

#### **Contents**

2 Message from the President



#### <About Sumitomo Bakelite Co., Ltd.>

- 3 Sumitomo Bakelite's History
- 4 Management Policies and Corporate Policies for Safety and the Environment
- 5 Sumitomo Bakelite Group Products Found Nearby
- 7 Environment-Friendly Products
- 8 Promotional Organization
- 9 Corporate Governance, Compliance, and Risk Management



#### <Environmental Protection Efforts>

- 11 Environmental Target Review
- 12 New Medium- and Long-Term Environmental Impact Reduction Targets
- 13 Environmental Accounting
- 15 Environmental Impact Material Balance
- 16 Reduction of Environmental Impact Substances
- 17 CO<sub>2</sub> Emissions and Energy Conservation
- 18 Reduction of Emissions of Solvents and Others
- 19 Waste Disposal
- 20 Recycling
- 21 Soil and Groundwater Assessment and Countermeasures
- 22 Environmental Conservation Activities



#### <Relations with Society>

- Relations with Customers
- 23 Product Liability
- 25 Chemical Substance Management
- 26 Production Innovation
- Relations with Shareholders, Investors, and Business Partners
- 27 Shareholders, Investors, and Business Partners
- Relations with Employees
- 28 Employment and Human Rights/ Human Resource Development
- 31 Occupational Safety and Health
- 33 Environmental Audits and Environmental Education
- Relations with Society
- 34 Safety and Accident Prevention
- 35 Exchanges with Local Communities



- 38 Site Report
- 54 Data
- 56 Independent Assurance Report
- 57 Editorial Policy, Corporate Data

The Company is a Promotion Partner that endorses the purpose of the Declaration of Biodiversity by Nippon Keidanren.

#### **Declaration of Biodiversity by Nippon Keidanren**

- Appreciate nature's gifts and aim for corporate activities in harmony with the natural environment
- 2. Act from a global perspective on the biodiversity crisis
- 3. Act voluntarily and steadily to contribute to biodiversity
- 4. Promote corporate management for sustainable resource use
- 5. Create an industry, lifestyle, and culture that will learn from biodiversity
- 6. Collaborate with relevant international and national organizations
- 7. Spearhead activities to build a society that will nurture biodiversity

We herewith declare that we will respect the seven principles detailed above and will act with firm commitments for biodiversity.

#### Boundary of Environmental & Social Report 2010

#### ▶ Period

Fiscal 2009 (April 2009 to March 2010)

Some activities mentioned in the report include those undertaken in fiscal 2010.

#### **▶** Published

September 2010 (The next issue will be published in September 2011.)

#### ► Business Sites (Japan)

Sumitomo Bakelite Co., Ltd.

Amagasaki Plant

Shizuoka Plant\*1

Utsunomiya Plant

Tsu Plant\*2

Kanuma Plant

Nara Plant

Fundamental Research Laboratory

Kobe Fundamental Research Laboratory

Akita Sumitomo Bakelite Co., Ltd.

Artlite Kogyo Co., Ltd.\*2

S.B. Techno Plastics Co., Ltd.

Hokkai Taiyo Plastic Co., Ltd.

Yamaroku Kasei Industry Co., Ltd.

Kyushu Sumitomo Bakelite Co., Ltd.\*3

Y-Techs Co., Ltd.\*2

Tsutsunaka Kosan Co., Ltd.\*4

S.B. Research Co., Ltd. Osaka Center\*4

- \*1 The High Performance Plastic Products Plant and the Industrial Laminates Plant have been consolidated within the Shizuoka Plant.
- \*2 The business operations of the Tsu Plant, Y-Techs Co., Ltd., and Artlite Kogyo Co., Ltd., have been discontinued.
- \*3 Kyushu Bakelite Industry Co., Ltd., has changed its corporate name to Kyushu Sumitomo Bakelite Co., Ltd.
- \*4 Because Tsutsunaka Kosan Co., Ltd., and the Osaka Center of S.B. Research Co., Ltd., are located within the same site, they are treated in this report as a single business site

Note: Data for each business site includes data for consolidated companies with presences at those sites.

Please refer to page 11 for information on overseas subsidiaries.

This report employs "Sumitomo Bakelite" as an abbreviation of "Sumitomo Bakelite Co., Ltd."

## Message from the President



The Sumitomo Bakelite Group is discovering new functions of plastics so that it can "Provide Customers with New Value" and thereby seek to contribute to society while aiming to realize sustainable progress.

The world's economy was able to emerge from the global recession, maintaining a trend of recovery since the latter half of last year. In response to the recession, we have realistically adjusted our management targets and striven to stimulate new demand by focusing on customers' real needs and proactively expanding marketing activities.

A pioneer in plastics, Sumitomo Bakelite has come to supply the global market with diverse products for a wide range of applications. To help realize a low-carbon society, the Company develops environment-friendly products, introduces manufacturing processes that reduce energy and resource consumption, and undertakes production activities designed to minimize environmental impact. By promoting still greater energy conservation while increasing the sophistication of its technologies for reducing the carbon associated with product life cycles, we are striving to realize our mission of "Creating Additional Customer Value."

Sumitomo Bakelite is managing its business operations to make continuing contributions to its growth and to the natural environment and society as well as to be a company managed in a manner that inspires all its stakeholders with peace of mind, confidence, and great expectations.

Our Business Philosophy is "We value trust and maintain steadiness. Based on this, we strive through our business activities to make contributions to social progress and improvements to the quality of life worldwide." Accordingly, we have a core management objective of ensuring our management is "highly compatible with society and the environment." We have established standards of conduct for the employees and operations of Sumitomo Bakelite Group companies in 13 countries around the world, and we make relentless efforts to ensure that these concepts are thoroughly implemented.

Our business activities continue to be invigorated by the dynamic Sumitomo business spirit so that they dependably offer outstanding value added for customers and society throughout the world. All employees have pledged their commitment to this business spirit, and we are implementing internal control processes to further increase the rigor of our corporate governance.

#### We strive to ensure that all corporate activities are based on due consideration of the perspectives of customers and society.

Excellent corporate management requires a fundamental focus on quality, productivity, customer satisfaction-oriented service, and innovation. Through the Sumitomo Bakelite Production System (SBPS)—which emphasizes organization, orderliness, just-in-time deliveries, automation, and autonomous quality assurance processes—we have been able to realize progressive reforms and improvements in quality assurance, variation minimization, and lead-time shortening. We are also strengthening our quality assurance systems, which focus on customers' perspectives and cover all business processes. In manufacturing operations, we have been setting attainment targets for materials loss reduction and energy conservation as well as the commercialization of chemical recycling processes. We have placed particularly strong emphasis on improving energy conservation performance through facilities upgrading and scrap-and-build programs.

Last fiscal year, we set ourselves new medium- to long-term targets for reducing environmental impact. These targets call for us to achieve reductions in greenhouse gas emission volume, materials losses, and the emission volume of solvents and other specified chemical substances by fiscal 2020. We are also designing and testing product life-cycle assessment systems, quantifying social contributions made by reducing the environmental impact of new products, and setting ourselves social contribution targets.

#### We are fostering the development of "human assets."

With the aim of developing human assets that have a good understanding of our management policy, work in accordance with Sumitomo Bakelite traditions to acquire practical know-how and a solid foundation of experience, and autonomously help us to realize sustained business growth, we began operating the SB School as an in-house educational unit in 2007. The SB School offers all levels of employees an array of fundamental education courses covering compliance, human rights, occupational safety, quality assurance, the natural environment, legal affairs, finance, and other subjects. In addition, for employees from relevant departments, the school is methodically planning and implementing skill-upgrading courses with respect to sales, marketing, and other special skills.

#### By implementing the Responsible Care Global Charter, Sumitomo Bakelite is playing a role in improving the quality of life throughout the global community.

Aiming to fully carry out its responsibilities as a member of the chemicals industry, Sumitomo Bakelite supports the Responsible Care Global Charter. Based on its own risk-assessment standards, the Company works to manage chemical products in close cooperation with its customers and materials suppliers. Going forward, we will maintain our commitment to appropriately and transparently disclose risk-related information to society and wholeheartedly cooperate with campaigns throughout the world aimed at promoting safe chemical use

J. Hajashi

Shigeru Hayashi, President



## Sumitomo Bakelite's History

Perpetuating the Essential Heritage of Sumitomo's Business Philosophy

#### The Sumitomo Business Philosophy

We have inherited the Sumitomo Business Philosophy that has supported the Sumitomo Group for four centuries.

The origins of this philosophy are found in the *Monjuin Shiigaki* (the Founder's Precepts), a document written by Sumitomo family founder Masatomo Sumitomo (who acquired the title Monjuin after becoming a Buddhist priest) to instruct his family about the business wisdom he had distilled from his experience.

At the beginning, it urges "Strive with all your heart, not only in business, but in all situations." This is the fundamental spirit of the *Monjuin Shiigaki*.

The precepts also include such teachings as "You must not purchase goods offered at below the normal market price," "No matter who it might be, never give shelter to others or take another person's goods into your custody," "Do not act as a broker or guarantor for others," and "Do not buy or purchase on credit." There were numerous strict prohibitions.

The final precept is "No matter what someone might say, never lose your temper or quarrel; simply explain your position repeatedly and in detail." This indicates the prescribed mental attitude for human interaction.

The rigorous efforts and honesty demanded by the *Monjuin Shiigaki* as well as other personal character-building precepts continue to be the foundation of the Sumitomo Group's Business

Philosophy. Sumitomo Bakelite's Business Philosophy—"We value trust and maintain steadiness. Based on this, we strive through our business activities to make contributions to social progress and improvements to the quality of life worldwide."—also stems directly from the Sumitomo Business Philosophy that has been inherited and kept dynamically alive over a period of 400 years.

#### A Pioneer of Plastics

Phenolic resin has the longest history among the various plastics. It was developed by Dr. L.H. Baekeland, a U.S. citizen of Belgian descent, in 1907, and he named that synthetic resin "Bakelite." In 1911, mediated by Dr. Jokichi Takamine, a friend of Dr. L.H. Baekeland, the rights to execute the patents of phenolic resin in Japan were granted, and trial production was started. Succeeding this achievement, Nippon Bakelite Co., Ltd. (the predecessor of our Company) was founded in 1932 and later merged with Sumitomo Synthetic Resin Industries, Ltd., in 1955 to form Sumitomo Bakelite Co., Ltd.

As a pioneer in plastics, Sumitomo Bakelite has been always developing new products with leading-edge technologies and sophisticated facilities. We will further expand the business to various fields, and contribute to realizing safe and comfortable living environments.



The original copy of Monjuin Shiigaki



The text of the Monjuin Shiigaki



Dr. L.H. Baekeland



Dr. Jokichi Takamine

## Management Policies and Corporate Policies for Safety and the Environment

The Sumitomo Bakelite Group is promoting its policy of "society and environment-compatible management" in accordance with fundamental policies based on the Sumitomo Business Philosophy.

### **Our Business Philosophy**

"Our philosophy is to value the trust and maintain the steadiness. Based on this, we strive through our business activities to make contributions to social progress and improvements to quality of life worldwide."

### **Management Policies**

Strengthen and expand three core businesses semiconductor materials and electronic circuit products, high-performance plastics, and quality of life products

Upgrade competitive power in "manufacturing skills" and move ahead with "customer satisfaction (CS) activities" and "marketing activities"

Anticipate customers' needs and provide next-generation solutions

Establish management that is highly compatible with society and the environment



## Corporate Policies for Safety and the Environment Philosophy

#### **Philosophy**

In all its operations, Sumitomo Bakelite will endeavor to carry out its social responsibilities by meeting the highest standards of the Responsible Care concept and giving due consideration to human health and safety as well as to the protection of the environment.

#### **Policies**

In accordance with this philosophy, we will:

- 1. Evaluate the safety, health, and environmental aspects of all corporate activities, from product design through product disposal, strive to minimize the environmental impact of our corporate activities, and undertake to develop safer products and technologies;
- **2.** Make sustained, Groupwide efforts to promote resource and energy conservation, recycling, and waste reduction;
- **3.** Perform environmental audits and safety audits as well as work to maintain and improve systems for managing environmental protection, safety promotion and disaster prevention, and occupational safety and health;
- **4.** Comply with all relevant laws, regulations, and agreements associated with safety, health, and the environment while autonomously establishing administrative rules designed to promote safety, health, and environmental protection;
- **5.** Work to improve the safety of raw materials, products, and transportation operations and provide product safety information to employees, customers, and others;
- **6.** Implement operational safety management programs to ensure the safety and health of employees and residents of local communities; and
- **7.** Publicly disclose information to and promote dialogue with employees and residents of local communities.



## **Sumitomo Bakelite Group Products Found Nearby**

Our products are used in diverse things that play important roles in everyone's lives.



- Information and Communications Materials
- High-Performance Plastics
- Quality of Life (Daily Life/Medical)
- Polycarbonate Sheets and Films
  (SUNLOID PC®)



SUNLOID PC\* offers outstanding impact resistance, transparency, and resistance to heat and cold. It has a wide range of applications in fields ranging from architecture to electric equipment.

Copper-Clad Laminates
(SUMILITE® PLC, ELC, ALC)



Ranging from phenolic paper materials to glass-epoxy materials for high-count multilayer PWB, Sumitomo Bakelite provides a halogen-free product lineup. Our environment-friendly laminates are compatible with lead-free soldering.

## Waterproofing Sheet & System (SUNLOID® DN System)



The "SUNLOID" DN System" products include highly durable PVC sheets manufactured using a mechanical fixation method first introduced in Japan in 1974.

## Tire-Reinforcement Material (SUMILITERESIN® PR)



This product is blended with the filler and rubber to stiffen the parts of tires that require stiffness.

## Pulleys and Disk Brake Pistons (SUMIKON® PM Phenolic Resin)



For auxiliary engine parts and brake components that require high levels of heat resistance and strength as well as outstanding chemical resistance, SUMIKON® PM phenolic resin molding compounds are employed.

## Phenol Resin Adhesive for Plywood Production (Yuroid)



PL-9000 series environment-friendly phenolic adhesives are nice to the environment and to wood. They harden more rapidly at lower temperatures and emit relatively low amounts of formaldehyde.

## Powder Epoxy Resin for Electronic Components (SUMILITERESIN® ECP)



The Company's epoxy resin coatings are used as insulating films for such electronic components as ceramic capacitors and varistors.

## Acrylic Light Guide Sheets (SUNLOID® LUMIKING)



SUNLOID® LUMIKING light guide sheets offer highly efficient luminescent efficiency. Because these plates require little energy to provide a high degree of surface luminance, they are helping reduce environmental impact.



Flexible Printed Circuit Boards
(SUMILITE® TFP)



Sumitomo Bakelite offers environmentfriendly flexible printed circuit boards (PCBs) free of halogen and lead compounds as well as flexible PCBs that are used in mobile phones and products in a broad range of other fields.

Semiconductor Package Substrate Materials (SUMILITE LαZ®)



Offering a low coefficient of thermal expansion, a high level of heat resistance, and consequently excellent dimensional stability characteristics, SUMILITE LaZ\* is the halogen-free, non-lead-solder-compatible substrate

material most appropriate for semiconductor packages incorporated in leading-edge mobile equipment.

11 Freshness Preserving Films (P-Plus®)



By restraining the respiration rate and metabolism of fruits and vegetables, freshness preserving films help reduce fresh produce spoilage losses during distribution and storage. Multilayer Films for Food Packaging (SUMILITE® CEL)



These are flexible multi-layer composite films that can be used for vacuum packaging, gas packaging, skin packaging, and various other kinds of packaging.

Epoxy Resin Molding Compounds for Encapsulation of Semiconductor Devices (SUMIKON® EME)



The G700, G 600, and 500 series lines of SUMIKON® EME products conform to global environmental standards and do not contain halogen-based flame retardant.

Wafer Coating Resin (SUMIRESIN EXCEL® CRC)



Employing an aqueous alkali development process rather than solvents, CRC-8000 series products are used for semiconductor memory applications. Pastes for Die Bonding (SUMIRESIN EXCEL® CRM)



In addition to being well suited for use with semiconductor packages that are compatible with lead-free solder, CRM-1790 thermally conductive paste is used in place of solder.

Cover (Carrier) Tapes for Mounting Semiconductors/Electronic Components (SUMILITE® CSL)



These tapes are marketed for transporting semiconductors and electronic components to the locations of mounting processes. Sumitomo Bakelite is developing halogen-free versions that have little environmental impact.

