expect this situation to remain unchanged, but we will continue to improve our energy-saving measures and aim to achieve the goal of 7% reduction in FY2015 against the value of FY2008. We will consider to respond to the electricity demand equalization.

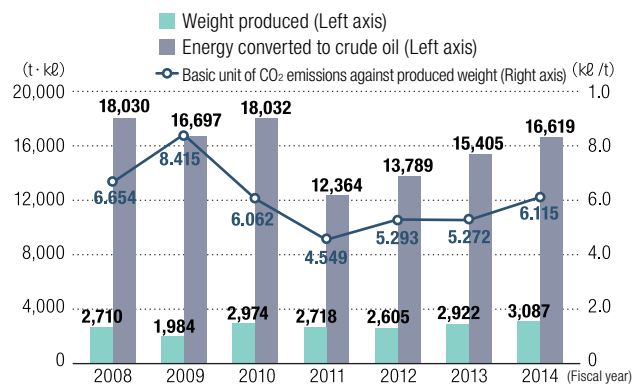
#### Transition of CO<sub>2</sub> emissions and basic units of CO<sub>2</sub> emissions against produced weight (Domestic plants)



#### Transition of basic units of produced weight energy (Overseas plants)

The basic unit of CO<sub>2</sub> emissions of overseas plants in FY2014 was reduced to 6.115kℓ/t against 6.65kℓ/t in FY 2008, representing about 8% reduction. We will continue to improve the emissions in keeping with foreign local laws and trends.

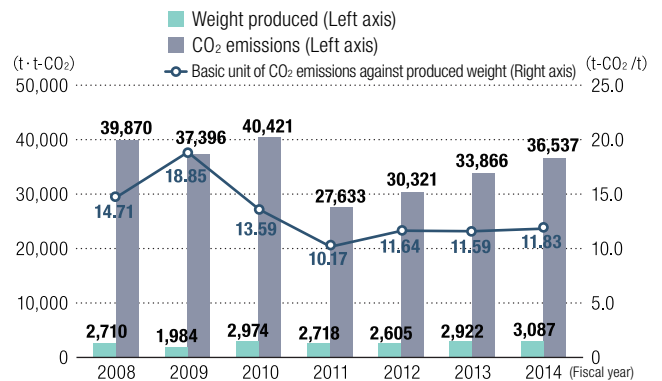
#### Transition of energy converted to crude oil and basic units of CO<sub>2</sub> emissions against produced weight (Overseas plants)



#### Transition of basic units of CO<sub>2</sub> emissions against produced weight (Overseas plants)

The basic unit of CO<sub>2</sub> emissions of overseas plants in FY2014 was reduced to 13.44t-CO<sub>2</sub>/t against 14.71t-CO<sub>2</sub>/t in FY2008, representing about 9% reduction. We will continue to improve the emissions in keeping with foreign local laws and trends.

#### Transition of CO<sub>2</sub> emissions and basic units of CO<sub>2</sub> emissions against produced weight (Overseas plants)



● GHG Scope 3 emissions

Our group calculates the Scope 3 emissions based on the guidelines by the Ministry of Environment, and compares the value with last year by category. The Scope 3 emissions in FY2014 was 1,495,000 t- CO<sub>2</sub>. We believe it is important to promote effective measures based on the understanding of these categories.

