Shin-Etsu Polymer Group

Shin-Etsu Polymer Sustainability Report 2012

Greetings

We contribute to the realization of a sustainable recycling-oriented society, targeting to definitely achieve the 4th Mid-term Environmental Targets

More than 18 months have passed since the Great East Japan Earthquake, and many people are still forced to lead a harsh life. I would like to express my sincere condolences to all the people affected by the loss of life and suffering caused by these tragic events.

As our basic environmental principle, the "Shin-Etsu Polymer Group recognizes that the work for environmental conservation is one of the highest priority issues for our operations. Therefore we are working hard to become a part of and help build a recycling economic society through our responsibilities." As part of our corporate action policy, the Group also "assumes our corporate responsibilities toward the global environment."

As initiatives regarding the establishment of a recycling economic society and conservation of the global environment, we promote energy-saving, resource-saving, waste reduction and the reduction of environmental loads by proper management of environmental pollution chemical substances throughout the supply chain, by means of corporate-wide activities such as "Green Activities," "Six-Sigma Activities" and "TPS Activities." We have also launched Eco-Pro Promotion Activities to promote the development of eco-friendly products (eco-products).

The Green Activities: 3rd Mid-term Targets and results of the activities

We position Green Activities as "an effort to improve productivity from the viewpoint of the environment," and ever since it began in fiscal 2000, we have achieved substantial results, driven by global environment conservation and improvements in productivity.

Fiscal 2011 fell on the final year of the Third Mid-term Plan (fiscal 2009-2011), and we set targets of energy saving (reduction of CO_2 emission per basic unit of energy,) and waste reduction (maintenance and continuance of zero emission as well as reduction of emissions per basic unit of waste) for manufacturing and energy saving (reduction of energy consumption and CO_2 emissions) for staff.

During the period subject to the Third Mid-Term Plan targets, we experienced events affecting not only Japan but the entire world such as the Great East Japan Earthquake, the Fukushima Daiichi nuclear plant accident, financial crisis in Europe and flood damage in Thailand, forcing us to carry out production adjustments and reductions, but thanks to taking various measures, we achieved our targets in terms of basic units of energy, zero emissions, etc. (Details can be found on page 17).

The earthquake also had a serious impact on our Group, including raw material procurement and power shortages in the summer. To respond to power shortages, each plant of the Group in the service areas of Tokyo Electric Power and Tohoku-Electric Power took measures under a joint use limitation scheme, achieving a maximum 34%* reduction.

*This figure represents a rate of reduction at the three plants within the service area of Tokyo Electric Power between July 1 and September 9, 2011, compared with the peak of the previous year.

4th Mid-term Targets

Based on results, we set up the 4th Mid-term Targets between FY 2012 and 2014. Our targets include a 1% reduction of the basic unit of energy based on the Energy Saving Act compared with the previous year. We have also decided to address the challenges of reducing CO_2 emissions per basic unit of energy and waste emissions per basic unit of quantity of production that the 3rd Mid-term Targets could not meet as primary challenges, while maintaining and continuing zero emissions and other targets.

To definitely achieve these 4th Mid-term Targets, we are committed to address further improvement activities. (Details can be found on page 17).

President

H. Akazawa

Hiroshi Akazawa

September 2012

Control of chemicals contained in products

Our Group has established a system for the management of chemicals contained in products in response to customer's green procurement requirements and surveys of chemical substance control, based on the "System for the Management of Chemicals Contained in Products" at each production site as well as the "Global Environmental Communication System" to centrally control the entire Group, including overseas sites.

We also control substances through the "Standard for the Control of Chemical Substances in Products" to identify thresholds and set "Green Procurement Guidelines" as a management system, including the supply chain. We will further report and reduce substances subject to the PRTR Act, reducing environmental loads associated with chemical substances. (Details can be found on page 20).

Development of environment-friendly products (eco-products)

In "Green Activities," we are newly addressing "Eco Pro Promotion Activities" to certify eco-products and to decide on their evaluation methods.

Our Group promotes new product and business development expected by the market, and in June of this year, we established the "Technological Development Department" to expand development domains and also accelerate the speed of development, along with R&D activities by individual divisions. As part of these activities, we are addressing "Eco-Pro Activities," driving the development of eco-products.

Sustainability Report 2012

This Report conforms to the "Environmental Reporting Guidelines: Towards a Sustainable Society (Fiscal Year 2007 Version)" of the Ministry of the Environment and reports not only Green Activities status, activities at overseas production sites and eco-products but also the "Importance of Security Export Control" in the dialog. We also report on CSR activities on compliance and occupational health and safety. "Environmental Reporting Guidelines" was revised as the Fiscal 2012 Version this May, and we will start to reflect the contents of the revision upon our Sustainability Report 2013 and in later reports.

We again 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.

We will act, always keeping CSR in mind and positively promote initiatives to realize a sustainable, low-carbon, recycling-oriented society that is viable with nature, in addition to being safe and secure.

Environmental Policy

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.

Basic Environmental Principles

Basic Policy

Shin-Etsu Polymer group recognizes that the work for environmental conservation is the one of 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 it's 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.

Corporate Action Policy

1. We have a 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.

Importance of security export control

To ensure compatibility between strict operation of the system and the efficiency of practical operations

Driven by the progress of globalization, corporations must thoroughly implement “security export control” to strictly manage the export of products and technologies convertible to military purposes in order to maintain the peace and order of international society. In this dialogue, two members from the Japan Machinery Center for Trade and Investment participated, serving as trading operation advisors, while we seek our company’s desirable organization.

(Full titles are omitted in the text below)

Control by a third party is important not by people in the field at their own discretion

Moderator Ishii Thank you very much for your time today. Mr. Miyahara, would you please tell us something about points to keep in mind regarding security export control?

Miyahara As the revised Foreign Exchange and Foreign Trade Control Law of 2009 extends the range of regulations and has more stringent penalty provisions, recently we need to apply security export control more strictly. However, there seems to be no end to cases of violation.

Sugawara When we analyzed the causes, it turned out that more than 80% of violation cases were related to classification (*1). For example, classification was not carried out or relevant laws, regulations, and notices were misguided. One of the factors that cause such problems is the lack of employee

*1 Estimation of whether shipments to be exported or technologies (including programs) to be provided are applicable to the controlled items list.

Security export control

Purpose: Strengthening peace and security of global society

Provision: To determine commercial items, manufacturing facilities, and related technologies that can be converted to the development of weapons of mass destruction as well as normal weapons and to regulate their export, etc. within the minimum range necessary. The framework is defined by international conventions.

Internal system: The ministry of Economy, Trade and Industry is in charge of export controls based on the Foreign Exchange and Foreign Trade Control Law.

	Regulation by the list	Weapons of mass destruction Catch-all controls	Normal weapons Supplementary export control
Controlled items	・Weapons ・Items highly likely to be used for weapon development, etc.	Items of concern that might be used for the development of weapons of mass destruction outside the controlled items list	Items of concern that might be used for development, manufacture or use of normal weapons outside the controlled items list
Areas subject to control	All areas	All areas excluding white countries*	Export items to countries to which weapons exports are banned by U.N. resolutions *For specific items, subject to all areas excluding white countries

*White countries: 26 countries strictly operating export controls such as the U.S.A., Canada, and EU countries.

*Countries to which weapons exports are banned by U.N. resolutions: Eleven countries including Iraq, North Korea and Afghanistan to which the export of weapons is banned according to resolutions of the U.N. Security Counsel.

Our security export control system

Security export control committee
(Chairperson: to be appointed by the president (officer); committee members: to be appointed by the chairperson; Secretariat: to be appointed by the chairperson)
Screening of parameter sheets/preparation of classification list

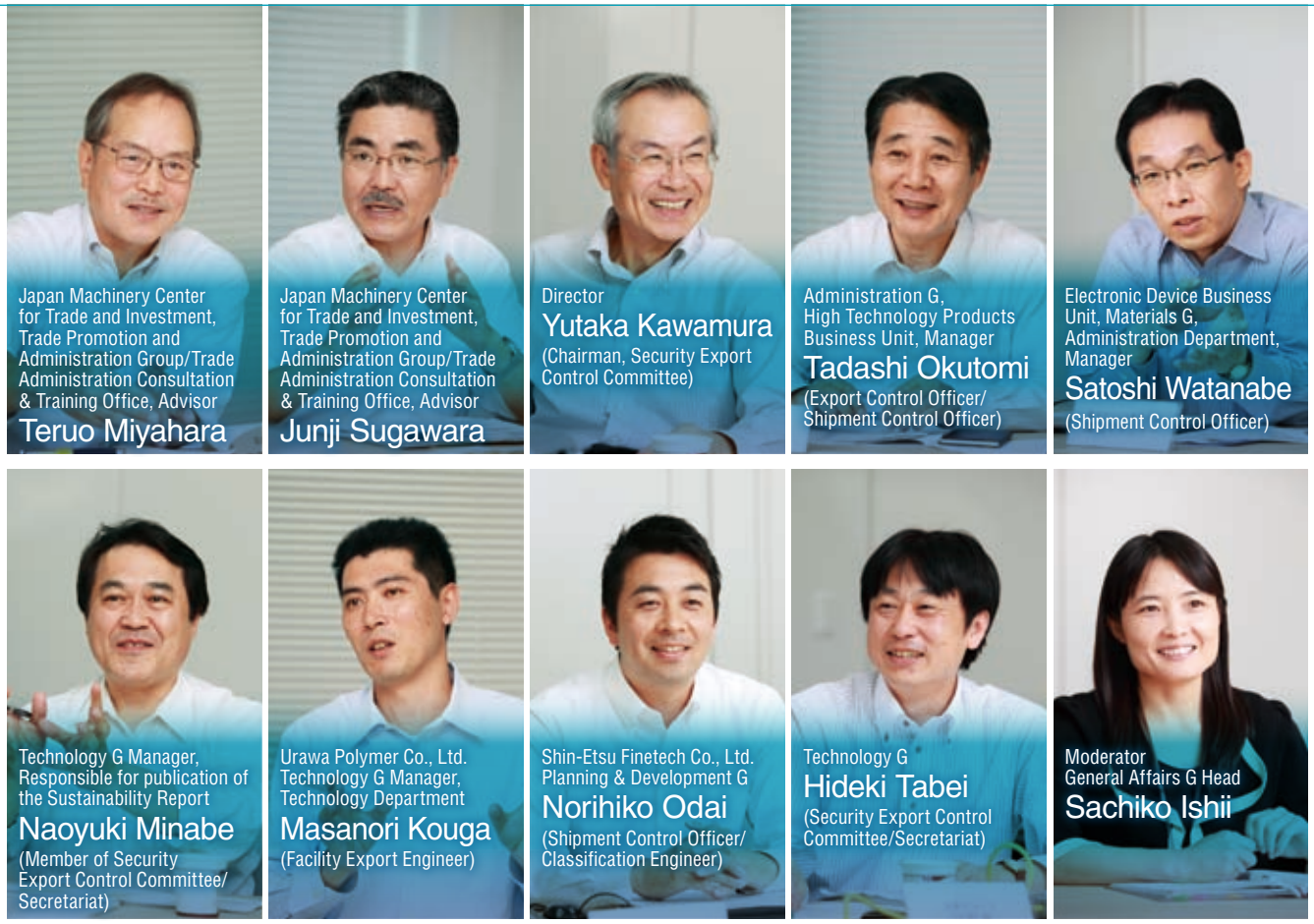
Export Control Officer (Division general manager)
Under the direction of the committee, provides security export control of the relevant division

Export Control Officer
(Product division general manager)
Under directions and instructions by the Export Control Officer, conducts the preparation of parameter sheets, customer screening sheets and other practical operations of preparation

Sales staff in charge
Checks the specifications and information of products that require classification and makes the necessary requests

Assisted by classification engineers and facility export engineers

Shipment control manager
(Substitute appointed by the export control manager)
Assumes part of the tasks of the export control manager



awareness about compliance. It is important that management provides leadership and controls it top-down. Also, there has to be a thorough promotion of compliance where “right and wrong” has priority over “profit and loss.”

