



# Shin-Etsu Polymer Sustainability Report 2014



## Corporate Mission Statement

**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.

## Profile

Ever since our foundation in 1960 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.

## Corporate Action Policy

**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.

## Corporate Action Policy

- 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.

## 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.

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# Greetings

## Towards being a strong company with presence, we contribute to the realization of a sustainable, safe and secure society through uniting all employees

### Challenges for our group

To respond to the comprehensive needs of customers doing business on a global scale with a sense of speed, we have defined the “development of new products,” “strengthening sales power” and “development of new customers” as our key challenges, tackling business with unity of production, sales and technology.

As a first step, we carried out a reorganization last April. The purpose of this was to create an organization that can properly grasp customer potential needs and offer proposals for problem-solving in a more timely manner by increasing the total strength of the organization, reorganizing the existing fractionalized division system into a functional organization. We also improve on basic and process technologies we have cultivated such as materials and combinations, further strengthening the competitive edge of existing businesses.

We also address, among other things, safety and compliance in a more committed way, and by strengthening eco-friendly management, we strive towards the creation of values shared with society and target becoming a “company with presence” that is increasingly trusted by both customers and society.

### Important issues and efforts for eco-friendly management

As one of our targets, we herald “contributing to protecting the global environment” and tackle responses to global warming, effective use of resources and the promotion of developing environment-friendly products (eco-products). As part of our group-wide “Green Activities,” we set medium-term targets once every three years for the purpose of making evaluations and improvements.

We conduct energy-saving activities as a countermeasure against global warming and for waste reduction and continued zero emissions for the effective use of resources in not only production sectors but also in office sectors. ▶Please refer to pages 28 and 29.

We tackle the promotion of the development of eco-products in such diverse fields as automotive, information equipment, office equipment, medical equipment, semiconductors, electronic devices and life-related materials. By promoting the development of products required by the market and that are needed for a sustainable society, we want to contribute to solve the challenges of customers and society. ▶Please refer to pages 8 and 9.

#### ○About the 4th Mid-term Targets of “Green Activities”

Due to a decrease in production, we were unable to meet the targets of CO<sub>2</sub> emission units and basic units of energy in FY2013 or the 2nd year of the



President

*Yoshiaki Ono*

September 2014

activities. As a result, we are taking measures to replace production facilities, air conditioners and lighting with the latest models. This is driven by individual subcommittees of “Green Activities.” We satisfied the targets of waste basic units and zero emissions, and going forward, we shall maintain this.

All employees are united to proceed with initiatives in the final year of Green Activities and the 4th Mid-term Targets to ensure that all targets are achieved. ▶Please refer to pages 28 and 29.

## Tackling CSR-based management

### ○Highly transparent management

To enhance corporate value, we make efforts to improve corporate governance, strengthen our compliance system and disclose information in a timely and proper manner, build smooth relationships with stakeholders and target highly transparent management. In addition, we will further improve internal control as a group of companies by, for example, enhancing the auditing functions of auditors and completing internal audit systems. ▶Please refer to page 20.

### ○Safety first

Safety is the foundation of all our corporate activities and one of the highest priority issues for management. All officers and employees of our group are aware of their roles and responsibilities in relation to safety and take risk assessment and countermeasures about facilities and operations, targeting the achievement of “zero accidents.”

▶Please refer to page 22.



### ○Respect for human rights

We do not tolerate 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 23.

This Report conforms to the “Environmental Reporting Guidelines (Fiscal Year 2012 Version)” of the Ministry of the Environment and reports on targets and results of the Key Performance Indicators (KPIs) in addition to the status of Green Activities. We would very much appreciate any feedback, opinions or comments from our stakeholders.

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.

Going forward, our group will continue to aggressively promote initiatives to contribute to the realization of a sustainable, safe and secure society. We look forward to receiving your kind support and guidance in advance.


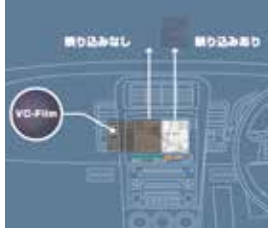




# Product Introduction

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.

## Automobiles and information equipment

We provide input devices for information and automotive equipment, devices associated with the display market and products taking advantage of silicone processing technology. We propose new products focusing on our proprietary technologies.

	Touch switches	View angle control films	Integrally molded silicones and plastics
Automobiles	 <p>For consoles</p>	 <p>Reflection preventive films for navigation</p>	 <p>Remote keyless entry systems</p>
Information equipment	 <p>For electric home appliances</p>	 <p>Privacy filters prevention films for ATMs</p>	 <p>Waterproof cases for smartphones</p>

## Office equipment, medical devices and silicone processing

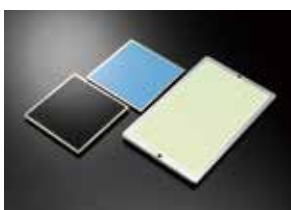
We supply various rolls for laser printer markets such as OA equipment parts in addition to high precision, high quality silicone rubber molded products for medical semiconductor-related fields.



Rolls for OA equipment



Catheters



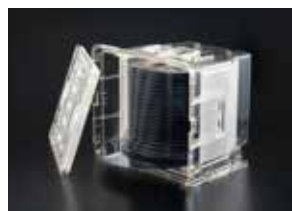
Jigs for electronic parts



SILICOSEN

## Semiconductors and electronic parts related materials

Based on technology combining world leading material development, precision molding and evaluation technologies, we mainly supply semiconductor-related packaging and conveyance materials such as wafer cases and carrier tapes.



Wafer cases



Carrier tapes

## Vinyl chloride/Life-related materials

We provide products applied with our unique processing, thin film deposition and functional design technologies such as food wraps for supermarkets and other business use, applications for daily goods and CD/DVD packaging products for music and films, in addition to various functional compounds, incombustible sheets and wiper

blades.

In relation to construction materials, we have been providing our main products since the time of our foundation, namely "vinyl chloride pipes" and "plastic corrugated sheets" as well as hybrid siding, our residential exterior wall decorative sheets, for renovated and newly constructed houses.



Polymer Wrap



Compound, "Excelast"



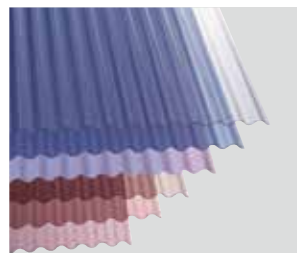
Wiper blades



Incombustible sheet, "SEPCAL"



Vinyl chloride pipes



Corrugated sheets



Exterior decorative board, "Polymer Panel"

## Technology and production

While carrying out development themes, we undertake quick action to respond to market needs using a project team system and develop new technologies by aggressively promoting alliances with universities and other research institutions.

## Shin-Etsu Finetech Co., Ltd.

The company sells electronic parts, medical equipment parts, industrial and food packaging materials, agricultural materials and equipment and other Shin-Etsu products in addition to its own products. Shin-Etsu Finetech Co., Ltd. also designs and constructs excellent unit systems for supermarkets and restaurants.



Various engineering plastic thin films



Conductive polymers



Design and construction of buildings and shops

## Development of eco-products

Based on Basic Environmental Principles (Please refer to page 3), the Shin-Etsu Polymer Group is tackling product development to reduce environmental burdens and conducts internal certification of eco-products.

### Concept of our eco-products

The concept of eco-products within our group based on Corporate Action Policy is as follows.

#### ■ Concept

Eco-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 (Please refer to the top half of the following page).

### 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.

### Design of eco-product "certification label" determined

At the meeting of the certification subcommittee to promote eco-product promotion activities on October 24, the design by Mr. Toshitsugu Yajima of the Technology & Production Unit was selected as the eco-product "certification label." Going forward, this "certification label" will be used in catalogs of products certified as eco-products.

#### Commitment to design

Toshitsugu Yajima, Technology & Production Unit

Based on the symbol mark of Green Activities, a leaf, the design represents the hope to care for every single drop of water. In our world, human beings co-exist with animals and plants. As a member of this world, we have to remain a company that cares for every drop of water in the world of nature. It is my intention that this mark serves a bridge between the Shin-Etsu Polymer Group as a manufacturer and the customers as users, enabling them to share a real awareness of "protecting nature."



Shin-Etsu Polymer Group  
Certified Eco-Product





## Evaluation Standards of Eco-products




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

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 recycling-oriented 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 have reduced the amount of water use and VOC emissions in manufacturing processes to protect bio-diversity. Products have also contributed to the protection of bio-diversity Shown below are the evaluation standards of eco-products.
7 Bio-diversity protection	We have reduced the amount of water use and VOC emissions in manufacturing processes to protect bio-diversity. Products have also contributed to the protection of bio-diversity Shown below are the evaluation standards of eco-products.

For the above seven categories, we have a total of 97 evaluation standard. Since April 2013, we have started to internally certify "eco-products", judging them against these evaluation items.

## Certified products (excerpts)

(As of June 2014) ● indicates the certified category

	Booth to prevent fingers from being caught, "YubiTect"	"Polica Tough" corrugated sheets	"LifeTect," a door that can be opened from the outside in case of an emergency
			 This product is covered in the section of "Eco-products" in Episode. (Please refer to page 16).
1 Resource saving			
2 Energy saving			
3 Waste reduction			
4 Recycling		●	
5 Environmental pollutants			
6 Safety	●		●
7 Bio-diversity protection			

For further detail, please refer to the relevant websites as shown below:

○ Booth to prevent fingers from being caught, "YubiTect"®

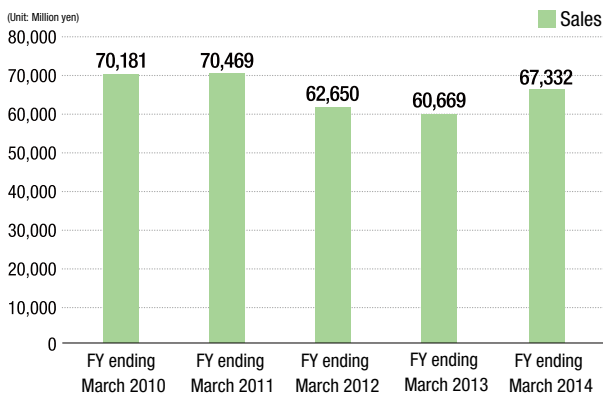
○ "LifeTect," a door that can be opened from the outside in case of an emergency ⇨ [Shin-Etsu Finetech Co., Ltd. : http://www.shinfine.co.jp/product/toilet/](http://www.shinfine.co.jp/product/toilet/)

○ "Polica Tough" corrugated sheets ⇨ [Shin-Etsu Finetech Co., Ltd. : http://www.shinpoly.co.jp/product/](http://www.shinpoly.co.jp/product/)

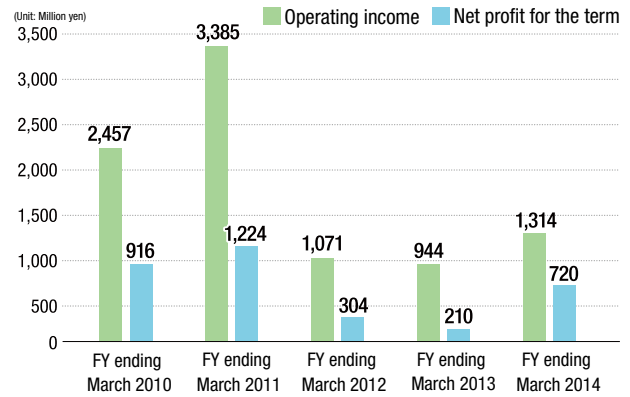
# Summary of Key Performance Indicators

In market conditions surrounding the Shin-Etsu Polymer Group, demand in not only the automobile industry but also the semiconductor and OA equipment-related industries has witnessed a considerable recovery. Under these conditions, we are now focusing on new product proposals for sales, while at the same time making active capital investments, in particular, in terms of strengthening production capacities, in addition to striving to improve production efficiency.