| Category             |   | FY2013 (kt-CO <sub>2</sub> ) | FY2014 (kt-CO <sub>2</sub> ) | Changed rate | Notes   |
|----------------------|---|------------------------------|------------------------------|--------------|---|
| Our group            | (Scope 1) Direct emissions                  | 4.3                          | 3.2                          | -25%         | Implementation of energy saving.                        |
|                      | (Scope 2) Indirect emissions from           | 61.4                         | 63.2                         | 3%           | Increased by expansion of overseas businesses.          |
| 1                    | Purchased products/services                 | 49.9                         | 52.6                         | 6%           | Increased procurement of capital goods.                 |
| 2                    | Capital goods                               | 1.6                          | 3.6                          | 124%         | Increased due to high equipment investment.             |
| 3                    | Energy-related activities outside Scope1, 2 | 4.0                          | 4.2                          | 5%           | Implementation of energy saving.                        |
| 4                    | Transportation, shipping (upstream)         | 36.2                         | 38.6                         | 7%           | Increased procurement of capital goods.                 |
| 5                    | Business waste                              | 2.0                          | 1.2                          | -40%         | Decreased by waste reduction activity.                  |
| 6                    | Business trips                              | 1.3                          | 1.6                          | 23%          | Increased by expansion of overseas businesses.          |
| 7                    | Employee commute                            | 2.8                          | 2.9                          | 4%           | Shows no significant change.                            |
| 8                    | Lease assets (upstream)                     | -                            | -                            | -            | The amount is negligible and excluded from the subject. |
| 9                    | Transportation, shipping (downstream)       | 1.1                          | 10.5                         | 955%         | Increased by expansion of overseas businesses.          |
| 10                   | Processing of products sold                 | -                            | -                            | -            | N/A   |
| 11                   | Use of sold products                        | -                            | -                            | -            | N/A   |
| 12                   | Disposal of sold products                   | 31.2                         | 34.4                         | 10%          | Increased by business expansion.                        |
| Subtotal of Scope 3  |   | 130.1                        | 149.6                        | 15%          |   |
| Total                |   | 195.8                        | 216.0                        | 10%          |   |
| Percentage (Scope 3) |   | 66%                          | 69%                          |              |   |

\*Category 1-9 belong to upstream in the supply chain, and Category 9-12 belong to downstream

● Energy-saving activities related to transportation

As a Specified Consigner who commissions annual freight volume of over 30 million t-km, domestic group companies reported the 9th periodical report on June 2015 since the first report in FY2006. The amount of freight volume in FY2014 decreased by 3.0%, and the annual CO<sub>2</sub> emissions decreased by 9.7% as the result of continuous enlargement of vehicles for transportation between bases, modal shift (change to railway / ship transportation), and the review of bases in two consecutive years.

The volume shipped by railway between bases decreased in FY2013, due to the difficulty of procuring vehicles (railway containers) caused by increased tax and cost. In FY2014, the ratio of shipments by railway was 13.7% (3.4% increase compared to the previous year) due to the review and improvement of fare and vehicle procuring methods, and we exceeded the goal of annual 1% reduction of basic units by achieving 95.5% (4.5% decrease) of 5-year annual average basic units change.

Transition of energy pertaining to transportation

|                                  | Unit              | Reporting FY |        |        |        |        | Comparison with previous FY |
|----------------------------------|-------------------|--------------|--------|--------|--------|--------|-----------------------------|
|                                  |                   | FY2010       | FY2011 | FY2012 | FY2013 | FY2014 |                             |
| Annual freight volume            | 1,000 ton-km      | 31,570       | 27,253 | 25,911 | 25,878 | 25,111 | -3.0 %                      |
|                                  | t                 | 99,971       | 93,658 | 87,285 | 93,955 | 88,900 | -5.4 %                      |
| Energy consumption               | GJ                | 59,635       | 51,501 | 46,288 | 48,777 | 44,209 | -9.4 %                      |
|                                  | kℓ                | 1,539        | 1,329  | 1,194  | 1,258  | 1,141  |                             |
| Energy consumption basic unit    | kℓ/t (*1)         | 0.0154       | 0.0142 | 0.0137 | 0.0134 | 0.0128 | -4.2 %                      |
| Annual CO <sub>2</sub> emissions | t-CO <sub>2</sub> | 4,042        | 3,498  | 3,137  | 3,315  | 2,992  | -9.7 %                      |

\*1. The basic unit changed from kℓ/1,000 ton-km in FY2011. Previous data has also been corrected.