Pharmaceutical Blister Films
(SUMILITE® VSS)



Press-through-packs (PTPs) and other blister film packaging enable pharmaceuticals to be delivered to users with safety and confidence. It is helping maintain the quality of a wide range of drugs that require careful attention to sanitation and safety.

18 Biotechnology-Related Products (S-BIO)



S-BIO\* kits and chips have helped improve biological sample testing and analysis processes with respect to the downsizing of equipment, the acceleration of work processes, and the reduction of waste products.

19 Laboratory Plastic Wares (SUMILON)



SUMILON products are plastic labware items that are indispensable for biological research. Easy to seal and made of a single uniform material, these products lighten the environmental impact of research.

Medical and Therapeutic Devices (sumius\*)



Products marketed under the sumius® brand help provide safe, trustworthy, and reliable medical therapy that supports the health and welfare of each of

Melamine-Faced Decorative Laminates



DECOLA® melamine-faced decorative laminates are available in a broad array of dimensions and colors so they can be used in a wide variety of applications, particularly those related to the definition of spaces in public and medical facilities.



## **Environment-Friendly Products**

Sumitomo Bakelite contributes to the implementation of policies for global warming in many fields.

Sumitomo Bakelite defines environment-conscious products as those that do not contain dangerous or harmful substances, that make it possible for its customers to avoid the use of substances that are dangerous or harmful, that contribute to conservation of resources and energy, and that make it easier to recover and recycle the products that contain them.

Note: The products introduced in this report are limited to new items that have not been introduced previously.

#### SUMIKON® EME Epoxy Resin for Compression Molding

Accompanying a rise in the density of semiconductor packages, there has been increased consideration and application of the use of a new "compression molding method" that does not require molding compounds to flow into cavities and is being introduced to enable improvements of wire-sweep and filling

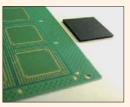
properties. When this method is used, there are no culls or runners to serve as paths for resin flowage, and the amount of waste material generated is considerably less than with conventional methods.



## Semiconductor Package Substrate Materials: SUMILITE LαZ® LAZ and SUMILITE LαZ® BLA

SUMILITE LaZ® LAZ products include semiconductor package substrate-use core material (double-sided copper-clad laminate) and prepreg material (glass cloth impregnated with resin), while SUMILITE LaZ® BLA products are buildup materials (resin sheets for multilayering). Offering a low coefficient of thermal expansion, a high level of heat resistance, and consequently excellent dimensional stability characteristics, they offer help in overcoming various challenges associated with efforts to create the thinner semiconductor packages needed for increasingly thin leading-edge elec-

tronics products. SUMILITE LaZ® LAZ and SUMILITE LaZ® BLA products offer outstanding reliability and—because they are non-lead-solder-compatible and flame-retardant-free—they are highly environment friendly.



## High-Heat-Dissipation Substrate Materials for LED Mounting—SUMILITE® ELC

Heat management is a key challenge in the development of energy-saving LED lighting products. Sumitomo Bakelite has used its unique technologies to develop ALC-1331 single-sided copperclad, aluminum-based sheets and ELC-4970SC double-sided

copper-clad epoxy composite materials, which help realize LED lighting products with greater backlighting efficiency and useable

life spans. The development of these highly heat-conductive materials is expected to contribute to the increasingly widespread use of LED lighting as well as to an increase in associated energy conservation.



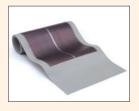
## DN SolarSheet "Waterproofing Integrated Photovoltaic Module"

We are developing, manufacturing, and marketing modules that integrate waterproof sheets with flexible photovoltaics.

They are suitable for use in building construction and repair projects. Their light weight eliminates concerns regarding structural capabilities for withstanding weight loads, and they also present an attractive exterior appearance.

Moreover, because they offer both solar cell and waterproofing functions, they can be considered a highly effective system that is particularly useful when installed in connection with structural renovation projects.

By enabling the effective use of solar energy and also upgrading structural waterproofing functions, this product helps lower environmental impact.





Trends in Sumitomo Bakelite's net sales of environmentfriendly products are shown in the chart below.

Having been integrated into the Sumitomo Bakelite Group, the Tsutsunaka Plastic Industry Group (the Kanuma Plant and the Nara Plant) has been included within the boundary of accounting for environment-friendly products since fiscal 2007.

#### ■ Sales of Environment-Friendly Products



Note: The boundary of the data is Sumitomo Bakelite Co., Ltd. (non-consolidated).

## **Promotional Organization**

Sumitomo Bakelite's System for Promoting CSR Activities Centered on Responsible Care Operations

The Sumitomo Bakelite Group's CSR Activities Centered on Responsible Care\* operations are carried out by a Groupwide organization centered on the Head Office's Responsible Care Committee and Environmental Impact Reduction Committee as well as an individual business site organization comprising each business site's environmental management departments, general affairs departments, and other departments responsible for specific initiatives.

\* Responsible Care operations involve autonomous measures to ensure "environmental maintenance, safety, and health" regarding all chemical-related processes from development through manufacturing, distribution, usage, final consumption, and disposal as well as to publically announce the results of those measures and to undertake two-way communication with society regarding those measures.

### **President Responsible Care Committee Environmental Impact Reduction Committee Groupwide Organization Individual Business Site Organization Environmental Management Environmental Management** General Affairs & Corporate Legal Dept. Managers General affairs departments Employee Relations & Welfare Dept. Environmental management Human Resources Development Dept. departments **Production Management** Environment & Recycling Dept. **Other Activities** Corporate Quality Assurance Dept. Units responsible for specific initiatives Corporate Production Engineering Dept. SBPS Development Dept. **Information Initiatives Dialog with** Intellectual Property Dept. **Local Communities** S.B. Research Co., Ltd. General affairs departments Environmental management departments **Production Technology Development** Production Engineering Research Laboratory **Research & Development** Corporate Technical Dept. Advanced Technology Planning Dept. Research Laboratories Recycling S.B. Recycle Co., Ltd.



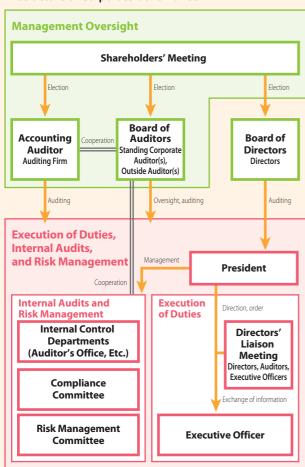
## Corporate Governance, Compliance, and Risk Management

By augmenting its efforts related to corporate governance, compliance, and risk management, Sumitomo Bakelite is improving its transparency and relationship with society.

#### **Strengthening Corporate Governance**

We at Sumitomo Bakelite Co., Ltd., recognize that improving transparency and our relationship with society is fundamental to corporate governance. The Company's philosophy is to value trust and maintain steadiness. Based on this, we strive through our business activities to make contributions to social progress and improvements to quality of life worldwide and are taking steps to further improve corporate governance.

#### ■ Structure of Corporate Governance



# Basic Policy Regarding Internal Control System Establishment

At the Board of Directors' meeting held on May 9, 2006, a basic policy on the establishment of internal control systems was adopted pursuant to Japan's Companies Act. At a Board of Directors' meeting held on April 28, 2010, a portion of this basic policy was amended. For more information, please refer to our corporate website (http://www.sumibe.co.jp/english/company/controlp.html).

As of March 31, 2010, the Sumitomo Bakelite Group's financial reporting-related internal control system was assessed and determined to be effective. In addition, based on the results of an audit performed by the Group's accounting auditor, Sumitomo Bakelite's *Management's Report on Internal Controls* stated that the Group's internal control systems related to financial reporting had been evaluated and recognized as appropriate.

#### **Rigorous Compliance**

Sumitomo Bakelite promotes management with an emphasis on compliance in recognition of the fact that adhering to laws and corporate ethics is a crucial component of business activities.

We endeavor to ensure that all the individuals constituting the Company are sufficiently informed regarding Our Standards of Conduct, an employee conduct code which each and every employee is expected to follow in conducting business activities. Also, we are moving forward with compliance initiatives led by the Compliance Committee. In addition, similar initiatives are being implemented at all Group companies to ensure uniform operations, and our affiliates, including those overseas, are establishing codes for conduct based on Our Standards of Conduct.

#### Our Standards of Conduct

To further familiarize employees and ensure compliance with corporate ethics, Sumitomo Bakelite has established an employ-

ee conduct code called Our Standards of Conduct and distributes this in a booklet to all employees. Also, periodically, this conduct code is confirmed by having employees take turns reading the code in the office.



#### **Our Standards of Conduct**

- 1. We play an important, beneficial role in our society, offering customers products and services that put customer satisfaction first.
- 2. We strive to improve the performance of the Sumitomo Bakelite Group, always taking a global perspective.
- 3. We adhere to our corporate ethics, complying with legal requirements and our bylaws both in Japan and abroad, while engaging in fair and transparent business activities.
- 4. We emphasize safety while independently engaging in environmental protection activities.
- 5. We strive to create a pleasant work environment through respect for individual personalities and human rights.

Note: The booklet includes what we should strive for as well as specific modes of behavior related to each item.

#### ■ Ten Articles for Emphasis in Compliance

To make compliance an integral part of daily activities, each department decides on the key items for compliance and prepares "Ten Articles for Emphasis in Compliance."The content of these articles varies from one department to another, but they are displayed prominently in all workplaces, and they are confirmed with all employees periodically by having them read the articles aloud in unison. Overseas affiliates are also engaged in this kind of activity.



Do the Right Things! (Sumitomo Bakelite Singapore Pte. Ltd.)

#### ■ The Sumitomo Bakelite Compliance System

As part of systems to ensure the appropriate conduct of business activities by Directors and employees, Sumitomo Bakelite has established its Compliance Committee. This committee is responsible for promoting compliance through assessments of compliance levels and, when necessary, undertaking related improvements as well as education and training.



#### Reporting System

In cases where an employee discovers a compliance violation or suspects that there may have been a violation, he or she reports this directly to the supervisor or to a designated contact point. In addition, employees can access designated external legal counsel to report the incident.

During the fiscal year, seven such reports were made, but none of them contained factual information of any major improper activities, and all of them were dealt with appropriately and brought to a final settlement.

We are also enabling the use of this reporting system by employees of affiliated companies, including overseas affiliates.



#### Status of Compliance

The Audit Office conducts internal audits in each department, and the status of compliance is reported and confirmed at the meetings of the Compliance Committee. Through these activities, we confirmed the status of compliance in fiscal 2009 and found that there were no major legal or regulatory infractions in fiscal 2009 and no major violations of human rights.

#### Strengthening Risk Management

To prevent all kinds of potential risks from becoming actual and to minimize unavoidable business losses, Sumitomo Bakelite has established its Risk Management Committee, which operates continuously with a Companywide scope.

In addition, in April 2008, we instituted our Basic Risk Management Regulations, which establish the basic policy regarding the risk management of Sumitomo Bakelite and its Group companies, and we are currently working to implement on-target and precise management activities with respect to diverse kinds of risks.

Initiatives during the fiscal year included the formulation and implementation of measures for dealing with new influenza

strains and the consideration of countermeasures with respect to environmental preservation risks, intellectual property rights, and other risks that affect the Group as a whole.



Risk Management Committee

#### Initiatives to Protect Personal Information

We recognize that the customer, shareholder, employee, and other personal information in our possession is important and must be protected, and therefore are committed to ensuring that this information will not be leaked to outside sources. For more information about Sumitomo Bakelite's privacy policy, please refer to our corporate website: (http://www.sumibe.co.jp/english/).

#### The Road to Compliance Mastery

Since September 2005, each issue of the Company's monthly newsletter has featured a four-frame comic strip entitled The Road to Compliance Mastery. The main character of the strip—a young man named Mr. Mamoru (In Japanese, mamoru means preserve and conform to.) encounters diverse kinds of situations within the Company that prompt him to think about compliance and then take action. Sumitomo Bakelite believes that encouraging each and every one of its employees

to maintain vigilant compliance consciousness in the manner of Mr. Mamoru will effectively generate the "trust and steadiness" targeted by the Company's Business Philosophy.



Masahiko Shinoda, Department Manager. General Affairs and Corporate Legal Department



### **Environmental Target Review**

Sumitomo Bakelite has undertaken a comprehensive review of its Medium- and Long-Term **Environmental Impact Reduction Targets.** 

Fiscal 2010 is the final year of the Medium- and Long-Term Environmental Impact Reduction Targets that Sumitomo Bakelite was endeavoring to attain during the period through fiscal 2009. In fiscal 2009, domestic business sites either reached the medium- and long-term CO<sub>2</sub> emissions, waste generation, and zero-emissionsdesignated substances targets or were projected to reach them. Regarding overseas business sites, the CO<sub>2</sub> emissions target has already been attained, although it was not possible to attain the waste generation target because of an increase in the varieties of waste that were difficult to sell as a resource with value.

While the zero-emissions-designated substances targets have not been attained, it has become clear—in light of the lack of national measures to create the infrastructure required for non-landfill disposal methods and other regional situations—that realizing zero emissions for certain substances may not actually be a high priority of society.

Amid these circumstances and with the aim of responding to Japan's revised Act on the Rational Use of Energy and other developments, Sumitomo Bakelite carried out a final comprehensive review of its previous set of Medium- and Long-Term Environmental Impact Reduction Targets a year earlier than originally scheduled.

#### Medium- and Long-Term Target Review

#### Domestic Business Sites

Action	1999 (base year) performance	2009 performance	Medium- and long- term targets	Medium- and long-term target review
(() emissions   130 /69t   106 /31t   11 / 69 /t   3		Progressive reductions were realized and the medium- and long-term targets were attained.		
Waste generation	12,800t	7,462t	8,285t	Progressive reductions were realized and the medium- and long-term targets were attained.
Zero-emissions designated substances	7,053t	94t	58t	Progressive reductions were realized and a level was reached from which the medium- and long-term targets can be attained.
Air emissions of solvents and other chemical substances	er 3,164t 222t 150t was reached from which the m		Progressive reductions were realized and a level was reached from which the medium- and long-term targets can be attained.	

#### Overseas Group Companies

Action	2004 (base year) performance	2009 performance	Medium- and long- term targets	Medium- and long-term target review
CO <sub>2</sub> emissions	Progressive reductions were realized and the medium- and long-term targets were attained.			
Waste generation	14,312t	13,979t	9,928t	It proved difficult to sell certain types of waste products as a resource with value, so, unfortunately, the medium- and long-term targets were not attained.
Zero-emissions designated substances	13,023t	11,633t	8,495t	While progressive reductions were realized, it became clear that realizing zero emissions for certain substances may not actually be a high priority of society.

- CO<sub>2</sub> emissions: CO<sub>2</sub> emissions due to energy (fuel and electricity) used in business activities, such as production and research
- Notes: 1. Calculation methods employ the criteria for the computation of environmental impact shown on page 14.
  - 2. CO<sub>2</sub> emissions associated with the electric power purchased by overseas business sites are calculated using different power/emission conversion coefficients for individual countries and in some cases for individual power companies.
- Waste generation: Aggregate volume of industrial and general waste from business sites
- Zero-emissions designated substances: Aggregate volume of landfill and incinerated waste without energy recovery
- · Air emissions of solvents and other chemical substances (Japan only): Emissions of solvents and other chemical substances targeted by the Japan Chemical Industry Association (JCIA) Pollutant Release and Transfer Register (PRTR) assessments (including substances targeted for reporting pursuant to the Specified Chemical Substance Law (PRTR system))

Environmental impact figures are compiled based on data gathered on the following facilities. (On this page, company names are abbreviated due to space limitations.)

#### • Domestic Business Sites

Sumitomo Bakelite: Amagasaki Plant, Kanuma Plant (included from 2006), Nara Plant (included from 2006), Utsunomiya Plant, Tsu Plant (included through September 2009), Shizuoka Plant, Fundamental Research Laboratory, and Kobe Fundamental Research Laboratory

Akita Sumitomo Bakelite, Artlite Kogyo (included through September 2009), S.B. Techno Plastics, Hokkai Taiyo Plastic, Yamaroku Kasei Industry, Kyushu Sumitomo Bakelite, Tsutsunaka Kosan, S.B. Research Osaka Center, Suzuka Plant of Decolanitto (included from 2004 through July 2008), Kyodo (including from 2006 through February 2009), Y-Techs (included from 2006 through October 2009), and Sano Plastic (included through June 2002)

Note: Data for each business site includes data for consolidated companies with presences at those sites.