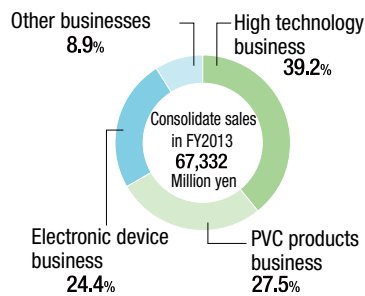
■ Changes in sales (Consolidated)



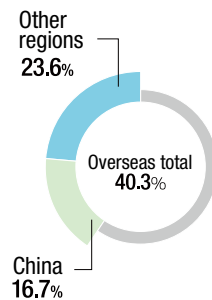
■ Changes in operating income and net profit (Consolidated)



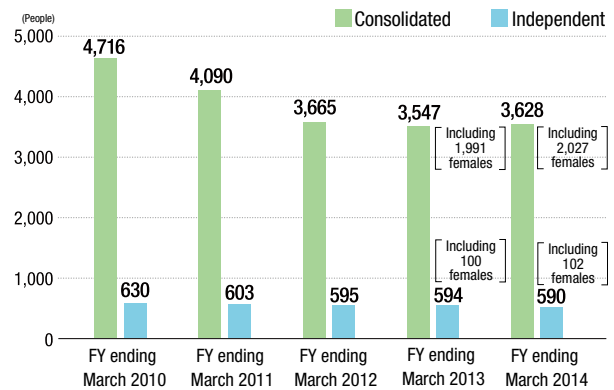
■ Distribution of consolidated sales by business segment



■ Distribution of consolidated overseas sales



■ Changes in the number of employees



■ Changes in key indicators

Period (fiscal year end)	Sales (Million yen)				
	50th Period (Ending in March 2010)	51st Period (Ending in March 2011)	52nd Period (Ending in March 2012)	53rd Period (Ending in March 2013)	54th Period (Ending in March 2014)
Ordinary income (Million yen)	70,181	70,469	62,650	60,669	67,332
Net assets (Million yen)	2,816	3,054	1,248	1,291	1,835
Return on equity (%)	85,628	81,326	81,017	81,342	88,644
CO <sub>2</sub> emissions (t)	1.5	2.0	0.5	0.3	1.1
Basic units of CO <sub>2</sub> emissions	62,483	65,812	49,957	54,026	60,619
against produced weight (t-CO <sub>2</sub> /t)	0.7278	0.6763	0.6048	0.6878	0.7144
Emission rate (%)	0.36	0.36	0.52	0.24	0.22
Accident frequency ratio	2.81	2.43	4.72	4.08	1.54

- Sales do not include consumption tax.
- For other key management indicators, etc. please refer to our financial report.
- CO<sub>2</sub> emissions refer to domestic and overseas production sites of the group. Due to a correction in overseas CO<sub>2</sub> emissions factors, CO<sub>2</sub> emissions in the 53th Period were corrected.
- The basic units of CO<sub>2</sub> emissions against produced weight refer to domestic production sites of the group.
- The accident frequency ratios refer to domestic production sites of our group in a calendar year.

# Overseas Business Base

Shin-Etsu Polymer India Pvt. Ltd.

## Establishing foundations with circle of friendships



Shin-Etsu Polymer India Pvt. Ltd.  
Director

**Shun-ichi Zenna**

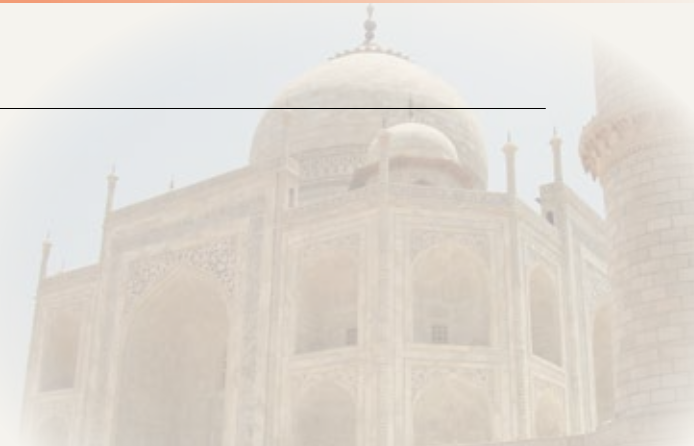
### Chennai, a place of unique culture

Shin-Etsu Polymer India Pvt. Ltd. (SD) was founded in October 2007 as a subsidiary of Shin-Etsu Polymer Co., Ltd. and started operating in December 2008. This is the 5th production base we have established overseas, following Malaysia in 1988, China in 1993, Indonesia in 1997 and Hungary in 2003.

The special economic zone in which SD is located is on the outskirts of Chennai (formerly Madras) which is the capital city of the state of Tamil Nadu in Southern India. The company has a site area of 40,000 square meters, with a total floor area of about 6,500 square meters. As the infrastructure is rather unstable in Chennai, we have generators to prepare for rolling or unexpected blackouts. In dry summer (April to June,) there is severe heat with



▲ Female employees coming to work in beautiful saris



#### India

- Population : 1,210,190,000 (as of 2011)
- Area : 3,288km<sup>2</sup>
- Capital : New Delhi
- Official language : Hindi (Union Government)
- Religions : Hindu (82.7%) : Hindu (82.7%) , Islam (11.2%), Christianity (2.6%), etc.
- Per capita GDP : 4,382 dollars (2010)

Source: Japan External Trade Organization (JETRO) website

#### Corporate overview

Shin-Etsu Polymer India Pvt. Ltd.

- Address : Plot# OZ-12, Hitech SEZ, SIPCOT Industrial Growth Centre, Oragadam, Sriperumbudur 602105 Kanchipuram District Tamil Nadu, India
- TEL : +91-44-6711-2800
- FAX : +91-44-6711-2801
- Foundation : October 2007



temperatures exceeding 40 °C , and blackouts are more frequent during this time.

From the total of 311 employees (as of May 2014), approximately 90% are female. We have four Japanese representatives, including our Director. Local employees serve in key posts. In Chennai, not many people speak the official language of Hindi or the semi-official language English, and employees speak Tamil among themselves.

### Training conducted through cooperation among group companies

In India, the turnover rate is quite high with a high absence rate, making it difficult to secure a constant number of employees. Hence, it is a challenge to secure a core number of employees to manage the company. Due to this reason, one of our initial efforts was to establish an overseas training system of excellent employees to secure and develop such core employees. In October 2013, as part of the human resource development for employees who continue to work for SD, we began a curriculum to allow them one-week training at one of our group's overseas bases, Shin-Etsu Polymer (Malaysia) Sdn. Bhd. (SM). The qualification for trainees to participate is that they have worked for SD for at least two years and possess an excellent work performance record. More than likely, this is the first time the trainees travel overseas, and SD makes the necessary arrangements such as

applying for passports, etc.

Up to now, seven employees have completed training courses at SM, which is a production base, manufacturing silicone-based products, as SD does. SM has the same equipment as SD, and training also serves as on-the-job training, contributing to exchanges with employees of our group. After completing training, they take advantage of what they learned at SM to conduct improvement activities. They also get a sense of responsibility and leadership, making proper instructions to the men at the right time, while at the same time developing themselves as candidates to be future senior employees of SD.

### From 5S to small group activities

SD has only six years of history, so to establish improvement activities learned at SM, trainees are promoted as leaders of individual teams. Small group activities started in November 2013. As it has just began, Japanese staff provide assistance in these activities.

Under the belief that the “keys to improving the plant is 5S,” we constantly educate the importance of 5S to

core employees, and since December 2013, we have developed it into corporate-wide activities. For example, at each workplace, employees spend about ten minutes twice a week to remember 5S (SEIRI, SEITON, SEISO, SEIKETU AND SITUKE). SD employees translate the teaching materials into Tamil, and “SEIRI” and “SEITON” have already become part of the “official language” of the company.



#### Benefit

Japanese representatives participate in the annual employee trip to create circles of friendship with all employees.

#### Various small group activities

##### Red Card Operation started

This is a program in a game format. Employees post red paper to places not compliant with “5S” mainly at individual workplaces. Each paper describes “what and how it is not compliant with 5S,” and later other employees assess the details. If there is agreement that it is not compliant with 5S, red paper is permanently applied to the location in question. The leader of the workplace must immediately make improvements in order that the red paper does not remain in the workplace. When progress is made in terms of improvement and the workplace leader judges that the level of 5S has improved, the person who pointed out the incompliance reviews it once more and, if acceptable, the red paper is removed.



##### Improvement proposals started

As a mechanism to enable all employees to participate in improvement activities, there is an improvement proposal box at each workplace. We installed a total of 12 boxes, established Proposal, Gold and Special Awards, and conduct lessons about how to write proposals. We feel it is important that those proposals recognized by the company are immediately implemented and make employees understand the company attitude toward improvement. Every month, we set a theme and steadily conduct improvement activities.



##### Interim report meeting of 5S activities



The first report meeting at SD was held on April 3, 2014, with eight teams making presentations.

##### In-house lecture on “Seven Tools of QC”

To proceed with small group activities, senior employees participate in in-house lectures on “Seven Tools of QC,” learning the Pareto Chart, x-R Chart, etc.



► With an awareness to share information, there are weekly and monthly meetings.



## Opinions —Local senior employees—

○ Evolve as a result of the 5S training in SD corp



SD senior local employees  
with great responsibility

**Balasubramanion**

5S training Implementation is one of the turning points in the history of SD. In this training process we created a good teamwork. Training penetration is so high that now all the Employees of SD knows the Concept of 5S. The future is very bright for SD, I plan to implement the following to improve quality of future SD.

① Create awareness of the need for Continuous Improvement. ② Educate quality improvement tools like SPC, FMEA, PDCA and Problem solving. ③ Educate and develop Customer Focus as one of the keys for Quality improvement. ④ Enhancing interpersonal relationships. ⑤ Try and implement all the training and training materials in Local Language.

○ Achieve the 5S success into the future



In charge of  
manufacturing

**Mr. Bhowmik**

Gained Knowledge in Management and Production management system.

My impression about Shin-Etsu Polymer Group is that: ① Excellent Company giving more importance to human value. ② Supporting management in solving problems. ③ Company give us more importance for systematic working. ④ Very good opportunity to learn the quality tools. ⑤ The company has given me opportunity to learn 5S and implement 5S.

My future Improvements are: ① Layout Optimization in Production floor. ② Formation of Training Teams keeping in mind the future workload. ③ Reduce the consumable consumption of consumables by at least 10% per annum. ④ Bring the absenteeism under control.

○ Turn my learning on the 5S training into my career



Education Leader

**Mr. Sathish**

The theme of 5S was taught to me by Kubota san and further in-depth training was given by Aizawa san. This has made my mind to choose the Theme 5S and implement in my mixing and sheeting area. Since this area has huge scope for 5S implementation.

I learned to implement:

① Seiri and Seiton as immediate measure, resulting in more space and neat look. ② Seiso made me to follow the cleaning as my every day work. ③ Seiketsu and Shitsuke taught me Kaizen and implementing it in my area. on the whole it helped me consider new ideas always.

My Improvement activity starts with:

① Monthly color code sticker to maintain FIFO ② Racks to keep the "After Mixing" batch. ③ Standard sheeting cutter for each product.

## Our first kitchenware brand taking advantage of silicone processing technology

# Safe and secure shiny glass kitchenware that does not break, “shupua”

Silicone-made “shupua” is the first kitchenware brand from Shin-Etsu Polymer. It attracted very favorable responses at an exhibition in November 2013 as “glass that never breaks” due to its high transparency comparable to glass and is expected to be a new representative product of Shin-Etsu Polymer.

### Birth of highly transparent silicone product using the latest technology

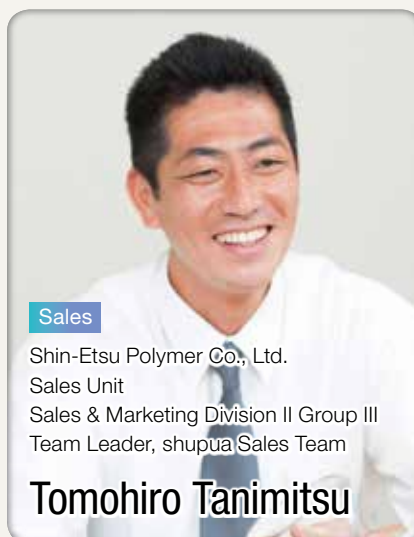
The “project” called “shupua,” stepping into the limelight as “unbreakable glass” was launched in the summer of 2012. At this time, silicone products in the kitchenware category were recognized as foreign-made, cheap and opaque. Considering that with transparent silicone materials and Shin-Etsu Polymer processing technology, we would be able to communicate the unprecedented attractiveness of silicone to general consumers, we started the development of highly transparent silicone products. Driven by the in-house atmosphere to take on the challenge of new things, it became the first B2C challenge in the kitchenware category for Shin-Etsu Polymer.

