

Shin-Etsu Polymer Sustainability Report 2007

Profile

Shin-Etsu Polymer Co., Ltd. was established in 1960 as a wholly owned subsidiary of Shin-Etsu Chemical Co., Ltd., and has ever since invented, created and offered many products for various applications ranging from electric/ electronic equipment to construction as a plastic processing company.

The company's current main line of products includes keypads for cellular phones, inter-connectors for various component/device connections and transportation and transfer containers for semiconductor wafers, all of which are highly competitive in the market place. Through offering such a comprehensive lineup of products and manufacturing and sales activities via its global network, Shin-Etsu Polymer is actively partnering with leading companies both domestic and international.

Corporate Overview

Trade name:	Shin-Etsu Polymer Co., Ltd.
Established:	September 15, 1960
Headquarters address:	3-5, Nihonbashi-Honcho 4-chome, Chuo-ku, Tokyo, Japan
Plants:	Tokyo Plant (Saitama Prefecture), Nanyo Plant (Yamaguchi
	Prefecture) and Kodama Plant (Saitama Prefecture)
Paid-in capital:	11,635,950,000 yen
Number of employees:	6,145 (Consolidated) ,635 (Non-consolidated)
	(As of March 31, 2007)
Consolidated subsidiaries:	16
	Shinano Polymer Co., Ltd.
	Urawa Polymer Co., Ltd.
	Niigata Polymer Co., Ltd.
	Shin-Etsu Finetech Co., Ltd.
	Shin-Etsu Unit Co., Ltd.
	San-Ace Co., Ltd.
	Suzhou Shin-Etsu Polymer Co., Ltd.
	Shin-Etsu Polymer Shanghai Co., Ltd.
	Shin-Etsu Polymer Hong Kong Co., Ltd.
	Shin-Etsu Polymer Singapore Pte. Ltd.
	Shin-Etsu Polymer (Malaysia) Sdn. Bhd.
	P.T. Shin-Etsu Polymer Indonesia
	Shin-Etsu Polymer America, Inc.
	Shin-Etsu Polymer México, S.A. de C.V.
	Shin-Etsu Polymer Europe B.V.
	Shin-Etsu Polymer Hungary Kft.

For use

Editing Policies

Ever since the publication of the first Environmental Report in 2001, we have reported the status of our environmental conservation activities to stakeholders on six occasions. From the 2005 edition, we renamed the document "Environmental and Social Report," intending to make it a sustainability report.

The editing policies for the 2007 edition are as follows:

- The document is edited, conforming to "Environmental Report Guideline (2003 edition)" of the Ministry of the Environment. Furthermore, the Guideline Comparison Table is used for clearly identifying satisfactory and unsatisfactory points of our efforts.
- 2 Traditionally, we carried only environmental efforts in Episodes (activity cases) in the form of special

features, but in this edition, we newly added examples of social activities.

- Following the 2006 edition, we grasped and disclosed environmental data of overseas production plants and domestic offices as well as transportation-related data.
- 4 The document is intended to cover all the situations of our environmental activities and to be useful for in-field audit regarding customers' product environments.
- We received third-party comments from the Tomatsu Environmental Quality Research Institute to be utilized for future initiatives.

Period

This report essentially covers the period between April 2006 and March 2007.

Publication September 2007 (Next edition scheduled to be issued in September 2008)

Organizations subject to this report Domestic production plants Overseas production plants Domestic offices

Areas subject to this report

This document reports on the fields of environmental conservation and social activities. For our business outline, please refer to our Corporate Brochure 2007.

Contact

Administration and Public Relations Group Shin-Etsu Polymer Co., Ltd. 3-5, Nihonbashi-Honcho 4-chome, Chuo-ku, Tokyo 103-0023, Japan TEL: +(81)-3-3279-1712 FAX: +(81)-3-3246-2529 Website: http://www.shinpoly.co.jp/

Aiming to build a sustainable society and expectations



Hiroshi Akagawa President

1. Akagawa

September 2007

In Japan, a variety of measures to curb emissions of greenhouse gases based on the Kyoto Protocol has been seriously studied and implemented, but we are still far from initial targets. Furthermore, from a global point of view, though the effects of global warming have become more and more grave, and things have not worked out as we hoped, partly because of international disarray among nations. Under the circumstances, in April 2007, the 4th report of the Intergovernmental Panel on Climate Change (IPCC) was announced, stating that "the cause of global warming is human activities," appealing to international society to "limit average temperature increases to 2 or 3 degrees centigrade against that of the year 1990," and during the G8 Summit Meeting held last June, the Japanese government offered a very positive proposal to "halve the total emissions of greenhouse gases in the world by 2050."

Paying attention to such international trends in the global environment, our company complies with domestic and overseas laws and regulations and responds to them by taking appropriate measures.

On the other hand, there seems to be no end to corporate scandals shaking "fairness," an important factor of the social foundation, and these scandals have been criticized by society. Considering that compliance with social rules and that an assumption of social responsibilities must be absolute conditions for corporate survival, we are determined to make further efforts to win the trust of stakeholders, mainly driven by the newly established "Total Risk Compliance Committee" and "Internal Control Committee."

Cost Half Plan

In order to maintain sustainable growth, we are making efforts to build a corporate strength to boldly respond to any changes in the business environment. The goal of the "Cost Half Plan" promoted since fiscal

as a company with trust

2003 is to establish such a strength, and the Green Activities driven for its realization has greatly contributed to the elimination of waste, improvement of efficiency and strengthening of our competitive edge, along with the Six-Sigma and TPS initiatives.

The Green Activities

The Green Activities began in fiscal 2000 in order to enable us to develop and grow in a sustainable manner. We position the Green Activities as "an effort to improve productivity from the viewpoint of the environment." In other words, such activities as a reduction in energy use, recycling of plastic waste that had been land filled or simply incinerated, reduction in the quantity of use of materials through improved manufacturing processes and a decrease of chemicals used directly lead to improvements of cost competitiveness. In relation to the enhancement of environmental performance (energysaving, waste reduction and recycling,) we have set higher targets and steadily implemented them in the Second Mid-term Plan (fiscal 2006-2008.)

Efforts to control chemicals contained in products

To meet our customers' requirements for controlling chemicals contained in products, we established the "Global Environmental Communication System" to centrally control all Group companies including overseas bases. Furthermore, we have built a mechanism to manage chemicals contained in products at each production plant, which is internally audited by the environmental manager at headquarters. Our analysis departments are engaged in chemical analysis utilizing high-precision analyzer equipment, and its organization, analytic precision and speed have been highly appreciated by customers.