Miyahara Also conspicuous are cases where, though a compliance system was established, the people in the field judged at their own discretion that no classification was needed, resulting in “accidents.” I believe it is important to operate the system under firm control by a third party.

Kawamura At our company, Mr. Akazawa, president, uses management meetings and every other opportunity to emphasize the importance of security export control. For this reason, I feel that all the people concerned address the challenge with a high standard of awareness.

Minabe That’s true. Exchange of information between the Secretariat of the Security Export Control Committee and individual business units has been good, and I see no problem in terms of communication. However, the Secretariat has often been concerned with legal interpretations, so I hope to solve this issue while listening to the two advisors here today.

Tabei Let me briefly explain the outline of our system. We operate it in accordance with the Security Export Control Rules we established in 1987. (See the illustration on page 5). Following the revision of the Foreign Exchange and Foreign Trade Control Law, etc., we revised the rules in August 2010. At the time of the revision, in addition to export control and other managers, we newly set up such specialist positions as “classification engineers” and “facilities export engineers” to enhance the precision of classification.

Minabe The classification engineer is responsible for the classification of all our products in advance, and we make an application for export of facilities to the Secretariat, and facilities export engineers are responsible for this classification. We don’t however conduct classification of every jig or screw, and do it only when a certain standard is applicable. In this respect, what approach do other companies use to conduct classification?

Sugawara Legally speaking, classification should be conducted for all export items. However, many companies use the method of setting a standard.

Miyahara In particular, when we export equipment, the number of screws, for example, is enormous, so if we try to check each of them, substantial manpower is required. In this case, we must be specific by conducting classification when parts are combined to have a certain function. Otherwise, our operation will become stuck.

Sugawara For this reason, we set a rule that after classification is conducted for even a single screw, “no more classification is required for a certain range.” I don’t think there is a problem, as we can consider that we have already conducted the classification for this screw at least once. If you review it when the relevant laws or regulations are revised and conduct all products every one or two years, you can reduce the risk of “accidents.”

Okutomi I’m not especially concerned with in-house products as the number of applicable items is small, but what makes me nervous is when we request classification documents externally, for example, when we deliver facilities to overseas

Importance of security export control
To ensure compatibility between strict operation of the system and the efficiency of practical operations

plants. In a recent case, when I checked the shipment list for a facilities export project about which I had been informed to be non-applicable, I came across a bearing on a unitary basis. Even if the facilities are non-applicable, we need a classification sheet of the part when it is exported on the unitary basis, so I requested the bearing's classification sheet to handle the issue.

Sugawara Even if a facilities manufacturer makes a mistake in classification, the exporter is responsible for the export. Those engaged in export control should immediately make an inquiry if they have felt the classification is not right by checking it with their accumulated experience and expertise.

Tabei We distinguish the results of classification between "not subject to" and "non-applicable." In the case of the latter, we always reconfirm it using the "Itemized Comparison Table" (*2) or the "Parameter Sheet" (*2).

Miyahara It is very important to strictly check it in house.

Sugawara This is a bit off the topic, but how do your affiliated companies respond to this? Basically, every company with the potential of becoming an exporter must individually establish a system.

Miyahara Of course, it is no problem for the parent company to provide support such as information sharing and instructions on system operations, but unless each company has established a system of responsibility, the parent company must bear legal responsibility when a problem occurs.

Minabe We have two affiliates engaged in direct export, and both are members of our committee, and they have set up rules individually.

Odai Shin-Etsu Finetech sometimes exports semiconductor-packaging materials procured from companies apart from Shin-Etsu Polymer overseas. While Shin-Etsu Polymer support us in terms of the provision of the latest information on laws and regulations as well as advice on system operations, we designate classification managers and engineers based on the Compliance Requirements for Exporters, implementing security export control.

Kouga Urawa Polymer mainly exports die, but as we export through Shin-Etsu Polymer, we do not plan to be a direct exporter. In relation to classification sheets, we prepare them upon requests from Shin-Etsu Polymer to which we supply our products. For this reason, we don't have an independent system, but we feel that we need to study the possibility of establishing a system, depending on changes in the situation.

Minabe At the Secretariat, we probably need to attentively check trends at affiliate companies. Even if they don't directly export now, there is the possibility of changing their policies, so we should make necessary investigations as appropriate.

Responding to indirect exports by classifying patterns according to type

Moderator Next, I would like to ask you about transaction screening (*3). We have to check trading partners as well as the use of exported goods and judge whether we can proceed with a transaction. How do you handle this matter?

Okutomi We mostly export to overseas bases of our domestic customers, and we conduct transaction screening for these export destinations. In rare cases, we sell directly to overseas customers, but we similarly conduct screening.

Tabei By the way, do you conduct transaction screening when you supply to overseas sales subsidiaries?

Okutomi In most cases, our business unit supplies products to our sales subsidiary in Hong Kong. As this company in Hong Kong conducts screening, at present we don't conduct transaction screening.

Sugawara If it is reliable, you may entrust transaction screening this way, but if you are concerned, you should be involved in one way or another by, for example, directly checking it.

Moderator On the METI checklist, there is an item, "Do you conduct screening for indirect exports?" (*4). Indirect exports seem to indicate cases where it is obvious that customers in Japan will clearly export products overseas. What types of transaction screening exists?

Okutomi It is impossible to grasp all the buyers of standard items available in the market via wholesalers, but if we receive a request for classification sheets, we know that they will export our products.

Minabe We have a definition of interpretation when exporting is clear in indirect exports, but how about other companies?

Sugawara The law doesn't define indirect exports in detail. There are still many different patterns in practice. For example, you may sell off-the-shelf products to wholesalers or sales distributors that can also be exporters. Responses will change case by case so many companies set up two or three types of patterns for indirect exports and establish their own rules.

Moderator What about shipment control?

*2 Material for judgment of whether shipments or technologies to be exported from Japan to overseas are applicable to the controlled list. The structure of the Itemized Comparison Table is equivalent to the articles of the ordinance, while the Parameter Sheets are in a flowchart format.

*3 Judging whether the transaction in question can take place or not by checking what trading partner it is (checking business partner, demander, etc.) and what the application products or technologies are used for (confirmation of practical use).

*4 Export via domestic trading companies, export distributors or export middlemen.

Minabe The METI checklist includes the question, “Do you have a check sheet at the time of shipment?” As necessary check items, we recognize the “identity of shipments” and “presence of advance permits.”

Miyahara Shipment control should be conducted for all products. That is to say, shipment is the last stronghold of compliance. However hard those upstream have worked, it is meaningless if mistakes are made there. Whether it is associated with security export control or not, we check the slip against each product to see if what is ordered is actually shipped even for shipments of general products. In the process, we should, for example, check if applicable items are properly accompanied with export permits.

Watanabe We hold education and training of security export control for staff members in charge of actual shipments, and check slips against products and the attachment of export permits. Still, this depends much on individual levels of skill, and there is a problem about what will happen if the staff in charge leave the company.

Miyahara We need a system where everyone can see at a glance whether applicable items are included or not by taking a look at the shipment list when products run from upstream to downstream.

Watanabe Taking advantage of IT, we may write it down in the remarks of shipment instructions when transporting products in Japan.

Okutomi We may use the item code of our ERP system.

Minabe Taking this as an opportunity, let’s consider better methods for shipment control in the future.

On-site inspection is effective for protecting the company

Moderator Finally, I would like to ask you about auditing. It is necessary to conduct in-house screening about whether the system is operated as specified. Please comment on this point.

Minabe We conduct audits through paper screening, and hand over a checklist to business units for self-checkup. However, we don’t do any on-site auditing.

Sugawara It is true that on-site auditing is not a “must.” I think it is fine if you clearly define whether it should be done on paper or on site and regularly conduct auditing. It is true, however, that it is easier to find problems through on-site auditing.

Miyahara It is understandable that as you have environmental, internal control and other diverse audits, you don’t want to put an extra burden on the shop floor. However, to protect the company, auditing is an act that is absolutely necessary. As I explained at the beginning of this meeting, “accidents” often happen when it is left to people in the field. Given the situation, I believe it is important to establish an opportunity to properly check it from the eyes of a third person.

Kawamura I see. From now on, to strictly conduct auditing, we will try to conduct on-site auditing. We have positioned security export control as an important risk control. However, there are still many questions and ambiguous points, and in this context, we really got many useful opinions here. As we still have a lot to do, we will continue to address them. Mr. Miyahara and Mr. Sugawara, thank you very much.

Touch switch

Reducing number of parts and components to contribute to improve mileage

Towards reducing GHG

Touch switches are increasingly employed in automobiles to operate in-car audio and air conditioning systems. Compared with conventional switches, they allow for a drastic reduction in the number of parts and components, resulting in a reduction in the actual weight of automobiles. Mr. Sugimoto, Manager, discusses the product in detail.

Increasing in popularity, thanks to high level design

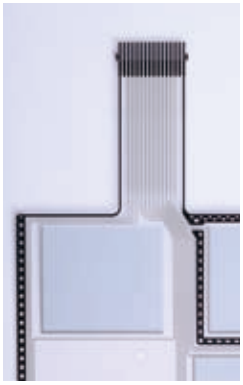
The automotive industry is now striving to reduce the weight of every part and component, as reducing the total weight of the vehicle leads to improved mileage, or a reduction of GHG. The capacitive touch switch is a product increasingly employed as a switch to control in-car air conditioners and audio systems that meets such needs in the automotive industry.