The biggest issue is high transparency that one might mistake for glass. Silicone materials are essentially transparent, but by mixing components apart from silicone to increase strength and hardness, turbidity can

be attained. For this reason, most conventional silicone products were opaque.

**Nakata:** To satisfy strength, hardness and transparency requirements, we used new materials in “shupua.” The key to our success was that we could start with material design, thanks to cooperation with Shin-Etsu Chemical Co., Ltd. Everything was new to us, so we started with manual prototyping, comparing two plastic cups to a die and solved issues one by one with plenty of failures along the way. One challenge we faced was to control the color matching of colored type products. To vividly reproduce colors while maintaining a shininess like that of glass, we made multiple samples of different lightness and shade of colors and made our decisions while listening to the opinions of many people.

Material manufacturer, Production and Development worked together, repeated tests numerous times and when the product more or less took shape, we prepared jigs. At the end of 2013, we finally invented a groundbreaking molding technology in which neither injection marks of





materials nor a die seam could be seen. This technology attracts attention in house as an eco-friendly molding technology that reduces waste generated at the time of processing to just 5%.

### Realizing mass production of highly transparent silicone by addressing thorough quality control

The main challenge in terms of mass production was compatibility of quality and productivity. As the insides of transparent silicone products are clearly visible, there is no short cut for quality, and a small flaw that is functionally not a problem is considered to be defective.

**Nakazawa:** The production site usually handles medical equipment-related silicone rubber molded products. When I first saw the prototype, I felt that mass production of this highly transparent silicone would face many difficulties. However, all we could really do was to try it. We placed top priority on “quality” strongly required by Sales, making contrivances about the die structure, materials and molding conditions, repeated test prototyping and solved the causes of defects one by one.

By making contrivances about the die structure and material feed method, we were able to save on labor for color changing and this improved productivity. Nearly a year has passed since the start of production, and during this period, we solved many challenges that result in defects, and people in workshops are tackling improvements, targeting improved productivity.

### Sales challenge to nurture the “shupua” brand

In addition to such features not available from other companies as high transparency and high quality, “shupua” completed as described above excels in heat and cold resistance as intrinsic properties to silicone. In addition, it is a safe and secure unbreakable product. When a proper force is applied, its firm form suddenly changes, enabling unconventional use, and the product is expected to be applied for child rearing, nursing, outdoor

and other uses.

We also attempted to develop the first sales channel for general consumers with “shupua.” Initially, however, we directly visited department stores, explaining about the advantages of “shupua,” but we were nearly always turned down, as they said direct transactions were difficult with only one product and that they wanted to procure from their existing wholesalers. Retailers that learned about the product at the exhibition in November 2013 or the media started to make some inquiries, and now the product is sold at not only our website but also department stores and general chain stores operating across Japan.

**Tanimitsu :** Currently, we cannot mass-produce technically and with sufficient quality, and though it is expensive, it is a result of the hard work by Technology and Production. With the features of “shupua” like high transparency and unbreakability, we are making further efforts and will tackle sales channel development so that customers recognize it as a brand.

As a result of the great performance of the three parties hoping to repay mutual efforts, “shupua” was created. Production, Sales and Technology are working as one to develop another new safe and secure product, taking advantage of this technology.

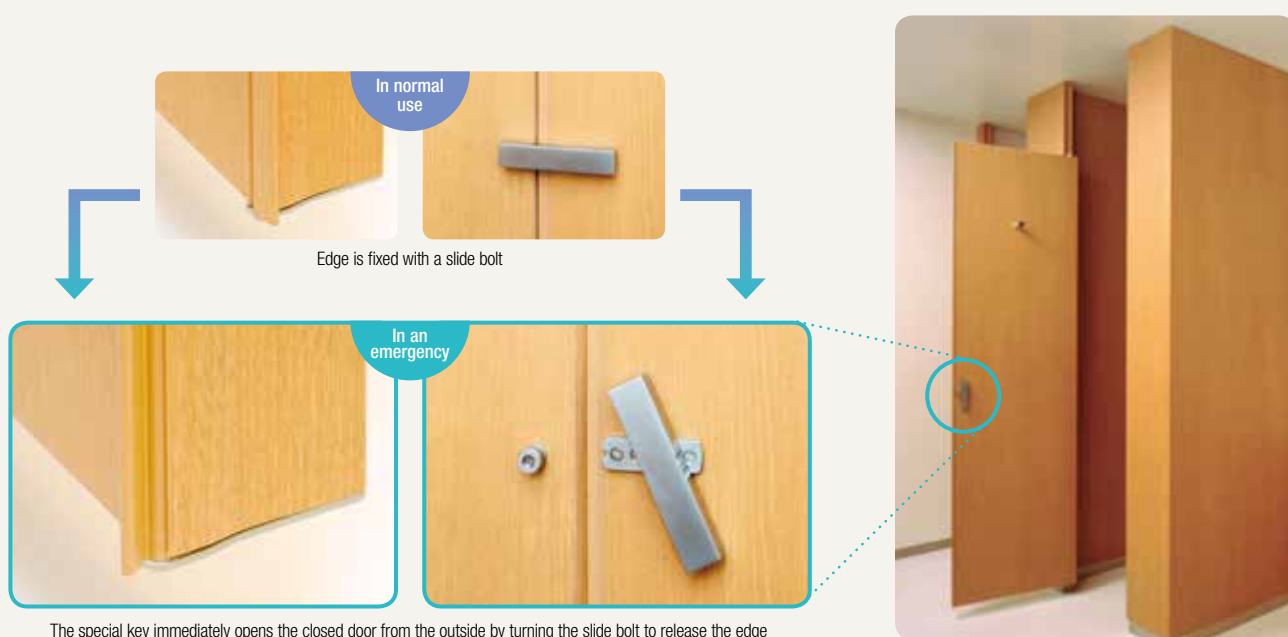


A toilet booth where the door can be opened from the outside, developed with safety and security in mind

## “LifeTect” is a safe and secure toilet booth in case of a sudden illness or emergency

Japanese toilet culture is world leading. In particular, lavatories at public facilities, hospitals, etc. that are used by many people on a daily basis are expected to be safe and secure and of course be easy to use.

As a pioneer of toilet stall manufacturing, Shin-Etsu Finetech Co., Ltd., has been the first to pay attention to safety and security of toilet stalls in the industry, and of its products, “LifeTect,” a toilet booth where the door can be opened from the outside in the case of an emergency, has been attracting attention.



### Responding to drastic increase in emergencies at toilet booths

In recent years, timed with the aging of society, emergencies such as sudden illnesses and accidents have been drastically increasing in toilet booths. The Unit Business Division of Shin-Etsu Finetech therefore started to develop safe and secure toilet booths equipped with a door that can be opened from the outside in the event of an emergency (panic open function). Since 2009, the division has promoted the development of a toilet booth specializing in safety and security, the “Safety” series. Thus far, the division has developed “YubiTect” (a door with a special shape that prevents fingers from being caught during use) and “Elastopia” (a new type of room for hospitals with a flexible layout that can be changed to suit various symptoms), which have been employed in the

toilets of hospitals, public facilities and private rooms.

To realize safety and security of toilet booths, it is totally necessary that the doors cannot be opened from the outside in normal use, but at the same time, in the case of an emergency, they must be able to be quickly opened outward with a simple operation. However, different from toilets in a home, toilet booths at train stations, hospitals and large-scale facilities used by many people employ doors that open inwards to avoid making contact with people walking along the passageway. For this reason, there are cases where the person inside the booth is stuck, making it impossible to open the door. Besides, as an edge is mounted to avoid any chance of peeping through the gap in the door, it has been necessary to use multiple steps to open the door outwards with a special tool, and this can take up to 20 minutes.



A survey of administrators revealed many different opinions. It was pointed out that if the time necessary to open the lock could be lessened, they would be able to prevent a serious situation, which would lead to safety and security for users.

## New concept made a great leap forward in R&D

In January 2012, the development of “LifeTect” to solve these problems was fully launched. The starting point was a revolving slide bolt (key) that had been developed by another company but hadn’t yet been commercialized.

**Sasaki** : When I heard of the idea of turning the slide bolt, I was sure that we could quickly solve this issue. We turned our attention to improving slide bolts and developing edges. We ended up with a completely new mechanism that employs a revolving slide bolt and uses it with a dual-structure swinging edge of our proprietary development. We have already filed a patent for it.

In normal use, the slide bolt is fixed to the edge, and in an emergency, the slide bolt is turned from the outside using a special key to release the edge preventing the door from being opened outwards. This means the door can be immediately opened toward the outside. With this mechanism, it only takes two or three seconds to open the lock, making it possible to immediately open the door.

Nowadays, toilet booths differ in schools, hospitals and other buildings. To be used by all of these different types of buildings, we paid attention to design in addition to functions. We downsized the slide bolt with a complicated internal structure to 119mm, nearly equivalent to that used for general purpose and named it “Rescue Bolt 119.” We also persisted with using aluminum as the material of the dual-structure swing edge in order to make the design and durability compatible.

**Matsuzuka** : If thickness is too thin, it cannot be

extruded, while if it is too thick, it affects the design. We studied minimal sizes again and again, so when the product behaved as expected, we were very relieved. Also, for easy installation on site, regardless of the skills of people involved, we only added one or two steps to conventional specifications.

“LifeTect” thus completed also takes on-site workability into consideration.

## To make safe and secure toilet booths as a matter of course

Compared with conventional products, the increase in terms of cost when “LifeTect” is used is limited to 5 or 6%. The majority of the excess waste of walls, surfaces, wall backings and other materials are recycled at external plants at nearly zero waste, making a contribution to the environment. We independently developed a central pivot hinge to protect fingers being caught in the door by almost eliminating door gaps. The product is now in use at commercial facilities and airports, pleasing clients and administrators for its safety with quick opening. In relation to new needs, applications for toilet booths to prevent secret photography and crime prevention is making progress.

**Iwaki** : As we proceeded with R&D in pursuit of safety and security, I believe we can respond to such new needs. Going forward, our target is to make it a “matter of course” that no injury or accident will happen in a toilet or that immediate evacuation is possible at the time of an emergency. As multi-purpose toilets and changing seats for children are installed, we will target making toilet booths with an emergency opening function as a default.

With the widespread use of “LifeTect,” we will contribute to the realization of a safe and secure society.



Fire-resistant gaskets

Sound-insulating gasket

**Silicone rubber gaskets responding to diverse market needs**

## Fire-resistant and sound-insulating gaskets comfortably protecting the environment surrounding people

“Hisui Barrier” silicone rubber gaskets are attracting attention as airtight and watertight materials, due to a revision in recent fire prevention standards. “Sound-insulating gaskets” jointly developed with an OA equipment manufacturer for composite machines respond to potential needs to maintain a quiet office environment. Silicone gaskets protecting the lives of people are greatly expanding their range of possibilities.

### “Hisui Barrier” fire-resistant gaskets protecting people’s safety with high levels of fire resistance

Japan has world-leading fire prevention technologies and fire-resistant products. In Japan, the Building Standards Law stipulates that when a house is built in a fire protection or quasi fire protection district, it must use fire-resistant window frames to satisfy fire prevention standards. These fire prevention standards mean that to prevent the spread of fire, it should withstand fire for over 20 minutes and that the glass does not fall out. However, a survey conducted by the Ministry of Land, Infrastructure and Transport in 2010 revealed that gaskets certified in the former standards did not satisfy these fire prevention standards, and it was duly revised. As airtightness, watertightness, incombustibility and sintering performance were emphasized, silicone rubber gaskets thus attracted attention.

Nearly 20 years ago, Shin-Etsu Polymer developed and started to sell this product as exterior wall materials for buildings. It excels in fire resistance (Fire=Hi) and water resistance (Water=Sui), the gasket was named, “Hisui Barrier” and if a fire breaks out, it sinters and becomes a

sintered ceramic to prevent the spread of fire and protects people’s safety.