#### • Overseas Business Sites

Sumitomo Bakelite Singapore, Sumicarrier Singapore, SumiDurez Singapore, SNC Industrial Laminates, BASEC Hong Kong, P.T. Indopherin Jaya, Sumitomo Bakelite (Suzhou), SB Flex Philippines (included through December 2007), Sumitomo Bakelite (Taiwan), Bakelite Precision Molding (Shanghai), Rigidtex (included through March 2009), Durez (Kenton Plant and Niagara Plant), Durez Canada, Sumitomo Bakelite North America (included from 2009), Sumitomo Bakelite Europe, Sumitomo Bakelite Europe (Barcelona), Vyncolit (included from 2005), Sumitomo Bakelite Vietnam, Sumitomo Bakelite Macau, SBP Indonesia, Sumitomo Bakelite (Thailand) (included from fiscal 2008), and Sumitomo Bakelite (Nantong) (included from 2009)

## **New Medium- and Long-Term Environmental Impact Reduction Targets**

Sumitomo Bakelite has set itself Medium- and Long-Term Environmental Impact Reduction Targets (covering the period from fiscal 2010 through fiscal 2020).

Based on the results of its recent final review of its previous Mediumand Long-Term Environmental Impact Reduction Targets and aiming to strengthen and sustain its environmental impact reduction efforts, Sumitomo Bakelite has drafted a new set of Medium- and Long-Term Environmental Impact Reduction Targets covering the period through fiscal 2020. The new targets use fiscal 2005 as a base year as a means of increasing the precision of data, and the boundary of facilities covered by the targets has been reconsidered. With respect to CO<sub>2</sub> emissions, the Head Office, domestic marketing offices, and other facilities have been newly included within the scope of targets, which call for reducing emissions to below the base year level by 25% in Japan and 15% overseas.

With an eye to resource and energy conservation, rather than focusing on waste products alone, we have set reduction targets for material losses (waste products and valuable resources) that also cover the generation of products sold as valuable resources. Regarding the volume of chemical substances released into the environment, the focus of our targets was previously on the volume of solvents and other substances released into the atmosphere, but we have now set targets with respect to the total volume of chemical substances (substances subject to JCIA PRTR assessments) released, including the release of substances into bodies of water and into the ground, and we have expanded the boundary of our data collection to include overseas business sites.

#### Domestic Business Sites

	2005		Medium- and long-term target		
Action	(base year) performance	2010 plan	Reduction from fiscal 2005	Target for fiscal 2020	
CO <sub>2</sub> emissions	137,961t	109,585t	25%	103,471t	
Material loss volume	20,945t	14,203t	36%	13,330t	
Chemical substance emission volume	512t	153t	80%	102t	

#### Overseas Group Companies

	2005		Medium- and long-term target		
Action	(base year) performance	2010 plan	Reduction from fiscal 2005	Target for fiscal 2020	
CO <sub>2</sub> emissions	163,259t	165,918t*	15%	138,770t	
Material loss volume	28,488t	18,789t	41%	16,792t	
Chemical substance emission volume	Data compilation for this new item will require additional time owing to such factors as differences between Group units' fiscal years.				

<sup>\*</sup> Owing to an increase in the number of facilities covered and to economic trends, this figure is higher than the fiscal 2010 Medium- and Long-Term Environmental Impact Reduction Targets.

We have made revisions regarding the business sites included within the boundary of data collection for the new Medium- and Long-Term Environmental Impact Reduction Targets to maintain continuity to the present business boundary.

- In cases of joint ventures, business divestitures, and other similar transactional factors that have arisen since fiscal 2005, the fiscal 2005 business boundary has been retroactively adjusted to account for those factors and maintain consistency with the present business boundary.
- Regarding business sites closed since fiscal 2005, also, when responsibility for carrying out the relevant business has been consolidated at or otherwise shifted to other business sites, those sites are included within the data collection scope.
- Business sites added to the data collection boundary since fiscal 2005 include the following.
  - —Domestic business sites: Kanuma Plant, Nara Plant, Kyodo Co., Ltd., Y-Techs Co., Ltd.
  - —Overseas business site: P.T. SBP Indonesia

#### **Definitions**

- CO<sub>2</sub> emissions: CO<sub>2</sub> emissions due to energy (fuel and electricity) used in all business activities (figures for overseas facilities relate to manufacturing activities alone)
- Note: Calculation methods employ the criteria for the computation of environmental impact shown on page 14.
- Material loss volume: Total of aggregate volume of industrial and general waste from business sites together with the volume of non-product valuable resources generated at business sites
- Note: The scope of material loss volume does not include valuable scrap sold in connection with the Group's in-house work to dismantle or repair facilities and structures, facilities that are sold, or construction waste materials disposed of as waste (materials for which the Company issues manifests).
- Chemical substance emissions: Total emissions into the air. water bodies, and the ground (aggregate volume) of chemical substances targeted by the Japan Chemical Industry Association (JCIA)'s Pollutant Release and Transfer Register (PRTR) assessments (substances subject to the reporting requirements of Japan's Specified Chemical Substance Law (PRTR system))

For overseas business sites, chemical substance emissions represent the total emissions of chemical substances targeted by local laws and regulations corresponding to Japan's PRTR system. For countries that do not have local laws and regulations corresponding to Japan's PRTR system, Japanese standards (chemical substances targeted by JCIA's PRTR assessments) are employed.

#### Other Changes to the Data Collection Boundary

In accordance with the revision of the Act on the Rational Use of Energy, the Head Office and the Company's marketing offices in various locations were added to the scope.

For Sumitomo Bakelite North America, Inc., and Sumitomo Bakelite (Thailand) Co., Ltd., data has been retroactively gathered for the period extending back to fiscal 2005.

Regarding Durez Corporation, that company has been reorganized as two companies—Durez Corporation and Durez Canada Co., Ltd.—since fiscal 2010.



## **Environmental Accounting**

Sumitomo Bakelite has adopted environmental accounting to promote efficient environmental management and fulfill its responsibility to society.

Sumitomo Bakelite implemented environmental accounting in fiscal 2000 to quantify the costs and benefits of environmental conservation and effectively promote environmental management as well as disclose information to stakeholders and give them an understanding of the Company's initiatives. Environmental accounting was introduced at five plants and the Company's two research laboratories in fiscal 2000 and, since fiscal 2001, has been successively implemented at affiliated companies in Japan, figures for which are included in data compilation. The Company tabulates figures for environmental accounting based on the Ministry of the Environment's Environmental Accounting Guidelines (2005 version). Furthermore, the Group is working to develop its own accounting standards, with the view that environmental accounting is a means of quantitatively evaluating the progress of activities to reduce environmental impact. In addition, we review the standards every year to obtain more-useful information through environmental accounting.

#### Environmental Conservation Costs for Fiscal 2009

	Environmental co	onservation costs	
Item	Investment (millions of yen)	Expenses (millions of yen)	Description
Emissions control	69	255	• Fuel switching for boilers
Energy conservation	73	75	Change in boiler fuel     Energy conservation through improved equipment operating efficiency
Waste reduction, recycling, and treatment	44	494	Waste treatment
Product initiatives at the R&D stage	20	2,370	R&D related to environment-friendly products and recycling technologies
Reduction of upstream and downstream environmental impact	_	23	Analysis of environmental substances     Commission fees to the Japan Containers and     Packaging Recycling Association (JCPRA)
Environmental management activities	_	271	<ul> <li>Personnel expenses for environmental management activities</li> <li>Beautification activities and maintenance of green spaces</li> <li>Publication of Environmental &amp; Social Report</li> </ul>
Contributions to community activities	_	2	Outside communications activities
Response to environmental damage	_	85	Inspections to check the possibility of soil and ground- water contamination at each current and former busi- ness site and implementation of associated remediation measures
Total	207	3,575	

Notes: 1. See page 1 for period and business site.

2. Due to rounding, the total investment figure may not correspond to the sum of the individual category investment figures.

#### **Compilation Methods**

- Figures have been tabulated based on the Company's Environmental Accounting Compilation Standards with reference to the Ministry of the Environment's Environmental Accounting Guidelines (2005 version).
- In cases where composite costs include costs other than those related to environmental conservation, environmental conservation costs have been tabulated based on the proportion used for environmental conservation purposes.
- Economic benefits have been calculated by adding up benefits that can be measured based on certain premises, and such theoretical benefits as risk aversion are not included.
- Expenses do not include depreciation.
- Research and development investments and expenses are compiled for each environment-related category.

#### Environmental Conservation Benefits for Fiscal 2009

	Reduction of environ- mental impact (com- pared with fiscal 2008)	Environmental impact (fiscal 2009)
CO <sub>2</sub> emissions	(2,337)t	106,231t
Disposal in landfills and simple incineration	(107)t	94t
Volume of waste generated	(356)t	7,462t
Reduction in amount of air emissions and other substances	12t*	222t

<sup>\*</sup> See the explanatory note to the "Emissions of Solvents and Others" graph on page 18.

#### Criteria for Computation of Environmental Impact CO<sub>2</sub> Emission Volume

We have referred to the Greenhouse Gas Emission Volume Calculation/ Reporting Manual (METI and MOE March 2009 version) in connection with our methodology for posting total CO<sub>2</sub> emission volume figures (t-CO<sub>2</sub>) for individual energy-type categories. Electric power-related emissions are calculated based on real emissions coefficients, while city gas-related emissions are calculated based on CO<sub>2</sub> emissions coefficients announced by companies that provide us with gas.

Relevant forms of energy addressed correspond to the scope of relevant energy forms determined by the enforcement regulations for Japan's Act on the Rational Use of Energy.

#### Volume of Landfill and Incinerated Waste without Energy Recovery

Figures represent aggregate total volumes of the following.

- (1) Landfill waste: Waste disposed of in landfills by the Company or outside contractors
- (2) External intermediate treatment waste: Waste incinerated by outside contractors (through a "simple incineration" process not accompanied by energy recovery)
- (3) Internal intermediate treatment waste: Waste incinerated within the Company (through a "simple incineration" process not accompanied by energy recovery)

#### **Waste Products**

Figures represent the aggregate total volume of the following. In addition to the standard landfill and incineration disposal methods,

(4) External recycling (involving the payment of related expenses): Waste recycled to be restored as a useful resource (including energy recovery) with payment made to cover the expense of recycling processes

#### Volume of Solvent Emissions into the Atmosphere

The total volume of emissions into the atmosphere of solvents and other chemical substances targeted by the JCIA PRTR assessments The data compilation methods employed are based on the PRTR Emissions Volumes, Etc., Calculation Manual, 4th Edition (METI and MOE, March 2009).

They include (1) the material balance method, (2) measurement method, (3) emission coefficient method, and (4) material characteristic value-based calculation method, etc.

#### Economic Benefits for Fiscal 2009

ltem	Amount (millions of yen)
(1) Cost reductions resulting from energy conservation	59
(2) Cost reductions resulting from waste reduction	9
(3) Income from external recycling	89
(4) Cost reductions resulting from internal recycling	769
(5) Others	1
Total	926

Note: Due to rounding, the total benefit figure may not correspond to the sum of the individual category benefit figures.

#### Criteria for Computation of the Economic Effects

- (1) Reduction in costs through energy conservation The reduction in costs due to specific actions to invest in and make improvements in equipment and other activities
- (2) Reduction in costs accompanying decline in waste The amount of reduction in production value per basic unit is computed by the following formula. However, the results of the formula computation are included only when they are positive.

- (3) Revenue obtained from external recycling (sale) is included in the value of sales of economic materials.
- (4) Reduction in costs through internal recycling
  - Types of internal recycling:

Type 1: Workplace recycling: Items are processed for recycling inside or outside the processing line and are re-input as materials. Type 2: Recycling outside the workplace: Items are processed by an external company or party and are then re-input as materials.

The portion of recycled materials that is re-input as production materials are valued in monetary terms. However, for Type 2 recycling, the cost paid to the external company or party is subtracted from the value of the materials recycled as production materials according to the following formula:

(Value of materials recycled as production materials) = (Amount paid for an equivalent amount of new materials that would be purchased in place of the materials recycled as production materials) - (Cost paid to external company or party for processing services)

In addition, the cost of disposal avoided by using the materials recycled as production materials is not included in the computa-

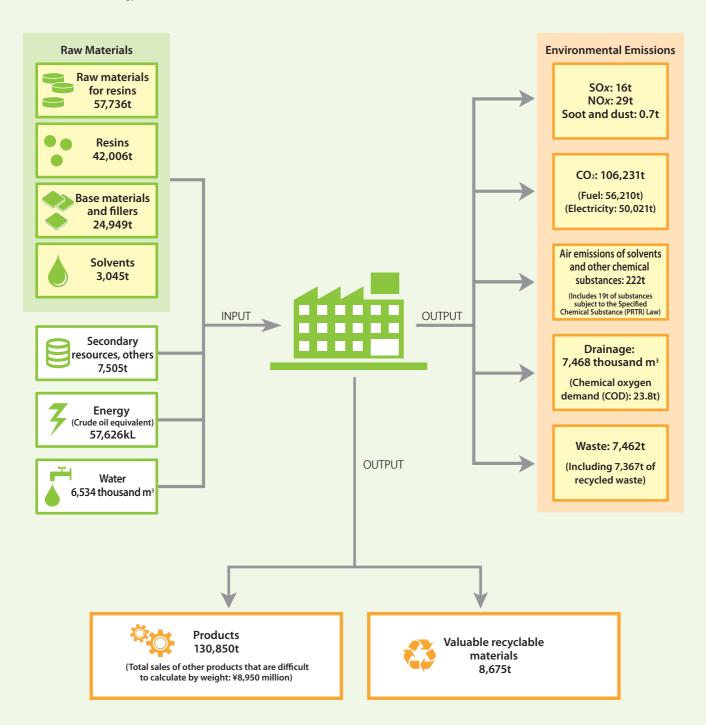
(5) Other items: Reduction in costs, etc., through the restraint of emissions into the environment



## **Environmental Impact Material Balance**

The flowchart below illustrates the environmental impact of Sumitomo Bakelite's business activities.

The chart below shows inputs, including raw materials and energy, as well as outputs that are released into the environment. The Group is working to reduce its impact on the environment through waste reduction and resource conservation by promoting cutbacks on the use of raw materials, energy, and water.



Notes: 1. See page 1 for period and business site.

2. The drainage figure is larger than the water input figure due to rainwater.

## **Reduction of Environmental Impact Substances**

Sumitomo Bakelite is continuing to implement initiatives to reduce the environmental impact on air quality and bodies of water.

#### Air Emissions

Since 2004, we have continuously worked to shift from heavy fuel oil to natural gas as the source of energy for boilers at domestic business locations. In fiscal 2009, we continued implementing measures to convert fuel sources at the Shizuoka Plant.

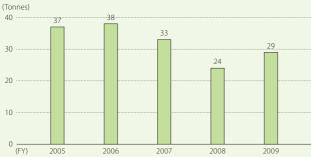
Due to the transfer and consolidation of manufacturing bases

and other factors, however, a portion of business sites are increasing their consumption of natural gas and heavy fuel oil. Reflecting this, fiscal 2009 levels of SOx and soot and dust emissions were roughly the same as in the previous fiscal year, and NOx emissions increased.



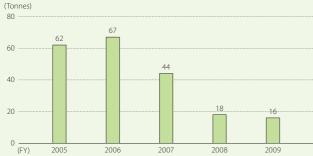
A boiler that has been converted for gas usage (Shizuoka Plant)

#### NOx Emissions



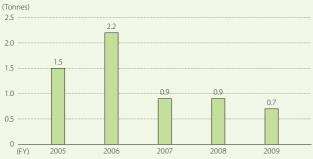
Note: Data are compiled from all domestic business sites listed on page 11.

#### SOx Emissions



Note: Data are compiled from all domestic business sites listed on page 11.

#### Soot and Dust Emissions



Note: Data are compiled from all domestic business sites listed on page 11.

#### **Water Discharges**

Factory water discharges are broadly classified into wastewater, which includes industrial wastewater and domestic wastewater, and rainwater, which includes coolant water. By recycling coolant water, we are working to curb the use of water resources and reduce our wastewater discharges.

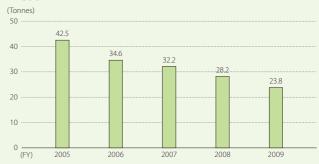
Regarding wastewater, we operate such treatment equipment

as high-precision phenol recovery equipment, activated sludge treatment equipment, and neutralizing and coagulating sedimentation equipment (metal removal treatment) and have established a regular surveillance system that uses surveillance devices in an effort to comply with national wastewater standards, ordinances, and agreements with local communities.