Product development in consideration of the environment

Recognizing that new product development is an absolute requirement for corporate growth, the Group has a cross-functional development structure throughout the company in order to develop new products in domains beyond the framework of divisions. The core of such activities is the R&D Center that addresses the development themes selected by the "Theme Investigation Committee" in which management participate. The progress of development themes is reported to top management in "Development Meetings." This way, the company positively promotes the development of products that can realize functions and quality as well as environmental load reductions at high levels, in other words, new products in consideration of the environment and society.

2007 Environmental and Social Report

We changed the name of our Environmental Report to "Environmental and Social Report" from the 2005 edition to disclose our activities from three aspects: environment, economy and society. Based on what was pointed out in the thirdparties comments in the 2006 edition, we have added an article of a social aspect in "Episode" as a special feature and have given environmental data at overseas production plants and domestic offices disclosed for the first time last year.

By contributing to the development of society through providing high quality products, technologies and services and by carrying out this growth with a balance of economic, environmental and social aspects, we positively participate in the formation of a society toward sustainable development.

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.

- 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.

We assume our corporate responsibilities toward shareholders, customers, employees, communities and the global environment.

Basic Environmental Principles (as of March 3, 2000)

[Basic Policy]

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

[Action Policy]

- 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.
- We evaluate the environmental impacts of all phases from purchase and production through usage and disposal during the new products development stage and thus reduce it's environmental impact.
- We provide internal education programs to have all employees understanding of basic environmental policies and the awareness of it.

We disclose the information of our environmental activities and make efforts to coexist with the community.

Episode

Applying the achievements in energy saving of the Activities to reduce the electric power consumption rate at Niigata Polymer

In order to reduce the amount of energy consumption that increases in proportion to the production of wafer cases, which have enjoyed excellent sales in recent years, Niigata Polymer (hereinafter referred to as NP,) our production plant of semiconductor wafer cases, has been engaged in efforts to reduce the electric power consumption rate and, in the past three years (from fiscal 2004 to fiscal 2006) has taken a comprehensive range of measures including (1) an



introduction of electric injection molding machines, (2) an employment of energysaving mold temperature controllers, (3) an installation of ice-thermal storage airconditioning systems, (4) an upgrading of cooling water circulation pumps at the 3rd Plant and (5) a review of the number of lights used in the Inspection Room at

Masataka Yoshioka

Manager, 2nd Production Engineering Section Production Department Niigata Polymer Co., Ltd.

the 4th Plant.

NP has conventionally used hydraulic injection molding machines. While these types of machines are always running hydraulic pumps driven by electricity, electric ones operate servomotors mounted on individual drivers that operate only when required, for example, for injection or opening/closing molds and are expected to reduce energy consumption by 30 to 40%. Though only about 20% of all molding machines are electrically driven ones, they also offer oil mist prevention and other additional advantages, so we plan to mainly introduce electric molding machines going forward.

The new administrative building was completed in December 2006. Following the example of the R&D Center at the Tokyo Plant the building employs ice-thermal storage air-conditioning systems (ECO-Ice mini.) These systems have the advantage of about a 30% reduction in power consumption when compared with conventional air-conditioners, and the power consumption reduction rate (actual values) per cooling capacity referenced to the heat pump air-conditioner introduced to the server room on the first floor of the new administrative building was 25.5%. In order to cool the hydraulic fluid in the injection molding machines by heat exchangers, water cooled in the cooling tower is circulated. By replacing the existing pump motor with new inverter type ones, we could reduce the amount of power consumed on an annual basis.

In addition, we introduced sprinklers to the outdoor units of the air-conditioners at the 3rd Plant, resulting in a 17.7% reduction in power consumption.

The new plant under construction (NP West Plant) is scheduled to start operating by the end of fiscal 2007. It has been designed to include energy-saving measures that have turned out to be effective. We shall continue to make efforts for energy saving and sustain growth while co-existing with the City of Itoigawa, a place abundant in nature.



Achieving improv

Like wallets, we use cellular phones every day. The RC Division producing keypads for cellular phones promoted the "Energy-Saving Project 2006" with the target to "reduce the electric power consumption rate by 2.5% when compared with that of the previous year" by improving production line facilities.

One of the efforts was turning the MM (manmachine) line into an ATM (autotransfer machine) line. When we manufacture keypads, resin keytops after gate cutting are assembled at the assigned positions on the LOW rubber (siliconrubber covers.) In the ATM lines built by partially automating the conventional MM line processes, the belt conveyor (that was always running) to carry LOW rubber setting tools was removed and replaced with pressure cylinders for transfer, and the functional process A went online to be controlled with the PLC (programmable logic controller) control in common with the transferring system, eliminating a set of vacuum pumps (that was always running) and adding an air tank that can be turned on and off.

The second was a countermeasure against idle

current plant to the new one

Energy-saving initiatives at NP (fiscal 2004-2006)

Production facilities

Introduction of electric injection molding machines	289,077 kWh/year						
Upgrading mold temperature controllers	389,615 kWh/year						
Air-conditioning							
Introduction of ice-thermal storage	ġ.						

administrative building Introduction of sprinklers to the outdoor units of air-conditioners on the first floor at the 3rd Plant	44,000 kWh/year
Utilities	
Upgrading cooling water circulation pumps at the 1st and 2nd floors, 3rd Plant	22,462 kWh/year

Lighting

Reduction of the number of lights in the	
inspection room, etc. on the 2nd floor of	5,923 kWh/ye
the 4th Plant	

Total: 788,000 kWh/year (Equivalent to a reduction of CO 2 emission of 437 tons)



Episode

ements greatly exceeding the targets of reduction Energy-saving activities by improving keypad production lines

running of the existing machines. Conventionally, the belt conveyor of the image inspection platform was always running, and conforming items after inspection were stored in collection boxes; we now employ a defined feeding and standby system. The power switch of the gate cutting press machine was positioned in an invisible position, so the machine was left turned on during a break. We added a switch on the front of the press machine, enabling it to be turned on and off at anytime.