Transition status of basic units related to energy consumption rate in the past five fiscal years

|                               | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | Transition of average basic units in five fiscal years |
|-------------------------------|--------|--------|--------|--------|--------|--|
| Energy consumption basic unit | 0.0154 | 0.0142 | 0.0137 | 0.0134 | 0.0128 | 95.5   |
| Compared to previous year (%) |        | 92.1   | 96.4   | 97.9   | 95.8   |  |

## Measures for effective use of resources

### ● Waste reduction and recycling

In the 4th Mid-term Targets (FY2012-2014), we are promoting activities with the goal of "maintenance and continuation of zero emission" and "3% reduction of basic unit of waste emissions against produced weight compared to FY2011".

### ● Approaches to waste reduction and recycling

With our keywords "zero landfills, and simple incineration by promoting waste recycling," we are engaged in activities to achieve and maintain zero emissions (less than 1% emission rate) with control indicators 1) basic unit of waste emissions and 2) emission rate.

### ● Key initiatives

Waste plastic recycling as the core of our zero emission activities employs (1) material recycling, (2) turning cement into raw materials and fuel and (3) thermal recycling (applications as fuel for non-iron metal refining and for power generation, etc.) To confirm that external commissioned disposers properly deal with waste, we carry out regular on-site inspections.

### ● Results for FY2014

#### Domestic plants

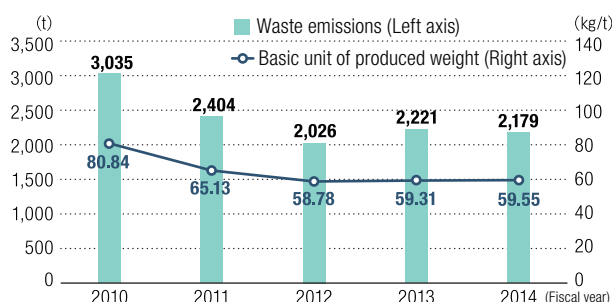
The total amount of waste in FY2014 was 2,179t, a 42t decrease from the previous year. The cause of the reduction was the decrease of the amount of production. The basic unit of waste emissions against produced weight was 59.55kg/t, which was almost equal to the previous year. The emission rate was 0.22%, achieving our target of less than 1.0% with 0.07% increase from the previous year. The cause of the increase was the bulk disposal of waste reagents. The above results excluded the amount of wasted facilities caused by special factors. If this amount is added to the results, the total amount of waste was 2,421t (242t increase), the basic unit of waste emissions against produced weight was 66.17kg/t, and the emission rate was 0.26%.

Specially controlled industrial waste mainly consisted of waste alkali, waste reagents and waste oil, which were properly treated with neutralization, incineration, and other methods.

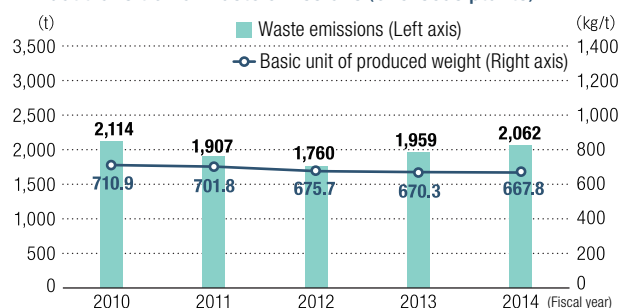
#### Overseas plants

The total amount of waste in FY2014 was 2,062t, a 103t increase from the previous year. The cause of the increase was the increase in production volume. The basic unit of waste emissions against produced weight was 667.8kg/t, which was slight reduction compared to the previous year.