An activated sludge effluent processing facility (Shizuoka Plant)

#### COD



Notes: 1. Data are compiled from all domestic business sites listed on page 11. 2. COD: Chemical oxygen demand: An index of organic matter pollution in water that indicates the amount of oxygen consumed by the oxidizing agent potassium permanganate in the oxidation of organic matter in water.

#### Aiming to Concurrently Achieve Productivity and Environment Friendliness

This time, our renovation of two boilers enabled increased boiler efficiency and a fuel switch (from heavy fuel oil to natural gas) that have the effect of reducing our annual CO<sub>2</sub> emissions by 70 tonnes. Not viewed as an ordinary facility renovation project, this project was primarily intended to contribute to the lowering of the Company's overall CO<sub>2</sub> emissions, and I felt it was very rewarding to be involved with the project. Going forward, we will continue mak-

ing due efforts to reduce CO<sub>2</sub> emissions and conserve energy as we implement a facilities investment plan that is designed to concurrently achieve productivity and environment friendliness.

Jun Yano, Shizuoka Plant, Corporate Production Engineering Department



## CO<sub>2</sub> Emissions and Energy Conservation

Sumitomo Bakelite implements energy conservation activities and strives to reduce CO2 emissions.

#### ■ Plant- and Office-Related Energy Conservation Measures

In fiscal 2009, while the deterioration of economic conditions was accompanied by manufacturing volume declines that also had an impact on Sumitomo Bakelite Group's CO<sub>2</sub> emissions, the Group's implementation of diverse energy conservation measures was the main cause for the successful reduction of energy consumption volume and CO<sub>2</sub> emission volume.

Since 2007, the Amagasaki, Shizuoka, and Utsunomiya plants have been able to reduce their emissions of CO<sub>2</sub> by switching from heavy oil to natural gas for boiler fuel and other applications.

At the Nara Plant, measures to increase boiler fuel efficiency and reduce the pressure of steam in supply pipes had a large energy conservation effect, reducing heavy oil consumption 32%. Moreover, Sumitomo Bakelite's efforts to employ material flow cost accounting (MFCA) to identify problems and then implement measures to alleviate those problems have not only helped conserve resources, they have also reduced energy consumption. Further, to facilitate continuous energy-saving measures from a different point of view, four facilities underwent energy diagnostics studies by an external company during 2009. As a result, plans have been laid to move further ahead with energy conservation by modifying the air-conditioning systems of the Fundamental Research Laboratory.

\* MFCA is an environmental management accounting method designed to concurrently reduce environmental impact and costs.

In addition to measures noted above, we are proceeding with various sorts of energy conservation initiatives at each of our business sites. These initiatives include the following:

- 1. Installation of inverter controllers for pumps, fans, compressors,
- 2. Installation of an energy-saving static capacitor
- 3. Installation of LED lighting equipment
- 4. Installation of energy-saving controllers
- 5. Reevaluation of settings for air-conditioned/low temperature warehouses and introduction of air from outside during the winter
- 6. Spot inspections and repairs of steam and air leaks
- 7. Use of energy conservation patrols to identify and rectify energy loss locations
- 8. Application of insulation coating to roofs and tanks
- 9. Greenification measures to insulate roofs and walls

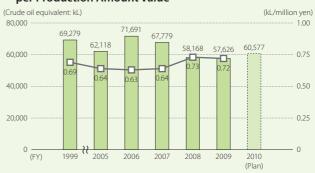


Energy conservation through a switchover to LED lighting equipment (Amagasaki Plant)



Energy conservation via greenification (S.B. Techno Plastics Co., Ltd.)

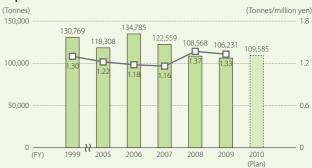
#### Energy Usage and Energy Usage per Production Amount Value\*



\* Energy usage per production amount value is determined using the following equation: Energy usage per production amount value = energy usage/(production amount x unit price)

Note: Data are compiled from all domestic business sites listed on page 11.

#### CO, Emissions and CO, Emissions per Production Amount Value\*



\* CO<sub>2</sub> emissions per production amount value are determined using the following equation: CO<sub>2</sub> emissions per production amount value = CO<sub>2</sub> emissions/(production amount x unit price)

Notes: 1. Data are compiled from all domestic business sites listed on page 11. 2. The figure for fiscal 2010 represents the new target (see page 12).

#### ■ Light-Down Campaign Participation (Shizuoka Plant)

Having decided to participate in the Light-Down Campaign, which the MOE has organized as a means of countering global warming, the Shizuoka Plant implemented light-down-style reduced lighting policies during a 19-day period from June 19 through July 7 of 2009. Shizuoka Prefecture had 1,094 associations registered as participating in the Light-Down Campaign, the thirdhighest level of this figure among all Japanese prefectures. The Shizuoka Plant belongs to the Fujieda City Environment Conservation Association, and approximately half of the members of that association participated in the Light-Down Campaign.





Lights on

#### ■ Distribution-Related Energy Conservation Measures

Based on the revision of Japan's Act on the Rational Use of Energy, Sumitomo Bakelite has since fiscal 2006 been working as a "specified load owner" to calculate shipping-related energy usage.

In fiscal 2009, the impact of a sales volume decline caused the Company's shipment volume to decrease 1,074 thousand tonnekilometers, to 32,573 thousand tonne-kilometers. In addition, as a result of the consolidation of shipments and other measures aimed at increasing the share of shipments carried by relatively large trucks, fuel efficiency in terms of cargo volume units transported was improved. Because of this and such other measures as those to promote energy-conserving driving methods on a day-to-day basis, we achieved improved energy conservation performance in terms of energy used per unit of production value

		Units	FY2006	FY2007	FY2008	FY2009
Shipping tonne-kilometers		Thousands of tonne-kilometers	30,297	41,265	33,647	32,573
CO <sub>2</sub> emissions asso	CO <sub>2</sub> emissions associated with energy use		5,090	6,730	5,580	5,270
Energy con- sumption per	Energy consumption (crude oil conversion basis; kL)/ shipping thousands of tonne-kilometers	kL/thousands of tonne-kilometers	0.0632	0.0613	0.0624	0.0609
shipping unit	Rate of change (FY2006=100%)		100	97	99	96

Note: The following are included in the compilation of the data above: Sumitomo Bakelite Co., Ltd., Amagasaki Plant, Kanuma Plant\*, Nara Plant\*, Nara Plant\*, Shizuoka Plant, Utsunomiya Plant, and Tsu Plant (The Tsu Plant was included until September 2009.) (Plants marked with an asterisk (\*) were included in the computation beginning in fiscal 2007.).

#### Reduction of Emissions of Solvents and Others

Since fiscal 1996, the Company has been involved in JCIA PRTR\* initiatives, keeping track of the release and transfer of certain substances and setting medium-term and long-term targets for improvement, focusing particularly on reducing its air emissions of solvents. The graph on the right shows the release of solvents and other chemical substances into the air since fiscal 1999.

Through the planned installation of exhaust gas treatment facilities, implementation of steps to reduce the amounts of solvents used, and other measures, we have been able to reduce the emissions level in fiscal 2009 to a level approximately 94% lower than the fiscal 1999 level. Furthermore, the Company released 19 tonnes of chemical substances controlled by the Specified Chemical Substance Law\*\* (PRTR system) into the air, approximately 99% less than in fiscal 1999

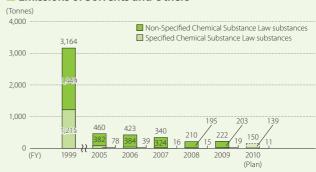


Exhaust gas treatment facilities

In fiscal 2010, we set ourselves new medium- to long-term targets that cover emissions into water bodies and soil in addition to emissions into the air, and plans call for redoubling our efforts to reduce such emissions to the target level by fiscal 2020.

- \*The Pollutant Release and Transfer Register (PRTR) system provides for measuring, compiling, and releasing data on a wide range of harmful chemical substances that have been released. Data that is collected includes the sources of the releases, the amounts released into the environment, and the amounts transported from business locations in the form of waste.
- \*\* The "Specified Chemical Substance Law" is the shortened version of "The Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof." The amounts of the 28 PRTR Law controlled substances released and transferred by the Company on the Data Section.

#### Emissions of Solvents and Others



Notes: 1. Data are compiled from all domestic business sites listed on page 11.

2. Due to the reevaluation of data from one affiliated company, figures for the period from fiscal 2006 through fiscal 2008 have been retroactively



## **Waste Disposal**

The Sumitomo Bakelite Group is proactively moving ahead with measures to reduce waste generation and promote the sorting of waste products. In fiscal 2009, the Fundamental Research Laboratory was recognized as a "facility with outstanding waste-separation performance."

In its waste reduction efforts, the Sumitomo Bakelite Group focuses on improving yield in manufacturing processes and controlling waste generation by recycling within those processes. Furthermore, with regard to waste generation, we are aiming to achieve "zero emissions," recycling all waste and thereby avoiding the use of landfills or incineration without energy recovery.

The graphs below entitled "Waste Generation" and "Zero-Emissions-Targeted Substances" show our progress and targets. Since fiscal 2000, we have steadily reduced waste generation by improving yield, implementing recycling, and converting waste into valuable resources.

A year-on-year increase in total waste generation was recorded in fiscal 2006 owing to the inclusion of additional facilities within the boundary of data gathering and other factors. In fiscal 2007, the Group cut its waste generation volume by 1,300 tonnes owing to such measures as those to recover waste solvents at the Utsunomiya Plant and Kyushu Sumitomo Bakelite Co., Ltd. In fiscal 2008, the effects of a decline in production volume caused the total volume of waste generated to decrease by

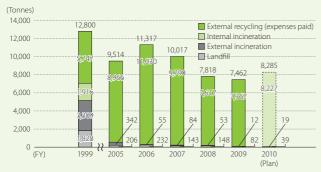
2,200 tonnes. In fiscal 2009, the volume of waste declined an additional 356 tonnes, reflecting the impact of a decrease in production volume, measures to decrease waste fluid volume at the Amagasaki Plant and Akita Sumitomo Bakelite Co., Ltd., the conversion of PVC waste materials at the Kanuma Plant into valuable resources, thermal recycling initiatives, and other measures undertaken at each business site.

On the other hand, we were successful in attaining performance very close to "zero-emissions performance" during the latter half of 2009, and levels of "zero-emissions-targeted substances" during fiscal 2010 are quite near the Medium- and Long-Term Environmental Impact Reduction Targets.

In November 2009, Yokohama designated the Fundamental Research Laboratory as a "facility with outstanding waste-separation performance" in recognition of its conscientiously rigorous performance in sorting its waste products to facilitate recycling.

Note: When the total volume of a business site's waste disposed of in landfills and through simple incineration processes is less than three tonnes for two consecutive six-month periods, it is considered a "zero-emissions facility."

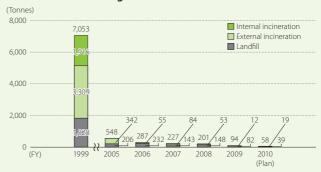
#### **■** Waste Generation



Notes: 1. Data are compiled from all domestic business sites listed on page 11.

- 2. Waste consists of the amount of landfill waste, externally incinerated waste, internally incinerated waste, and externally recycled waste (expens-
- 3. Due to rounding, the fiscal 2009 total volume figure does not correspond to the sum of the individual category figures.

#### Zero-Emissions-Targeted Substances



Notes: 1. Data are compiled from all domestic business sites listed on page 11.

2. Zero-emissions-targeted substances include landfill waste, externally incinerated waste, and internally incinerated waste.

#### Fundamental Research Laboratory Recognized as an Outstanding Waste-Separation Performance Facility (Three-Star Waste Separation Facility)

In November 2009, the Fundamental Research Laboratory received a plaque from Yokohama's municipal government for being a "facility with outstanding waste-separation performance."

Established in 2005, the award system is a part of Yokohama's G30 Plan, which aims to reduce waste to a level corresponding to 30% of the fiscal 2001 level. The system provides for the evaluation of the efforts of individual business sites to be rigorously thorough in sorting their waste products to facilitate recycling. Facilities that receive high marks in each of three performance categories—appropriateness of separation categories, thoroughness of sorting, and promoting the greatest possible amount of recycling—are given the special award.



Award Plague



Tomohito Otsuki (left) and Hisayoshi Miyasaka (right), Facilities & Environment Department

## Recycling

#### Sumitomo Bakelite promotes recycling for the efficient use of resources.

Regarding recycling initiatives, Sumitomo Bakelite has been employing diverse kinds of recycling methods, including the following:

- Reuse of phenols recovered from phenolic resin reaction effluent
- Pulverization of phenolic resin laminates and melamine resin decorative laminates for use as a filler in phenolic resin molding compounds
- Reuse of sprue and runner—byproducts of molded products—as raw materials





Distillation recovery equipment for waste isopropyl alcohol

- Reuse of waste isopropyl alcohol and acetone via distillation at the Company
- Reuse of epoxy resin and phenolic resin molding compound waste as a raw material and fuel for cement
- Paper recycling via the repulping of raw-material bags and paper waste
- Wood recycling into paper via the pulping of wood products (pallets, crates, etc.)
- Recovery and reuse of plastic cutting boards
- Reuse of film and sheet materials as recycled products (trays, mats, planters, etc.)
- Recovery of old waterproof sheet for reuse as a raw material
- Reuse of fragments of plate products as materials
- Reuse of surplus sludge from activated sludge effluent processing facilities as compost (organic fertilizer)

#### Activities of S.B. Recycle Co., Ltd.

S.B. Recycle Co., Ltd., was established in 1992 to contribute to society with respect to CO<sub>2</sub> emission reductions, energy conservation, and other important issues. It places special emphasis on promoting such specialized R&D programs as those related to technologies for the reuse of difficult-to-recycle materials and bio-processing technologies for the remediation of water pollution and soil contamina-

Principal themes of S.B. Recycle to date include the following.

- Discovery of special soil bacteria able to decompose phenol and phenolic plastics
- Development of biodegradation processing technologies for purifying contaminated soil and organic effluent
- Development of methods for the continuous distillation and recovery of solvents from waste solvents
- Development of technology for micro-pulverization and recycling of thermoset plastic waste materials
- Development of systems for reducing the volume of excess sludge in activated sludge wastewater treatment facilities



Experimental apparatus for excess sludge reduction system



Recovered gas ignition test



Supercritical testing equipment

- Gasification of composite thermoplastic film waste materials for reuse as fuel (in collaboration with the National Institute of Advanced Industrial Science and Technology)
- Recovery and reuse of valuable resources through the supercritical processing of composite plastic materials

#### ■ Chemical Recycling of Phenolic Resin Products

Historically, the recycling of phenolic resin products has been limited to thermal recycling applications, including reuse as raw fuel. However, we have established a project team that has been working to develop and put into practical use chemical recycling processes that enable reuse as high-value-added chemical raw materials. Thanks to their efforts, the team has succeeded in developing the world's first chemical recycling method for phenolic resin products that employs supercritical fluid technology.

This technology is able to completely decompose three-dimensionally cross-linked phenolic resins in periods of only about 10 to 20 minutes and makes it possible to achieve high recoverable yield rates for recycled resin for use as a raw material chemical.

In July 2005, this method received recognition for its superiority and innovativeness with its selection as a subsidized project by the New Energy and Industrial Technology Development Organization (NEDO). As one part of this subsidized project, in March 2007, we finished building a demonstration plant at the Shizuoka Plant that is able to annually process several hundred tonnes of phenolic resins (see photo). At present, we are pressing ahead with the develop-



Demonstration plant for chemical recycling

ment of mass production at the demonstration plant with the aim of the early practical use and commercialization of the recycling method.



#### Soil and Groundwater Assessment and Countermeasures

We are moving ahead with risk assessments regarding Group business sites in Japan and overseas and strengthening our preventative countermeasures.

## Soil and Groundwater Remediation Work at a Former Plant Site of Sano Plastic\*

Work on investigation and remediation of soil and groundwater contamination by trichloroethylene and other chemicals began in December 2006 and ended in May 2009. Scheduled until May 2011, the monitoring has being conducted inside and near the site. Purification on-site was completed and has continued near the site for the following reference value since November 2009.

\*The site in question—at 213 Kubocho, Sano City, Tochigi Prefecture—was the location of molded plastic product manufacturing operations of a consolidated subsidiary of the Company during the period from August 1968 through June 2002. That manufacturing facility was closed in August 2002.