The operating principle of the capacitive touch switch is that a change of capacitance caused by the touch of a finger is detected by transparent electrodes and converted to input signals. The visible part now has a very simple construction and increases the range of selection materials, giving a stylish impression. For this reason, this product has attracted attention form automobile manufacturers.

The simple appearance means a smaller number of parts and components, realizing lighter weight. For example, a mechanical control switch is comprised of multiple parts such as buttons and resin frames, but a touch switch can implement these functions with a thin single sheet, realizing resource saving and weight reduction.

Electronic Device Business Unit Manager
Kazushige Sugimoto

▶Ultra-fine lines printed on a film with our proprietary technology. It takes on the role of transmitting electric signals to the circuit board



With proprietary printing technology, successfully implemented flexibility

Our strength in touch switch development is hidden in the transparent conductive polymer and thin lines that transmit electric signals to circuit boards. The technology used to draw lines on the film is based on the production technology of heat seal connectors used for LCD connections. Thanks to expertise cultivated over many years, we can print ultra-thin lines on the thin film for the touch switch.

Our touch switch also features the capability to curve the film. With this technology, we can eliminate restrictions in design, making free interior design possible.

It should be noted, however, that “sensitivity” of the touch switch is an unknown domain for us. In relation to whether a response should be achieved with a slight or firm touch, requirements by individual automobile manufacturers are different, and we don’t have any evaluation standards on sensitivity. We therefore had difficulties grasping the level of sensitivity each customer required. Besides, automobiles are vehicles on which people’s lives depend on. Every switch needs to have reliability with certain reaction sensitivity. Keeping this in mind, we closely communicate with customers, put sensitivity into numerical form and improve technology so the required level can be precisely realized.

Automobiles have more room for applications of the touch switch such as room lamps and command modules for drivers. We will take further advantage of our accumulated experience and aggressively propose new applications.

Sticky Tray

Effectively transporting semiconductors, while drastically reducing waste

Unexpected effect by viscosity

Sticky Tray is developed as a vessel to carry semiconductors. Utilizing viscosity to fix semiconductors, it also realizes much better packing density than that of conventional products. We interviewed Mr. Tanaka in charge of its development on how it contributes from an environmental aspect.

Technology Development Headquarters
2nd Production Technology Group
Kiyofumi Tanaka

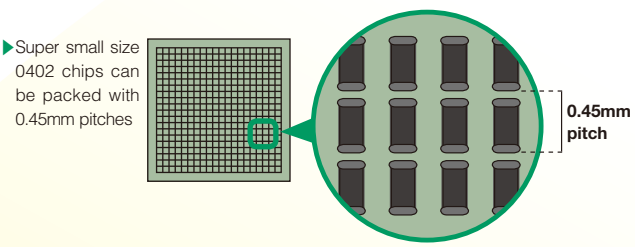
Firmly fixing semiconductors

Many semiconductors are mounted in smartphones and other familiar items. For this reason, a vast amount of semiconductors are carried in product assembly factories every day, but at the same time, a mass of semiconductor packaging material is discarded as waste. Sticky Tray, which was developed as a tool to safely transport semiconductor chips and wafers is a product with potential to change the situation.

As its name indicates, the primary feature of Sticky Tray is its capability to fix semiconductors with viscosity. The conventionally used so-called “waffle trays” have a structure to place chips in the grid, which posed the risk of chipping or cracking because chips move during transportation. Besides, as stacked chips have recently become mainstream, delicate, and attentive handling is now called for more than ever. With Sticky Tray, however, as semiconductors are fixed on an adhesive film, they are not affected by vibrations or dropping. It also offers an advantage of easy semiconductor handling because they can be picked from the tray using a vacuum pickup tool.

Another concern may be the durability of viscosity, but in repeated tests, it was found that viscosity did not deteriorate after 200 times of use, providing a sufficient characteristic. The product can also be used repeatedly when the sticky surface is washed.

For the adhesive part we use non-silicone materials that don’t contain siloxane which badly affects soldering. For this reason, Sticky Tray has attracted enthusiastic attention from manufacturers where countermeasures against airborne molecular contamination are needed.



Layout with the pitches in the order of microns possible

Sticky Tray has not only diverse characteristics to contribute to quality aspects in terms of transportation and manufacturing but also a superior characteristic in terms of chips’ packing density. How much packing density can be realized? Allow me explain it with the example of an ultra small size chip 0402 (0.4mm x 0.2mm).

With conventionally used paper carrier tapes, the number of the 0402 that can be packed per 1cm^2 was just six. The newly developed embossed carrier tape has sufficient progress to mount 25 pieces. Sticky Tray, on the other hand, is capable of packing 340 pieces by arranging the 0402 in the order of microns.

By taking advantage of these characteristics, Sticky Tray can drastically reduce packaging materials used for transportation of semiconductors and electronic devices and substantially contribute to saving resources. It should be noted, however, that most packing systems in manufacturing processes currently adopt carrier tape-based standards. To promote a wide use of Sticky Tray, it is essential to develop packing systems exclusive for Sticky Tray and to introduce them to plants. First, we want to collaborate with organizations of electronic parts and components as well as of facilities and equipment and build a foundation for the development of Sticky Tray based packing systems. To achieve this, we plan to further promote the attractiveness of this product.

Green products actively used in the market

The Shin-Etsu Polymer Group develops environmentally friendly products.
Here are some representative products that have been commercialized.

Polymer Wrap

Improving safety and eco-friendliness, while maintaining "just fit wrap"

PVC Products Business Unit Operations Department Operations Group
Hisao Tsuji

Polymer Wrap (for commercial use) for the restaurant industry is widely used in many kitchens, thanks to the three following features: "Extends well and just fits," "Supports microwave ovens and freezers," "A rich variation to choose for applications." This year, we renewed Polymer Wrap by employing a plastic cutter for the best-selling 30cm x 100m and 45cm x 50m products. This is the first of its kind as a commercial PVC wrap.

The primary purpose of this renewal is to prevent user "injuries." In the kitchen, injuries from the metal cutter of the wrap often occur. Our commitment to "offer safe products as a manufacturer" was materialized with the employment of plastic cutters. As material, we use plant-based biodegradable plastic, making sorting of cutters safer and easier than that of metal cutters when boxes are disposed of. If no sorting of plastic is required, Polymer Wrap can simply be discarded as-it-is.

It is true, however, that plastic cutters have disadvantages. Commercial wrap films using PVC resins have

stronger viscosity than home-use films, and it is difficult to smoothly cut the film with a plastic cutter, so to get the best cutting quality, we carefully and attentively adjusted the pitches and height of the edge. Also, by thinning the films for resource saving, the product received high evaluation regarding sharpness in a user survey conducted prior to commercialization.

Following the renewal, Polymer Wrap sales have gradually increased. For this reason, we plan to apply plastic cutters to other sizes. We hope to promote Polymer Wrap that has made its debut again with a plastic cutter to a wider range of players in the restaurant industry.

PV sealant

Sealing material quietly supporting the wider use of solar power generation

PVC Products Business unit Construction Material Division
Ken Kimura

Since the Great East Japan Earthquake, renewable energy has being attracting more attention. As one of the most prospective forms of energy, solar power generation has become popular in households. PV sealants contribute to the further prevalence of this type of power generation.

Solar power modules are installed on the roof, and the mounting rack is fixed on roofs with screws, etc. The screws and other holes work as water channels that may cause water leakage, so it is necessary to use sealing and other materials to prevent water from leaking into the roof. Modified silicone that has often been used as a conventional sealing material is weak in terms of heat resistance and

Using PV Sealant during construction work

weatherability for this application.

As a sealing material that must maintain stable waterproof performance for more than two decades, we focused on one component silicone. Silicone is generally recognized as a material for glass areas requiring high weatherability and indoor wet areas. Although it has excellent cold and heat resistance as well as high weatherabilty capabilities making it suitable as an outdoor use material, due to its tendency to cause joint face contamination (water repellence damage) and can not be painted, it has limitations in outdoor applications. In this PV application, no painting is required and as it is recognized that long-term stability in performance is important, we launched the product as a sealing material exclusive for solar power generation module racks.

We have received many inquiries from rack installers about this new material in the field, PV sealant. We will continue to make efforts to eliminate the prejudice that silicone is not suitable for outdoor use through exhibitions and other opportunities.

Development roll

Supporting printers' energy saving with power saving development roll

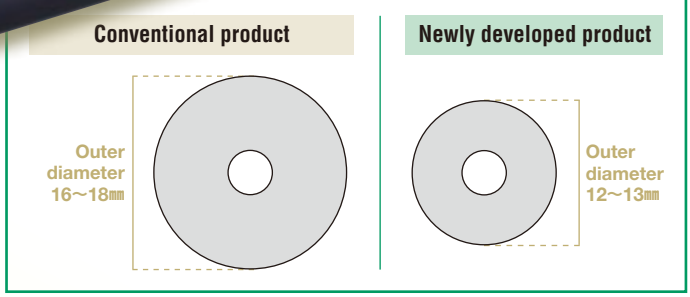
High Performance Rubber Products Division
OA Development Group
Sokuei Motoda

A development roll is a part used in a printer, playing the important role to carry toner to the organic photoconductor (OPC) drum. We have developed a development roll that is one of the thinnest in the world. It was designed on the basis of requirements from manufacturers that wanted to downsize printers for energy saving and other purposes, and a major printer maker has already decided to use the product.

From the viewpoint of the environment, when the development roll and other parts become thinner and smaller, we can not only make printers more energy efficient but also reduce the amount of raw materials used. In addition, this development roll is finally molded by a die, instead of being polished during its production, and can be considered to contribute to resource saving in two steps: slim body and polish-less molding. Compared with conventional polished products, it saves silicone rubber materials by more than 20%.

Essentially, the development roll is an important part on which the image quality of a printer depends upon. When the diameter is reduced, however, the loads on the development roll increases compared with thick rolls, thus resulting in strict specifications, especially wear resistance. We experienced a lot of difficulties to improve this property while maintaining an electrostatic propensity critical for the development roll, but based on our proprietary surface treatment technology, we overcame the challenge with a newly developed surface compounding technique. The other challenge of maintaining the required contact area at low pressure was solved through joint development of soft silicone rubber material with a hardness of 30 degrees with Shin-Etsu Chemical.

We are determined to further improve the quality so that the product is used in more printers.



Dongguan Shin-Etsu Polymer Co., Ltd.