The third point was the pursuit of energy-saving

performance of the newly introduced image inspection machine. With the new machine, belt conveyors used at the sections for imaging, judgment/sorting and transportation after sorting (that were always running) were changed to a defined feeding and standby system; in addition, lighting at the imaging section that was always on is now enabled only when images are taken. The fourth was a countermeasure against exhaust heat from the vacuum pump for ATM equipment, and we extended the piping and wiring for the pump,

Line facility improvements in the keypad production process

Improvement item	Before improvement	After improvement	Before	After	Reduced amou
Converting the MM line to an	Functional process A installed off-line	Functional process A went on-line	2.001/01	0.00144	
ATM line	Vacuum pump always running	Additional air tank that can be turned on/off	3.2UKW	2.0UKVV	0.40KV
Countermeasure against the idle	Conveyors for the image inspection machine always running	Defined feeding and standby system	E COLM	4.0464	0.7444
equipment	Difficulty of turning the on/off power switch of the vacuum pump	Additional switch installed (for ease of turning on/off)	3.00KW	4.5460	0.7464
Pursuit of energy-saving	All conveyors are always running	Defined feeding and standby system for all conveyors	0.601/00	0.061414	0.2444
inspection equipment	Lighting for imaging is always on	LED lighting is lit momentarily		0.20679	0.54KV
Reduction of loads on air-	Exhaust heat from the vacuum pump is high	Piping and wiring for vacuum pump extended	26%	20%	69
SOURCES	Room temperature is so high that A/C doesn't work effectively	Moved to another room (power room)	30 0	30 C	00

which was relocated to the adjacent power room. We also introduced power consumption monitor to check how effective the measures taken are. Consequently, we were able to reduce the electric power consumption rate in fiscal 2006 by 12.5% when compared with that of the previous year, drastically exceeding the predetermined target. We really felt that even if each improvement is small, the accumulated number of equipment and time greatly contributes to energy saving. We also recognized the importance of "observation and implementation" to discover small waste that can easily be looked at and improved upon.

Satoshi Kobayashi

Mass Production Support Group Production Management Group RC Division Electronic Device Business Unit

Episode

Toward a high reduction rate by accumulating small

Efforts to reduce the use of organic solvents

The coating process at the LCS Section of the Tokyo Plant uses toluene, ethyl acetate, MEK, N,Ndimethylformamide and other organic solvents. As part of environmental targets of ISO14001 at the Tokyo Plant, we have undertaken to reduce the quantity of organic solvents used, and the activity is now in its seventh year.

On page 27 of our "Environmental Report 2003," we reported on the employment of gravure roll cleaning and compound supply units and other

improvement activities. In the past few years, we have been engaged in such improvement activities as an "improvement in the shape of the cleaning stick of the cleaning unit," "an improvement of the circulation tank in the component supply unit," "a prevention of excessive preparation of components by making them visible," and "an improvement in the shape of the coating pan."

Coating/dry laminating process overview



In particular, "the improvement in the shape of the cleaning stick of the cleaning unit" meant we were able to drastically reduce the amount of cleaning solvents used. Gravure roll coating is a printing method to apply surface coating or dry laminate adhesive to raw sheets, and when products are changed, solvent cleaning is carried out. By changing the cross-sectional shape of the cleaning stick from the conventional square type to a semicylindrical one to follow around the gravure roll, we

Transition in the amounts of organic solvents actually used in coating processes



were able to reduce the amount of cleaning solvent from the usual 10 liters to 1.5 liters or an 85% reduction

We also reviewed the relative positions between the circulation tank in the compound supply unit and the coating pan and reduced the remaining amount of solvents after coating from the usual 5 liters to 3 liters or a 40% reduction. Furthermore, when cleaning small items (doctor blades, propellers for small agitators, etc.,) we used virgin



High-precision analysis of

There has been an analysis department since the establishment of our company, handling requests for analysis within the Group as well as those from outside customers. From around 2002, requests for analyses of chemicals contained in products based on the demands of customers have become active, and our ownership of a comprehensive range of analyzer equipment as well as high precision analytic results based on many years of experience have been highly appreciated by customers. At the time of environmental and quality auditing, customers who visit the Chemical Analysis Center mention that, "Suppliers of materials and components with an analysis department is rare." Chemicals contained in products and subject to

analysis mainly include Cd, Pb, Hg, hexavalent Cr, PBB and PBDE, and in fiscal 2005 and 2006, we also handled asbestos, hexachlorobenzene

innovations and improvements

solvents; however, by reusing waste solvents used for cleaning gravure rolls, close to a 100% reduction could be realized.

"The improvement in the shape of the coating pan" is a horizontal development from the improvement of the cleaning stick. However, there were many challenges such as changes in coating amounts depending on the clearance between the gravure roll and the coating pan, and effects of waving liquid surface upon quality. Repeated tests were carried out for more than a year, and by modifying the corners of the coating pan to an R-shape, we were able to reduce the amount of coating agents to 9 liters (a 55% reduction) and the amount of volatilized solvent by 50%.

If we can identify any innovations that lead to improvements in the current situation, we shall continue to address them. Going forward, we shall identify points for improvements for the better.



Episode

chemicals depends on equipment and rich experience Quick and precise measurements with new fluorescent X-ray analyzer

and other topics. The Chemical Analysis Center adopts ICP-AES (Inductively Coupled Plasma-Atomic Emission Spectrometry) for Cd and Pb, AAS (Atomic Absorption Spectrometry) for Hg, Diphenylcarbazide Colorimetry for hexavalent Cr and GC-MS (Gas Chromatography-Mass Spectrometry) for PBB and PBDE. We performed a total of 349 cases of Cd, Pb and other analyses in fiscal 2006 (a 14% increase when compared with that of the previous year.)

ICP analysis is a high precision analytic method, enabling the quantification of Cd up to 5ppm and Pb up to 10ppm, but besides using a range of strong acids, it takes a lot of time for pretreatment, and only six cases can be handled a day. For this reason, we introduced a new fluorescent X-ray analyzer (Shimadzu EDX-720) in March 2006. This analyzer (XRF) uses a new filter to cut off Rh scattered radiation in the background, etc. so that it will not overlap with the fluorescent X-ray of the element to be observed; thus, the detection sensitivity of Cd, Pb, etc. is improved to values close to those of ICP analysis (10ppm) and can be used as a means of analysis if there is no 4M changes for QC. As this new XRF requires no pretreatment, the number of cases that can be handled per day is now increased to 40 (about seven times as much as that of ICP analysis.)

Analysis record of Cd, Pb and other chemicals contained in products



In fiscal 2007, we plan to introduce a microwave digestion system to automate pretreatment and a CCD multi-channel ICP analyzer that can analyze Hg as well as Cd and Pb and reduce the amount of Ar gas used.

Though high-precision analyzers are designed in a way that everyone can easily use them, we are a group of professional analysts who don't accept analytic results without question. We shall offer analysis results with precision and speed going forward.

Tsuneo Usuda Manager, Chemical Analysis Center



Episode

Independent support of social contributions to the

Social contribution activities of Shin-Etsu Polymer México, S.A. de C.V.