**Sekiguchi** : By adding a fire-retardant using our unique mixing technology, our silicone rubber gasket has higher incombustibility. The main feature is that the thickness can be adjusted to fit the width of the installation location. Using our ingenuity in structure, it can be easily torn by hand, resulting in a lesser number of items.

We started to sell “Hisui Barrier” re-certified with the latest standards in December 2013. The product excels in terms of heat and cold resistance and has properties such as low permanent compression set. With its high airtightness, it releases less indoor heat in the summer and winter, contributing to energy saving.

**Kanto** : To increase satisfaction of customers that might require a better performance, it is important to anticipate new standards and needs. As the standards for window frames in buildings will be revised, we believe this a great opportunity to expand the market.

### Sound-insulating gaskets to shut off sound and create a quiet office environment

We are applying the silicone rubber processing technology of Shin-Etsu Polymer to new fields. One of



Production/Technology

Shin-Etsu Polymer Co., Ltd.  
Technology & Production Unit  
SR Development Department, Kodama Plant

**Yoshihiko Sekiguchi**



Sales

Shin-Etsu Polymer Co., Ltd.  
Sales & Marketing Division II, Sales Unit  
Chief, Group III

**Kensuke Kanto**



Sales

Shin-Etsu Polymer Co., Ltd.  
Sales & Marketing Division II, Sales Unit  
Sectional Manager, Group I

**Takashi Ichimura**

these is sound-insulating gaskets as sound-insulating material for compound machines. Operating noise of a multi-function printer(MFP) travels across an entire office, and the paper feeder tray makes a sound when it is opened and closed. Though people have different ways of sensing it, without a doubt, surely the number of users who want to be rid of the noise are likely to be in the majority. Based on a request from a MFP manufacturer, we started to develop sound-insulating gaskets that shut out operating noise by filling the gaps in the machine.

The greatest challenge was to realize two different levels of hardness in a small item. To push a sound-insulating gasket into the gap of a MFP to fill it, a certain extent of hardness is necessary. On the other hand, if it is too hard, operability (such as opening and closing of the tray) is adversely affected, so softness is called for. Therefore, we adopted a two-color extrusion to be used, allowing us to co-extrude two materials of different hardness.

**Sekiguchi** : We faced some difficulties in finding conditions for co-extruding materials of different extrudabilities. In particular, the extrusion of soft materials was very difficult, and at first we couldn't achieve favorable results, but now we have established a high level of technology, manufacturing without any problem. The product fully employs the technologies we have cultivated such as silicone rubber mixing, two-color extrusion and mouthpiece technologies. Currently, a single MFP employs multiple types of sound-insulating gaskets.

**Ichimura** : For our customers, our product also offers resource-saving advantages such as eliminated on-site processing and no additional waste. I am usually in charge of rollers in MFPs, and it was a trial-and-error process to tackle the development of sound-insulating

gaskets. I am now filled with a wonderful sense of satisfaction that I was able to meet the expectations of our customers.

### Uniting sales capabilities in a new organization and expanding markets with the cross-divisional application of silicone rubbers

As a result of the company reorganization from conventional product-based divisions to collaborative systems by markets, Shin-Etsu Polymer is promoting cross-divisional cooperation. Silicone rubber gaskets to protect the environment of people in different fields of architectural materials and OA equipment are a good example of these efforts.

**Ichimura** : It has become easier to challenge sales and marketing taking advantage of our strength in "silicone rubber processing technology." Going forward, I will learn about the other technologies we have apart from rollers, and by trying to match them with customer needs, create new products.

**Kanto** : I now have more opportunities to be asked about silicone rubber products by other divisions and accompany them to give explanations to non-architectural material customers. Many customers have never actually used silicone rubber, so I am looking forward to promoting our business with them.

**Sekiguchi** : The number of businesses has increased, and a current challenge the company is facing is speed. I hope to improve the organization in the plant, totally respond to customer needs and thus gain their trust.

Starting with silicone rubber gaskets, we will take advantage of cross-divisional cooperation to further understand needs in various markets and target proposing new products that respond to them.



# About management

To increase corporate value from the viewpoint of shareholders, customers, employees, etc., the Shin-Etsu Polymer Group has been working on quicker management decision-making, secured transparency of management and the strengthening of internal control systems. Considering that the management of risks surrounding the company, compliance with social rules, and accomplishment of corporate social responsibility as the absolute conditions for corporate survival, we maintain and improve risk management and compliance systems that are trusted by all stakeholders.

## Our concept of corporate governance

The basic policy of our group 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 organization

We properly manage the execution of tasks and duties by directors through the board of directors, including outside directors. We also adopt an auditor system, and the board of auditors has a function to monitor management, and conducts audits for the entire group, including domestic and overseas business bases.

In relation to internal control systems and risk management, we have established a general risk control committee to improve and operate general risk management, internal control, and compliance systems of the entire group.

## General risk control committee

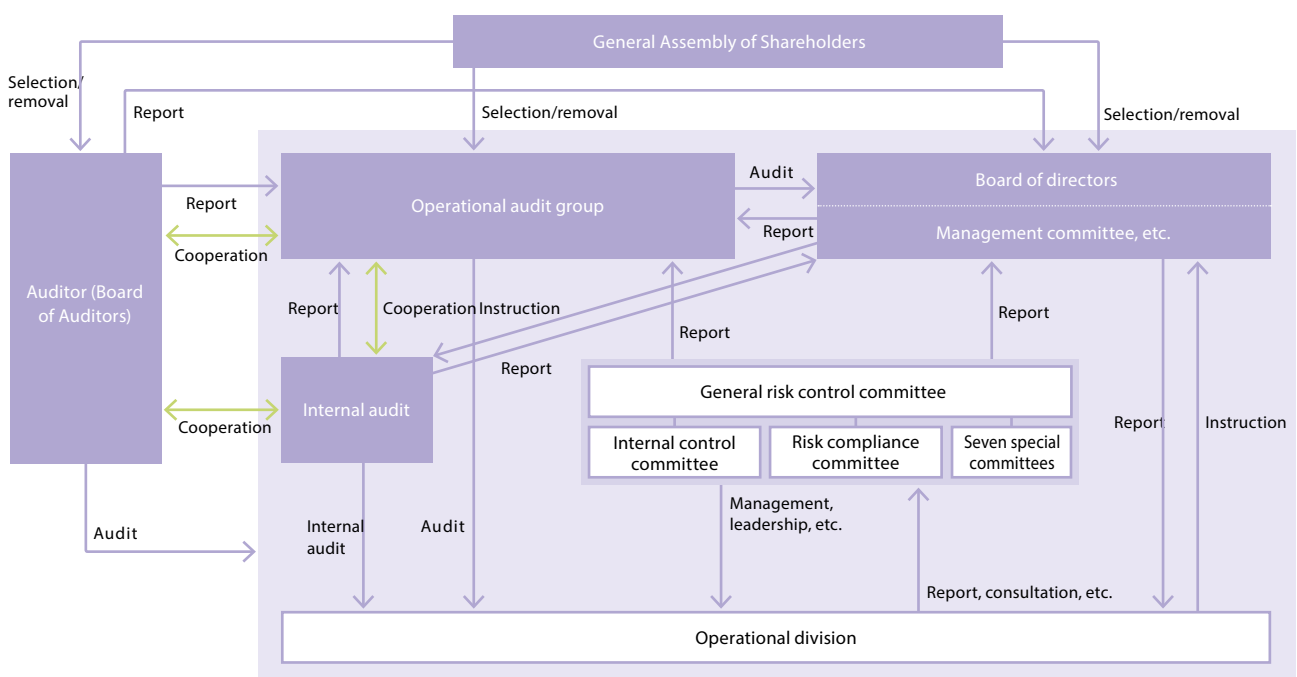
(Organization as of March 31, 2014)

The committee centrally controls the risk management of the entire group, and under this committee, seven committees including the internal control committee and risk compliance committee are set up to generally manage risks, plan risk control policies and measures, grasp risk control conditions and take the necessary measures. Each committee is responsible for the following items.

### Internal control committee

We set up the “Basic Principles of Internal Control system,” established an internal control system based on the Companies Act and the Order for Enforcement of the Companies Act. In response to the internal control reporting system based on the Financial Instruments and Exchange Act, we have effectively and efficiently established and evaluated internal control of relevant financial reports to secure the reliability of such financial reports.

Shin-Etsu Group corporate governance system



### Risk compliance committee

A risk is defined as a possibility that factors to inhibit the achievement of corporate objectives and or events to prevent the accomplishment of business activities and uncertainty that events possibly affect business sales and profit may occur. Our group has built an organization to prevent risks, etc., attempting to smoothly execute business and operations. 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.

### Seven special committees

- Quality control committee  
Items associated with customer satisfaction improvement related to product quality
- Product safety promotion committee  
Risks and issues associated with product liability
- 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
- Contract screening committee  
Screening of contracts, minutes of meetings, agreements, etc. with suppliers and customers
- Information system committee  
Monitoring of activities associated with information systems in general, including screening of IT plans and effectiveness of information systems; instruction and communication related to internal control

### Personal information protection

Our group established a “Personal Information Protection Policy” and “Personal Information Protection Rules” to complete the arrangements for personal data protection to perfection.

## Risk management

To minimize the potential damage caused by a large-scale earthquake, fire, typhoon, wind or flood damage or other disasters and for the quick restoration of operations, we established the “Shin-Etsu Polymer Group Disaster Countermeasures Manual.” Each plant incorporates its own local and special characteristics and prepares more practical manuals to suit them.

We also conduct regular emergency drills to confirm the effective functions of disaster-prevention systems and emergency procedures.



# Engagement with the Employee

## Respect for human rights

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. As part of these efforts, the group conducts training to raise awareness about human rights and activities to support basic human rights relating to the understanding of social integration and the prevention of sexual or power harassment.

### 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.

## Status of employment

\* The data below relates to Shin-Etsu Polymer Co., Ltd.

### Number of employees and average age and years of service

Year	Number of employees	Average age	Average years of service
2009	630	43.7	19.2
2010	603	44.3	19.6
2011	595	44.8	19.9
2012	594	45.3	20.5
2013	590	45.9	20.9

\* Number of employees refers to working employees.

\* Officers, temporary employees, and contract employees are excluded. Employees on loan are also excluded, while those employees on loan working at Shin-Etsu Polymer are included.

### Number of new graduate employees

(Unit: Person)

FY	Universities/colleges		Junior colleges, professional schools, etc.		High schools, etc.	
	Male	Female	Male	Female	Male	Female
Joined in April 2012	4	0	0	0	3	0
Joined in April 2013	1	1	0	0	0	0
Joined in April 2014	6	0	0	0	0	0

### Employment in mid carrier

(Unit: Person)

FY	Universities/colleges		Junior colleges, professional schools, etc.		High schools, etc.	
	Male	Female	Male	Female	Male	Female
Joined in April 2012	1	2	0	2	0	4
Joined in April 2013	5	0	0	0	1	0
Joined in April 2014	0	2	0	0	0	0

\* For 2014, as of June 30

### Status of promotion to managerial positions (As of the end of FY2013)

(Unit: Person)

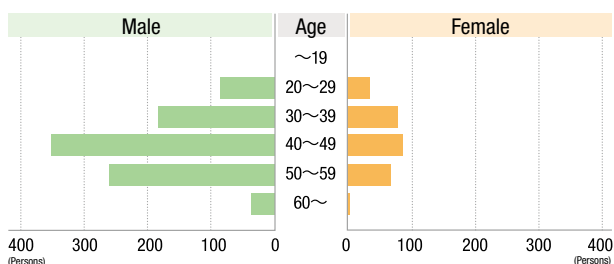
	Male	Female
Managers (6th grade employee or higher)	245	4
Officers	17	0

### Status of employment of handicapped persons

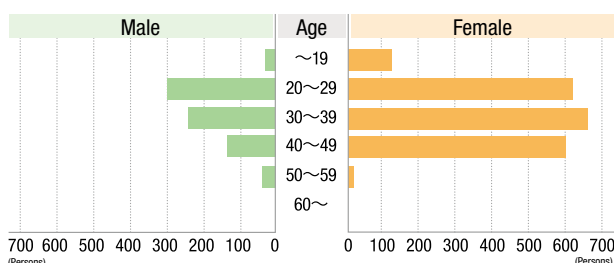
	End of FY2011	End of FY2012	End of FY2013
Number of handicapped employees (Persons)	14	14	15
Employment rate of handicapped employees (%)	1.96	1.99	2.22

\* Statutory employment rate of handicapped person increased to 2% from 1.8% on April 1, 2013.