#### Trends in Concentrations of VOC Found in Groundwater Drawn from Observation Wells outside the Site



#### Remediation of Soil Contamination at the Nara Plant

Lead in concentrations exceeding environmental quality standards\* was detected in stormwater ditch gutter sludge within the site in January 2008 and then in a regulating pond shared with other companies in the industrial park in which the Nara Plant is located. In cooperation with the industrial park's management committee and government authorities, work to remove sediment from the stormwater drainage pathway and the regulating pond was undertaken, and that work was completed in December 2009.

\*The largest values detected were 260mg/kg. (While there is no statutory quality standard for lead concentrations in sediment, the environmental quality standard for lead concentrations in soil is 150mg/kg.)

#### Remediation of Soil Contamination at the Tsu Plant

Soil and groundwater quality surveys undertaken upon the September 2009 closure of the Tsu Plant detected a 0.056mg/L concentration of trichloroethylene in one sector (The environmental quality standard is 0.03mg/L). There was no contamination of groundwater. After immediately reporting these results to government authorities, the reductive degradation method was employed to undertake on-site remediation measures, and the decontamination was completed in March 2010.

#### Stream Water Pollution due to Effluent from the Durez Corporation's Kenton Plant in the United States

In August 2009, the State of Ohio's Environmental Protection Agency detected phenols, chlorobenzene, and other pollutants in stream sediment. After autonomously undertaking a survey\*

to determine the magnitude and spatial scope of the contamination, Durez decided to use excavation and suction methods to remove sediment from an area between an effluent pipe and a point 1,400 feet downstream. This work is ongoing.



- \* The survey results were as follows.
- Phenols: maximum of 6.51mg/kg (environmental quality standard: 0.15mg/kg)
- 3&4 methylphenol: maximum of 0.95mg/kg (environmental quality standard: 0.54mg/kg)
- 1,4 -dichlorobenzene: maximum of 251mg/kg (environmental quality standard: 0. 318mg/kg)
- 1,2,4 -trichlorobenzene: maximum of 18,600mg/kg (environmental quality standard: 5.062mg/kg)





Durez Corporation (Kenton Plant)

#### Soil/Groundwater Survey Results, Countermeasures, and Monitoring Situations

Site	Survey results	Countermeasures/ Monitoring situation
Kanuma Plant	Boron detected in soil adjacent to a waste liquid tank within the plant complex (March 2008). Maximum of 3.8 mg/L at 3m depth (environmental quality standard: 1 mg/L). No groundwater pollution	Forbade excavation in the contaminated portion and the surrounding area; monitoring groundwater on a continuing basis through 2012
Amagasaki Plant	Lead detected in soil (content, 2009 and 2010). Maximum of 550mg/kg (environmental quality standard: 150mg/kg). No groundwater pollu- tion	Used asphalt, gravel, and grass sod to prevent affect- ed soil from dispersing; monitoring groundwater on a continuing basis
Akita Sumitomo Bakelite Co., Ltd.	Lead detected in soil (extracted, 2005). Maximum of 0.032mg/L (environmental quality standard: 0.01mg/L). No groundwater pollution	Established observation well; monitoring ground- water on a continuing basis

#### Risk Reduction Important Despite the Time and Expense Required

Soil and groundwater pollution often stems from tiny leaks and other minor situations that persist over long periods of time before being discovered as problems. In many cases, it can be very difficult to discover the scope, causes, and other characteristics of problems. Moreover, regardless of whether they involve excavating soil, sequestering measures, or on-site purification processes, remediation projects entail huge expenses. In view of all this, it is

quite clear that measures to reduce risks related to leaks and other potential problems are very important and worthwhile despite the time and expense required.



**Koichi Nakamura,** Environment & Recycling Department

## **Environmental Conservation Activities**

The Sumitomo Bakelite Group is constantly striving to further improve its environmental conservation activities.

#### History of Activities

Year	Sumitomo Bakelite Group initiatives	Societal developments
1969	Pollution countermeasures secretariat established	·
1973	Environmental Management Division established     Environmental auditing of domestic business sites commenced	
1974	• Environmental management departments established for all business sites	
1978	• Environmental auditing of domestic affiliates commenced	
1987		Montreal Protocol on Substances That Deplete the Ozone Layer adopted
1990	• Environmental Issue Action Committee established	
1991	Recycling Technology Action Office established	Act on the Rational Use of Energy enacted
1992	• S.B. Recycle Co., Ltd., established	United Nations Conference on Environment and Development (UNCED or Earth Summit) generates several agreements, including the "Rio Declaration on Environment and Development" and "Agenda 21"
1993	<ul> <li>Environment and Safety Volunteer Plan drafted</li> <li>Environment and safety management regulations established</li> <li>Environmental audits of overseas affiliates commenced</li> </ul>	• The Basic Environment Law enacted
1994	• Use of certain CFCs and 1,1,1-trichloroethane ceased	
1995	<ul> <li>Responsible Care Committee established</li> <li>The Company joined the Japan Responsible Care Council as a founding member.</li> </ul>	Japan Responsible Care Council (JRCC) established     Law for Promotion of Sorted Collection and Recycling of Containers and Packaging enacted
1997	"Corporate Policies for Safety, Health, and the Environment" revised     Utsunomiya Plant and Sumitomo Bakelite Singapore Pte. Ltd. acquired ISO 14001 certification	Kyoto Protocol adopted by the Third Conference of the Parties of the United Nations Framework Convention on Climate Change (COP3)
1998	• First Environmental Activities Report issued	
1999	All Sumitomo Bakelite plants acquired ISO 14001 certification	Law Concerning Reporting, Etc., of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management enacted     Law Concerning Special Measures against Dioxins enacted
2000	Environmental accounting implemented	Basic Law for Establishing the Recycling-Based Society enacted
2001	Environmental Report issued (independent reviews conducted)	Law Concerning Special Measures against PCB Waste enacted
2002	Scope of Environmental Report expanded to include domestic affiliates     Tokyo Kakohin Co., Ltd., received an award for promoting a "3R" policy of reduce, reuse, and recycle     Risk Management Committee established	Soil Contamination Countermeasures Law enacted     Japan adopted COP3 Kyoto Protocol     World Summit on Sustainable Development generates Johannesburg Declaration on Sustainable Development
2003	Yamaroku Kasei Industry Co., Ltd., became certified as the Company's first zero waste emissions plant     Compliance Committee established	Building Code revised to resolve "sick building" syndrome
2004	Shizuoka Plant commenced operations of a cogeneration system	Air Pollution Prevention Law revised to reduce volatile organic compound (VOC) emissions
2005	Title of annual Environmental Report changed to Environmental & Social Report to reflect broader coverage of social initiatives  Sumitomo Bakelite (Taiwan) Co., Ltd., recognized as the Sumitomo Bakelite Group's first overseas zero emissions facility	Kyoto Protocol went into effect     Ordinance on Prevention of Health Impairment due to Asbestos
2007		The new EU Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) came into force
2008	Start of soil and groundwater pollution remediation measures at a site owned by Sano Plastic Co., Ltd., following the dismantling of a factory building there     Signed Responsible Care Global Charter	G8 Hokkaido Toyako Summit
2009	<ul> <li>Inauguration of multilingual Material Safety Data Sheet (MSDS) system</li> <li>Began participating as a partner in the Declaration of Biodiversity of the Japan Business Federation (Nippon Keidanren)</li> </ul>	Revised Act on the Rational Use of Energy took effect     15th Conference of the Parties (COP 15) held with the UN Climate Change Conference (Copenhagen Summit)

Items in blue represent developments in international society.

#### **Regarding Future Activities**

Sumitomo Bakelite has adopted the management principle, "Management that is highly compatible with society and the environment." Accordingly, we are moving ahead to achieve additional reductions in the environmental impact of our business activities with respect to each stage of the product life-cycle process, which is the central focus of our Responsible Care activities.

At the end of the last fiscal year, we set ourselves new medium- to long-term targets for reducing environmental impact by fiscal 2020, and we are now setting out with renewed determination to meet these

targets, which call for us to achieve reductions in greenhouse gas emissions volume, materials losses, and the emissions volume of solvents and other chemical substances. We are particularly intent on helping mini-

mize the "climate change" problems that are said to be an important crisis that threatens biodiversity by driving forward with various energy conservation plans, including those related to our manufacturing processes.

> Takamasa Akamatsu, Department Manager, Environment & Recycling Department





## **Product Liability**

Sumitomo Bakelite is moving ahead with quality management activities on a companywide level to enhance customer satisfaction by providing its customers with products and services with quality that they can use free from worry.

#### **Quality Assurance System**

We provide products that customers are satisfied with and can be used free from worry, by establishing a system that related divisions work in cooperation with each other, maintaining and improving quality in all processes (from product planning, product design, manufacturing preparatory work, manufacturing, to sales and service).

#### **Quality Management System (QMS)**

Sumitomo Bakelite and its domestic and overseas business sites develop quality management systems based on ISO 9001 standards and work to acquire certification. In particular, we have already acquired ISO 13485 certification for medical device operations and are working to acquire ISO/TS 16949 certification for auto parts operations. As of April 1, 2010, certifications had been obtained for 29 business sites, including 11 business sites of the Company and consolidated subsidiaries in Japan and 18 business sites of consolidated subsidiaries overseas.

#### **Quality Management Policy for Fiscal 2010**

All Sumitomo Bakelite Group employees are systematically implementing quality assurance activities based on QMS. In view of this, we have established the following quality management policy.

#### **Basic Policy**

All Sumitomo Bakelite Group employees shall try to provide products and services based on our customers' views, and continue to evolve to a more-flexible business structure to accommodate any changes in the market proactively.

#### Action Plan

In accordance with the above-mentioned policy, all Sumitomo Bakelite Group employees shall:

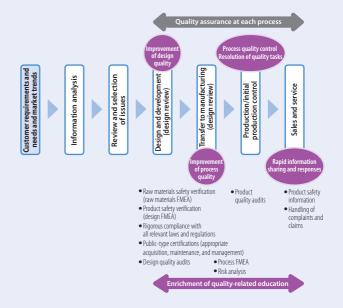
- 1. Work on the improvement of customer satisfaction,
- 2. Establish a system to avoid quality risk of our products,
- 3. Work on the establishment of "Quality assurance at each process,"
- 4. Reduce failure cost, and
- 5. Improve our consciousness and skills.

The following sections offer a general description of these mea-

#### **Introduction about Actual Activities**

The chart in the upper right-hand side of this page shows principal elements in the flow of activities from market surveys to sales and services

Throughout the range of processes from product design and development to manufacturing and sales, we are implementing risk assessment, inspections, and verification measures and are moving forward with activities to reduce and avoid product quality risks.



#### **Activities to Upgrade Design Quality and Process Quality (Reduce Product Quality Risks)**

#### (1) Failure Mode and Effect Analysis (FMEA)

In new product development—particularly in design/development and commercialization processes—we are seeking to realize highly finished product and process designs by using Failure Mode and Effect Analysis (FMEA) regarding raw materials, designs, and manufacturing processes and then incorporate risk reduction countermeasures and risk avoidance measures in new product development plans, in advance of their implementation. To advance further regarding risk reduction and risk avoidance measures related to design/development and commercialization processes, we are moving forward with the establishment of companywide FMEA implementation rules in fiscal 2010

#### (2) Quality Audits

To ensure product safety, we periodically conduct quality audits, and we also implement companywide consciousness-raising campaigns regarding quality management activities and product safety countermeasures.

In fiscal 2009, we conducted design quality audits to inspect and verify the quality of design/development processes. In addition, we conducted quality audits at some overseas business sites to inspect and verify production activities. In fiscal 2010, we will further increase the depth and scope of these audits.

#### (3) Design Reviews

To check, inspect, and verify such issues as whether design specifications meet customers' requirements, whether processes can realize design specifications, and whether product safety is ensured, etc., each business unit implements design reviews at each design stage and is moving forward with countermeasures to reduce qualityrelated risks

#### **Activities to Quickly Share and Respond** to Customer Information

#### (1) Claim and Complaint Processing Systems

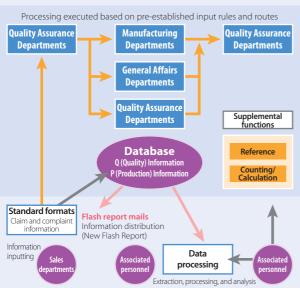
We have established a companywide system for processing claims and complaints. Each department defines and standardizes the importance ranking of claims and complaints related to each product, and provides for effective responses to claims and complaints from customers.

#### (2) Quality Information Systems

Diverse quality-related information from customers—such as information related to claims and complaints—is input into the system, registered in the database, mailed to management and other relevant staff as a flash report, and shared among those people. This system also serves as a support tool for helping in-house users quickly resolve problems according to pre-established rules and routes. Accumulated data for the entire Company is consolidated and utilized in diverse ways.

This system, which was renovated in fiscal 2008, also went into operation in fiscal 2009 at domestic business sites and at some overseas sites. In fiscal 2010, this system will be applied at all overseas business sites

### Overview of the Quality Information System (Example of Claim & Complaint Processing)



#### (3) Responding to Serious Claims

Each business department responds to claims and complaints from customers. Each department investigates the root causes of claims and complaints, and implements countermeasures to correct those problems and prevent a recurrence or occurrence. Regarding claims with a serious impact on society and/or customers, we separately handle them as "serious quality problems" within the claim and complaint processing systems so that management can quickly acquire related reports and timely countermeasures can be executed.

#### **Activities Related to "Quality Assurance** at Each Process"

We are using the Sumitomo Bakelite Production System (SBPS),\* based on the Toyota Production System, to progressively improve our product quality. One of the fundamental concepts of the SBPS is "Quality Assurance at Each Process" (not allowing defects and/or failures to proceed to the next process). In addition to manufacturing processes, we continually implement these activities with respect to raw materials procurement, product design/development, quality assurance/inspection, and sales/service processes, etc.

\* See page 33.

#### **Activities to Enrich Quality-Related Education**

#### (1) FMEA Education

Aiming to increase quality consciousness, reduce quality risks, and upgrade quality technologies, in fiscal 2009, we established 27 programs at the SB School\* and have used those programs to provide employees with quality-related education.

Among these programs, an especially large number of members participated in the FMEA courses (a basic course and a practical course) to reduce quality risks that we newly established two years

Especially in the practical course, the participants studied means of analyzing risks related to practical business issues so that they can recognize these risks and gain a deeper knowledge and understanding of the importance of the methods and practices for reflecting risk reduction measures in design and production processes. As a result of this training program over the past two years, the number of employees familiar with FMEA has increased, and FMEA is being

applied to actual operations. In fiscal 2010, these courses will be held in overseas business sites to further expand the number of employees familiar with FMEA and apply it to actual operations.



FMEA Education

\* See page 29.

#### (2) Defect Analysis Course

Aiming to upgrade our capabilities for accurately analyzing defective products returned by customers or defective items discovered during design, development, and manufacturing processes and to ensure that we obtain accurate analysis results, last fiscal year, we began to offer three defect analysis courses—a basic course, an applied course, and a practical course. Many of the participants in these courses have commented that these courses were very useful for their actual business operations. In fiscal 2010, we are continuing to offer these courses and making further improvements in their content

#### (3) Establishment of New Educational Courses

Going forward, we are planning additional business education courses designed to reduce quality-related risks.



## **Chemical Substance Management**

Sumitomo Bakelite takes environmental, safety, and health issues into consideration throughout all stages of the product life cycle—from development through disposal.

#### **Prior Assessment of New Raw Materials**

For raw materials to be newly introduced, we have put into place a framework for screening and registering that involves conducting prior studies of regulations in Japan and overseas and examining data on their hazardous properties. We have also established assessment criteria for banned substances and substances for which use is restricted.

#### **Green Procurement and Supplying Safe Products**

Consideration with regard to the chemicals contained in products throughout all stages of their life cycles, including use and disposal, has become a necessity. The EU's Restriction of Hazardous Substances (RoHS) directive and other regulations concerning the use of specified chemical substances require stronger supervision of product environmental quality management processes that also involve suppliers as well as increased information transmission. As a "Green Partner" to customers, the Sumitomo Bakelite Group is working with its customers to manage regulated chemical substances and plan the development and provision of products that do not harm the natural environment, even after their disposal.

#### Responding to Regulations Overseas and in Japan

The EU Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) has increased the strictness of the EU's chemical regulations, and it covers all chemicals exported to the EU. Accordingly, we have formed a project team to prepare a comprehensive response for the entire Sumitomo Bakelite Group.

Within Japan, also, the government has revised the principal chemical management-related laws: namely, the "Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof" and "the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc." The number of chemical substances subject to regulation has changed and increased substantially, and we are now required to provide data ranging from hazards to risk assessment. Regarding these regulations also, we are working to comply with legal requirements and taking autonomous initiatives to supervise chemical substances.