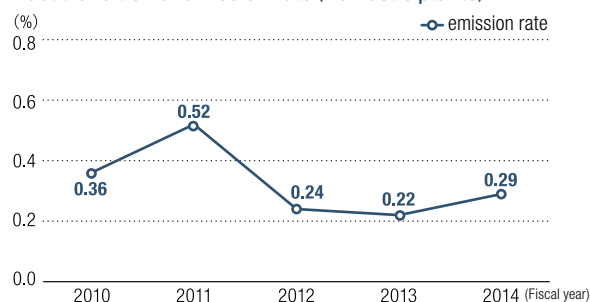
Annual transition of waste emissions (Domestic plants)



Annual transition of waste emissions (Overseas plants)



Annual transition of emission rate (Domestic plants)



### ● Results of commissioning reuse of containers and packaging

#### Shin-Etsu Polymer Co., Ltd

| Fiscal year | Plastic containers and packaging |                                  | Paper containers and packaging |                                  | Commissioning charge for reuse (Japanese yen) |
|-------------|----------------------------------|----------------------------------|--------------------------------|----------------------------------|---|
|             | Commissioned quantity (kg)       | Commissioned unit price (Yen/kg) | Commissioned quantity (kg)     | Commissioned unit price (Yen/kg) |   |
| 2011        | 20,646                           | 52.0                             | 139                            | 13.0                             | 1,075,399                                     |
| 2012        | 24,535                           | 49.0                             | 174                            | 12.0                             | 1,204,303                                     |
| 2013        | 25,835                           | 48.0                             | 128                            | 12.0                             | 1,241,616                                     |
| 2014        | 24,547                           | 57.0                             | 103                            | 14.0                             | 1,400,621                                     |
| 2015        | 28,893                           | 47.0                             | 99                             | 13.0                             | 1,359,258                                     |

#### Shin-Etsu Finetech Co., Ltd

| Fiscal year | Plastic containers and packaging |                                  | Paper containers and packaging |                                  | Commissioning charge for reuse (Japanese yen) |
|-------------|----------------------------------|----------------------------------|--------------------------------|----------------------------------|---|
|             | Commissioned quantity (kg)       | Commissioned unit price (Yen/kg) | Commissioned quantity (kg)     | Commissioned unit price (Yen/kg) |   |
| 2011        | 665                              | 52.0                             | 0                              | 13.0                             | 34,580  |
| 2012        | 585                              | 49.0                             | 0                              | 12.0                             | 28,665  |
| 2013        | 464                              | 48.0                             | 0                              | 12.0                             | 22,272  |
| 2014        | 321                              | 57.0                             | 0                              | 14.0                             | 18,297  |
| 2015        | 533                              | 47.0                             | 0                              | 13.0                             | 25,051  |

## Activities for Bio-diversity Protection and Pollution Prevention

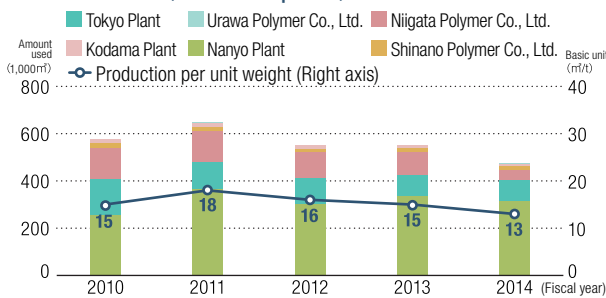
Our group promotes efforts to reduce environmental burdens, such as global warming countermeasures, effective use of resources, and management of chemical substances, in order to reduce effects of our business activities to the protection of bio-diversity. We also conduct effective use of water resources and pollution prevention for air, water quality, land and others. To make effective use of water resources, we promote circulated water both domestically and overseas.

Domestic plants saw the reduction trend in the amount of use, discharged amount and used amount of circulated water in the change of basic units based on produced

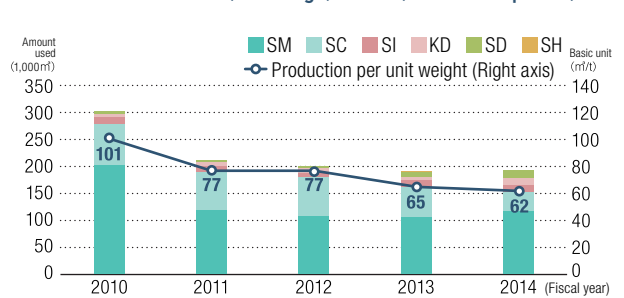
weight. Our future agenda is to respond to the decreased use of circulated water. We will effectively use water resources by adopting produced weight basic units as an indicator of effective use of water resources.