Shin-Etsu Polymer México, S.A de C.V. President Yoshio Akinaga

Shin-Etsu Polymer México, S.A. de C.V. (hereinafter referred to as SX) was established in July 1996 as the production plant of keypads for the North American market. SX is located in the North Industrial Park in Reynosa, a town near the U.S.-Mexican border, in the state of Tamaulipas famous for maguiladoras (export assembly plants), and about 700 employees work on this vast site (45,000 m2) that also boasts an international standard soccer pitch. The social contribution activities of SX were started as a repayment to the community as the company began to make profits around 2003. A budget of 100,000 pesos (about a million yen) was allocated; the company asked employees in what way "they want to use the money to alleviate difficulties in the community," and it turned out there wasn't enough educational funds for disabled children. It was thus decided to contribute 400,000 yen to a school for disabled children in Reynosa for a student's annual education fees. The remaining 600,000 yen was spent on a "Health and Safety Fair" and

an "Environmental Fair" for the general public.

Health and Safety Fair

As the development of the city of Reynosa has been driven by maquiladoras industrial estates, there is a significant problem of environmental pollution as well as people who cannot afford to go to medical institutes. It was decided to sponsor a "Health and Safety Fair" offering medical checkups, eye and blood tests as well as lectures on emergency care when one has swallowed detergent, first-aid treatments for injuries and how to handle hazardous material. In order to provide more extensive content, the company consulted Reynosa City Municipality, and the police, fire department, general hospitals and pharmaceutical companies agreed to assist the event free of charge. SX decided to bear the cost of packed lunches for participants. The fair took place on the site of SX, and in the past two events, about 800 people in 2005 and about 1,000 people in 2006 participated in the event, including employees, their families and



- Population: 480,000 persons
 Reynosa North Industrial Park: An industrial park located at the eastern end of Reynosa and the second largest in the country
- It's about three minutes by car from SX to the International Bridge (8-kilometer length) at the border.



Children coloring in pictures about environmental issues



Members of the sponsored medical consultation team





 Address : Carretera a Matamoros Brecha E-99 Norte Parque Industrial Reynosa, Cd. Reynosa. Tamaulipas Mexico
 Tel : +52-899-921-6350(MX),956-843-4721(US)

Shin-Etsu Polymer México, S.A de C.V.

•Fax: +52-899-958-0411(MX),956-843-4804(US)

community

people from the community who had learned of the event through word of mouth. The previous fairs were greatly successful and have become a regular annual event.

Environmental Fair

The company hosted an event to enable people, especially children, to think about the environment. A range of ingenious things was devised including an evaluation of river water pollution by releasing turtles into the river and games to learn about environmental issues. As a souvenir, the city of Reynosa gave participating children nursery trees to contribute to a greening of their homes and neighborhood. Though a minimal tree-planting campaign, we hope that it will expand through the community step by step.

It is a good thing that community contribution activities like the "Health and Safety Fair" and the "Environmental Fair" are recognized both in and out of SX, widening the circle of activities. However, if people start to easily think, "If we ask SX, they will help us and make contributions," it will not be a true social contribution activity. Though employees request an increase in money to spend on social contribution activities, the company tells them, "Rather than increasing the amount of money, let's try to devise ingenious things that we can do."

The maquiladoras system is a commissioned manufacturing industry, and in general profits are not returned to Mexican companies, and employee motivation is low. However, in January 2006, SX changed the system from maquiladoras to self-procurement, generated profits, motivated employees and encouraged them to use ingenuity.

With these types of social contribution activities, we hope to keep an increase of the contribution amount to a minimum and expand it through ingenuity.

History of social contributions of Shin-Etsu Polymer México, S.A. de C.V.

2004

- An extension to a classroom and the setting-up of a computer room in an elementary school in the neighborhood
- Donation to a school for disabled children
 Picking up trash along the Rio Grande
- River
- Establishment of a mutual emergency assistance mechanism with companies in the neighborhood

2005

- Health and Safety Fair
- Environmental Fair
- Donation to a school for disabled children
- Picking up trash along the Rio Grande River

2006

Polymer México

- Health and Safety Fair
- Environmental Fair
- Donation to a school for disabled children
- Donation of fleece jackets to 60 elderly
- citizens at a daycare center
- Donation of a wheelchair
- Donation to US-Mexico Water Environment Forum
- Picking up trash along the Rio Grande River



Doctor measuring blood sugar levels



Children enjoying bingo made of environmental items

Chin Elsu

Explanation of how to treat plastic bottles for recycling



Participants attending a lecture on first-aid treatment



Elementary school children using a microscope to observe contaminated items

Committee members of the Environmental Fair

Green Activities

In order to address global environment conservation, our Group has been promoting the Green Activities since fiscal 2000. We hold bimonthly Energy-saving and Recycling Subcommittees across all plants in Japan and address such initiatives as a reduction of CO₂ emissions, zero emission and a reduction of chemical substances use subject to PRTR.

Basic Policy

The objectives of the Green Activities are an enhancement and improvement of corporate strength from the viewpoint of the environment, and we establish them as part of our corporate activities.

The 2nd Mid-term Targets of the Green Activities (fiscal 2006 to fiscal 2008)

Based on the results and review of the 1st Mid-term Targets (fiscal 2003 to fiscal 2005) we set up the 2nd Mid-term Targets toward fiscal 2008 to promote environmental conservation activities

1 Mid-term Targets for Energy-saving

We will achieve a 25% reduction of produced CO_2 emission units (against that of the reference year 1994) by fiscal 2008. Each plant will reduce its energy consumption when compared with actual units of fiscal 2005 by 7.5%.

2 Mid-term Targets for Waste Reduction and Recycling We will achieve zero emission (less than 1% emission rate) by fiscal 2008. Emission rate = (amount of land fill + simple incineration)/total amount of waste

Summary of activities in the past seven years

- Shin-Etsu Polymer has recognized the Green Activities as those of productivity improvement from the viewpoint of the environment and has been promoting them since fiscal 2000. Since then, both domestic and overseas conditions allow no company to remain economically viable if it ignores environmental issues, and it is considered that the timing was favorable for the start of the activities.
- In addressing the improvement of environmental performance, which is one of the four pillars of the Green Activities, we organized special subcommittees across all production plants for the first time in our history. The first step was to grasp actual situations by installing watt-hour meters at facilities in relation to energy-saving activities and redefining waste classifications for waste reduction and recycling activities. Consequently, in seven years, we achieved outstanding results, including reduced energy consumption amounts, a reduction of landfill and the simply incinerated amount of waste.
- From around 2002, customers started to actively manage chemicals contained in products, and in response to this, we established the Global Environmental Communication System to centrally manage and control all Group companies to handle the demands in an organized manner. Without the Green Activities, we wouldn't have been able to handle these activities.
- Around 2000, there were not that many employees that were aware of environmental problems as important issues, but along with the progress of customer's management of chemicals contained in products, environmental awareness has grown and this trend is showing no signs of stopping.
- The Shin-Etsu Polymer Group is working as one to achieve a 25% reduction of CO₂ emission units (against that of our reference year) and zero emission (less than 1% emission rate) by fiscal 2008.