#### **Supplying Chemical Substance Data**

The Material Safety Data Sheet (MSDS) is a data sheet that provides information on health, safety, and environmental protection. The Sumitomo Bakelite Group issues product MSDSs that reflect the latest available information and are designed to ensure that customers are provided with fundamental safety information. In addition, through in-house educational programs for our own employees, we ensure that a comprehensive set of raw material MSDSs is always available in each workplace and thereby promote the prevention of accidents and increase employees' consciousness of safety issues. Furthermore, as "the Globally Harmonized System of Classification and Labeling of Chemicals" (GHS) is adopted and advanced by countries around the world, we are working to introduce improved labeling,

based on uniform hazardous substance classification standards, for all products that enables users to quickly understand important warning and reminder points with a single glance. The requirements

with regard to product labels and MSDSs are becoming increasingly strict. Sumitomo Bakelite has worked to put the GHS classification labels into use and is reevaluating all its product labels and MSDSs to make sure they meet all requirements in Japan and



A sample of a GHS label

#### **Comprehensive Chemical Substance Management System**

The Sumitomo Bakelite Group is moving ahead with the development and introduction of its Comprehensive Chemical Substance Integrated Management System, which is designed to provide information on legal regulations and safety data, as regards all chemical substances, including those used in production, the handling of raw materials, and products, in its plants, R&D centers, and elsewhere, in Japan and overseas. Because the system records the raw materials and a breakdown of the chemical substances in those materials, it facilitates the simple confirmation of data related to products' environment-friendliness, safety, and compliance with laws and regulations.

We have supplemented this system with the introduction of MSDS authoring software. In tandem with the system's core database of chemical substances-related laws and regulations covering 56 countries, this system is able to automatically perform GHS product classifications and create GHS labels in 29 languages to meet the needs of a broad range of countries. We will continue to evolve and

upgrade our Comprehensive Chemical Substance Integrated Management System to answer to the needs of customers around the world, who must respond to increasingly strict legal regulations, green procurement requirements, and other related trends.



Meeting held for users in Japan in November 2009

#### Aiming for Fast and Accurate Chemical Substance Management

Through the Comprehensive Chemical Substance Integrated Management System, we are providing support for the comprehensive management of chemical substances. This means helping to ensure safety and compliance with the legal regulations of various countries of the substances that are contained in the products of the Sumitomo Bakelite Group. It also means helping our cus-

tomers to meet their needs for green procurement.

Environment & Recycling Department Chemical Substance Management Group



### **Production Innovation**

Aiming to increase our abilities for transcribing cutting-edge needs into material media and creating a production workplace in the broadest sense that can steadily turn "demand creation" into earnings

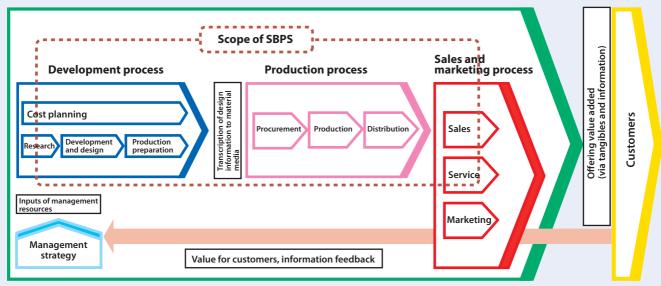
#### Sumitomo Bakelite's Innovative **Production System Initiatives**

Two years have passed since we began voluntary action programs, based on guidance from external experts, to create the Sumitomo Bakelite Production System (SBPS) that is best suited to our product lineup and will give our production systems a strong customer orientation and achieve a demand-pull effect. We formed a special companywide team, and, to keep the ideals and technology that we acquired from dissipating, we prepared instruction books and other tools, stationed staff members at all production locations in Japan to provide instruction, and worked to apply this system on a companywide basis.

Recently, we have also begun to implement related measures at locations in Asia outside Japan, where initiatives have been lagging, and, by incorporating functions that give off signals especially when there are problems or irregularities in the workplace as well as automatic self-correcting measures, we are moving toward raising the quality of production skills on a global scale.

Beginning this fiscal year, our activities have focused on deepening and broadening the application of this system to become a manufacturer that can offer increased value through its products and services that will win customer satisfaction. To this end, we are taking initiatives to create an optimal flow of marketing, R&D, procurement, production, and sales activities.

#### ■ Innovative Production Flow that Sumitomo Bakelite Is Targeting



#### **Human Resource Development**

To promote cost reduction activities on a continuing basis, it is indispensable to develop human resources who can play a leadership role in understanding the previously mentioned full business process flow, from marketing through development, production, and sales, and not fall into the trap of seeking partial optimal solutions, but aim for the global, overall optimum in production. Courses offered in the SB School, which is our framework for human resource development training, provide system promoters in each business segment with practical training on a continuing basis that enables them to create designs that are not bound by conventional methods but draw on resources from inside and outside the Group, while also working to evolve and improve the content itself.

#### **Upgrading and Augmenting Educational Materials (Manuals)**

The basic concept of SBPS is to nurture a corporate culture that works continually toward improvement based on the awareness that the current situation is the worst. As part of this training, various educational materials (manuals) and tools for improvement, which are based on actual examples, are upgraded and augmented on a continuing basis. Manuals have been prepared and translated into four languages (Japanese, English, Chinese, and Indonesian), and we are working to enable the sharing of these materials through a dedicated intranet website that is accessible to overseas plants.

#### The Head Office Is Also Involved

The Head Office administrative departments have also begun voluntary action programs, beginning with 5S. We want all Head Office departments to quickly catch up with the plants' level, and be capable of moving in a common direction to implement

improvement activities aiming at the "companywide optimum."



SBPS Development Department



### Shareholders, Investors, and Business Partners

Aiming for partnerships based on appropriate information and compliance

#### Relationships with Shareholders and Investors

#### ■ Basic Policy for Distribution of Profits

Sumitomo Bakelite is working actively to enhance its corporate value and regards returning a portion of profits generated by its businesses to shareholders as one of its most-important management priorities. In appropriating its profits, the Company considers the balance with retained earnings that will be used for the future development of the business, such as R&D expenditures, capital investment, and M&A, and, seeks to pay stable dividends in line with consolidated corporate performance. For the fiscal year ended March 31, 2010, based on this dividend policy, the Company declared an annual dividend of ¥10 per share.

#### Information Disclosure

The Company has prepared Disclosure Guidelines based on the fundamental concept of disclosing information to investors, employees, and other stakeholders in an equal, fair, accurate, and timely basis. In addition, the Company issues information in accordance with the timely disclosure standards of the stock exchanges where its shares are listed. Accordingly, the Company discloses its corporate information in a timely and appropriate manner.

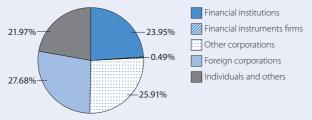
The Company is also actively disclosing information through its website. In addition to the information disclosure mentioned previously, the Company's website contains materials related to financial results, annual reports, and other information.

### **■** Encouraging Exercise of Voting Rights at Shareholders' Meetings

Beginning with the ordinary general meeting of shareholders held in June 2008, shareholders may exercise their voting rights by electromagnetic means. In addition, together with the Japanese-language versions, English translations of the notice of and proposals to be decided by the general meeting are available on the website, and the Company is working to offer such services that will make it easier for shareholders to exercise their voting rights. In addition, the results of voting on proposals at the general meeting are also available on the website.

#### Share Information

- Number of shares issued and outstanding: 262,952,394 shares
- Number of shareholders: 18,207
- Shares held by type of shareholder (as of March 31, 2010):



#### **Relationships with Business Partners**

#### Basic Approach

In the conduct of its business activities, the Company works to be in compliance with the laws, regulations, and social norms of Japan and other countries and requests that its business partners also observe such compliance standards. Specifically, with its suppliers, the Company requests, in principle, the concluding of basic transactions contracts that call for both contracting parties to respect human rights, maintain safety and health standards, work to preserve the natural environment, and remain in compliance with other rules and regulations.

#### Relations with Business Partners

When selecting new suppliers, the Company acts in accordance with its internal regulations and, after making judgments based on equal and fair standards, makes decisions to commence transactions. In addition, the Company believes that transactions should profit both partners and works to build relationships with its business partners that are at all times equal and based on mutual trust.

#### Compliance Policy

When commencing transactions, in addition to other matters, the Company confirms whether a potential business partner has been cited under Japan's Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors. In cases where the partner has been cited, the Company takes measures as provided for in this law and in its internal regulations. In addition, when new materials are adopted, the Company confirms whether such raw materials are regulated by domestic or overseas laws concerning chemical substances, and then prepares a procurement specification form for that item and registers the substance.

#### Initiatives for Stable Procurement

The Company's Global Procurement Division conducts surveillance of raw material manufacturing companies. The division prepares its own, original list of items for surveillance and its judgmental criteria; its attention focuses on research regarding the stability of supply. Items researched include the company as a whole, the business in question, procurement of materials, equipment, location, manufacturing workplace, workers, and the relationship with the Company. Judgments are made based on overall consideration of these issues.

#### **Aiming for Good Relationships**

Our work is to make decisions related to prices of raw materials, fuels, buildings, equipment, and machinery as well as the alloca-

tion of purchases. Our activities, therefore, have a direct effect on the Company's profitability. For this reason, we seek to maintain and strengthen relationships with our business partners.



Tatsuo Kataoka,

Global Procurement Division

## **Employment and Human Rights/Human Resource Development**

Sumitomo Bakelite respects the personality and human rights of each person and aims to create workplaces conducive to work.

The Sumitomo Bakelite Group strives to recruit a workforce with diverse values and personalities, facilitate each employee's selfexpression, and provide workplaces that are enriched both physically and esthetically.

Accordingly, we are able to provide work opportunities to those who have a desire to work, regardless of nationality, religion, ideology, age, gender, physical characteristics, or other attributes. It is our desire to be a corporate group that does not discriminate in any way on the basis of such characteristics.

#### **Number of Employees** of the Sumitomo Bakelite Group

#### Employees in Japan and Overseas

(Employees in Japan as of March 31, 2010; Overseas employees as of December 31, 2009)

	Directors	Executive Officers	Employees	Temporary Employees	Total
Parent company	10	9	2,271	293	2,583
Associated companies in Japan	24		773	112	909
Associated companies overseas	28		4,441	1,228	5,697
Total	62	9	7,485	1,633	9,189

Notes: 1. The number of employees on a consolidated basis on page 57 counts some personnel who are directors of associated companies in Japan and overseas and have been seconded from Sumitomo Bakelite as employees.

2. The number of directors of associated companies overseas counts some directors who have been seconded from the Company.

#### Employees by Geographic Area

(Employees in Japan as of March 31, 2010; Overseas employees as of December 31, 2009)

Japan	Europe	North America	East Asia	Southeast Asia	Total
3,492	313	332	1,926	3,126	9,189

#### **Number of Employees** of the Sumitomo Bakelite Group

#### Employees Newly Recruited

(Including new graduates and mid-career personnel)

	FY2005	FY2006	FY2007	FY2008	FY2009
Newly recruited	86	44	43	59	54
Male	83	40	34	46	45
Female	3	4	9	13	9

#### **Providing Continuing Employment Opportunities** for Staff Members beyond Retirement Age

Accompanying the enactment in April 2006 of the "Revised Act on Stabilization of Employment of Elderly Persons," we revised our internal regulations to enable staff members who have passed the mandatory retirement age of 60 years and wish to continue working to become contract employees. The revisions are designed to facilitate post-retirement hiring and promoting greater use of the knowledge, technical skills, and know-how that employees have accumulated over their careers.

Currently, four years since the enactment of the revised law, the number of people utilizing the post-retirement hiring system is increasing.

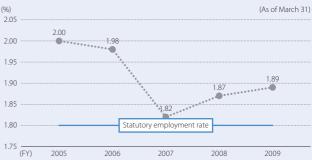
#### Staff Members beyond Retirement Age

	FY2006	FY2007	FY2008	FY2009
Number of retirement-age retirees	60	67	71	61
Number of postretirement rehires	27	40	46	40
Rehiring ratio	45.0%	59.7%	64.8%	65.6%

#### **Employment of People with Disabilities**

Sumitomo Bakelite considers the employment of people with disabilities to be an integral part of its corporate social mission, as established by law. Sumitomo Bakelite endeavors to give necessary consideration to enabling such persons to work despite their disabilities, and, as with its other employees, strives to create work environments that enable them to draw fully on their capabilities and further develop their skills and abilities.

#### **■** Employment Rate of People with Disabilities over the Past Five Years



#### Initiatives to Achieve a Work/Life Balance

In 2008, Sumitomo Bakelite formed its Work/Life Balance Labor Study Group with the following aims to consider effective policies and begin to implement those that are possible.

- (1) Promote flexible approaches to work and, by reducing overtime hours and promoting the use of annual leave allocations, use the time made available for non-work activities, such as selfimprovement studies and activities related to the family and the community
- (2) Make available a greater diversity of working styles that will help employees who must deal with major life events, such as marriage, childbirth, and raising of children, and thus contribute to nurturing the development of the next generation

The specifying of "no overtime days" and other approaches were especially effective in reducing overtime, and overtime hours declined by half in comparison with the previous year.

### ■ Number of Overtime Hours Worked and Vacation Days of Regular Employees

	FY2005	FY2006	FY2007	FY2008	FY2009
Average number of overtime hours (annual basis)	245.9	259.2	249.5	240.8	107.5
Average number of vacation days used	12.5	12.5	12.8	13.7	13.0

Note: "Regular employees" include personnel working in the daytime hours but excludes personnel in managerial positions.

#### **Employment and Human Rights/Human Resource Development**

#### **Support for Employees Experiencing Diverse Life Events**

Sumitomo Bakelite is emphasizing measures to create work environments that enable employees to achieve a balance between their work and such life events as childbirth and child raising. In 2009, new measures included extending the provision for shortening daily working hours of employees, which was previously made available for parents of children attending through the third year of primary school, through the final year of primary school. A measure was also introduced to give appropriate consideration, as much as possible, to accommodate the requests of employees who have been obliged to move their place of residence because of marriage or other such reasons. Also, for employees who must resign temporarily because of marriage or childbirth but want to return to work after their children no longer require close supervision, the Company newly established a system that makes it possible to reemploy such employees up to 10 years following their resignation. As these measures suggest, the Company is working step by step to introduce support systems for employees with children.

#### Managing to Work and Raise Children, with Security and without Strain

I completed my second leave of absence for childbirth and child rearing this past spring, and, following my return from leave, I am taking advantage of the program for shorter working hours. As a result of the Company's concern for making it easier for employees with children to continue working with the support of other employees, I am able work with a feeling of security and without

When the children become ill suddenly, I always feel apologetic toward my fellow employees when I have to apply for time off, but, because of their warm and encouraging words, I can maintain

a positive frame of mind. I want to use my feelings of thankfulness as a source of motivation for doing my work better and continue to do my best as I strike a balance that is good for me.



Hirono Doi, Human Resources Development Dept.

#### **Health Management**

Sumitomo Bakelite strives to create workplaces that facilitate the work activities of employees as well as maintain good physical and mental health. Our programs in this regard center mainly on regularly scheduled health checks and health guidance based on the results of those examinations. By gaining a proper understanding of the results of these diagnoses and receiving guidance from in-house and outside industrial health staff, our efforts to prevent and correct lifestyle problems have generated tangible results. In addition, we schedule days on which employees can receive health consultation at their own discretion, and industrial health staff provide advice on physical and mental health issues.

Through these various measures, we assist employees in living healthy lives and provide total backup for them in health-related matters not only in their work but also including their daily lives. Based on the awareness that health enhancement requires both the supervisory efforts of the Company and the indispensable preventive efforts of each and every employee, we also place emphasis on staff health education. Especially in the field of mental health, where the importance of early "awareness" is important, we offer a basic course in mental health aimed at all employees and further opportunities for study via an e-learning course. In addition, we call on personnel at the managerial level who are responsible for managing other employees to attend courses related to maintaining and showing concern for the mental health of those employees under their direction. These educational programs are held each year, and they are used for gaining further knowledge as well as brushing up knowledge gained previously.

#### **Human Resource Development**

The human resources that Sumitomo Bakelite seeks to hire and foster are people who understand the Company's basic policy—"We value trust and maintain steadiness. Based on this, we strive through our business activities to make contributions to social progress and improvements to the quality of life worldwide."—and its mission of "becoming an excellent global company" and can make a contribution with their own initiative to the sustainable growth of Sumitomo Bakelite's business activities.