As for circulated water, overseas plants saw an increased trend in the amount of use, discharged amount and used amount of circulated water, but saw the decrease trend in those as for water use (discharged amount) in the change of basic units based on produced weight. We will promote the effective use of water resources in this situation where the use of circulated water is increasing.

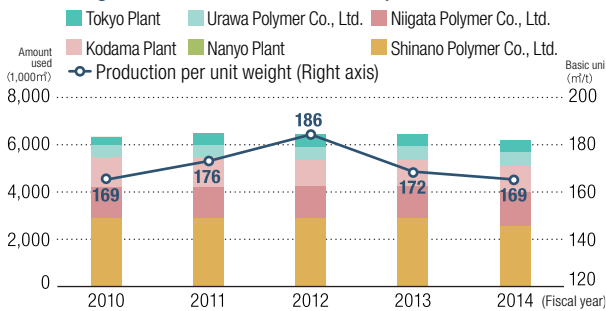
### Waste use status (6 domestic plants)



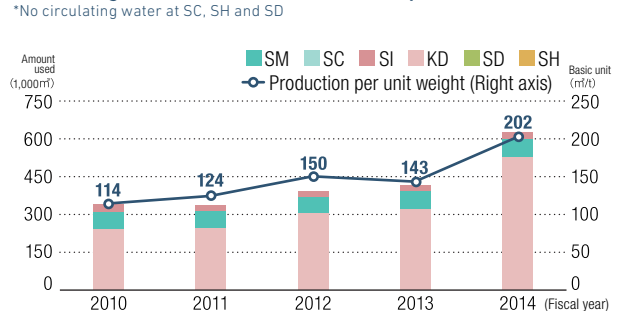
### Industrial waste water (discharge) status (6 overseas plants)



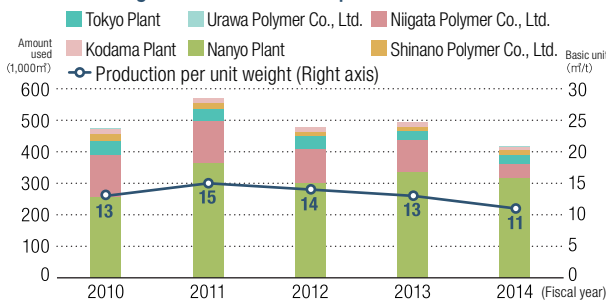
### Circulating water use status (6 domestic plants)



### Circulating water use status (6 overseas plants)



### Water discharge status (6 domestic plants)



SI: P.T. Shin-Etsu Polymer Indonesia  
 SM: Shin-Etsu Polymer (Malaysia) Sdn. Bhd.  
 KD: Dongguan Shin-Etsu Polymer Co., Ltd.  
 SD: Shin-Etsu Polymer India Pvt. Ltd.  
 SH: Shin-Etsu Polymer Hungary Kft.  
 SC: Suzhou Shin-Etsu Polymer Co., Ltd.

## Efforts for pollution prevention

### ● Air pollution prevention

We comply with standards stipulated in the Air Pollution Control Law as well as set voluntary control standards to reduce emissions. We periodically measure the emission concentration of VOC in order to confirm the value is below the standard.

### ● Water pollution prevention

We voluntarily test the water quality of discharged water to satisfy the standard specified in Water Pollution Prevention Act. We are also working on reducing the basic units of water use and conducting conversion to circulated water.

### ● Soil contamination prevention

We conduct monitoring based on the Soil Contamination Countermeasures Act. We also conduct surveys on soil and underground water where necessary to confirm there is no contamination.



## Opinion of Third Person

We received third-party comments to further improve the environmental and social activities of our Group.