Local employees drive the organization with the shift to China and Asia through exchanges

Dongguan Shin-Etsu Polymer Co., Ltd. General Manager
Yoji Shimizu

People's Republic of China

- Population: 1.33972 billion (as of January 2011)
- Area: 1,923km² (26 times the size of Japan)
- Capital: Beijing
- Language: Chinese (official language)
- Religion: Buddhism, Islam, Christianity, etc.
- Per capita GDP: 4,382 dollars (2010)

(Souce) JETRO website

Plainvim Industrial Park

Plainvim Industrial Park where Dongguan Shin-Etsu Polymer Co., Ltd. ("KD") is located is about 20 minutes drive from Dongguan train station (Changping Station) that is about 70 minutes from downtown Hong Kong by international direct train. It is an industrial park where 12 companies are currently accommodated, mainly Japanese-affiliated companies. The industrial park features (1) custom factories (buildings) that are built in accordance with the renting companies' requirements and are rented to such companies and (2) standard factories (three- or four-storied; about 1,000 m² per floor) generally found in the Huanan region and are rented by the floor, enticing businesses to the park.

Dongguan Shin-Etsu Polymer Co., Ltd.

- Adress: Plainvim Industrial Park, Zhongxing Road, Dongkeng Town, Dongguan City, Guangdong Province, 523455, CHINA
- TEL: +86-769-8369-9000
- FAX: +86-769-8369-9049

Shifting from a manufacturing factory* to a factory of a wholly owned foreign enterprise

As a manufacturing factory, Dongguan Shin-Etsu Polymer Co., Ltd. ("KD") set a production base in Dongkeng Town, Dongguan City and has produced OA equipment rolls since 2007. In April 2011, it was established as a wholly owned foreign enterprise, becoming a fully owned company of Shin-Etsu Polymer Hong Kong Co., Ltd. ("SK") and became the latest production base of the Shin-Etsu Polymer Group.

To expand its business, KD switched to a wholly owned foreign enterprise in Dongkeng Town, Dongguan City, at an early stage. The city has more than 25,000 factories, and from among more than 1,000 manufacturing factories in the town, only 50 companies have completed switching to being a wholly owned foreign enterprises (as of December 2011). As the company took the initiative in switching to a wholly owned foreign enterprise, the town office recognized the company in 2011.

As the company took leadership in switching to a wholly foreign owned enterprise, the town government recognized it as an "excellent company."

The total area of KD is 19,598.4m², while the total floor area is 4,848.5m². Apart from the three Japanese staff, including the general manager, office worker and quality support, all the other employees are Chinese, totaling about 160 employees.

*Manufacturing factory: Outsourcing-based production enterprise

Key to make the company stronger is cooperation among local employees across Group companies

In the Shin-Etsu Polymer Group, parts and components for OA equipment are produced at three production bases; in Japan (Kodama Plant, Saitama Prefecture,) Malaysia (SM) and China (SC) besides KD. Once we supported overseas bases from Japan, but with a change in the business model, we have shifted from vertical connections between Japan and individual bases in Asia to horizontal cooperation and partnership among local employees at Asian production bases. As quicker and more economical startup is demanded, we have been transferring and launching production, based on the introduction of facilities and technical support by SM.

New product development is also shifting to early support at mass production sites (starting with mass production prototyping). Due to the characteristics of the region, the legal system frequently changes. SC with its 19-year history in China has provided instructions on tax affairs, accounting and operations. Though less than a year has passed since we became a wholly owned foreign enterprise, we have realized smoother expansion of production capacity and the acceleration of operation speed through cooperation among local employees.

Even guardsmen undergo training as an employee under the motto of "working happily"

With regard to training in China, it is common practice to have employees take courses at an external academy on customs clearance, accounting, and other operations. However, KD has being conducting human resource education to support the company one year prior to becoming a wholly owned foreign enterprise. We have conducted in-house training for candidates for executives more than 20 times, and at the early stage of this training, the general manager assumes the role of lecturer. Would-be executives of security, accounting for 10% of KD employees, are also subject to training. We will continue to educate human resources so that local employees can quickly become independent by offering a higher level of training contents and conducting courses for management.

In the company, there is a forbidden phrase, "Cannot do it." Through training, we share the understanding that we need to consider how to do things and make the company a "place where everyone can work happily in a positive manner."

Voice —Opinions of local officials—

Tang Huzong
(Security Force Leader, General Affairs Group)

I joined the company in December 2006 and became Security Force Leader in November 2011. Thinking that the role of Security is to "protect the company's assets and employees," we work 24 hours a day, and 365 days a year. When someone visits our plant, Security first receives them so we are the "face" that gives an impression of our company to visitors. For this reason, we keep it in mind to smile and respond quickly to their needs.

Security also belongs to the plant's health and safety committee, being involved in safety patrol and zero accident initiatives. For this reason, Security Team Leaders also take in-house training.

As an external activity, Mr. Yang, the former Force Leader, proposed participating in rescue activities at the time of the Sichuan earthquake in May 2008, and the company was very cooperative. We hope the company will maintain such an attitude and operate this as a system.

(Original Chinese text)

唐虎宗（总务组 保安队长）

高中毕业，在部队服役3年后，从2000年开始从事保安相关的工作。2006年12月工厂建立的时候与前任杨队长一起加入公司，杨队长退职后，从2011年11月开始接管保安队长的工作。

作为保安队长，我认为保安的职责就是保护公司财产和工厂员工的人身安全，因此我们保安的工作时间制度为365天·24小时。当有外部客人来访时，最先接待客人的是保安部门，也就是，来访者对公司的第一印象取决于保安部门这张"脸"，最重要的是应以笑脸接待。每日对保安员展开会议，强调工厂安全及消防，接待客人的内容。

保安部门也属于工厂的安全卫生委员会，参与了安全巡逻，确保无灾害发生。在去年，保安班长一起参加了公司培训，对"报连商"的重要性，对上司的报告方式、对与下属之间的沟通及与其他部门的协调等培训内容，感到非常的有意义。

2008年5月的四川地震，当时在职的杨队长希望以自愿者的形式参加救援活动。公司方面给予了非常大的理解赞同，我希望今后能继续保持这种态度并把它作为一种公司制度运行。

Li Angqiang
(Supervisor, ISO Group)

I have been in charge of ISO ever since joining the company in July 2007. At that time, many companies in China targeted acquiring ISO certifications, but KD strived for "documentation tailored for actual situations, followed by ISO certification focusing on improvement processes of the actual situations." For this reason, though we had manufacturing procedures and standards, we would grasp and document actual operations for other operational flows, etc., and I spent a lot of time with the staff in charge in individual departments. Thanks to help from individual departments and support from Suzhou Shin-Etsu Polymer Co., Ltd., we acquired the ISO9001 certification in June 2008 and ISO14001 certification in June 2009, while making progress in responding to plant certifications required by users. Currently, our main task is maintenance and update of ISO systems as well as user certifications, but we also contribute to plant improvement and safety, serving as secretariats of various committees.

In China, people's awareness of the environment is still low and there is no system for separate trash collections implemented yet. Under these circumstances, separate trash disposal and recycling promotion at plant starts with raising awareness, and it is necessary to conduct steady and continuous education. In order to protect the environment and guarantee a comfortable working environment, KD conducts measurements of environmental factors regularly and also when a introducing a new material. In consideration of the impact on the environment, we plan to maintain various activities.

(Original Chinese text)

李安强（ISO组 系长）

2007年加入KD,当时在丸山总经理的带领下，开始ISO体系认证的准备。当时中国的很多企业都以取得ISO体系认证为目标，而KD工厂对于ISO体系的认证，是以"结合实际编写文件→结合实际进行改善，重视 过程的ISO"为目标。虽然当时各部门已经做好了制造手顺书、标准书及其他的一些业务流程等，但为了达到说写做一致，与各部门担当者经过了相当长时间的共同行动。在各个部门的配合下，2008年6月取得了ISO9001体系的认证，1年后的2009年6月取得了ISO14001体系的认证。同时也对应了客户验厂并得到了认可。为了顺利通过ISO9001的认证，外审前得到了SC的帮助，事前进行了内部检查，外审时没有发生大的问题点顺利通过认证。虽然我现在的主要业务是对ISO体系的维护、更新，客户验厂的维护、更新。也参加了对工厂改善、安全方面的业务，同时也兼任各委员会的事务局业务。

在中国，每个人对环境方面的意识还很低，家庭产生的垃圾没有按照类别回收。在这种环境下，对于工厂发生的垃圾分类处理、回收利用等，要首先对大家进行意识上的改革，耐心的持续的进行培训是非常必要的。为了保护环境和造就一个舒适的职场环境，定期的测量环境因素和使用新材料时随时对应措施。今后也是，考虑对环境的影响，会持续组织各种保护环境的活动。

Employee benefits and welfare

There are three dormitories run by the industrial park, and regardless of staff members or executive officers, all employees use the newest dormitory in Building C. As it has a canteen, people can have three meals a day. (Late-night meals are served for those working night shifts). As the region is humid, KD installed a washing machine and air conditioner in each room to enable a comfortable dormitory life.

KD employee dormitory

Supporting events at Plainvim Industrial Park

Plainvim Industrial Park hosts sports conventions and karaoke events to help friendship among employees three or four times a year. KD positively supports the events by, for example, supplying uniforms and rackets and balls.

Sports convention took place with people wearing red costumes supplied by KD

Business activities and the environment

We believe it the essence of environmental conservation activities 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/energy

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

	Domestic Plants & Subsidiaries	Overseas Plants & Subsidiaries	Group Total
Energy (converted to crude oil)	12,600 kl (11% reduction)	12,200 kl (32% reduction)	24,800 kl (22% reduction)
Water consumption	646,000 m³ (12% increase)	210,000 m³ (30% reduction)	856,000 m³ (3% reduction)

Raw Materials

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

Shin-Etsu Polymer Group

Development

We promote the design and development of products with less environmental loads.

Procurement

We control chemical substances contained in raw materials, etc. to reduce environmental loads.

Production

We promote energy-saving and recycling activities to support environmental conservation.

Domestic Plants & Subsidiaries

- Shin-Etsu Polymer Co., Ltd.

Tokyo Plant
Nanyo Plant
Kodama Plant

- Manufacturing subsidiaries

Shinano Polymer Co., Ltd.
Niigata Polymer Co., Ltd.,
Urawa Polymer Co., Ltd.