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



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



\* Group companies refer to plants and non-plant business bases.

## Re-employment system

In compliance with the revised Law for the Stabilization of Employment of the Aged, we revised the re-employment system after mandatory retirement and re-employ all retirees who wish to continue work until compulsory employment age.

To enable these re-employed employees take advantage of their knowledge, skills and experiences cultivated over many years, promote cost reductions and the succession of skills to younger employees and enable all employees play more active roles, we will continue to set up systems compliant with relevant laws and regulations.

## 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.

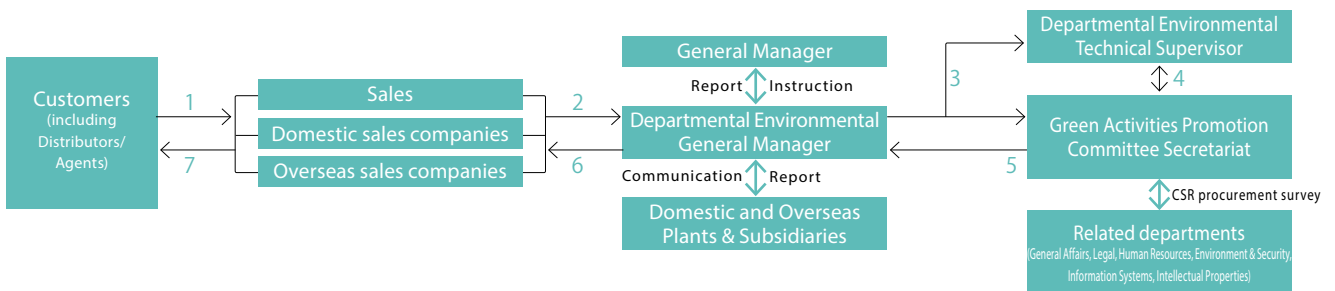
\* Competency: Behavioral properties commonly observed among people who consistently achieve high performance.

# Engagement with Customers

In order to meet the requirements for the management of chemicals contained in our customers' products, we 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 customers' CSR surveys, Dodd-Frank Act (conflict minerals), etc.

## 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.



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

Partner Name	Corporate ID	Plant Name	Factory Code	Original Date of Plant ID Issuance	Current Validity Period
Shin-Etsu Polymer Co., Ltd.	410A	Tokyo Plant	FC007742	2005.06.30	2015.08.31
		Kodama Plant	FC002586	2003.08.01	2015.08.31
		Shinano Polymer Co., Ltd. (Shiojiri Plant)	FC002584	2003.08.01	2015.08.31
		Urawa Polymer Co., Ltd. (Kurihashi Plant)	FC002585	2003.08.01	2015.08.31
		Niigata Polymer Co., Ltd.	FC007726	2005.11.17	2015.08.31
		Suzhou Shin-Etsu Polymer Co., Ltd.	FC013450	-	2015.08.31
		Ta Yang Group Holdings Ltd.	FC013237	-	2015.08.31
Shin-Etsu Finetech Co., Ltd.	-		FC006553	2007.09.21	2016.05.31

## 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.

## Engagement with Customers

### “Black Cleaning Cloth” to wipe away fogginess of glass or china and tea stains

Our group is mainly involved in B2B business. As a new initiative, we started the sales of items that can be commercialized for general consumers on the Internet since March 2013. “Black Cleaning Cloth,” which is based on the idea of an employee is an eco-friendly silicone resin kitchen cloth that wipes away tea stains and fogginess attached to glass or china without using a cleanser or bleach. The product is sold at Polybien, a website run by our sales subsidiary, Shin-Etsu Finetech Co., Ltd.



Members of Shinano Polymer Co., Ltd. involved in “Black Cleaning Cloth”  
From the left, rear row: Mr. Kobayashi, Mr. Momose, Mr. Katsuno, Mr. Motozawa  
From the left, front row: Ms. Nakamura, Ms. Kojima, Ms. Takayama



#### <Product specifications>

1. Product name: Black Cleaning Cloth
2. Material: Silicone resin, carbon fiber
3. Size: 0.3mm (thickness) x 100mm x 100mm (width)
4. Country of origin: Japan



#### “Black Cleaning Cloth”

It is a cloth made by attaching carbon fiber of our proprietary mixture to silicone resin that can wipe away tea stains or fogginess attached to a teacup or a china saucer without the use of a cleanser or bleach.

Shinano Polymer Co., Ltd.

Hajime Katsuno

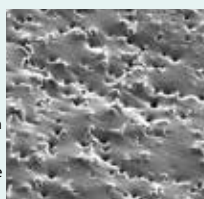
\*Second from right in the rear row

When I finish a meeting with a customer, I always make sure to introduce “Polybien.” Actually, I have received great responses to “Black Cleaning Cloth” in Nagano Prefecture. I will continue with sales promotion activities, keeping both B2B and B2C in mind, targeting top notch quality and technology with united efforts by all employees, providing even better products to customers.

### ■ Features

**1** The product wipes off tea and other stains without using a cleanser or bleach.

The carbon fiber embedded in the silicone resin removes stains on among others, glass, china, metal (excluding aluminum) and enamel, without using a cleanser or bleach.



Electron microphotograph (x 200)  
Extruding from the surface is carbon fiber

**2** The product has a shape of thin, flexible cloth to reach uneven surfaces.

By cutting flexible silicone resin into a cloth, it can reach stains on uneven surfaces.



Prior to cleaning



After cleaning

#### Example

**3** Long lasting washing performance effectiveness

By attaching carbon fiber to silicone resin using our special technology, the carbon fiber rarely comes off, and the effectiveness of the cleaning performance is maintained even after a long period of use. If a stain or something scorched is attached to the surface of the cloth, the effectiveness of the cleaning performance can be restored by washing the cloth with a neutral detergent.





# Engagement with Local Communities and Society in General

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.

## 1. Health and safety

### Blood donations

We conducted blood donation activities at domestic and international sites, with 191 employees participating at four different sites this year.

Tokyo Plant	20 people
Kodama Plant	8 people
Shinano Polymer Co., Ltd.	36 people
Shin-Etsu Polymer (Malaysia) Sdn. Bhd.	127 people

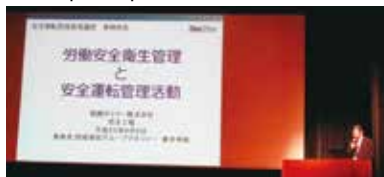


▲ At Shin-Etsu Polymer (Malaysia) Sdn. Bhd.

### Traffic safety

#### ● Kodama Plant

At a safe operation administrators' course held at Honjo City Kodama Cultural Hall, we made a presentation on case studies in relation to safe corporate operation administration activities, “Occupational Health and Safety Management and Safe Operation Administration Activities” to 190 participants.



▲ Mr. Arai, Manager, explained about initiatives at the Kodama Plant, representing corporations in the Kodama Area.

## 2. Communication with the community

### Humanitarian and disaster relief activities

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

At each domestic and overseas plant, our group strives to assist in humanitarian support and disaster relief activities around the world. Shin-Etsu Polymer America, Inc. donated 1,000 dollars through the American Red Cross to victims of the Pacific Typhoon (in the Philippines) which struck Southeast Asia in November 2013.

### Acceptance of internship students

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

Tokyo Plant	8 people
Shinano Polymer Co., Ltd.	4 people
Niigata Polymer Co., Ltd.	9 people
Shin-Etsu Polymer (Malaysia) Sdn. Bhd.	3 people



▲ Shin-Etsu Polymer (Malaysia) Sdn. Bhd. accepted three students from the Japanese school in Kuala Lumpur to learn through hands-on experience for the first time.



◀ Tokyo Plant



▲ Niigata Polymer Co., Ltd.



▲ Shinano Polymer Co., Ltd.

### Tree Planting

#### ● Nanyo Plant

Once a year, the Nanyo Plant participates in “Machi to Mori to Mizu no Koryukai” (Town-Forest-Water Exchange,) which is sponsored by the Shunan Agricultural Office, Yamaguchi Prefecture.



▲ Mr. Kiyoki and Mr. Harada

### Supporting youth baseball

#### ● General Affairs Department

Endorsing the philosophy of the Musashi Heat Bears, the Saitama baseball team that joined an independent professional baseball league, Baseball Challenge League (BCL) to “put down roots in the community and develop young people through baseball,” Shin-Etsu Polymer provides support to the team. In spring of this year, a “Bears Baseball Academy” took place at a baseball ground close to the Tokyo Plant, and a baseball class was held for the boys of the “Red Socks,” a little league team from Saitama City.



▲ The children who participated in the four-hour baseball class

### Beautification activities

All production sites conduct beautification activities in their vicinity.

Tokyo Plant	121 people
Kodama Plant	22 people
Shinano Polymer Co., Ltd.	56 people

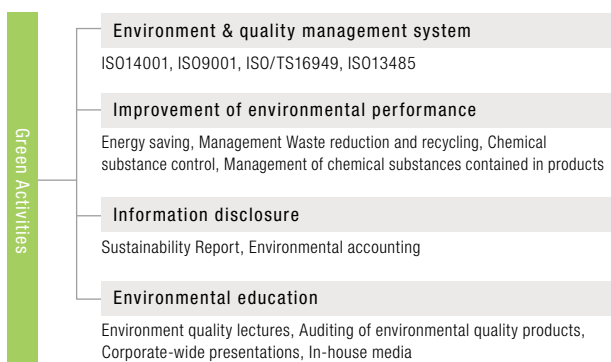


▲ Shinano Polymer Co., Ltd. (Cleaning up the neighborhood of the Shiojiri Plant)

# Engagement with the 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.

## Green activities organization (As of April 1, 2014)



### Green Activities Promotion Bureau

Chairman President  
Vice Chairman Director, Technology Group Director President

#### Secretariat

Technology Management Group,  
Environmental Control & Safety Group, Office of the President

#### Energy-saving Subcommittee

#### Recycling Subcommittee

#### Office Subcommittee

#### Eco-Products Promotion Activities

### Plant Green Activities Subcommittees

#### Plants

Tokyo Plant, Nanyo Plant, Kodama Plant

#### Production Subsidiaries

Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE Co., Ltd.

#### Head Office, Branches and Sales Offices

Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Branch

#### Sales Subsidiaries

Shin-Etsu Finetech Co., Ltd.

#### Overseas Subsidiaries

Shin-Etsu Polymer America, Inc.  
Shin-Etsu Polymer (Malaysia) Sdn. Bhd.  
Shin-Etsu Polymer Europe B.V.  
Suzhou Shin-Etsu Polymer Co., Ltd.  
P.T. Shin-Etsu Polymer Indonesia  
Shin-Etsu Polymer Shanghai Co. Ltd.  
Shin-Etsu Polymer Hungary Kft.  
Shin-Etsu Polymer Singapore Pte. Ltd.  
Shin-Etsu Polymer Hong Kong Co., Ltd.  
Shin-Etsu Polymer India Pvt. Ltd.  
Dongguan Shin-Etsu Polymer Co., Ltd.

## The 4th Mid-term Targets of the Green Activities of the Shin-Etsu Polymer Group Results for FY2014

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) Reference: FY2008
	Reduction of energy converted to crude oil (Domestic plants)	Basic unit of production weight(kℓ/t) Reference: FY2011
	Reduction of energy consumed (Domestic non-plant business bases)	Basic unit of used area (kℓ/m <sup>2</sup> ) Reference: FY2011
	Reduction of energy consumed for logistics	Basic unit of transportation compared to the previous year (kℓ/ton)
Countermeasures for effective use of resources	Emission rate (Group domestic plants) <sup>(*)</sup>	Less than 1%
	Emission rate (Domestic plants)	Less than 1%
	Reduction of waste emissions (Group domestic plants)	Basic unit of production weight(kℓ/t) Reference: FY2011
	Reduction of waste emissions (Domestic plants)	Basic unit of production weight Reference: FY2011
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 <sup>(2)</sup>	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 by domestic plants	
	Basic unit of production weight at overseas plants	

\*1. Emission rate = (amount of landfill + simple incineration)/total waste emissions x 100 (%)

\*2. The basic unit of water resources was indicated incorrectly last year, and it has been revised to m<sup>3</sup>/kt from m<sup>3</sup>/t. There was also a mistake in calculating the production weight of overseas plants, and the weight has been duly corrected this year.