	management system
	IS014001, IS09001, IS0/TSI6949
Green	Improvement of environmental
ctivities	Energy-saving, Waste reduction and recycling, Chemical substance management, Management of chemicals contained in products
	Information disclosure
	Environmental accounting
	Environmental education
	Environmental quality lectures, Auditing of environmental quality of products, Corporate-wide presentations, In-house media
Green Promotic	Activities on Committee
🔴 Chairma	n
Presider	t irman
Director,	Technology Group
Public R	elations Group Secretariat
	Technology Group
	Environmental Control & Safety Group
	Energy-saving Subcommittee
	Recycling Subcommittee
	Plant and Business Sites Green Activities Subcommittee
	Tokyo Plant, Nanyo Plant, Kodama Plant
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd.
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd. Head Office, Branch and Sales Offices
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd. Head Office, Branch and Sales Offices Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Sales Office, Chugoku Sales Office, Nagano Sales Office
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd. Head Office, Branch and Sales Offices Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Sales Office, Chugoku Sales Office, Nagano Sales Office Sales Subsidiaries
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd. Head Office, Branch and Sales Offices Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Sales Office, Chugoku Sales Office, Nagano Sales Office Sales Subsidiaries Shin-Etsu Finetech Co., Ltd.
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd. Head Office, Branch and Sales Offices Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Sales Office, Chugoku Sales Office, Nagano Sales Office Sales Subsidiaries Shin-Etsu Finetech Co., Ltd. Shin-Etsu Unit Co., Ltd. Overseas Subsidiaries
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd. Head Office, Branch and Sales Offices Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Sales Office, Chugoku Sales Office, Nagano Sales Office Sales Subsidiaries Shin-Etsu Finetech Co., Ltd. Shin-Etsu Jinte Co., Ltd. Overseas Subsidiaries Suzhou Shin-Etsu Polymer Co., Ltd.
	Tokyo Plant, Nanyo Plant, Kodama Plant
	Tokyo Plant, Nanyo Plant, Kodama Plant Production Subsidiaries Shinano Polymer Co., Ltd., Urawa Polymer Co., Ltd., Niigata Polymer Co., Ltd., SAN-ACE co., Ltd. Head Office, Branch and Sales Offices Head Office, Osaka Branch, Nagoya Branch, Fukuoka Branch, Sendai Sales Office, Chugoku Sales Office, Nagano Sales Office Sales Subsidiaries Shin-Etsu Finetech Co., Ltd. Shin-Etsu Dint Co., Ltd. Shin-Etsu Polymer Co., Ltd.

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> > P.T. Shin-Etsu Polymer Indonesia Shin-Etsu Polymer America, Inc. Shin-Etsu Polymer México, S.A. de C.V. Shin-Etsu Polymer Europe B.V. Shin-Etsu Polymer Hungary Kft.

Environmenta Report In fiscal 2006, Shin-Etsu Polymer Hungary Kft. was awarded with ISO14001 certification, and all domestic and overseas production sites have been certified with ISO9001 or ISO14001. In fiscal 2007, Shin-Etsu Polymer (Malaysia) Sdn. Bhd as well as the Head Office, Nagano Plant and Miyabuchi Plant of Shinano Polymer Co., Ltd. achieved ISO13485 certification required for molded silicon rubber items for medical, scientific and chemical use. Furthermore, to eliminate on-the-job accidents and injuries, Shinano Polymer Co., Ltd. acquired OHSAS18001 (Occupational Health & Safety Management Systems) certification.

Environmental Management System

To promote ISO14001 across the organization, each general manager appoints an environmental management representative based on corporatewide environmental policies, and heads of departments serve as departmental environmental conservation representatives to promote environmental management. Environmental management implementation plans of individual departments are prepared on the basis of the Group-wide environmental objectives and targets set forth at the beginning of each fiscal year and approved after a review by the plant manager. The general manager reviews the progress and extent of accomplishment of the implementation plan through submissions of interim and final reports. Furthermore, an annual inspection by the Environmental Conservation Committee is held for an improvement and enhancement of environmental conservation.

Quality Management System

To promote ISO9001 across the

Organization of Environmental Management



Organization of Quality Management



organization, each general manager in the role of an executive manager sets forth quality policies and appoints a quality representative to establish and maintain the total quality management system. Each department builds and operates an operational system and by implementing PDCA cycles, improves the effectiveness of the system, quality of products and efficiency of operations. Each general manager reviews the progress of improvement through monthly reports, achievement review sessions and management reviews and provides the necessary instructions.

Internal Environmental Auditing

At all plants and offices an internal environmental audit of individual departments takes place at least once a year. Results of the audit are provided in the relevant "Internal Environmental Audit Report," which is duly reported to the general manager and the manager of the audited department. If any non-conformity is identified, an "Internal Environmental Audit Correction Recommendation and Report" is prepared, and after approval by the general manager, it is recommended to the manager of the audited department. Based on the "Internal Environmental Audit Correction Recommendation and Report," each department takes corrective measures for improvement.

In fiscal 2006, there was no critical nonconformity regarding the environment.

Internal Quality Auditing

At all plants and offices an internal quality audit of individual departments takes place at least once a year. Items pointed out in the audit are described in the relevant "Internal Quality Audit Report," which is duly reported to the general manager and the manager of the audited department. Corrective measures are taken in the department, and the quality management representative follows them up on site. The mechanism where individual department managers and staff mutually audit quality offers opportunities for identifying points to be improved that are normally looked over. In fiscal 2006, there was no critical nonconformity regarding quality.