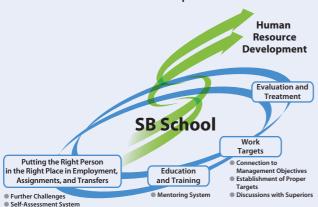
Specifically, the following are key characteristics of the autonomously motivated personnel we seek.

- (1) People who are growth-oriented and have the drive to acquire new skills and knowledge necessary for their jobs;
- (2) People with a pro-reform stance who are not satisfied with the status quo, but are always looking for ways to do a better job;
- (3) People with a team-oriented approach who can combine their individual strengths with the strengths of those around them to deliver better results; and
- (4) People with outstanding skills and know-how who can produce results in jobs both in and outside of Japan as professionals.

In September 2007, we opened the Sumitomo Bakelite School (SB School), which is designed to provide lifelong education and training courses that help the Sumitomo Bakelite Group realize sustained growth in business operations as well as rise in corporate value. It provides courses for all grades of employees from all departments involved with business activities. These courses include "all-employee education" courses that confirm and reinforce employees' awareness of basic management principles as well as fundamental knowledge about such issues as compliance, human rights, occupational safety, quality, and environmental protection. The school is also planning and methodically implementing various other kinds of educational and training courses. From the time the SB School commenced its activities in September 2007 through April 2010, the cumulative total number of attendances at its courses has been about 66,000, and the number of hours of instruction has been approximately 126,000. Going forward, the SB School will

implement a wide range of education programs that enhance the knowledge and the skills of Sumitomo Bakelite Group personnel. As business becomes increasingly global and borderless in the 21st century, Sumitomo Bakelite is actively striving to develop the capabilities of each employee—the Company's most precious management resource—through sustained development as a "Global Excellent Company."

#### ■ SB School and Personnel Development



#### **Education for Specific Objective— Training in Logical Thinking**

This course, which is conducted over a period of two days, has two objectives. The first is to learn to think proactively and master the basic methods for putting things in order. The second is to master the basic skills of problem solving. The content of this course is focused around "thinking for oneself and communicating your thoughts to other people" and involves considering a wide range of real life business themes. The employees attending this course come from a diversity of job categories, and they are divided into a number of groups. As the course proceeds, they engage in actual work situations that involve the application of many conceptual methods.

To apply the content of the course to actual business situations, employees attending engage in a range of activities, including preparing internal documents, learning the processes related to giving

explanations to customers, formulating sales strategies and new plans, and preparing plans for experiments. Therefore, many connections can be drawn between the content of this course and a range of activities that employees will be involved in after they complete the course.



Logical thinking training class

#### **Diverse Education and Training Programs** in Overseas Business Sites

At Sumitomo Bakelite Singapore Pte. Ltd., training begins with environmental safety, compliance, and the Sumitomo Bakelite Production System (SBPS), and then proceeds to cover a broad

range of areas related to human resource development. These include human skills such as the management of interpersonal relationships as well as skills for problem solving and decision making.





Employee training at SBV

Sumitomo Bakelite Vietnam Co., Ltd. (SBV), conducts an active training program to increase employee knowledge and skills related to the circuit substrate products this company manufactures. Training in basic technical knowledge is conducted for three months, and comments of participants in these courses include "We became very excited by this firsthand learning experience" and "The course did not stop at just conveying knowledge, but we also have to change to understand real issues, and this has been very useful in actual operations."

Also, employees from overseas business sites take part in training conducted in Japan. All employees receive training in basic items via e-learning, but participants from overseas also attend training sessions for managerial-level staff conducted in Japan by various departments.



A managers' education class

#### Continuing to Make Progress in Power and Knowledge through Training

I participated in the training program for managerial-level staff conducted by various departments. This program aims to give participants an awareness of their own strengths and provide them with the energy to approach various issues diligently with the objectives of not only developing themselves but also stimulating collaboration, cooperation, and teamwork in the organization.

Through my attendance in this program, I gained an understanding of what it means to be a professional and was able to strongly reconfirm my own individuality, point of view, and mission. Although I know it will not be easy, I had the feeling that I must continue to move forward to do my part in helping the Sumitomo Bakelite Group to develop.

Looking ahead, I am scheduled to attend a program that will cover the directions of the business and the

recreation of values. I would like to continue to study and learn many other things.



Tommy Lim, Sumitomo Bakelite Singapore Pte. Ltd., General Manager



## **Occupational Safety and Health**

Under the slogan of "Safety First," putting maximum priority on safety in operations

Sumitomo Bakelite is continuing to implement improvements in its activities, and, through the cooperation of management and labor, is working to make the Occupational Health and Safety Management System (OHSAS-18001) and international machinery safety standards ISO 12100 and ISO 14121 integral parts of its operations.

#### ■ OHSAS-18001 Certification

Sumitomo Bakelite received this certification in 2009 for its principal plants in Japan (Utsunomiya, Kanuma, Shizuoka, Nara, Amagasaki, Akita Sumitomo Bakelite Co., Ltd., and Kyushu Sumitomo Bakelite Co., Ltd.).

Beginning in 2010, preparations began for obtaining this certification at associated companies in the rest of Asia, and Sumitomo Bakelite Singapore Pte. Ltd. and P.T. Indopherin Jaya have already been certified.

#### Activities to Reduce Risks of Machinery and Equipment

Beginning in 2008 in plants and associated companies in Japan and in 2009 at overseas companies, new machinery and equipment have been designed to comply with ISO 12100. For existing equipment, risk assessments have been conducted, and improvements are being made according to plan.

#### ■ Promotion of Occupational Health and Safety

In parallel with measures to reduce the risks inherent in machinery and equipment, Sumitomo Bakelite is continuing its danger alert training that it began in prior years as well as such autonomous initiatives as "pointing and calling" as well as proposals for special caution and safety confirmation. The objectives of these activities include increasing sensitivity to possible danger and eliminating careless behavior.

#### ■ Trends in Occupational Accidents

# Trends in Occupational Accidents at Sumitomo Bakelite and Domestic Subsidiaries and Affiliates (16 business sites)

The following graphs show trends in data on industrial accidents, including subsidiaries and affiliates. In 2009, there were 11 industrial accidents, the smallest number since 1970. In particular, accidents where operations were not interrupted remained at the same minimum level as in 2008. The frequency rates of accidents are also declining, and we are continuing to implement measures aimed at making further steady reductions.

#### **Number of Industrial Accidents**



Notes: 1. Data are compiled from all domestic business sites listed on page 11. Data through 2006 included workers who are not employees of the Company. In line with frequency rate data, data from 2007 exclude workers who are not employees of the Company.

2. Data are compiled from January through December of each year.

#### Frequency Rate\*



\* Frequency rate = (Deaths and injuries/total working hours) x 1,000,000

Notes: 1. Data are compiled from all domestic business sites listed on page 11, and exclude workers who are not employees of the Company. Group data have been compiled only since 2003.

2. Data are compiled from January through December of each year.

#### Occupational Safety and Health Activities in Japan and Overseas



Lecture by an industrial doctor on the new strain of influenza virus and anti-contagion policies (Shizuoka Plant)



Training in occupational safety (Amagasaki Plant)



Training in the use of an automated emergency defibrillating (AED) device (S.B. Techno Plastics Co., Ltd.)

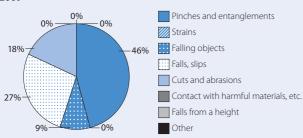
#### Occupational Accidents by Type

The number of accidents in 2009 posted a record decline, but an analysis of the composition of these accidents by type shows that five accidents involving pinches and entanglements occurred in 2009, the same number as in 2008. For this reason, we are further stepping up our activities to reduce the risk of accidents involving machinery and equipment based on ISO 12100 international safety standards.

#### 2008 Pinches and entanglements 5% 10% Strains Falling objects 25% Falls, slips Cuts and abrasions 15% Contact with harmful materials, etc. 25% Falls from a height -0% 15% Other

Note: Data are collected for January through December.

2009



Note: Data are collected for January through December.

#### **Trends in Occupational Accidents at Overseas Subsidiaries** and Affiliates (total of 21 business sites)

Regarding occupational accidents at overseas subsidiaries and affiliates, judgment criteria differ among countries, but in general there tend to be more accidents in overseas sites. For example, in Japan the number of accidents per site is 0.7, while data for overseas sites shows 3.6 accidents per site. We intend to further reduce these figures through the application of OHSAS 18001 and ISO 12100.

#### **Number of Industrial Accidents**



Notes: 1. Data are compiled from all domestic business sites listed on page 11. Data for Durez Corporation was compiled from three business locations of that company

2. Data are compiled from January through December of each year.

#### ■ Surveillance of Safety, Health, and Disaster Prevention

To confirm the status of legal compliance as well as education and training regarding safety/health and disaster prevention at business sites in Japan and at sites of subsidiaries and affiliates in Japan and overseas, Sumitomo Bakelite conducts surveillance activities related to these matters on a periodic basis. In fiscal 2009, surveillance of the status of safety, health, and disaster prevention was conducted in Japan at seven of the Company's business sites and seven sites of subsidiaries and affiliates. In addition, surveillance was conducted at 11 business sites of sub-

sidiaries and affiliates in Asia outside Japan. The photo on the right shows surveillance activities for safety, health, and disaster prevention matters in progress at a site in China.



Site of Sumitomo Bakelite (Nantong) Co., Ltd.



Safety and Health Exhibition (SNC Industrial Laminates Sdn. Bhd.)



Partition separating smoking/non-smoking sections (P.T. SBP Indonesia)



Heart massage practice session (Vyncolit N.V.)



### **Environmental Audits and Environmental Education**

Sustaining activities to further improve environments of local communities and workplaces

#### **Environmental Audits**

Every year, we conduct environmental audits to investigate the environmental protection activities, legal compliance situations, and status of energy conservation activities of all the Company's business sites in Japan as well as Group companies in Japan and overseas.

#### In Japan

Regarding fiscal 2009, we conducted environmental audits of six domestic Group companies during April and July 2009, while environmental audits of six domestic business sites were conducted during October 2009 and January 2010.



ımaroku Kasei Industry Co., Ltd.



Kyushu Sumitomo Bakelite Co., Ltd.



S.B. Research Co. Ltd.



S.B. Techno Plastics Co. Ltd.

#### Comments on the Environmental Audit

In November 2009, the Shizuoka Plant was audited by the Head Office Environment & Recycling Department, and, as a result of the audit, a number of points for improvement were cited. There are many production facilities within the Shizuoka Plant, and the number of chemical substances handled is large. In addition, the plant has many departments, including an R&D center, project teams, as well as units of subsidiaries and affiliates. We accepted the results

of this environmental audit seriously, and all of our departments are working together to steadily implement measures for improving our environment-related activities.





#### Overseas

During fiscal 2009, among overseas subsidiaries and affiliates, audits were undertaken of the environmental protection activities and legal compliance situations of six Group companies in Southeast Asia in December.



SumiDurez Singapore Pte. Ltd. (Singapore)



SNC Industrial Laminates Sdn. Bhd. (Malaysia)



Sumicarrier Singapore Pte. Ltd. (Singapore)



P.T. Indopherin Jaya (Indonesia)

#### **Environmental Education**

#### Group Education Programs

At our plant, we handle a wide range of chemical substances. To protect the environment in the vicinity of the plant and enable employees to work in safety, we work to deepen understanding of the nature of chemical substances and the content of related legal regulation, and, to enable employees to respond appropriately, we conduct periodic group education programs. We also hold group sessions for new employees of the Head Office and other business sites as well as systematic educational meetings on specific themes related to business operations.



Shizuoka Plant



Amagasaki Plant



Head Office (New employee education)

#### **E-Learning**

In addition to group education programs, we have declared June to be Environmental Emphasis Month. To promote awareness regarding environmental issues among employees, we conduct environmental education via e-learning courses that are available for all personnel.

## **Safety and Accident Prevention**

#### Continually moving ahead with the creation of "safe and secure plants"

#### ■ Aiming to Create Safe and Secure Plants

At production plants, top priority is given to safety and disaster prevention measures. Aiming to create "safe and secure plants" able to earn the trust and confidence of local society, ensure the safety of employees, and provide customers with steady supplies of products, we create action plans at each of our plants and continually implement education and training programs designed to maintain a record of zero accidents and zero disasters. Moreover, to prepare for the possibility of an accident, we undertake disaster-countermeasure training with the objective of minimizing damage.

## Overview of Safety and Disaster Prevention Training Activities at Domestic and Overseas Plants

#### Examples of Cooperation with Local Communities in Conducting Disaster Prevention Activities



Participation in a volunteer fire brigade event in Amagasaki (Amagasaki Plant)



Participation in fire extinguishing competition in Utsunomiya (Utsunomiya Plant)



Practice for providing MSDSs to a public fire brigade (Kyushu Sumitomo Bakelite Co., Ltd.)



General training provided by members of the local fire department (Shizuoka Plant)



Training in fire fighting and evacuation provided by local fire department members (Sumitomo Bakelite Vietnam Co., Ltd.)

#### Examples of Evacuation/Rescue Training Activities at Business Sites



Training in use of fire hoses (Kanuma Plant)



Training in evacuation (SNC Industrial Laminates Sdn. Bhd.)



Training for use of fire extinguishers (Sumitomo Bakelite (Thailand) Co., Ltd.)



Training in use of fire hydrants and hoses (Sumitomo Bakelite Macau Co., Ltd.)



Training in use of fire hydrants and hoses (Sumitomo Bakelite (Nantong) Co., Ltd.)



Training for use of fire extinguishers (Bakelite Precision Molding (Shanghai) Co., Ltd.)



Training in use of fire hydrants and hoses (Sumitomo Bakelite (Suzhou) Co., Ltd.)



Training in use of fire hydrants and hoses (Sumitomo Bakelite Hong Kong Co., Ltd.)



Training in evacuation (N.V. Sumitomo Bakelite Europe S.A.)

#### Examples of Training for Fire Fighting, Dealing with Chemical Accidents, and Use of Aerial Work Platforms within Plants



Training for emergency situa tions (Nara Plant)



Training in use of suits protected against chemicals (Durez Corporation, Kenton Plant)



Training in use of aerial work platforms (Vyncolit N.V.)



## **Exchanges with Local Communities**

Each Sumitomo Bakelite Group company works to deepen its relationship with local communities.

#### Singapore

#### Volunteer Assistance at Facilities for the Physically Challenged

At Sumitomo Bakelite Singapore Pte. Ltd. (SBS), the company and its employees combined their contributions to buy and

donate diapers for adults and food items to Singapore Red Cross facilities for the physically challenged. In addition, as a volunteer activity, employees provided their time at these facilities to help repair equipment, wheelchairs, and other items as well assist in the feeding of residents of the facilities.



Employees volunteer their time to assist at facilities for the physically challenged. (SBS)

#### Volunteer Assistance at Senior Citizens' Homes

Working together with local groups, SBS employees pay individual visits to 40 senior citizens in the area who live alone to distribute food items and other support products.



Providing support for senior citizens living alone (SBS)

#### **Blood Donations**

Each year, SBS employees participate in blood donation activities. During fiscal 2009, 36 employees made blood donations



Employees make blood donations

#### Indonesia

#### Students of Community Schools Invited for Plant Visits

In August 2009, P.T. Indopherin Jaya (IPJ) hosted study visits to its

plant by six teachers and 33 students of Probolinggo City high school as part of an environmental and safety education program. After viewing the plant, IPJ provided explanations of its environmental initiatives.

In addition, in October professors from the business education departments of local universities and nine of their students visited the plant to study matters relating to the International Organization for Standardization (ISO).



Community high school students during a plant visit (IPJ)



University students from the community paying a visit to the plant (IPJ)

#### Participation in Morning Market

A request was received from the Probolinggo City Office to provide

social volunteers for the morning market. Accordingly, IPJ and P.T. Pamolite Adhesive Industry (PAI), another Sumitomo Bakelite Group member, worked together to provide one ton of rice, and employees from both companies sold the rice at low prices.



Employees offering rice for sale at the morning market (IPJ and PAI)

#### Support for Earthquake Disaster Relief

As a result of the major earthquake in the Padan area offshore western Sumatra that occurred during the night of September 30, 2009, many buildings collapsed, and the area suffered other

serious damage from the disaster. Personnel of Sumitomo Bakelite Group company P.T. SBP Indonesia (SBPI) considered possible ways of providing some assistance and decided to donate corrugated plastic sheets for roofing purposes, which are one of SBPI's products.