	FY2013			FY2013 activities	FY2014 challenge	FY2014 target
	Target	Result	Achievement			
	5% reduction	1.3% reduction	Not achieved	■ CO <sub>2</sub> emissions reduced by executing energy saving investments in LEDs, air conditioners, etc.	■ Continued energy saving investments such as power consumption and peak power reduction ■ Increase in global warming factors anticipated	6% reduction
	0.6879	0.7144				0.6807
	2% reduction	Max. increase: 9.4% Max. reduction: 20.1%	Achieved at two plants			3% reduction
	2% reduction	19.1% increase	Not achieved	■ Reduction of areas used and implementation of energy saving measures in summer and winter	■ Implementation of energy saving and power saving measures in summer and winter	3% reduction
	0.0799	0.0971				0.0791
	1% reduction	2.2% reduction	Achieved	■ Promoting the use of larger vehicles, modal shifts (transportation by railway and sea) and review of plants	■ Issue of securing containers in promoting further modal shifts (transportation by sea)	1% reduction compared to FY2013
	0.0136	0.0134				0.0133
	Less than 1%	0.22%	Achieved	■ Reduction of simple incineration and landfill by sorted collection/disposal	■ Thorough sorted collection	Less than 1%
	Less than 1%	0.61% or less	Achieved at all 6 plants			Less than 1%
	2% reduction	8.9% reduction	Achieved	■ Improved process yield. Due to special factors such as the closedown of plants, not achieved at some plants	■ Further improvement activities of process yield	3% reduction
	63.8	59.3				63.1
	2% reduction	Between 12.3% increase and 34.2% reduction	Achieved at 3 plants Not achieved at 3 plants			3% reduction
	Target	Result	Achievement	FY2013 activities	FY2014 challenge	
	1,454kg	1,832kg (378kg increase)	26% increase compared to previous year	■ Promotion of material replacement	■ Study of appropriate alternative materials	
	0.042kg/t	0.049kg/t	17% increase compared to previous year (5kg reduction)			
	91kg	86kg (5kg reduction)	5% reduction compared to previous year			
	20.3t	Emissions: 28.7t (8.4t increase)	41% increase compared to previous year			
	0.589kg/t	0.766kg/t	30% increase compared to previous year (1 m <sup>3</sup> increase)	■ Promotion the use of recycled water both domestically and overseas	■ Reduction of consumption amount apart from industrial water used in production	
	551m <sup>3</sup>	552m <sup>3</sup> (1m <sup>3</sup> increase)	0.1% increase compared to previous year			
	16m <sup>3</sup> /kt	15m <sup>3</sup> /kt	6% reduction compared to previous year (15m <sup>3</sup> increase)			
	479m <sup>3</sup>	494m <sup>3</sup> (15m <sup>3</sup> increase)	3% increase compared to previous year			
	14m <sup>3</sup> /kt	13m <sup>3</sup> /kt	7% reduction compared to previous year (11m <sup>3</sup> decrease)			
	200m <sup>3</sup>	189m <sup>3</sup> (11m <sup>3</sup> 減少)	6% reduction compared to previous year			
	77m <sup>3</sup> /kt	65m <sup>3</sup> /kt	16% reduction compared to previous year			

# Engagement with the Environment

## 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				Raw materials
	Domestic plants	Domestic non-plant business bases	Overseas plants	Overseas non-plant business bases	Group Total	
Energy (Converted to crude oil)	12,075kℓ (3% reduction)	321kℓ (1% increase)	15,405kℓ (11% increase)	43kℓ (5% increase)	27,844kℓ (47% increase)	<ul style="list-style-type: none"> <li>PVC (polyvinyl chloride)</li> <li>Silicone rubber</li> <li>Other synthetic resins</li> <li>Indirect materials</li> </ul>
Water consumption	552km <sup>3</sup> (1% increase)		189km <sup>3</sup> (6% reduction)		741km <sup>3</sup> (1% reduction)	

## Shin-Etsu Polymer Group

### Domestic Plants & Subsidiaries

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

Tokyo Plant  
Nanyo Plant  
Kodama Plant

#### Manufacturing subsidiaries

Shinano Polymer Co., Ltd.  
Urawa Polymer Co., Ltd.  
Niigata Polymer Co., Ltd.  
(株)サンエース

### Domestic non-plant business bases

- Shin-Etsu Polymer Co., Ltd. Head Office, etc.
- Shin-Etsu Finetech Co., Ltd. Head Office, etc.

### Overseas plants

Shin-Etsu Polymer Hungary Kft.  
Shin-Etsu Polymer (Malaysia) Sdn. Bhd.  
Suzhou Shin-Etsu Polymer Co., Ltd.  
P.T. Shin-Etsu Polymer Indonesia  
Shin-Etsu Polymer India Pvt. Ltd.  
Dongguan Shin-Etsu Polymer Co., Ltd.

### Overseas non-plant business bases

Shin-Etsu Polymer America, Inc.  
Shin-Etsu Polymer Europe B.V.  
Shin-Etsu Polymer Shanghai Co. Ltd.  
Shin-Etsu Polymer Singapore Pte. Ltd.  
Shin-Etsu Polymer Hong Kong Co., Ltd.



### OUTPUT

#### To society

- Electronic devices
  - Input devices
  - Display-related devices
  - Component-related products

#### Functional molded products

- OA equipment parts
- Silicone rubber molded products
- Semiconductor-related containers
- Carrier tape-related products

#### Living environment and life-related materials

- Wrapping films
- Plastic sheet-related products
- Functional compounds
- PVC pipe-related products
- Exterior material-related products

#### Others

- Design and construction of buildings, interior/exterior, shops, etc.

#### To the environment

() Figures within brackets show the percentage against the previous year

	Domestic plants	Domestic non-plant business bases	Overseas plants	Overseas non-plant business bases	Group Total
CO <sub>2</sub> emissions	26,753t-CO <sub>2</sub> (13% increase)	642t-CO <sub>2</sub> (10% increase)	33,866t-CO <sub>2</sub> (9% increase)	95t-CO <sub>2</sub> (6% increase)	61,356t-CO <sub>2</sub> (11% increase)
Total emissions	2,221t (10% increase)		1,959t (16% increase*)		4,180t (13% increase)
Recycled amount	2,216t (10% increase)				
Simple incineration	4.73t (15% increase)				
Landfill	0.14t (82% decrease)				
Waste water	494km <sup>3</sup> (3% increase)		189km <sup>3</sup> (6% decrease)		682km <sup>3</sup> (1% increase)
PRTR emissions (Reported amount of subject substances)	1.8t (22% increase)				

\*Aggregated value based on Group standard

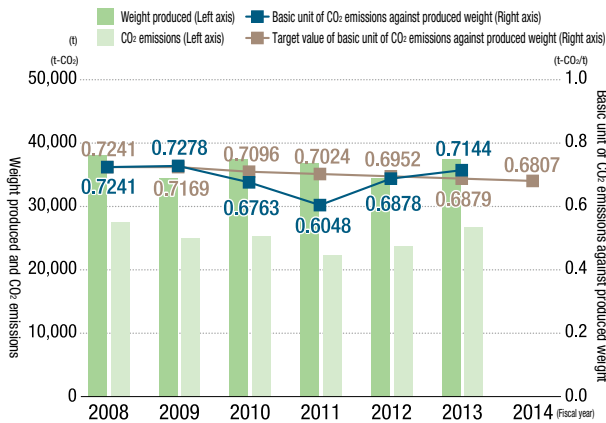
## Countermeasures against global warming

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 CO<sub>2</sub> emissions against produced weight (Domestic plants)

The basic unit of CO<sub>2</sub> emissions in FY2013 was reduced to 0.7144t-CO<sub>2</sub>/t against 0.7241t-CO<sub>2</sub>/t of FY 2008, representing a 1.3% reduction. Though we reduced energy converted to crude oil by 19%, an increase in emissions factors affected the result. As an increase of emissions factors is expected to continue in the future, we will make investments in high efficiency facilities, etc.

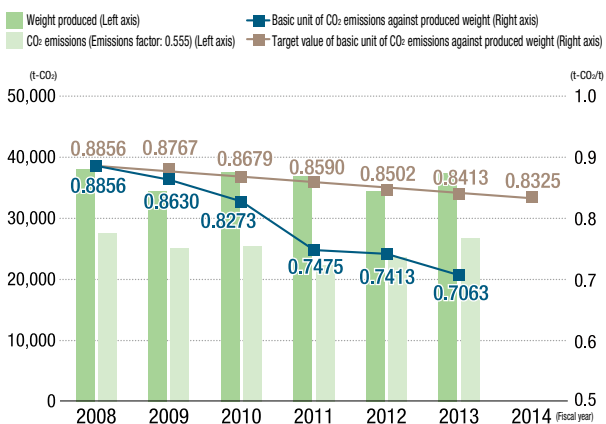
#### Transition of basic unit of CO<sub>2</sub> emissions (Domestic plants)



### Transition of basic unit of CO<sub>2</sub> emissions against produced weight (Domestic plants) (Based on our reference CO<sub>2</sub> emissions factor)

To clearly define and evaluate the effect of energy saving activities, we fix the CO<sub>2</sub> emissions factor of power at 0.555t-CO<sub>2</sub>/MWh and check the transition in the basic unit of emissions. The result was 0.7063t-CO<sub>2</sub>/t against 0.8856t-CO<sub>2</sub>/t in FY2008, resulting in a more than 20% reduction.

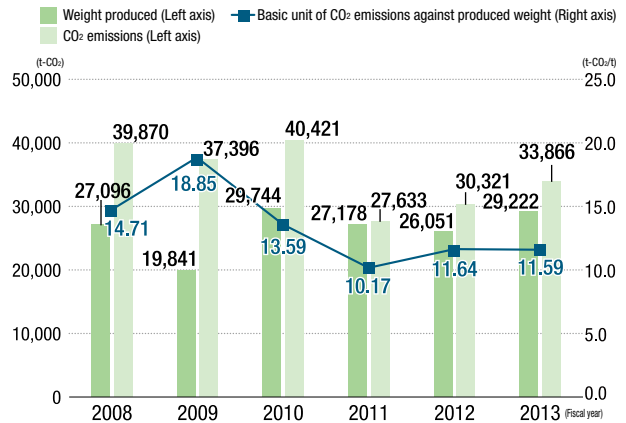
#### Transition of basic unit of CO<sub>2</sub> emissions (Our reference factor)



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

The basic unit of overseas plants in FY2013 was 11.59t-CO<sub>2</sub>/t. Compared to the previous year (11.64t-CO<sub>2</sub>/t), there was no drastic change. Both CO<sub>2</sub> emissions (12% increase) and produced weight (12% increase) increased significantly, so we will continue to promote further reductions of the basic unit.

#### Transition of basic unit of CO<sub>2</sub> emissions (Overseas plants)

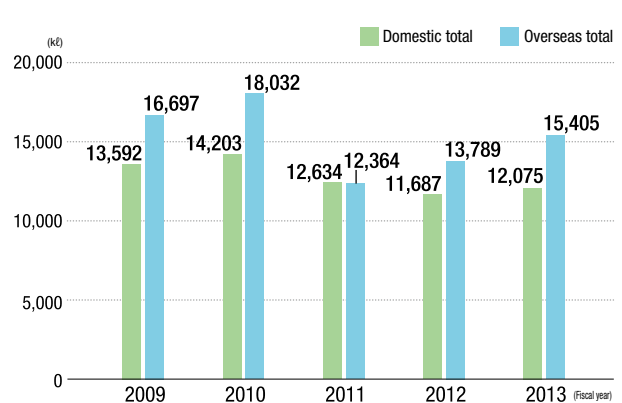


\*Calculations of produced weight at some plants were incorrect and were thus corrected this year.

### Transition of energy converted to crude oil (Domestic and overseas plants)

Though there a slight increase at domestic plants, energy converted to crude oil at overseas plants has been increasing year on year. In FY2013, the energy converted to crude oil at overseas plants exceeded that of domestic plants by 28%. As we expect that this trend will continue, we will apply further domestic energy saving countermeasures at overseas plants.