List of ISO14001 Certification

	Plants & Subsidiaries	Approval Date	Registration Number	Expiry Date	Authority	Applied Specification
0	Tokyo Plant	2001.07.23 2007.07.23	JCQA-E-0270	2010.07.22	Japan Chemical Quality Assurance Ltd.	IS014001:2004
omes	Nanyo Plant	2001.02.26 2007.02.26	JCQA-E-0232	2010.02.25	Japan Chemical Quality Assurance Ltd.	IS014001:2004
tic Pla	Kodama Plant	1999.01.11 2005.01.11	JCQA-E-0040	2008.01.10	Japan Chemical Quality Assurance Ltd.	IS014001:2004
ints &	Shinano Polymer Co., Ltd.	1999.04.05 2006.04.17	JCQA-E-0056	2008.04.04	Japan Chemical Quality Assurance Ltd.	IS014001:2004
Subs	Urawa Polymer Co., Ltd.	2001.04.23 2007.04.23	JCQA-E-0252	2010.04.22	Japan Chemical Quality Assurance Ltd.	IS014001:2004
sidiari	Niigata Polymer Co., Ltd.	2001.11.26 2006.03.13	JCQA-E-0304	2007.11.25	Japan Chemical Quality Assurance Ltd.	IS014001:2004
es	Shin-Etsu Finetech Co., Ltd.	2005.08.01	JCQA-E-0679	2008.07.31	Japan Chemical Quality Assurance Ltd.	IS014001:2004
õ	Suzhou Shin-Etsu Polymer Co., Ltd.	2001.11.16 2006.09.14	00638/0	2009.09.14	OQS Certification and Evaluation Ltd.	IS014001:2004
versea	Shin-Etsu Polymer (Malaysia)Sdn.Bhd.	2004.01.30 2007.01.30	207067	2010.01.29	BVQi Malaysia	IS014001:2004
ıs Plan	PT.Shin-Etsu Polymer Indonesia	2002.01.12	GB02/54090	2008.01.11	SGS United Kingdom Ltd Systems &	IS014001:2004
ls & Si	Shin-Etsu Polymer México,	2002.07.02	UL-A11098	2008.07.01	Underwriters Laboratories de	IS014001:2004
ıbsidiar	Shin-Etsu Polymer Europe	2006.05.31 2001.06.12 2006.03.28	2363/5.1	2007.08.12	Mexico,S.A.de C.V. TÜV Nederland QA B V	IS014001:2004
ies	Shin-Etsu Polymer Hungury Kft.	2006.11.29	205859	2009.11.29	Bureau Veritas Certification Hungary	IS014001:2004

List of ISO9001 Certification (Domestic Plants & Subsidiaries)

Plants & Subsidiaries		Approval Date	Registration Number	Expiry Date	Authority	Range of Products and Services	Applied Specification
		1998.01.12				Development and manufacture of laminated sheet products, calendar	
Tokyo Plant		2007.01.12	JCQA-0295	2010.01.11	Japan Chemical Quality Assurance Ltd.	sheet products, wrapping film and plastic switch products; manufacture of synthetic resin corrugated plates; manufacture and outsourcing management of synthetic resin compounds	ISO 9001:2000
Nanyo Plant		2000.03.13	1004 0662	2000 02 12	Japan Chemical Quality	Development, manufacture and order receipt of hard vinyl chloride and	150 0001-2000
Naliyo Fiant		2006.03.13	JUUA-0002	2009.03.12	Assurance Ltd.	related products; manufacture of hard vinyl chloride corrugated plates	150 9001.2000
		1997.03.03	1004 0100		Japan Chemical Quality	Development and manufacture of silicon rubber roll products, blade	100 0001 0000
Kodama Plant		2006.03.03	JCQA-0193	2009.03.02	Assurance Ltd.	and chemical industries	ISO 9001:2000
RC Division, Electron	ic Devices Business Unit,	2003.06.23	ICOA-1277	2000 06 22	Japan Chemical Quality	Development, design and manufacture of rubber contacts and related	150 9001-2000
Kodama Plant, RC Production Division		2006.06.23	JUGA IZII	2003.00.22	Assurance Ltd.	products; procurement of related materials for subsidiaries	100 0001.2000
Connector Division		2005.09.05	JCQA-1537	2008.09.04	Japan Chemical Quality Assurance Ltd.	Design, development, outsourcing management and sales of connectors and related products	ISO 9001:2000
	Head Office, Engineering	1996.12.25	212564	2008.12.24	Bureau Veritas Japan Co., Ltd.	Manufacture of inter connectors and rubber contacts	ISO 9001:2000
Shinano Polymer	Hotaka Plant, Shiojiri Plant	2006.12.25	312304				
Co., Ltd.	Nagano Plant,	1998.07.06	353905	2010.07.05	Bureau Veritas Japan Co., Ltd.	Manufacture of silicon rubber products for medical, scientific and chemical industries	ISO 9001:2000
	Miyabuchi Plant	2007.07.09	000000				
Lirawa Polymer Co	td	1997.03.03	JC0A-0196	2000 03 02	Japan Chemical Quality	1. Development and manufacturing of carrier tapes	ISO 9001:2000
		2006.03.03		2000.00.02	Assurance Ltd.	2. Development and outsourcing management of cover tapes	
High Performance Ru	ubber Products Division,	1997.03.03	1004 0100	2000 02 02	Japan Chemical Quality	Development, manufacture, marketing and sales of injection molded wafer	ISO 9001:2000
Niigata Polymer Co.,	Ltd.	2006.03.03	JUUA-0190	2009.03.02	Assurance Ltd.	cases as well as parts and components for electronic equipment	
	E 11 D'11	2004.06.07	1000 1 110	0010 00 00	Japan Chemical Quality	Development, supply and sales of manufactured goods of various synthetic	100 0001 0000
Shin-Etsu Finetech	East Japan Division	2007.06.07	JCQA-1410	2010.06.06	Assurance Ltd.	resins and rubber (polystyrene, vinyl chloride, silicon rubber, etc.)	150 9001:2000
Co., Ltd.	West Japan Division	2002.07.29	1004-1131	2008 07 28	Japan Chemical Quality	Design, development, supply and sales of manufactured goods of various	150 0001-2000
	West Japan Division 200	2005.07.29	000A-1131	2000.07.20	Assurance Ltd.	synthetic resins and rubber (polystyrene, vinyl chloride, silicon rubber, etc.)	130 3001.2000

List of ISO9001 Certification (Overseas Plants & Subsidiaries)

Plants & Subsidiaries	Approval Date	Registration Number	Expiry Date	Authority	Range of Products and Services	Applied Specification
Suzhou Shin-Etsu Polymer Co., Ltd.	1997.12.31 2003.10.09	04538/0	2009.09.14	OQS Certification and Evaluation Ltd.	Manufacture of silicon rubber products (including contacts, plastic keys, connectors and OA equipment)	ISO 9001:2000
					 Manufacture of plastic key-related products including silicon rubber contacts (silicon elastomer switches) and silicon elastomer connectors for electric and 	ISO 9001:2000
Shin-Etsu Polymer (Malaysia)Sdn. Bhd.	2006.04.12 19	105705	0000 00 00	DVO: Malausia	electronic equipment 2. Manufacture and development of embossed carrier tapes for electric and	ISO 9001:2000
		195725	2009.02.23	BVQI Malaysia	electronic parts and components 3. Manufacture of silicon elastomer rolls for automation equipment	ISO 9001:2000
					 Manufacture of silicon rubber products for medical, electric and electronic industries and for seal packing materials 	ISO 9001:2000
PT Shin-Etsu Polymer Indonesia	2001.01.03	1004/0381	2010 01 02	SGS United Kingdom Ltd.	Manufacture of injection molded wafer cases	150 0001-2000
1.1.5hin-Lisu Polymer muonesia	2007.01.11	1004/0301	2010.01.02	System & Services Certification		130 9001.2000
Shin-Etcu Polymer México S A de C V	2001.03.15	A0031	2008 03 06	Underwriters Laboratories	Manufacture of cilicon rubber kaynade	150 0001-2000
Shin-Lisu Polymer Mexico, S.A.ue C.V.	2005.03.07	A3031	2000.03.00	Inc.		130 3001.2000
Chin Etau Dolymor Europo B V	1996.05.10	0060/61	2008 07 22	TÜV Nederland OA P.V	Manufacture and sales of silicon rubber contacts, various keypads and inter	150 0001-2000
Shin-Elsu Polymer Europe B.V.	2005.08.30	2303/0.1	2000.07.22	TOV NEUCHAILU WA D.V	connectors	130 3001.2000
Shin-Etsu Polymer Hungary Kft.	2005.11.16	181832	2008.11.15	BVQi Hungary	Manufacturing of keypads for electronic devices and associated operations	ISO 9001:2000