Overseas Plants & Subsidiaries

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

OUTPUT

To society

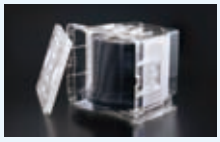
- Electronic devices

Input devices
Display-related devices
Components


Touch panel

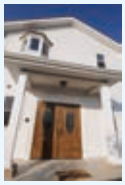
- High technology products

Multi-functional OA products
Medical parts
Silicone rubber products
Semiconductor-related containers
Carrier tapes


Wafer case

- PCV products

Wrapping films
Plastic sheets
Functional compounds
PCV pipe-related products
Exterior material-related products


Polymer panel

- Others

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


Design and construction of buildings and shops

To the environment

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

		Domestic Plants & Subsidiaries	Overseas Plants & Subsidiaries	Group total
CO_2 emissions		27,341 tons-CO_2 (11% reduction)	27,118 tons-CO_2 (32% reduction)	54,459 tons-CO_2 (23% reduction)
Waste	Total emissions	2,399 tons (21% reduction)	1,825 tons* (10% reduction)	4,224 tons (16% reduction)
	Recycled amount	2,386 tons (21% reduction)		
	Simple incineration	8.29 tons (2.4 times increase)		
	Landfill	4.21 tons (43% reduction)		
Waste water		571,000 m³ (20% increase)	210,000 m³ (30% reduction)	781,000 m³ (1% increase)
Discharge of PRTR listed materials		1.7 tons (37% reduction)		

*Aggregated value based on Group standard

Environmental & Quality Management System

All domestic and overseas production sites of the Shin-Etsu Polymer Group have been awarded with the ISO9001 and the ISO14001 certification. Based on the ISO9001 certification, we have established a quality management system for each business unit and plant, delivering products satisfying customers. With the acquisition of ISO14001, we take advantage of the mechanism when controlling chemical substances contained in our products and procure and select materials and components for product development in order to conserve the global environment.

Management system name	Standard	Management system requirement
Environmental management system	ISO14001	A system to grasp environmental risks caused by business activities and make continuous improvements of reducing or eliminating them, targeting reducing environmental loads and contributing to the environment
Quality management system	ISO9001	A system to run the PDCA cycle so that corporations can decide their attitudes to handle products and services and achieve continuous customer satisfaction
Quality management system for the automotive industry	ISO/TS16949	An advanced quality control system established by adding requirements unique to the automotive industry to ISO9001 standard requirements
Quality management system for medical equipment	ISO13485	A quality control system omitting some requirements of ISO9001, while adding requirements unique to medical equipment to the system
General requirements for the competence of testing and calibration laboratories	ISO/IEC17025	A standard added with requirements unique to testing and calibration laboratories, used by a certifying body to certify the capacities of testing and calibration laboratories
Occupational health and safety management system	OHSAS18001	A system to grasp risks in occupational health and safety, conduct countermeasures and target reductions in labor-related accidents and disaster risks

List of certifications

	Plants & Subsidiaries	ISO 14001:2004	ISO 9001:2008	ISO/TS 16949	ISO 13485:2003	ISO/IEC 17025:2005	OHSAS 18001:2007	Product category
Domestic Plants & Subsidiaries	Tokyo Plant	●	●				●	Corrugated boards, wrap films, high performance sheets, etc.
	Nanyo Plant	●	●					Hard polyvinyl chloride pipe, etc.
	Kodama Plant	●	●		●		●	OA equipment, silicone rubber molded products, etc.
	Electronic Device Business Unit (Technology/Manufacturing Unit, 3rd Development Department)		●					Display-related parts, input devices, etc.
	Electronic Device Business Unit (Quality Assurance Department, Sales Unit) Electronic Device Business Unit (Osaka Branch, Nagoya Branch) Shinano Polymer Co., Ltd. (Shiojiri Plant) Shin-Etsu Polymer Europe B.V. Shin-Etsu Polymer Shanghai Co., Ltd.		●	●				Display-related parts, input devices, etc.
	High Technology Products Business Unit (FI Division) Niigata Polymer Co., Ltd.	●	●					Silicon wafer cases, etc.
	Shin-Etsu Polymer Co., Ltd. (Chemical Analysis Center)					●		Property analysis operations
	Shinano Polymer Co., Ltd.	●						Display-related parts, input devices, etc.
	Shinano Polymer Co., Ltd. (Nagano Plant, Miyabuchi Plant)		●		●			Medical parts, physical and chemical appliances, etc.
	Urawa Polymer Co., Ltd. (Kurihashi Plant)	●	●					Embossed carrier tapes, etc.
	Shin-Etsu Finetech Co., Ltd.	●	●					Sales Division and original products
Overseas Plants & Subsidiaries	Shin-Etsu Polymer Hungary Kft.	●	●	●				Display-related parts, input devices, etc.
	Shin-Etsu Polymer (Malaysia) Sdn. Bhd.	●	●	●	●			OA equipment, silicone rubber molded products, display-related parts, input devices, embossed carrier tapes, etc.
	Suzhou Shin-Etsu Polymer Co., Ltd.	●	●	●			●	Display-related parts, input devices, etc.
	Dongguan Shin-Etsu Polymer Co., Ltd.	●	●					OA equipment, silicone rubber molded products, etc.
	P.T. Shin-Etsu Polymer Indonesia	●	●					Silicon wafer cases, etc.
	Shin-Etsu Polymer India Pvt. Ltd.	●	●	●				Display-related parts, input devices, etc.

*For data such as registered certificate numbers and certifying bodies, please visit our website.

Green Activities Overview

Our company has been promoting Green Activities on a Group-wide basis since fiscal 2000. Since fiscal 2003, we have set up and addressed three-year mid-term targets, and FY2011 fell on the last year of the 3rd Mid-term Targets (2009 - 2011). Based on the results, we set up the 4th Mid-term Targets for FY2014 (2012 - 2014) and we shall do our best to achieve these targets.

Basic Policy

We recognize the Green Activities as those of productivity improvement from the viewpoint of the environment and have been promoting them as deeply rooted corporate activities.

The 3rd Mid-term Targets of the Green Activities (fiscal 2009 to fiscal 2011)

We set up the 3rd Mid-term Targets with the following targets: “energy saving,” “waste reduction and recycling” and “office” and worked hard to achieve them.

1.Mid-term Targets for Energy-saving

① We will achieve a 35% reduction of produced CO_2 emission units (against that of the reference year 1994) by fiscal 2011.
② Each plant will reduce its energy consumption when compared with actual units of fiscal 2008 by 3%.

2.Mid-term Targets for Waste Reduction and Recycling

① We will maintain a zero emission rate (less than 1% emission rate).
② We will reduce basic waste disposal units against that of results in fiscal 2008 by 3%.
※Emission rate = (amount of land fill + simple incineration)/total amount of waste x 100 (%)

3.Mid-term Targets for Office Sections

We will reduce energy consumption and CO_2 emissions when compared with actual results of fiscal 2008 by 10%.

Summary of FY2011 Activities and Results/Targets for FY2014

Affected by the Great East Japan Earthquake and limitation on power consumption and with production quantity reduced due to production adjustment and plant integration, abolition, and amalgamation, the targets for produced CO_2 emission units, specific energy consumption in production and specific waste discharge consumption in production were not achieved in FY 2011 activities. In particular, looking at CO_2-related items, though we reduced total CO_2 emissions by 39% compared with FY1994, the reduction in produced CO_2 emission units was 33.5%, meaning we could not achieve the targeted 35%. For this reason, in the 4th Mid-term Targets, we will once again address these unachieved targets. Furthermore, to make the results of activities clearer, we have changed the basic unit from production amount to production quantity. (*For produced CO_2 emission units, no change was made because we don't have production amount data from FY1994). For offices, we control the targets by basic units to comply with the Energy Saving Law.

We will also conduct “Eco-Pro Promotion Activities,” setting up our unique evaluation standards and methods, and through activities to certify them; we will promote the development of eco-friendly products.

● Energy-saving Activities

Item	FY2009	FY2010	FY2011	4th Mid-term Targets in FY2014
Produced CO_2 emission units (CO_2/million yen)	20.7% reduction not achieved	28.8% reduction not achieved	Corporate-wide (*1) 33.5% reduction not achieved	Specific energy consumption in production (CO_2/million yen) 35% reduction compared with reference year of FY1994
Specific energy consumption in production (6 plants)	1% reduction (*2) achieved at 5 plants	2% reduction (*2) achieved at 4 plants	3% reduction (*2) achieved at 5 plants	<Plant target> 3% reduction compared with actual units of reference year of FY2011 (*2)

● Waste Reduction/Recycling Activities

Item	FY2009	FY2010	FY2011	4th Mid-term Targets in FY2014
Emission rate	0.58% achieved	0.36% achieved	Corporate-wide 0.52% Achieved at 5 plants	<Group and plants common target> Maintenance and continuance of zero emission (less than 1%)
Specific waste discharge consumption in production (kg/million yen)	1% reduction (*2) achieved at 3 plants	2% reduction (*2) achieved at 3 plants	3% reduction (*2) 8.9% achieved corporate-wide Achieved at 3 plants	<Group and plants common target> Specific waste discharge consumption in production (kg/ton) 3% reduction (*2) against results of FY2011

Note: For FY2011, results of the Group are on top while 6 plants are on the bottom.

● Office Sections Activities

Item	FY2009	FY2010	FY2011	4th Mid-term Targets in FY2014
Energy consumption (kl)	9.1% reduction not achieved	19.1% reduction achieved	19.7% reduction achieved	3% reduction (*2) compared with actual unit of energy per unit area of FY2011 (kl/m²)
CO_2 emissions (t-CO_2)	25.6% reduction achieved	37.6% reduction achieved	31.3% reduction achieved	

*1 CO_2 emissions are calculated by the calculation method and emission factor as per the system of the Ministry of Environment and actual emission facts by each operator of electric utilities.
*2 1% reduction per year; 2% for the second year and 3% for the third year.

Green Activities

- **Environmental and quality management system**
  ISO14001,ISO9001,ISO/TS16949,ISO13485
- **Improvement of environmental performance**
  Energy-saving, Waste reduction and recycling, Chemical substance management, Management of chemicals contained in products
- **Information disclosure**
  Sustainability Report, Environmental accounting
- **Environmental education**
  Environmental quality lectures, Auditing of environmental quality of products, Corporate-wide presentations, In-house media

Green Activities Promotion Committee

- ●Chairman — President
- ●Vice Chairman — Director, Technology Group; Director, Administration & Public Relations Group

Secretariat
Technology Group, Environmental Control & Safety Group Administration & Public Relations Group

- Energy-saving Subcommittee
- Recycling Subcommittee
- Office Subcommittee

Plant and Business Sites Green Activities Subcommittee

- **Plants**
  Tokyo Plant, Nanyo Plant, Kodama Plant
- **Production Subsidiaries**
  Shinano Polymer Co., Ltd., Niigata Polymer Co., Ltd., Urawa Polymer Co., Ltd., SAN-ACE co., Ltd.
- **Head Office, Branch and Sales Offices**
  Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Sales Office, Nagano Sales Office
- **Sales Subsidiaries**
  Shin-Etsu Finetech Co., Ltd.
- **Overseas Subsidiaries**
  Shin-Etsu Polymer America, Inc.
  Shin-Etsu Polymer Europe B.V.
  Shin-Etsu Polymer Hungary Kft.
  Shin-Etsu Polymer Singapore Pte. Ltd.
  Shin-Etsu Polymer Hong Kong Co., Ltd.
  Shin-Etsu Polymer(Malaysia)Sdn.Bhd.
  Suzhou Shin-Etsu Polymer Co., Ltd.
  Shin-Etsu Polymer Shanghai Co., Ltd.
  Dongguan Shin-Etsu Polymer Co., Ltd.
  P.T. Shin-Etsu Polymer Indonesia
  Shin-Etsu Polymer India Pvt. Ltd..