### Third-party comments on the “Sustainability Report 2015”

Professor, Economics Department,  
Sophia University

#### Yoshinao Kozuma

With regard to the environmental and social efforts and initiatives of the Shin-Etsu Polymer Group, I am providing my comments after reading the same Group’s “Sustainability Report 2015” (hereinafter referred to as Report) and after interviewing those concerned.

#### 1. Creating “function” and contributing to reduction

In the Shin-Etsu Polymer Group, the basic vision of business activities is “the realization of a sustainable, safe and secure society”. This is also an important business direction for growth strategy and considered to be highly feasible commitment judging from achievements to have come out with various environmentally friendly products to the market with proven basic technology and superior application and development power.

“EXELAST™” and “Shin-Etsu TWSS” covered in the Special Feature of this year issue are the products that are characterized by “functions” of “being slidable” and “having fixing power but being easily peeled off” respectively. These “functions” largely expand the possibility of contributing to reduction in value chain by effective application. I highly appreciate their creations of “functions” as contributions in a distinctive way of the resin processing manufacturers that use their ingenuity in leveraging “functions” of materials flexibly.

#### 2. Improvement of Scope 3 information

The scope 3 emissions of greenhouse gas of which aggregate calculation and disclosure were started last fiscal year is also displayed from this year in formats compared with that of previous year and with comments on change rates, cause analysis to increase/decrease, etc. by category. At the present, activities for reduction are offered comments in certain categories only, but corporate attitude deserve respect to try to tackle squarely environmental burdens in value chain where planning of aggregate calculation

and countermeasures are difficult. I expect the Group to continue efforts to put the scope 3 emissions under the complete control of CSR management in future by repeating improvement little by little.

#### 3. Improvement of accident data

The Shin-Etsu Polymer Group discloses the detailed Work Time Accident Report every year under the managerial goal to “devote to safety first”. The report carries data aggregated for domestic and overseas production sites separately from this year and is well-organized with rates of accident accompanied by lost worktime, accident accompanied by no lost worktime and frequency rates of total accidents. However, it is difficult to evaluate the achievements in fact because which index is the object is not specified, while the achievement of “zero accidents” is taken as an important target.

In this fiscal year, for example, an accident accompanied by lost worktime didn’t occur domestically for the second consecutive year and the number of such accidents was on a declining trend overseas. On the other hand, the number of accidents accompanied by no lost worktime adversely increased and the frequency rate of the accidents in Japan increased and that of overseas decreased. For future reports, improvement of explaining methods is desirable by specifying the definition of “zero accidents” and attaching charts and tables to understand their trends and achievements, etc.

#### 4. Expanding the scope of Green Activities

Green Activities that play a central role of environmental management can be evaluated as an enormously effective managing tool. It is unfortunate that the boundary of activities is marked off to limit to domestic. It is desirable to consider to develop Green Activities overseas as soon as possible taking no improvement of environmental performance in overseas production sites into account.



Members of the Board,  
Assistant Chairman,  
Green Activities,  
Promotion Bureau, Director  
**Yutaka Kawamura**

### In response to third-party comments

We completed the domestic and overseas data collection system for our Group that had been developed from last year and constructed the system to centrally manage more speedy and accurate data regarding environment, health and safety, labor service, etc.. With these data, we have newly reported the number of work time accidents at domestic and overseas production sites, frequency rates, basic units of energy against produced weight, analysis of the scope 3 emissions of greenhouse gas, etc. However, as

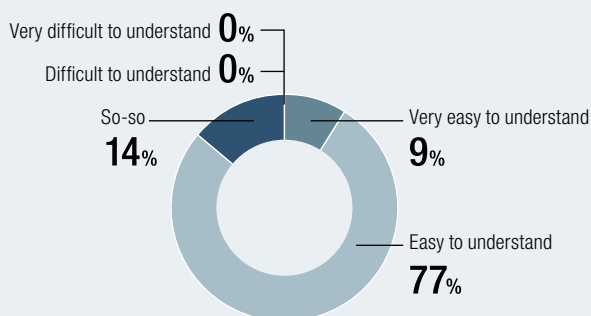
pointed out, there is an unclear point in definition of “zero accidents” with regard to health and safety. We will reduce the potential risks for work time accidents and improve the standard of health and safety together with specifying the definition and explaining results of activities in an appropriate manner. As for the boundary of Green Activities, we will work on making this a Group-wide improvement activity by including overseas business’s target settings, etc. with consolidated systems as soon as possible.