List of ISO13485 Certification

Plants & Subsidiaries	Approval Date	Registration Number	Expiry Date	Authority	Range of Certification	Applied Specification
Shinano Polymer Co., Ltd. (Nagano Plant and Miyabuchi Plant)	2007.08.22	DNKFRC218647A	2010.05.17	Bureau Veritas Japan Co., Ltd.	Manufacturing of silicon rubber products for medical equipment	IS013485:2003
Shin-Etsu Polymer (Malaysia) Sdn.Bhd.	2007.04.17	DNKFRC211985A	2010.04.17	Bureau Veritas Certification	Manufacturing of silicon rubber products for medical use	IS013485:2003

List of ISO/TS16949 Certification

Plants & Subsidiaries	Approval Date	Registration Number	Expiry Date	Authority	Range of Products and Services	Applied Specification
Suzhou Shin-Etsu Polymer Co., Ltd.	2005.09.10	176/0	2008.09.10	OQS Certification and Evaluation Ltd.	Manufacture of silicon rubber keys for automobiles	ISO/TS16949:2002
Shin-Etsu Polymer México, S.A.de C.V.	2005.03.07	A9031	2008.03.06	Underwriters Laboratories Inc.	Manufacture of rubber contacts	ISO/TS16949:2002

List of ISO/IEC17025 Certification

Plants & Subsidiaries	Approval Date	Registration Number	Expiry Date	Authority	Range of Certification	Applied Specification
Shin-Etsu Polymer Co., Ltd. (Chemical Analysis Center)	2001.04.11 2007.03.22	RTL00870	2009.04.10	The Japan Accreditation Board for Conformity Assessment	Chemical tests Infrared spectroscopy of paint resin	JIS Q 17025:2000 (ISO/IEC17025:1999)

List of OHSAS18001 Certification

Plants & Subsidiaries	Approval Date	Registration Number	Expiry Date	Authority	Range of Occupational Health And Safety Management System	Applied Specification
Shinano Polymer Co., Ltd.	2006.04.03	JCQA-0-0029	2009.04.02	Japan Chemical Quality Assurance Ltd.	Manufacture of rubber contacts; development and manufacture of inter connectors; manufacture of silicon rubber products for medical, scientific and chemical industries	OHSAS 18001:1999

The R&D Center and individual business units of the Shin-Etsu Polymer Group are engaged in the development of products that cause low environmental burdens and contribute to society.

R&D Organization







PRODUCTS-1



New wafer shipping box MW300GT

Wafer cases

Manager, Engineering Division, Niigata Polymer Co., Ltd. **Masato Takahashi**

For shipping boxes (FOSB) used for shipments of 300mm silicon wafers by wafer makers, manual doors were the mainstream; however, when wafers are transported to Front Opening Unified Pod (FOUP,) device manufacturers were in need of automatic doors in order to eliminate the involvement of humans that are a source of contamination. MW300GT has been developed to meet this demand. We pay close attention to the impact of silicon wafers on the environment from every aspect from raw materials to products, and analyze outgas (organic substances), metallic ions (Cu²⁺, Fe²⁺, etc.) and eluted ions (Cl⁻, NO³⁻, SO⁴²⁻, etc.) using such analyzers as GC-MS (Gas Chromatography-Mass Spectrometry), AAS (Atomic Absorption Spectrometry) and ion chromatography. As a countermeasure against

particles, molding, fitting and inspection are conducted in clean rooms designed to meet Class 10,000 or 1,000 standards. As current feature widths of devices are as fine as 0.078µm to 0.045µm, our clean rooms and high-precision analyzers serve to our advantage.



PRODUCTS-2 Food wrapping film

Pop Wrap



Manager, R&D Group, R&D Center

Pop Wrap" is a sophisticated packaging film used for wrapping confectionery and cut fruits. "Pop Wrap" is a multi-color gravure printed

Contectionery and cut truits. "Pop wrap" is a multi-color gravure printed OPP film with natural rubber adhesive applied to its sealing section so that it can be simply sealed by pressing, facilitating packaging by machines. From an environmental aspect, it is plain-wrap that enables wrapping with film whose surface area is a half or less than that of a product container and features the employment of non-toluene printing ink as well as no heated

sealing. The best advantage of "Pop Wrap" is the sense of sophistication of the products given by highdefinition printing, enabling differentiation from other products when displayed. The product is expanding its sales channels to cake makers and fruit processing companies.



PRODUCTS-3

FPC transport tape



Shin-Etsu Assist Tape

Supervisor, Production Engineering Group Connector Division, Electronic Device Business Unit **Toshiyuki Sugo**

"Shin-Etsu Assist Tape" is a FPC (flexible printed circuit) fixed tape used for SMT parts when they are solder mounted reflow, and for customers, it offers such advantages such as ① is possible to customize to meet different product designs, ② shorter lead-time and ③ lower cost, when compared with conventional "Assist Carriers." The base material is a polyimide film and glass-epoxy sheet, and two types of adhesives, Si (silicone) and NS (non-silicone) are available. The backside of the base material is laminated with an adhesive doublecoated tape, which becomes unusable after passing the reflow oven 20 or 30 times due to heat. Keeping this in mind, we developed a type of adhesive using impregnated silicone

adhesive heat-resistant non-woven fabric to which Si adhesive is applied. This offers heat resistance and repeatable durability equivalent to the surface Si adhesive, which meets the customer's expectations.

PRODUCTS-4

Roll for OA equipment

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Development rolls for printer

Manager, OA Production Department Kodama Plant **Yo Yamaguchi**

Development rolls are indispensable for LBP and other printers. We have mainly employed roll-processing methods based on polish finishing, but this resulted in a large amount of material loss due to the polishing. For the purpose of reducing costs and waste, we introduced a new production method without polishing. This new

process is performed on a fully automated molding line, including transportation between stages with robots. This approach reduces the amount of materials used by nearly onethird, resulting in material yield improvements and is advantageous in solving inherent quality problems caused by material powder generated by polishing. As this production method employs a fully automated line, when trouble occurred, it was difficult to identify the cause, but we have solved the problems one by one, and the system is automatically operating fully at present without any trouble.