Activities associated with biodiversity

To alleviate the impact of business activities upon biological diversity, the Shin-Etsu Polymer Group is actively engaged in initiatives against contamination from the effects of business activities upon biodiversity such as (1) proper treatment of industrial waste water, (2) non-use of hazardous substances contained in products and (3) reduction of VOC (volatile organic compounds) exhausts. We also re-evaluate the impact and make efforts to maintain biological diversity and sustainable use.

Shin-Etsu Group's Environmental Policy

"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."

We added the above action policy to the group's Action Policy in April 2010 to strengthen our initiatives to protect biological diversity.

Site use status of production plants

We summed up the site use status of domestic and overseas production plants.

(Unit: m²)

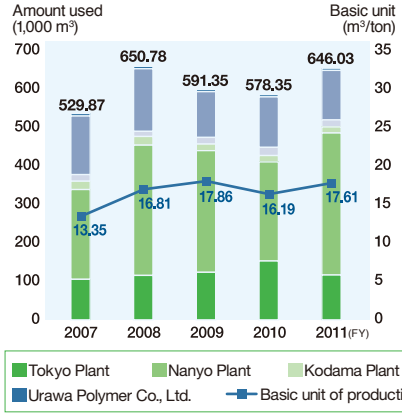
Domestic Plants & Subsidiaries		Tokyo Plant	Nanyo Plant	Kodama Plant	Shinano Polymer Co., Ltd.			Urawa Polymer Co., Ltd. Kurihashi Plant	Niigata Polymer Co., Ltd. East + West Plant	Total	Shin-Etsu Finetech Co., Ltd. Unit Division Cleaning Department
					Shiojiri Plant	Nagano Plant	Miyabuchi Plant				
Sites, etc.	Site area	76,059	34,500	21,171	16,200	4,511	1,432	4,512	61,602	219,987	2,653
	Building area	36,702	8,227	8,287	5,230	918	521	2,676	15,144	77,705	2,185
	Floor area	45,070	10,602	18,401	10,050	1,504	969	3,740	25,087	115,423	2,185
Pavement, etc.	Paved area	35,461	22,636	7,574	3,610	1,160	911	1,763	7,666	80,781	448
	Water surface area	74	139	0	0	0	0	0	0	213	0
Green space	Green area	2,490	3,498	5,303	2,360	100	0	51	14,912	28,714	20
	Green area percent	3%	10%	25%	15%	2%	0%	1%	24%	13%	1%

Note: Though the Cleaning Department, Unit Division, Shin-Etsu Finetech Co., Ltd. are not production plants; the company conducts cleaning activities and is thus given as a reference.

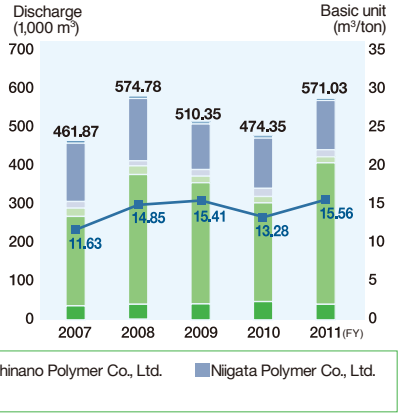
(Unit: m²)

Overseas Plants & Subsidiaries		Suzhou Shin-Etsu Polymer Co., Ltd. (SC)	Shin-Etsu Polymer (Malaysia) Sdn.Bhd. (SM)	P.T.Shin-Etsu Polymer Indonesia (SI)	Shin-Etsu Polymer Hungary Kft. (SH)	Shin-Etsu Polymer India Pvt.Ltd. (SD)	Dongguan Shin-Etsu Polymer Co., Ltd. (KD)	Total
Sites, etc.	Site area	49,762	59,293	50,744	14,109	40,064	19,598	233,570
	Building area	19,037	28,545	5,218	3,181	6,507	4,849	67,337
	Floor area	19,909	39,839	5,267	3,366	6,507	4,849	79,737
Pavement, etc.	Paved area	11,200	24,226	4,448	5,325	4,047	2,685	51,931
	Water surface area	0	0	302	0	400	0	702
Green space	Green area	17,914	6,522	40,731	5,603	4,000	12,065	86,835
	Green area percent	36%	11%	80%	40%	10%	62%	37%

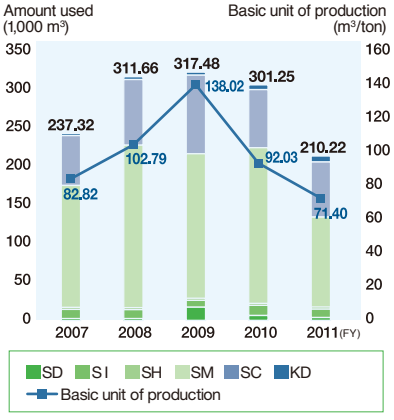
Water use status (6 domestic plants)



Water discharge status (6 domestic plants)



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



Actual VOC emissions into the atmosphere in 2011

Our group reports the handling amount of 20 substances subject to emission reduction (t/year) and the volume of emissions into the atmosphere (t/year) to four electric and electronic industry organizations.

In FY2011, VOC emissions into the atmosphere were reduced to 21.2 tons or 4.4 tons reduction (-17.2%) compared to the previous year.

(Unit: ton per year)

Plant subject to investigation*		Tokyo Plant	Nanyo Plant	Kodama Plant	Shinano Polymer Co., Ltd.	Urawa Polymer Co., Ltd.	Niigata Polymer Co., Ltd.	Total
Facility type	1.Painting	2.0	0.0	0.0	0.0	0.0	0.0	2.0
	2.Glueing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3.Printing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4.Chemical product manufacturing	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	5.Industrial cleaning	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6.VOC storage	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 Other than facility types		0.0	0.0	12.9	4.9	0.0	1.5	19.2
Total		2.0	0.0	12.9	4.9	0.0	1.5	21.2

*Ethanol, butyl acetate, MEK, toluene, IPA, acetone, xylene, etc.

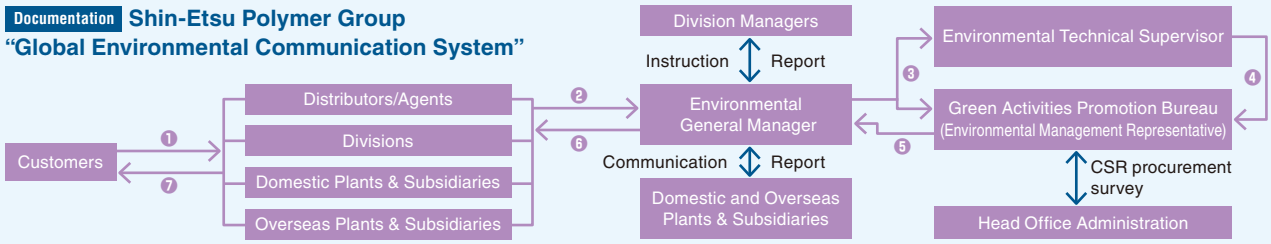
Engagement with Customers

In order to meet the requirements for the management of chemicals contained in products by customers, we created the "Global Environmental Communication System" to centrally manage all Group companies including overseas plants. To respond to customers' CSR surveys, etc., we also apply the Global Environmental Communication System.

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 environment-friendly suppliers 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.

Documentation **Shin-Etsu Polymer Group "Global Environmental Communication System"**



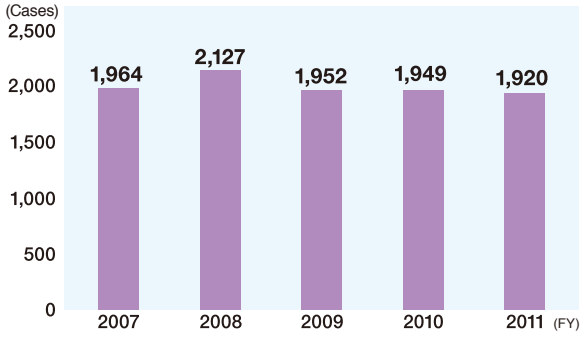
List of Plants & Subsidiaries approved by the Sony Green Partner Environmental Quality Approval Program

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	
		Shinano Polymer Co., Ltd. (Shiojiri Plant)	FC002584	2003.08.01	
		Urawa Polymer Co., Ltd. (Kurihashi Plant)	FC002585	2003.08.01	
		Niigata Polymer Co., Ltd.	FC007726	2005.11.17	
Shin-Etsu Finetech Co., Ltd..	—		FC006553	2007.09.21	2016.05.31

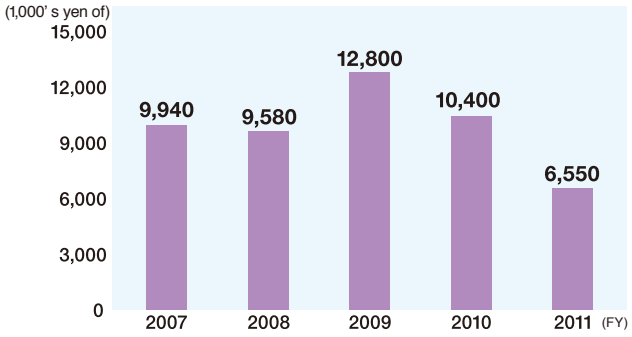
List of the recommended suppliers by the Sony Green Partner Environmental Quality Approval Program
(recommended suppliers)

Partner Name	Corporate ID	Subject material
Shin-Etsu Chemical Co., Ltd.	0185	Molding resin
Shin-Etsu Polymer Co., Ltd.	0186	Molding resin

Annual transition of green procurement surveys



Transition of analyses of chemicals contained in products (our Chemical Analysis Center only)



Documentation **Shin-Etsu Polymer Group "Control Standards of Chemical Substances Contained in Products" Ver.2.2 (excerpts)**

There is no intentional use of any substance shown in the table below in products and purchased materials (raw materials, parts/components, packaging materials, etc.) supplied to customers, and the content ratio as impurities is less than the threshold level shown in the same table. The permissible level threshold level of Cd, Pb, Hg, Hexavalent Cr, PBB and PBDE subject to RoHS is based on the strictest values set forth by domestic customers in the electric/electronic industry. Please note that application exceptions of individual chemical substances are in accordance with "laws, regulations and industry standards relating to monitored substances." Furthermore, products for construction materials and similar products and products based on specifications mutually agreed upon with customers are not subject to this. Our divisions and plants may require control different from this "Control Standards" to suppliers, depending on laws and customer specifications of the country where the products are used. If this is the case, such specifications will be superseded.