#### Transition of energy converted to crude oil (Domestic and overseas plants)



\*Energy converted to crude oil at overseas plants is the conversion based on domestic factors.

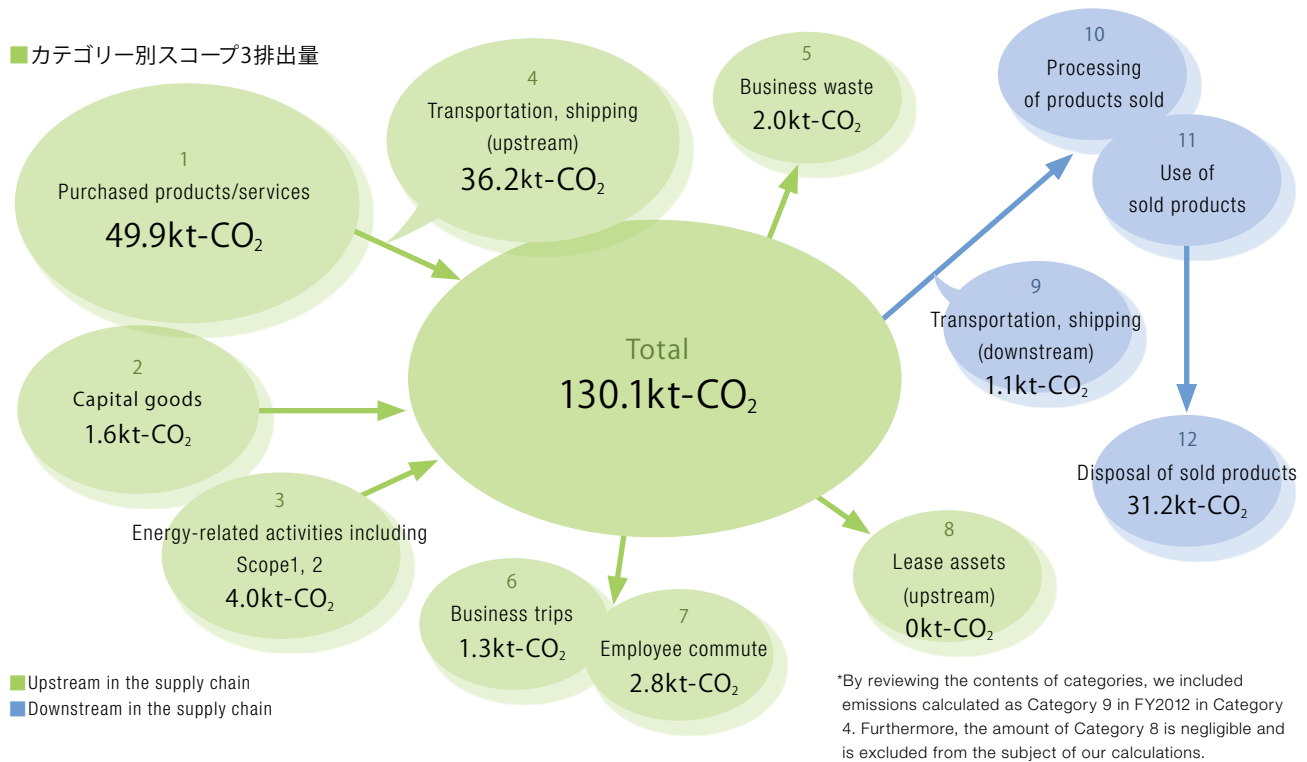
# Engagement with the Environment

## GHG Scope 3 emissions

Since FY2012, based on the General Guidelines on Supply Chain<sup>(1)</sup> GHG Emission Accounting by the Ministry of Environment and the Ministry of Economy, Trade and Industry, we have calculated Scope 3 emissions<sup>(2)</sup> of our group. Our Scope

3 emissions increased from 89.9kt-CO<sub>2</sub> from the previous year to 130kt-CO<sub>2</sub> or an increase of 40kt-CO<sub>2</sub> (44% increase). The reason for this is from this year, we are including "12. Disposal of sold products" in our calculations.

\*1: Supply chain: The process from the production of raw materials of a certain product to its delivery to end users  
 \*2: Scope 3 emissions: Emissions occurring upstream and downstream in the supply chain



### Case of global warming countermeasure Improvement of compressed air generation efficiency

#### Example of implementation

Updated existing gas engine compressor with an electric compressor

#### Effect

34% improvement of compressed air generation efficiency per 1kl of energy converted to crude oil

Prior to replacement



After replacement



## Measures for effective use of resources

### 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.) If general waste processing facilities of the municipalities we commission processing have waste heat utilization (power generation, hot water generation, etc.), the general waste is classified to be thermally recycled.

To confirm that external commissioned disposers properly deal with waste, we carry out regular on-site inspections.

### Results for FY2013

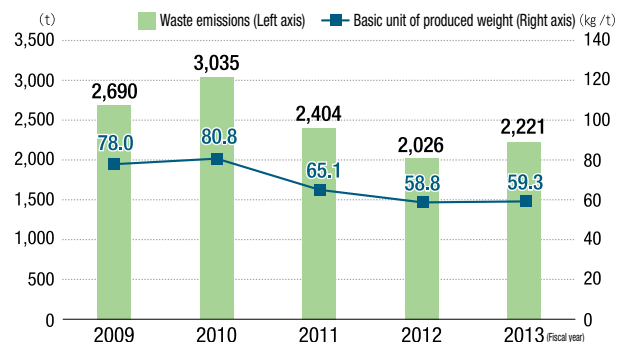
#### Domestic plants

The total amount of waste in FY2013 was 2,221t, a 195t increase from the previous year. The cause of this increase was production. The basic unit of waste emissions against produced weight was 59.3kg/t, which was almost equal to the previous year. The emission rate was 0.22%, achieving our target of less than 1.0%. Specially controlled industrial waste mainly consisted of waste alkali, waste reagents and waste oil, which were properly treated with neutralization, incineration, and other methods.

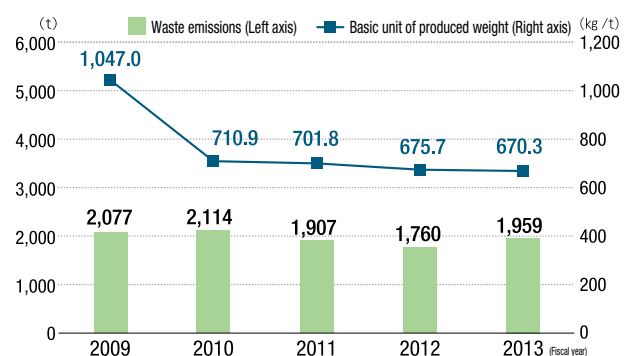
#### Overseas plants

The total amount of waste in FY2013 was 1,959t, resulting in a 199t increase from the previous year. This increase was caused due to increased production. The basic unit of waste emissions against produced weight was 670.3kg/t or a 1% reduction compared to the previous year.

### Annual transition of waste emissions (Domestic plants)

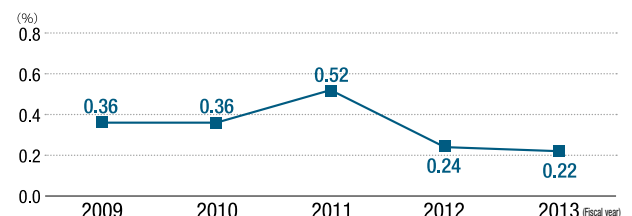


### Annual transition of waste emissions (Overseas plants)



\*Calculations of waste emissions and produced weights at some plants were incorrect and were thus corrected this year.

### 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)	
2010	21,566	53.2	144	16.0	1,149,614
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

#### 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)	
2010	655	53.2	0	16.0	34,846
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

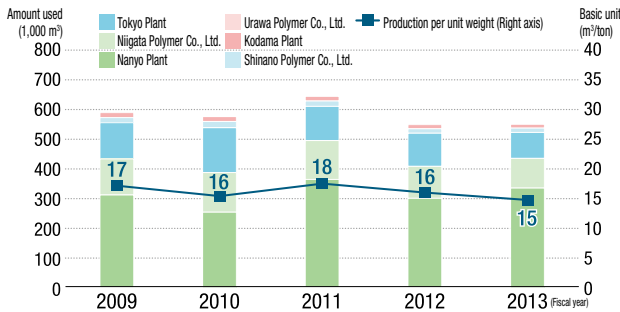
# Engagement with the Environment

## Efforts to protect bio-diversity

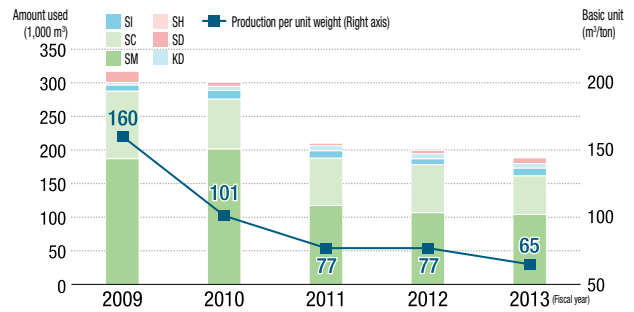
To make effective use of water resources, we promote circulated water both domestically and overseas. At domestic plants, the total amount of use, discharged amount and used amount

of circulated water remained at the same level. At overseas plants, amounts of water used and discharged slightly decreased, while the usage amount of circulated water slightly increased.

### Waste use status (Domestic plants)

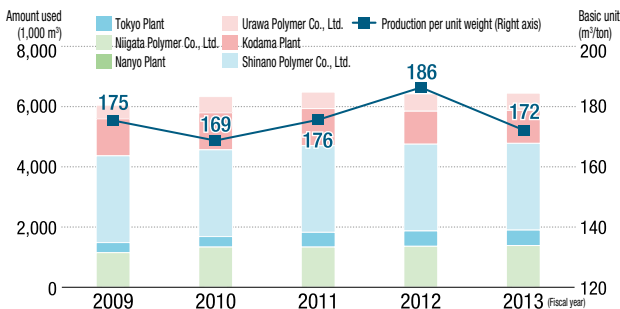


### Industrial waste water (discharge) status (6 overseas plants)



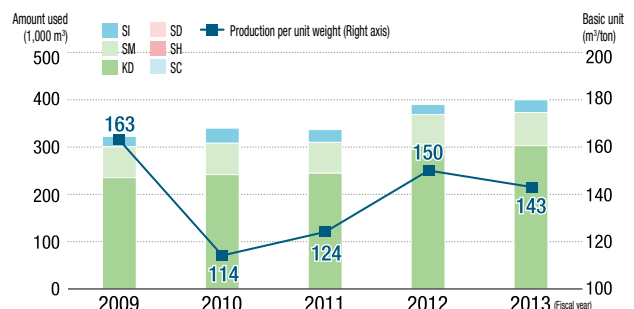
\*Calculations of produced weight at some plants were incorrect and were thus corrected this year.

### Circulating water use status (Domestic plants)



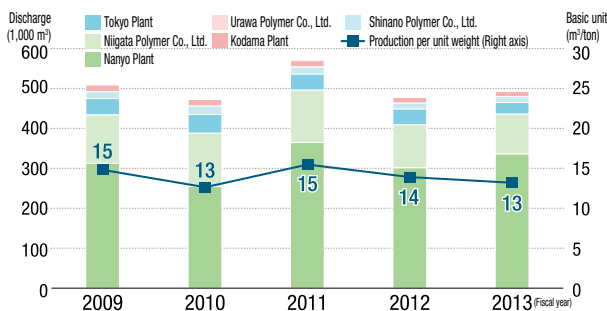
\*In the previous report, the total usage amount of circulated water was incorrect, and in this report, the total and basic unit are corrected.

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



\*Calculations of produced weight at some plants were incorrect and were thus corrected this year.

### Water discharge status (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

Regarding air pollution, we comply with standards stipulated in the Air Pollution Control Law enacted to protect people's health as well as conserve living environments and set voluntary control standards necessary to reduce environmental loads.

### Soil contamination prevention

To prevent health damage by soil contamination, we conduct monitoring based on the Soil Contamination Countermeasures Act. We also conduct surveys on soil, where necessary.