## Questionnaire results

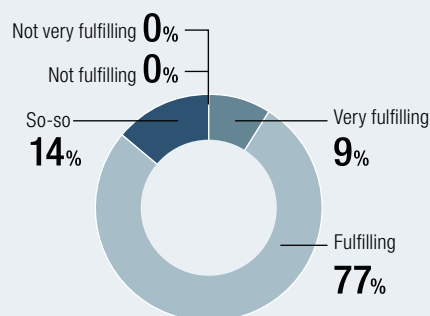
After releasing the "Sustainability Report 2014," we received both internal and external readers' responses to our questionnaire, and the results are given below.

We would like to take your opinions and comments into consideration for future issues. Thank you very much.

### ● Was the report easy to understand?



### ● What about the contents?



### ● Please give your comments, opinions, and requests.

#### [Contents you are especially interested in and its reason]

##### Eco-products

- It makes it easier to draw customers' interests to products that can win favorable coverages in newspapers and magazines such as Shupua.
  - I felt fondness for our products as I understood employees concerned were emotionally involved with the products by reading the introduction of products.
  - We have no knowledge about products at all if we work at different department even in the same company. The product description for general public are written in an understandable way and accessible.
- We explained that we are also aiming for contributing to customers' products and manufacturing in addition to environmental consideration as "environmentally friendly and contributing products" from FY2015. We will continue to introduce such products.

##### Engagement with the employee

- I think that the article of Engagement with the Employee is especially good because the contents are very fulfilling. I want to make them more fulfilling for us to be aware of how the general public is seeing us or that we are always seen by general public.
- I was able to understand again our company's current status by reading the article that covers our activities in great transfiguration such as the change of social environment and the reform of the in-house human resource system.

→ We will keep introducing our activities to respond to the company's current status and work-life balance, etc.

##### Engagement with local communities and society in general

- The article is truly good to understand the engagement with local communities and society.
- It is easy to understand since the contents had concrete examples, not abstract. I feel high environmental awareness of employees.

##### [Opinions and requests]

- I think we should promote activities such as support activities for earthquake disaster reconstruction and each local area at natural disasters further in "Engagement with Local Communities and Society in General" and introduce the activities in the article.
- We have introduced a part of such activities in the FY2015 issue.
- I don't know what the purpose is and how to use the Report. Also, I don't understand when we offer them to our customers and what customers need. In that way, I don't feel the need of the Report.
- This Report is issued to have clients (customers), shareholders, employees, local societies, etc. understand our activities. For example, we wish our clients (customers) to understand our approaches by explaining our ways of thinking of corporate governance, green procurement, environmentally friendly and contributing products, etc. by reading this Report.

## Editor's Note

Two years have passed since we established the system to evaluate and certify "environmentally friendly and contributing products" that leads to environmental consideration and customers' solutions of issues through products. This April, we have renamed it to "environmentally friendly and contributing products" to emphasize our principle more vividly that we contribute to solving issues of global environment and society by solving our customers' issues. "The 5th medium targets of Green

activities" that have been advocated from this fiscal year include a goal to double the certified products. On the other hand, although discussed from last year, overseas have not yet included to the area to be reported due to incomplete system construction. As pointed out in "Third-party comments" we have fallen behind in environmental management while developing markets globally. Upon the comments, we recognized further the importance of consolidated management. We will address what can be improved



based on comments from Professor Kozuma and readers of this report and report on the results. We are looking forward to hearing more opinions on the environmental and social activities of the Shin-Etsu Polymer Group.