Table Shin-Etsu Polymer's Group "Standard for the Control of Chemical Substances in Products"

Substance/ Category	Reportable Application (s)	Threshold Level (Reporting level)
Asbestos	All	Intentionally added
Azocolourants and azodyes which form certain aromatic amines[1]	Textile and leather	0.003% by weight of the finished textile/ leather product (30ppm) [1]
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	All	0.1% by weight of the product (1,000ppm)
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	All	0.1% by weight of the product (1,000ppm)
Beryllium oxide (BeO)	All	0.1% by weight of the product (1,000ppm)
4-[4,4'-bis (dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C. I. Basic Violet 3)	All	0.1% by weight of the product (1,000ppm)
Bis (2-methoxyethyl) ether	All	0.1% by weight of the product (1,000ppm)
Bis (2-methoxyethyl) phthalate	All	0.1% by weight of the product (1,000ppm)
Boric acid	All	0.1% by weight of the product (1,000ppm)
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Plastic materials except printed wiring board laminates [4]	0.1% by weight for the total bromine contained in plastic materials (1,000ppm)
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	Printed wiring board laminate [4]	0.09% by weight for the total bromine contained in stacked board (900ppm)
Cadmium/cadmium compounds	All except the subjects specified below	0.01% by weight of cadmium in homogeneous medium (100ppm)
Cadmium/cadmium compounds	Battery [5]	0.001% by weight of cadmium in the battery (10ppm)
Cadmium/cadmium compounds	Metal plate	0.0075% by weight of cadmium in homogeneous medium (75ppm)
Cadmium/cadmium compounds	Plastic	0.0005% by weight of cadmium in homogeneous medium (5ppm)
Chlorinated flame retardants	Plastic materials except printed wiring board laminates [4]	0.1% by weight for the total chloride contained in plastic materials (1,000ppm)
Chlorinated flame retardants	Printed wiring board laminate [4]	0.09% by weight for the total chloride contained in stacked board (900ppm)
Chromium VI compounds	All except plastic	0.1% by weight of chromium VI in homogeneous medium (1,000ppm) [11]
Chromium VI compounds	Plastic	0.01% by weight of chromium VI in homogeneous medium (100ppm)
Cobalt dichloride ($CoCl_2$)	All	0.1% by weight of the product (1,000ppm)
Diarsenic pentoxide	All	0.1% by weight of the product (1,000ppm)
Diarsenic trioxide	All	0.1% by weight of the product (1,000ppm)
Dibutyltin (DBT) compounds	All	0.1% by weight in material as tin element (1,000ppm) [6]
Dioctyltin (DOT) compounds	(a) textile and leather articles intended to come into contact with the skin, (b) childcare articles (c) two component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1% by weight in material as tin element (1,000ppm) [6]
2,2'-dichloro-4,4'-methylenedianiline (MOCA)	All	0.1% by weight of the product (1,000ppm)
N,N-Dimethylacetamide (DMAC)	All	0.1% by weight of the product (1,000ppm)
Dimethyl fumarate	All	0.00001% by weight in material (0.1ppm) [6]
Disodium tetraborate, anhydrous	All	0.1% by weight of the product (1,000ppm)
Fluorinated greenhouse gases (PFC, SF_6, HFC)	All	Intentionally added
Formaldehyde	Composite wood (plywood, particle board, medium density fiberboard) products or components	Intentionally added [7]
Formaldehyde	Textiles	0.0075% by weight of the textile product (75ppm)
Hexabromocyclododecane (HBCDD) and all major diastereoisomers	All	0.1% by weight of the product (1,000ppm)
Lead/lead compounds	All, except as noted below	0.1% by weight of lead in homogeneous material (1,000ppm)
Lead/lead compounds	Consumer products designed or intended primarily for children 12 years of age or younger	0.01% by weight of lead in homogeneous material (100ppm)
Lead/lead compounds	Paint and similar surface coatings of toys and other articles intended for use by children	0.009% by weight of lead in homogeneous material (90ppm)
Lead/lead compounds	Cables/cords with thermoset or thermoplastic coatings	0.03% by weight of lead in homogeneous material (300ppm)
Lead/lead compounds	Battery [5]	0.004% by weight of lead in the battery (40ppm)
Lead/lead compounds	Metal plate	0.08% by weight of lead in homogeneous material (800ppm)
Lead/lead compounds	Plastic	0.01% by weight of lead in homogeneous material (100ppm)
Lead chromate	All	0.1% by weight of the product (1,000ppm)
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	All	0.1% by weight of the product (1,000ppm)
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	All	0.1% by weight of the product (1,000ppm)
Mercury/mercury compounds	All, where prolonged skin contact is expected	Intentionally added or 0.1% by weight of mercury in homogeneous material (1,000ppm) [8]
Mercury/mercury compounds	Battery [5]	Intentionally added or 0.0001% by weight of mercury in homogeneous material (1ppm)
Mercury/mercury compounds	Plastic	0.01% by weight of mercury in homogeneous material (100ppm)
Nickel[9]	All if contacts skin for a long period of time	Intentionally added [7]
Ozone depleting substances	All	Intentionally added
Pentazinc chromate octahydroxide	All	0.1% by weight of the product (1,000ppm)
Perchlorates	All	0.0000006% by weight of the product (0.006ppm)
Perfluorooctane sulfonate (PFOS)	All	Intentionally added or 0.1% by weight in material (1,000ppm) [6,8]
Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)	All	Intentionally added
Bis (2-ethylhexyl) phthalate (DEHP)	All	0.1% by weight of the product (1,000ppm)
Dibutyl phthalate (DBP)	All	0.1% by weight of the product (1,000ppm)
Benzyl butyl phthalate (BBP)	All	0.1% by weight of the product (1,000ppm)
Diisobutyl phthalate (DIBP)	All	0.1% by weight of the product (1,000ppm)
Selected Phthalates Group 1 (BBP, DBP, DEHP)	Children's toy or child care article	0.1% by weight of plasticized material (1,000ppm) [10]
Selected Phthalates Group 2 (DIDP, DINP, DNOP)	Children's toy or child care article that can be placed in a child's mouth	0.1% by weight of plasticized material (1,000ppm) [10]
Polybrominated biphenyls (PBBs)	All	0.01% by weight of homogeneous material (100ppm) [11]
Polybrominated diphenyl ethers (PBDEs)	All	Intentionally added or 0.01% by weight of homogeneous material (100ppm) [6,11]
Polychlorinated biphenyls (PCBs) and specific substitutes	All	Intentionally added
Polychlorinated terphenyls (PCTs)	All	0.005% by weight of material (50ppm)
Polychlorinated naphthalenes (more than 3 chlorine atoms)	All	Intentionally added
Polyvinyl chloride (PVC) and PVC copolymer	Plastic materials except printed wiring board laminates [4]	0.1% by weight for total chloride contained in plastic material (1,000ppm)
Potassium hydroxyoctaoxodizincatedi-chromate	All	0.1% by weight of the product (1,000ppm)
Radioactive substances	All	Intentionally added [7]
Refractory Ceramic Fibres, Aluminosilicate	All	0.1% by weight of the product (1,000ppm)
Refractory Ceramic Fibres, Zirconia Aluminosilicate	All	0.1% by weight of the product (1,000ppm)
Shortchain chlorinated paraffins (C10-C13)	All	0.1% by weight of the product (1,000ppm)
Strontium chromate	All	0.1% by weight of the product (1,000ppm)
Tetraboron disodium heptaoxide, hydrate	All	0.1% by weight of the product (1,000ppm)
4-(1,1,3,3-tetramethylbutyl) phenol, (4-tert-Octylphenol)	All	0.1% by weight of the product (1,000ppm)
Tri-substituted organostannic compounds	All	Intentionally added or 0.1% by weight in material as tin element (1,000ppm) [6,8]
Tributyl tin oxide (TBTO)	All	Intentionally added or 0.1% by weight in material as tin element (1,000ppm) [8]
Tris (2-chloroethyl) phosphate (TCEP)	All	0.1% by weight in material as tin element (1,000ppm)

*Complies with Table A of JIG-101 Version 4.1 (published May 22, 2012).
*For detailed chemical substance list by category, refer to Table B of JIG-101 Version 4.1.
*For details of footnotes and "Standards for the Control of Chemical Substances in Products," please visit our website.

Engagement with Employees

The Shin-Etsu Polymer Group believes that when individual employees firmly recognize their roles and responsibilities and take independent action in different fields, the power of the whole group will be strengthened, leading to its presence as an organization full of vitality.

Respect for human rights

Based on respect for basic human rights, we eliminate unreasonable discrimination based on race, gender, academic backgrounds, health, birthplaces, philosophies, etc. In FY2010, we started human right awareness education for all employees and host activities to advocate basic human rights regarding the understanding of social integration and prevention of sexual or power harassment.

●Employee Assistance Program (EAP)

We introduced the Employee Assistance Program, a system to support employees so that they and their families can lead a healthy life both physically and mentally. While maintaining privacy using toll-free dials and e-mail, professionals of individual fields offer consultation on such fields as mental health, health, childcare, nursing, the law, and financing. We also have a point of contact for sexual harassment consultation.

To raise awareness about mental health and health management, we regularly transmit information useful for promoting health by taking advantage of in-house LAN.

Current status of employment

●Reemployment System

Based on the revised Law concerning Stabilization of Employment of Older Persons, we introduced a reemployment system after mandatory retirement. Whether reemployment is applied is determined by the selection standard provided in the contract between employer and union and each agreement is concluded on a one-year basis, emphasizing health conditions and willingness to work. The limit of contract extension is the legally stipulated age.

We will continue to operate a system complying with applicable laws and regulations.

●Employment information (independent data of Shin-Etsu Polymer Co., Ltd.)

Number of employees, average age, and years of employment

FY	Number of employees (persons)	Average age (years old)	Average years of employment (years)
2007	640	43.0	18.8
2008	631	43.3	18.7
2009	630	43.7	19.2
2010	603	44.3	19.6
2011	595	44.8	19.9

Remarks: Officers, temporary employees, and contract employees not included. Loan employees not included; accepted loan employees included.