### Water pollution prevention

We comply with standards stipulated in the Water Pollution Control Law enacted to protect people's health and conserve living environments and set voluntary control standards necessary to reduce environmental loads.



# 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 2014”

Economics Department, Sophia University, Professor

### 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 2014” (hereinafter referred to as Report) and after interviewing those concerned.

#### 1. Beyond the framework of eco-products

In recent years, the Shin-Etsu Polymer Group has increasingly commercialized eco-products. Since April 2013, the concept of eco-products has been defined, and the internal certification system based on detailed evaluation criteria has started to operate.

What needs to be paid attention to is the concept of eco-products because in addition to environmental performance, conditions such as “solving customers’ challenges” and “wanted by society and the environment” are added, very much showing a real awareness of “manufacturing” to solve social issues.

Such a business direction has manufactured products one after another connected to the creation of values shared with society beyond the framework of eco-products. As exemplified by the unbreakable glass, “shupua,” the toilet booth with a door that can be opened from the outside in the event of an emergency, “LifeTect,” and kitchenware utilizing the property of silicone, “Black Cleaning Cloth,” these are products that contribute to welfare of socially disadvantaged people, the improvement of amenities and energy and resource saving in the home have been developed to a great extent. These group of products are expected to contribute to realize a sustainable society, and I have great interest in these market trends.

#### 2. Certification label of eco-products

In October 2013, the design of eco-product “certification labels” was decided upon. This mark will be indicated for certified products in catalogs, etc., and by doing so, it is expected to raise awareness of

certified products in the market and create the effect of contributing to a reduction in the value chain through an increase of sales quantities. However, this type of self-declaring environmental label may be applicable to “Type II” of ISO14021, and in actual use, may be necessary to satisfy certain conditions to increase the usefulness of label information. As guidelines for self-declaring environmental labels such as the Environment Performance Indicator Guidelines for Organizations by the Ministry of Environment are published, there is room for further checkups based on these.

#### 3. Reporting boundary on consolidated basis

The ratio of overseas sales to total sales in the Shin-Etsu Polymer Group increased by 4% compared to the previous year, and in the fiscal year ending March 2014 exceeded 40% of consolidated sales. Under such conditions, the reporting boundary of environmental data is maintained on a consolidated basis, and the list of consolidated subsidiaries necessary for the transparency of business activities is disclosed. However, labor data is mainly on an independent basis, so future improvement is expected to at least cover domestic group companies.

#### 4. Control of Scope 3 emissions

Since the previous fiscal year, GHG Scope 3 emissions have been calculated. This is an initiative to be appreciated in itself, but CO2 emissions of the entire group is less than half of Scope 3 emissions, and “hidden” emission sources reach a level of two thirds in the entire value chain. In particular, major emission sources are procured products and services, transportation and delivery (upstream) and disposal of products sold, so I expect that results are fed back to CSR procurement and eco-friendly design to make a study of further improvements.



Assistant Chairman,  
Green Activities  
Promotion Bureau, Director  
**Yutaka Kawamura**

## In response to third-party comments

With the acknowledgment from Professor Kozuma that the commercialization of eco-product of the Shin-Etsu Polymer Group has made progress, I now really feel that results of activities by the Eco-Products Promotion Committee launched in July 2012 are gradually taking shape. Last year, we also initiated the design of eco-products’ “certification labels” in the group, attempting to raise awareness of the activities and going forward, we anticipate progress in terms of development and certification of more eco-products. At the same time, we

will proceed with activities, in the knowledge that it is important to develop products from the viewpoint of not only eco-friendliness but also social considerations and responses to social needs.

In relation to labor data reporting of our group pointed out at this time, we are currently creating a system to acquire data from domestic and overseas group companies. With regard to Scope 3 emissions, we will study measures to link them to eco-product evaluation standards for a better understanding and further improvements.

# Company Profile / Editorial Policy

## 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  
 Production plants: Tokyo Plant (Saitama Prefecture), Nanyo Plant (Yamaguchi Prefecture), Kodama Plant (Saitama Prefecture)  
 Paid-in Capital: 11,635,950,000 yen  
 Employees: Total for all group companies: 3,628  
 Independent: 590 (as of March 31, 2014)

Shinano Polymer Co., Ltd.,  
 Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd.  
 SAN-ACE Co., Ltd., Shin-Etsu Finetech Co., Ltd.  
 Shin-Etsu Polymer America, Inc.  
 Shin-Etsu Polymer (Malaysia) Sdn. Bhd.  
 Shin-Etsu Polymer Europe B.V.  
 Suzhou Shin-Etsu Polymer Co., Ltd.  
 P.T. Shin-Etsu Polymer Indonesia  
 Shin-Etsu Polymer Shanghai Co. Ltd.  
 Shin-Etsu Polymer Hungary Kft.  
 Shin-Etsu Polymer Singapore Pte. Ltd.  
 Shin-Etsu Polymer Hong Kong Co., Ltd.  
 Shin-Etsu Polymer India Pvt. Ltd.  
 Dongguan Shin-Etsu Polymer Co., Ltd.

## Using this report

### Editorial Policy

The Shin-Etsu Polymer Group started publishing its "Sustainability Report" from 2001. Until the 2012 Version, the report has been divided into a CSR report and environmental data. In the 2013 Version, we provided both environmental data of overseas plants and business bases, in addition to domestic data, reporting as "Engagement with the Environment."

The editorial principles of the 2014 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 episodes, we mainly describe "eco-product promotion activities" to promote the creation of eco-products and actual products. The 2014 Version covers kitchenware assessed as unbreakable kitchenware, "shupua," a toilet booth with panic opening function, "LifeTect," a gasket for fire prevention facilities, "Hisui Barrier," and sound-insulating material for consumer equipment, "Sound-insulating gasket."
- 3 The CSR Report sums up the group's organization and activities in relation to engagement with "management," "employees" "environment," "customers" and "communities," 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/environment/report/>

### Period subject to report

April 2013 - March 2014

### Issued

September 2014 (Next issue: September 2015 (Scheduled))

### Organizations subject to report

- Domestic production bases
  - Domestic non-production bases
  - Overseas production bases
  - Overseas non-production bases
- \* For further detail, please refer to page 30.

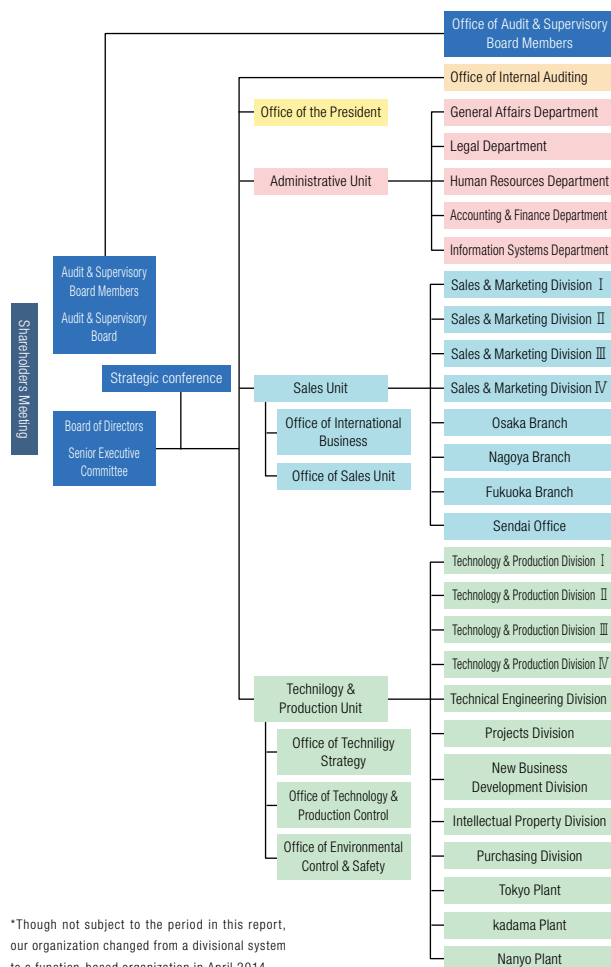
### Field of reporting

This Report covers fields of environmental conservation and social activities. For a business overview of our company, 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/>

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



\*Though not subject to the period in this report, our organization changed from a divisional system to a function-based organization in April 2014.

## About the symbol mark



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.

## About the design

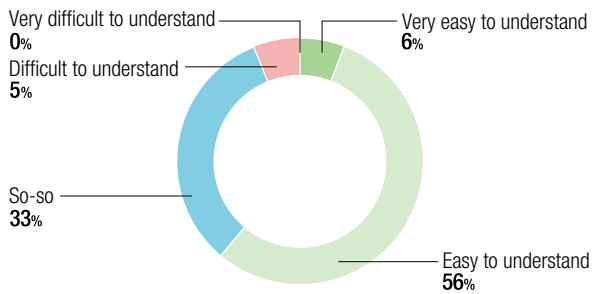
The Shin-Etsu Polymer Group is striving to think about the realization of a sustainable society with people in the community and to put it into practice. In the design of the Sustainability Report, we express our commitment by combining the "Bird of a prefecture" of a location of one of our plants and published it in the 4th Red List of the Ministry of Environment with an image of four seasons and the bird's habitat. The 2014 Version shows a pair of rock ptarmigans in summertime from Nagano Prefecture where Shinano Polymer Co., Ltd. is located in the Japanese Alps. 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."



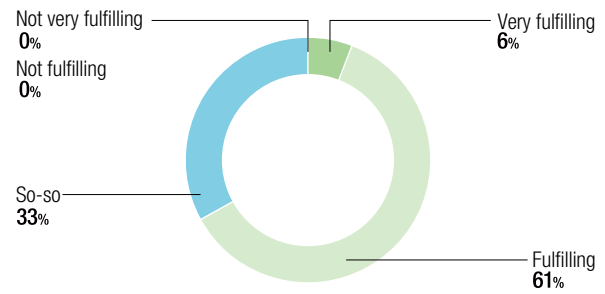
# Questionnaire Results & Editor's Note

After releasing the "Sustainability Report 2013," 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.

## Q Was the report easy to understand?



## Q What about the contents?



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

### General impression

- For manufacturer's marketing, I think it is important to "promote" Quality Assurance, etc. In this sense, the "Sustainability Report" is an important sales tool, and in fact is quite popular with customers. In general, with the many graphs and tables, it was easy to explain our corporate overview to customers even when there was not sufficient time to do so.
- As overseas plants were added to individual indicators, the report appeared to be more enriched. The pages layout was easier to understand than previous years.
  - ⇒ We edited the 2014 Version with more priority on readability and easiness to understand. Please provide your comments again.

### Individual topics

- As I could learn about customers' requirements and contrivances made to details for eco-products, I read the report with great interest.
- The range of content being covered is too vast, and I could not understand what the point is. In particular, descriptions of eco-

products just appear to be simple introduction to products.

- ⇒ We will bear it in mind to cover activities by Development, Production and Sales mainly from the viewpoint of eco-friendliness.
- I appreciate the publication of Scope 3 emissions, as there will be development of environment protection activities going forward. As a company, I expect initiatives and efforts to improve internal systems so we can better choose commutation and business trip methods in consideration of ecology.
- I was surprised with the richness of the content, and I read about the efforts by various plants and information that wasn't previously available regarding Tohoku in "Engagement with Community."
  - ⇒ We will continue to convey lots of information.
- I hope you will provide more information about beautification and other activities closely related to communities. This is something that is easy to understand for everyone.
  - ⇒ Going forward, we will keep beautification activities for the community in mind. At the same time, we will focus on the development of eco-friendly products and target becoming a company that contributes to society.

## Editor's Note

One year has passed since the in-house certification system of eco-products was launched. It will take time to have the initiative recognized, and in this report, we were able to introduce products to solve customers' problems and that have social needs such as unbroken glass, "shupua" and the toilet booth that can be opened from the outside in the case of an emergency, "LifeTect," which were covered in the media. As referred to in Opinion of Third Person, we hope to share awareness about "manufacturing" to solve social issues within the company.

Though we started to cover overseas manufacturing and non-manufacturing plants including business bases in the scope of the

report a few years ago, we were unable to collect information on all items. We very much understand the necessity to continue to study how to create such a mechanism.

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.