P R O D U C T S - 5

High technology compound



Compound for car glass run

Manager, Compound Development Group Plastic Sheets & Compound Division PVC Products Business Unit Fumiro Endo

Glass run is a sealing material used for holding the glass of automobile door panels and for adding air tightness. We developed TPV (Thermo-Plastic Vulcunizate; vulcanized thermoplastic elastomer) as a sliding component for glass run to smoothly move up and down power windows. This material is created on the basis of our proprietary material design and mixing technologies, featuring a high level of slidability. Different from current mainstream EPDM (synthetic rubber) products, TPV glass run complies with automobile recycling. Furthermore, TPV is lightweight (specific gravity of

0.9), has a surface appearance rich in denseness and maintains slidability for a long time. As there is anticipated to be a shift to TPV, which is highly suitable for recycling in the glass run market, we will further improve the product's functionality through solution-based proposals to solve challenges that customers have.



PRODUCTS-6

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SEPLEGYDA™

Organic conductive polymer solution

Researcher, R&D Group, R&D Center Kazuyoshi Yoshida

"SEPLEGYDA™" is our original highly transparent, organic conductive polymer solution. Conductive polymers include polyaniline, polypyrrole, polythiophene and polyphenylene vinylene, but there is no polymer that has high transparency, conductivity and moldability all at the same time. Furthermore, shortage of indium materials used for transparent electrodes (ITO film) has become a big issue and SEPLEGYDA™ has attracted attention.

SEPLEGYDATM is a low resistant grade that offers a surface resistance of 500 Ω / \Box or less, light transmittance of 85% or more, haze of 2% or less and other specifications. SEPLEGYDATM is applied to a wide range of applications like protect films, optical filters, touch-panel

electrodes, electronic component wrapping materials, and various hard coating to serve as ① antistatic grade, ② low resistant grade and ③ anti-static hard coating grade.



Since fiscal 2005, our Group has collected environmental data of overseas production plants and reviewed the accuracy of the acquired data.

Environmental Data of Overseas Production Plants (fiscal 2006)





SC: Suzhou Shin-Etsu Polymer Co., Ltd.



SM : Shin-Etsu Polymer (Malaysia) Sdn.Bhd.



SI : P.T.Shin-Etsu Polymer Indonesia



SX : Shin-Etsu Polymer México, S.A. de C.V.



SE : Shin-Etsu Polymer Europe B.V.



SH : Shin-Etsu Polymer Hungary Kft.

In order to meet the requirements for the management of chemicals contained in products by customers, we created the "Global Environmental Communication System."

There is also our Chemical Analysis Division, which offers analysis of chemical contents using high-precision analyzers.

Global Environmental Communication System

(1) The objective of the Global Environmental Communication System is the "Proper management of environmental pollutants and a reduction of environmental burdens in individual stages of procurement, production, use and disposal" and is applied to all Group companies and subsidiaries, both domestic and overseas. (2) The technical group manager (Green Activities Promotion Committee) is appointed as the "Environmental management representative" and represents our Group in relation to the environmental quality of our products.

(3) The "Environmental General Manager" and "Environmental Technical Supervisor" are appointed at each division, and respectively manage issues associated with the environmental quality of products of the division.

(4) Submissions of such documents as Green Procurement Survey Responses, Certificate of Non-use of environmentrelated substances, Conformation Form of the Changes in management, Analysis Data, Composition Tables or MSDS are conducted in accordance with the rules set forth in the Global Environmental Communication System.



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

Partner Name	Corporate ID	Factory Name	Factory ID	Original Date of Factory ID Issuance	Current Validity Period	
Shin-Etsu Polymer Co., Ltd.	410A	Tokyo Plant	7742	2005.06.30	2007.07 ~ 2009.06	
		Kodama Plant	2586	2003.08.01		
		Shinano Polymer Co., Ltd. (Shiojiri Plant)	2584	2003.08.01		
		Urawa Polymer Co., Ltd. (Kurihashi Plant)	2585	2003.08.01		
		Niigata Polymer Co., Ltd.	7726	2005.11.17		

Environmental Quality Assurance Setup Audit Results by Customers (April 2005 to July 2007)

Audit Date	Customer	Audited Plants & Subsidiaries		
2005.05.31	Alps Electric CO., LTD.	Shinano Polymer Co., Ltd. (Shiojiri Plant)		
2005.06.22	Taiyo Yuden Co., Ltd.	Urawa Polymer Co., Ltd.		
2005.07.27	KOA Corporation	Urawa Polymer Co., Ltd.		
2005.08.30	Sony Supply Chain Solutions, Inc.	Tokyo Plant		
2005.09.07	Panasonic Mobile Communications Co., Ltd.	Kodama Plant		
2005.10.20	Fuji Xerox Niigata Co., Ltd.	Kodama Plant		
2005.12.15	Alps Electric CO., LTD.	Shinano Polymer Co., Ltd. (Hodaka Plant)		
2006.01.24	Nippon Chemi-Con Corporation	Urawa Polymer Co., Ltd.		
2006.01.25	Semiconductor Company, Toshiba Corporation	Urawa Polymer Co., Ltd.		
2006.03.24	Seiko Epson Corporation	Shinano Polymer Co., Ltd. (Shiojiri Plant)		
2006.04.19	Sony Semiconductor Kyushu Corporation	Niigata Polymer Co., Ltd.		
2006.05.18	Ricoh Company, Ltd.	Shinano Polymer Co., Ltd. (Nagano Plant)		
2006.05.18	Hakodate NDK Co., Ltd.	Urawa Polymer Co., Ltd.		
2006.06.29	Seiko-Epson Corporation	Connector Division		
2006.12.15	SMK Corporation	Shinano Polymer Co., Ltd. (Hodaka Plant)		
2007.02.08	Fujitsu	Urawa Polymer Co., Ltd.		
2007.03.05	Fujitsu Component Limited	Shin-Etsu Polymer (Malaysia) Sdn. Bhd.		
2007.06.15	Semiconductor Company, Matsushita Electric Industrial Co., Ltd.	Urawa Polymer Co., Ltd.		
2007.06.18	Panasonic Electronic Devices Hokkaido Co., Ltd.	Urawa Polymer Co., Ltd.		
2007.07.06	Covalent Materials Corporation (formerly, Toshiba Ceramics Co., Ltd.)	Niigata Polymer Co., Ltd.		