Employee composition by generation (End of FY2011)

(Unit: person)

Teens-twenties	Thirties	Forties	Fifties	Sixties or more	Total
43	122	252	148	30	595

Status of employment of new graduates (Unit: person)

FY	University graduates (male)	University graduates (female)	Junior college/ vocational school graduates (male/ female)	High school graduates, etc.
2010	0	0	0	0
2011	5	3	0	0
2012	4	0	0	3

Status of employment of mid-career workers (Unit: person)

FY	University graduates (male)	University graduates (female)	Other than university graduates (male)	Other than university graduates (female)
2010	4	2	1	3
2011	1	2	0	0
2012	0	0	0	2

Number of officers and managers (End of FY2011) (Unit: person)

	Male	Female
Managers	250	3
Officers	14	0

Status of employment of impaired persons

End of FY	Number of impaired persons (persons)	Employment rate of impaired persons (%)
2009	12	1.65
2010	14	1.93
2011	14	1.96

Human resources system

Our human resources system is based on a performance-based wage system. For clerical workers, the development of competencies* that are directly related to results is subject to evaluation, while for managers only the performance based on responsibilities for results is subject to evaluation. The records of performance evaluation details are made into a database, enabling evaluation results to be fed back to individuals, securing fairness, objectivity and transparency.

*Behavioral characteristics commonly observed among those who consistently make high achievements in performing duties

Respect for work life balance

●Childcare and maternity leave system

Based on the Act on Advancement of Measures to Support Raising Next-Generation Children enforced in April 2005, we introduced a system to meet short-hour workdays and other individuals' needs to improve work life balance after returning to work. As for the childcare leave system, a total of 21 persons have made use of it. Especially in the past 12 months, a total of four persons have used the leave.

In October 2010, as part of childcare support, we revised the Office Regulations to extend the period of maternity leave from "until the child becomes 18 months old" in the conventional system to “up to the first April 30 after the child reached 18 months old” in consideration of the fact that children become eligible for entering nursery schools in April so that employees on maternity leave could concentrate on childcare.

By creating an easy-to-work environment that enables all employees to make work and childcare compatible, we will continue to address the challenge of introducing a system where every employee can fully exploit his or her abilities.

●Work Life balance information (independent data of Shin-Etsu Polymer Co., Ltd.)

Use of yearly paid holidays

FY	Average days of holidays given (days)	Average days of holidays taken (days)	Rate of paid holidays being taken (%)
2009	19.0	7.3	38.4
2010	19.2	8.0	41.9
2011	19.2	9.3	48.4

Use of maternity, childcare, and nursing leave

FY	Number of persons who have taken maternity leave (persons)	Number of persons who have taken childcare leave (persons)	Number of males who have taken childcare leave (persons)	Rate of childcare leave being taken (%)	Number of persons who have taken nursing leave (persons)
2009	6	6	0	100	0
2010	4	4	0	100	0
2011	4	4	0	100	0

Educational training

For all employees or for each individual layer, we offer a comprehensive range of programs for education and training such as overseas study and auditor system.

●Overseas study and training system

In 1987, we established an overseas training system to develop international businesspersons responding to our global expansion, starting with a system to study in the US. Afterwards in 1994, the People's Republic of China was added as a destination for overseas study. Through this training system, employees learn English or Chinese as well as different cultures at local universities in the US and China.

●University auditor system

To improve the abilities and skills of employees, employees study expertise as auditors for one year at the College of Science and Technology, Nihon University, away from the workplaces. Once a month, an opportunity for exchange among auditors is offered. The program started in 1962, and a total of 21 employees have used the system.

Next-generation development program

Starting business leader training

In March 2011, to develop and continuously produce future business leaders (individual business operation leaders, plant leaders, technological development leaders, etc.), we started a “selective” long-term human resource development course.

This program offers three layers (leader, advanced and challenge courses) by level, and participants steadily take education programs based on their individual levels for about a year. At the end of each course they hold presentations with proposals for the company.

During the period, individual counseling is conducted to examine the aptitude and future career plans of participants, targeting the development of a wide pool of leaders to bear the future of the company.

<Overview of the courses and targets>

●Leader course
Targets accomplishing total business reforms from a long-term and global perspective and creating new businesses

●Advanced course
Targets speedily accomplishing cross-functional reforms from a mid/long-term and global perspective and expand and develop business

●Challenge course
Targets translating mid and long-term strategies into tactics and executing the maintenance and reform of the entire organization with a sense of speed

Training in the challenge course

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

Third-party comments

Third-party comments on the “Sustainability Report 2012”

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 2012” (hereinafter referred to as Report) and after interviewing those concerned.

1. Business model for sustainability strategy

The Shin-Etsu Polymer Group has strengthened its control of production-related environmental risks by deploying a wide variety of tools including “Green Procurement Requirements” and “Standard for the Control of Chemical Substances in Products” in the upstream of the value chain, in addition to “Global Environmental Communication System” and “Control System of Chemical Substances in Products.” Also this year, to increase opportunities for sales and profits based on environmental factors, the company launched “Eco-Pro Promotion Activities.” This initiative reflects well the Shin-Etsu Polymer Group’s business model focused on value chain-based sustainability strategy. To make such a strategy successful, it is desirable in assessment and certification of eco-friendly products in “Eco-Pro Promotion Activities” to produce and deliver products with high social needs by paying proper attention to not only environmental performance but also marketability.

2. CSR risks of globalization

The Shin-Etsu Polymer Group currently has a total of 11 local subsidiaries in North America, Europe, and Asia, and their total sales account for one third of consolidated sales. In consideration of the domestic economy with the trend of the appreciation of the yen and economic growth in emerging countries, it is inevitable to continue to globalize production bases and targeted sales markets. The Group’s CSR management system needs to be improved based on this overseas development.

Among CSR risks at overseas production bases, what must especially be paid attention to is the control of water consumption in areas with conspicuous water stress. Currently, water consumed at overseas plants is controlled by actual values and basic unit indexes, but as such water risks drastically differ in areas, individual evaluation is also required. Furthermore, from a social perspective, it is important to take measures to prevent corruption in local societies. Such principles must be established as codes of action, and the development of programs to respond to this is also desirable.

3. Dialog by theme

The dialog by the Shin-Etsu Polymer Group is a unique initiative because it is held under a different theme every year. In particular, this year’s dialog is between outside specialists of security export control and staff in charge, and under a sense of tension as if attending in-house compliance training, important items employees must know are explained in an easy-to-understand manner. I hope the group continues such dialogs on business risks in this way.

4. Employment information

In relation to employment information on a global basis that I mentioned last year, I didn’t see much progress this year. Labor distribution, male-female ratios and other information for regional segments are critical human resource information in grasping the entire Group, and it would be desirable to disclose it going forward. What also attracted my attention this year was the total accident frequency rate, which worsened, but as its cause analysis and countermeasures are well organized, we can expect improvements toward zero labor accidents from now on.

In response to third-party comments

Director
Assistant Chairman, Green Activities Promotion Bureau
Yutaka Kawamura

Professor Kozuma remarked on the assessment and certification of eco-friendly products in “Eco-Pro Promotion Activities.” What is important is not only having good environmental performance but also compliance with social needs and connections to improve business results. We also want to add marketability evaluation in assessment items. Next, in relation to CSR management, we need global action, and especially regarding water risk, he pointed out that evaluation by overseas plants is essential. With regard to this, we will work together with individual production bases and organize risk control systems.

Finally, for employment information on a global basis that he also pointed out last year, he advised that activities by the International Labor Organization (ILO) could be used as a reference. This is associated with basic human rights, employment policies and women’s employment, and we will disclose data about labor distribution, etc. that he mentioned.

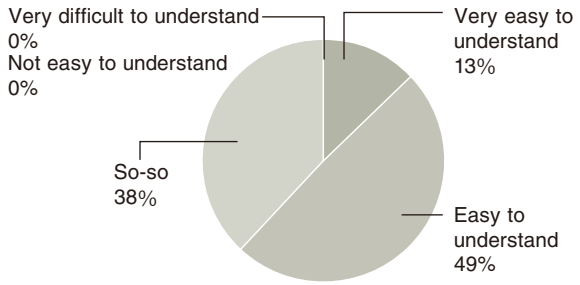
We shall continue to respond to what Professor Kozuma pointed out and further improve environmental, CSR and other activities.

*ILO: International Labor Organization
http://www.ilo.org/public/japanese/region/asro/tokyo/about/ilo.htm

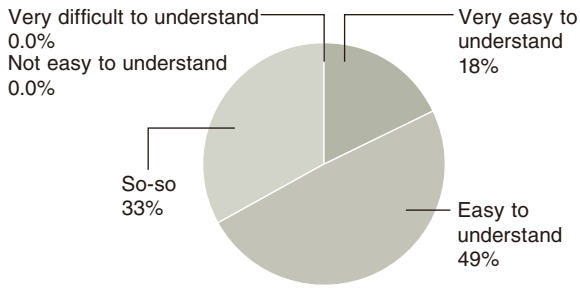
Questionnaire results & Editor's Note

After releasing the "Sustainability Report 2011," we received internal and external readers' responses to our questionnaire. 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.

- Eco-friendly products and production bases are introduced with stories, so I read the report with a high level of interest. Its contents are very enriched and easy to understand. It is also good that the report covers new products.

➡**In the 4th Mid-term Targets, we will promote the development of Eco-Pro Products to create eco-friendly products. We will introduce environment-friendly products again next year.**

- I got the impression there was not a lot of focus on information security management, though its importance has been increasing socially, but with the special article, I was able to understand the reality.
- For items on the report, there is nothing missing, and I think there is no problem. Generally speaking, the report has rich contents and the associated illustrations seem well prepared.
- In general, it covers a wide variety of content as a Sustainability Report, but from top management's viewpoint, the global environment appears to be emphasized. While the global environment is important, it would be better if we could have the top message describing what is felt about other societies, people, risks, and compliance.

➡**As you pointed out, we will continue activities to realize a CSR report with rich contents about working environments, human rights and other cases of in-house activities.**

- Regardless of their presence, I think a description on specially controlled industrial waste is necessary.

➡**This is covered in "Waste Reduction/Recycling Activities" for 2012.**

- While the report tends to be comprehensive, is there a way to indicate what the company sticks to and what is unique in terms of initiatives?

➡**As we plan to renew the report, we will make efforts to reflect what you pointed out.**

- In social involvement, the training to offer facilities on the assumption of earthquakes was impressive and appeared to be a very good activity. Can we improve the trust and credit of us by conducting such facility offer training and emergency kitchen training and improving social activities to be one with the community?

➡**We hope the introduction to these activities can trigger cross-functional development and the start of activities in other divisions.**

Editor's Note

Since issuing our first environmental report in 2001, the Shin-Etsu Polymer Group has continued to report on environment-friendly products, and in the 2012 edition, we covered more than 30 products.

While Professor Kozuma commented, "I look forward to the introduction to eco-friendly products," he also said that the development of eco-friendly products must lead to corporate performance, i.e. what is required by society in his opinion as a third person.

For environment-friendly products to be covered in the 2013 Sustainability Report, we plan to cover those products assessed and certified in house through "Eco-Pro Promotion Activities" launched for the 4th Mid-Term Targets. Based on the comments from Professor Kozuma and opinions from readers, we will start to address what we can improve and report on the results

We are looking forward to receiving frank and honest opinions on the environmental and social activities of our Group.