Donation of roofing materials to earthquake victims (SBPI)

#### **Thailand**

#### Donation of Shoes to Welfare Homes for Senior Citizens

Sumitomo Bakelite (Thailand) Co., Ltd. (SBT), made a donation of shoes to welfare facilities for the elderly. Although the shoes were older models, the recipients were delighted because they could use them for their morning walk and for working in the

fields. Persons in this facility are almost all without family members they can turn to.

We will all grow old eventually. We undertook this activity because we believe it is important to do what we can when we are still able.



Donation of shoes to homes for senior citizens (SBT)

#### Malaysia

#### Middle-School Students Invited in Safety and Health Campaign

Group company SNC Industrial Laminates Sdn. Bhd. (SNC) held a safety and health campaign in January 2010. With the goal of pro-

moting exchange with the community, SNC invited 50 students and their professors. SNC employees joined with the invited guests to listen to the program, which covered issues related to health and safety, and included explanations from industrial doctors



Middle-school students from the community were invited to the campaign (SNC).

and representatives of government safety and health departments. SNC plans to continue these activities with the goal of promoting more in-depth interchange with the community.

#### **Vietnam**

#### Activities Contributing to the Community

Sumitomo Bakelite Vietnam Co., Ltd. (SBV), as a member of the Social Responsibility Committee (SRC), a group that was formed in 2006 to contribute to the community, is working to make con-

tributions to the regional communities. As part of these activities, a donation was made and a scholarship presented in January 2010. Many of the children in the local community attended the presentation ceremony.



Social Responsibility Committee donation ceremony (SBV)

#### **Japan**

## ■ Dialogue with the Community **Public Invited to Summer Outing**

Every August, the Shizuoka Plant sponsors a summer outing to have fun and "cool off" from the hot summer weather. In addition to extending invitations to employees and their families, the plant invites members of the surrounding community to join in.



#### Exchange with the Industrial Park

Staff at the Company's Kobe Fundamental Research Laboratory participate actively in a summer outing and firefighter training sponsored by the Kobe High Tech Industrial Park.



Exchange activities within the industrial park

#### Support for Training of the Physically Challenged

Employees of the Shizuoka Plant set out to sell bread that is prepared by persons residing in the Harmonia home for the physi-

cally challenged, which is located in nearby Fujieda City. By helping to sell the bread baked by Harmonia residents, employees of the Shizuoka Plant provide support for the training of physically challenged persons.



Shizuoka Plant employees engaged in selling Harmonia home bread

#### Mini-Symposium for Science Teachers

In January 2010, Sumitomo Bakelite and the Japan Chemical Innovation Institute (JCII) sponsored a mini-symposium with the objective of "communicating the interesting aspects of chemis-

try and craftsmanship" as part of the Fujieda District Science Project. The mini-symposium was held at the Shizuoka Plant, and the participants were science teachers invited from middle schools in the Fujieda District. The program included performance of science experiments by volunteers from the Kurarika science school and lectures on plastics given by Sumitomo Bakelite employees. During the free discussion period, we received many opinions and requests from the science teachers.



Science experiments conducted by volunteers



Lecture on plastics

### Visit from the Mayor of Amagasaki

In February 2010, Ms. Aya Shirai, mayor of Amagasaki City, visited the Amagasaki Plant. To draw fully on the strengths of Amagasaki as a city that has a strong industrial base suited to manufacturing and craftsmanship, the mayor personally visits companies in

the area. After attending a presentation outlining the Amagasaki Plant and explaining our environmentrelated activities, the mayor visited the plant's medical film and sheet production facilities. She was particularly interested in how we maintain product quality at our facilities.



Ms. Aya Shirai, mayor of Amagasaki, chatting with plant staff

## Regional Environmental Preservation

#### Cleanup Activities Near Plants and in Local Communities

To stamp out illegal waste disposal at group plants and at subsidiaries and affiliates, Sumitomo Bakelite is working as a member of community groups. In addition, employees help keep roads in and in the vicinity of its plants in clean condition. Another

such activity at the Shizuoka Plant is cooperating with community groups in keeping rivers clean.



Cleanup activities at S.B. Techno Plastics





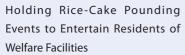
Environmental maintenance activities at the Shizuoka Plant

## **Exchanges with Local Communities**

## ■ Volunteer Activities **Contributing to the Community** Assisting in

## **Blood Donation Campaigns**

Each year, group employees cooperate actively with blood donation campaigns in the vicinity of plants and R&D centers.



In February 2010, 50 employees of the Shizuoka Plant, their families, and others held a rice-cake making event in the Nambu Sumire no le welfare facility in Fujieda. This is a regular event held once each year for almost 20 years. Residents of the facility join in the rice-cake



Blood donation at the Shizuoka Plant





pounding and participate in games as part of the event. Every year, the residents see us off with a pleasant "Please come again next year!," and we respond, "OK, we promise we will be back next year!"

## A Company Where the Physically Challenged Can Work

A total of 43 persons with physical disabilities commute to the Nambu Sumire no le welfare facility, with the goal of "offering the strength of their work to the community." One of the events they look forward to most is the annual rice-cake pounding event with employees of Sumitomo Bakelite. They enjoy wielding the rice pounder and joining in the games with the Sumitomo Bakelite people. Even though they may have disabilities, they still have dreams and hopes that they live for. One of their dreams is to work together with the people of the community. I think it would be

wonderful if they could realize their dreams by experiencing practical work in your company. Please continue the rice-cake pounding event and make time for exchange with



Yasoji Kitano, Facility Manager, Nambu Sumire no le

## Responses to Environment-Related Complaints

Sumitomo Bakelite responds promptly to a range of complaints from residents of local communities.

Category	Date	Business site	Complaint	Cause and response
Other	January 2010	Fundamental Research Laboratory (Yokohama, Japan)	The owner of an apartment building bordering on a Company site complained that branches of the trees located in the site extended over the roof of the apartment, resulting in stoppage of the gutters.	Branches of the two trees extending over the roof of the apartment were trimmed.
Other	Laminates Sdn. Bhd. (Malaysia)  Department of the Environment complaining that a drum can containing an unidentified substance with an SNC label was found about 180 kilometers from Johor and appeared to are now conducting insp		The cause was found to be that a third party had sold a used drum can with an SNC label still attached. We changed our contracts to read that such third parties must remove the labels before selling the drum cans. We are now conducting inspections to confirm compliance with the contract once a year.	
Odor	June 2009	N.V. Sumitomo Bakelite Europe S.A. (Belgium)	Residents of the neighborhood complained about an unpleasant smell.	We immediately inspected the plant site in question but were unable to confirm the unpleasant smell. Thereafter, we visited the residents of the neighborhood who had complained, but found that the smell had stopped. We agreed to continue to maintain contact with the residents, and, if the smell returned, we promised to visit them at once.
Noise	December 2009	Sumitomo Bakelite (Suzhou) Co., Ltd.	Residents of the neighborhood complained about a loud noise from the plant.	The principal sources of the noise were in the vicinity of a compressor room, a cooling tower, and an exhaust vent. We immediately undertook repairs on the exhaust vent on the north side of the roof. Thereafter, we replaced aging equipment in the compressor room of a different building and repaired another exhaust vent. We also completed a soundproofing wall around the cooling tower by the end of April.
Other	March 2010	SNC Industrial Laminates Sdn. Bhd. (Malaysia)	Residents of the neighborhood complained that leaves from trees located in the plant site were causing their water pump to become clogged.	We trimmed the trees in the first part of April and then decided to trim them periodically every six months thereafter.



### **Amagasaki Plant**

2-3-47, Higashi-Tsukaguchi-cho, Amagasaki-shi, Hyogo

#### Number of employees:

586

### Commencement of operations:

1938

## Site total area:

46.000m<sup>2</sup>

#### **Date ISO 14001** certification received:

October 1998

#### **Principal products:**

Co-extruded, multilayered films for food product packaging; PTP packaging materials for medical use; Wrapping tape for electronic parts



Plant Manager **Hidehiro Morita** 

In addition to our initiatives at the Amagasaki Plant to conserve energy and reduce waste, we are planting greenery to improve the thermal insulation properties of the buildings and enhance the appearance of the plant grounds. Last year, we planted greenery to provide cover for the wall surfaces, and this year, we are covering the roof surfaces with greenery.



New Years' simulated fire drill exhibition in Amagasaki City



Employees participate in water sprinkling exercise at the Amagasaki Plant.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
	SOx	m³N/h	2.89	Less than 0.03
Boiler	NOx	ppm	250	44.9
Boller	NOx (total volume)	tonnes/year	13.8	2.06
	Soot and dust	g/m³N	0.05	Less than 0.002

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	5.8-8.6	7.0-7.9
BOD	mg/L	25	6.7
COD	mg/L	25	6.8
Suspended solids	mg/L	20	3.0
n-hexane extract	ma/l	20	2.5

#### <Water> Released into sewers

Item	Unit	Regulatory limit	Actual measurement
рН	_	5.7-8.7	5.7-8.6
BOD	mg/L	300	310*
Suspended solids	mg/L	300	110
n-hexane extract	mg/L	30	16

<sup>\*</sup>The water sampling (Jan. 18, 2010) took place at a time when toilet facility renovation work was under way, and it is believed that this situation caused water samples to have a higher BOD than at ordinary times.

## **Nara Plant**

#### Address:

1-2 Techno Park, Nara Kogyo Danchi, Sugawa-cho, Gojo-shi, Nara

#### Number of employees:

60

### Commencement of operations:

1991

#### Site total area:

20.357m<sup>2</sup>

### **Date ISO 14001** certification received:

April 2000

#### **Principal products:**

Waterproofing sheets, Box-type electric sign plates



— Plant Manager Keiichi Imura

The Nara Plant manufactures plastic waterproofing sheets, which are one type of construction material. Since this requires considerable heat energy, we engage in activities to conserve energy and reduce CO2 emissions on a daily basis. We are also working to reduce the level of industrial waste generated by our manufacturing activities and conducting risk assessments to prevent the leakage of harmful substances from the plant during emergencies.



Children in junior police uniforms pay a visit to plant facilities.



Safety education for drivers

## <Air>

Facility	ltem	Unit	Regulatory limit	Actual measurement
Drying furnace	NOx	ppm	180	79
	Soot and dust	g/m³N	0.30	0.011

## <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	_	5.6-8.4	7.4-7.8
BOD	mg/L	50	Less than 2.0
COD	mg/L	50	3.0
Suspended solids	mg/L	20	Less than 2.0

Plant managers and presidents of affiliated companies whose photographs are shown here in the plant site reports held these positions as of March 31, 2010.

- Notes: 1. The regulatory limits are the most-stringent regulations imposed by ordinances, regional agreements, administrative guidance, and other requirements issued by governmental authorities
  - 2. Actual measurements are the maximum levels recorded in fiscal 2009. Please note that, in the case of pH figures, the minimum and maximum levels are shown.
  - 3. When actual measurements are below the minimum significant amounts, the amounts are shown as "less than (the minimum amounts)." When the substances in question were not detected, the amounts are shown as "less than (the detectable amount)."



#### Shizuoka Plant

#### Address:

2100 Takayanagi, Fujieda-shi, Shizuoka

#### Number of employees:

738

### Commencement of operations:

1962

## Site total area:

287.000m<sup>2</sup>

#### **Date ISO 14001** certification received:

March 1999

#### **Principal products:**

Copper-clad epoxy composite sheets, molding materials, epoxy resin molding powder, industrial-use phenolic resins, melamine resin decorative laminates, formalin, molds and dies, etc.



Managing Executive Officer and Plant Manage Kazuhisa Hirano

The Shizuoka Plant is Sumitomo Bakelite's principal facility for manufacturing a comprehensive lineup of networked polymer products. It supplies a range of products from resin compounds to molded components that are finished and fully hardened as well as laminated products. Our missions at the plant are to work to expand production, through the launching of transfer and new products, and, at the same time, we are striving to make a

major reduction in the environmental impact of our activities by lowering energy consumption, cutting CO<sub>2</sub> emissions, reducing industrial waste, and other initiatives. We are actively implementing ISO 14001 activities, and all staff are participating in activities to reduce the effects of our operations on the natural environment.



Beautification activities in the Surugadai area



Residents of Fujieda pay a visit to our plant.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Cogenera-	NOx	ppm	100	41
tion boiler	Soot and dust	g/m³N	0.05	Less than 0.013

### <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	5.8-8.6	7.0-7.7
BOD	mg/L	15	9.1
COD	mg/L	_	3.0
Suspended solids	mg/L	30	9.2
n-hexane extract	mg/L	3	Less than 0.5
Phenols	mg/L	1	Less than 0.05
Formaldehyde	mg/L	5	0.4

## **Kanuma Plant**

7-1 Satsuki-cho, Kanuma-shi, Tochigi

#### Number of employees:

366

#### Commencement of operations:

1970

#### Site total area:

75.878m<sup>2</sup>

#### Date ISO 14001 certification received:

March 2000

#### **Principal products:**

Hard resin sheets made from such materials as PC, PS, PET, ABS, PVC; waterproofing materials incorporating waterproofing processed steel products



Executive Officer and Plant Manager Kimimasa Nishimura

The Kanuma Plant is working actively to reduce the environment impact of its activities with the participation of all staff members. Our main initiatives include reducing industrial waste by raising yields and practicing the 3Rs (reduce, reuse, recycle) and cutting CO<sub>2</sub> emissions by conserving energy. We are reporting steady results in these areas. Also, by conducting beautification activities in the vicinity of the plant, we are raising the awareness among employees of environmental issues. At the same time, we have created close ties with the surrounding regions and societies and are making contributions as good corporate citizens



Disaster prevention practice exercise Cleaning up the area around the plant in progress



as part of our beautification program

## <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Drying	NOx	ppm	180	85
furnace	Soot and dust	g/m³N	0.30	0.014

Item	Unit	Regulatory limit	Actual measurement
рН	_	5.8-8.6	6.7-7.1
n-hexane extract	ma/l	5	3.9

## **Utsunomiya Plant**

20-7, Kiyohara Kogyo Danchi, Utsunomiya-shi, Tochigi

#### Number of employees:

370

### Commencement of operations:

1984

## Site total area:

99,000m<sup>2</sup>

### **Date ISO 14001** certification received:

December 1997

#### **Principal products:**

Photosensitive wafer coating resins, semiconductor die bonding pastes, liquid resins for semiconductor packaging, semiconductor bonding tapes



Executive Officer and Plant Manage Masayuki Inagaki

Based on its ISO 14001 certification and plans for reducing the effects of its activities on the natural environment, the Utsunomiya Plant is engaging in activities to reduce emissions through the introduction of waste oil refining equipment and developing products that generate low effluent emissions. Through these and other activities, the plant is endeavoring to win increased trust and confidence from society.



Cleanup activities within the industrial park are conducted regularly.



Pears grown on trees within the plant grounds are donated to neighboring welfare facilities.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Drying	SOx	m³N/h	1.22	Less than 0.019
furnace	Soot and dust	g/m³N	0.20	0.001 or lower

## <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	5.8-8.6	7.5-7.9
BOD	mg/L	25	1.5
COD	mg/L	25	2.5
Suspended solids	mg/L	25	Less than 1
n-hexane extract	mg/L	5.0	Less than 1

### Kyushu Sumitomo Bakelite Co., Ltd.

40-1 Ooza-Kamizakai Aza-Mizumachi, Nougata-shi, Fukuoka

#### Number of employees:

180

#### Commencement of operations:

1972

#### Site total area:

50.000m<sup>2</sup>

### **Date ISO 14001** certification received:

December 1998

## **Principal products:**

Epoxy resin molding compounds for semiconductor packaging, photosensitive wafer coating resins



President and Representative Masayuki Inagaki

The corporate name of Kyushu Sumitomo Bakelite Co., Ltd., was changed from Kyushu Bakelite Industry Co., Ltd., in October 2009. To contribute as much as we can to the development of the recycling society, we are manufacturing eco-friendly products (bromine- and antimony-free materials), based on Sumitomo Bakelite's plan for reducing environmental impact. Through this activity, we are working to win increased trust and confidence from





Volunteers participating in the planting of tulip bulbs as part of the 2010 Tulip Fair

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	SOx	m³N/h	0.63	0.22
	NOx	ppm	180.00	72
	Soot and dust	g/m³N	0.30	Less than 0.010

## <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	5.8-8.6	7.3-7.6
BOD	mg/L	160	11.0
COD	mg/L	80	15.0
Suspended solids	mg/L	100	9.0
n-hexane extract	mg/L	2.5	Less than 1

Note: On December 1, 2007, regulatory limit figures were relaxed based on a reassessment of the company's pollution prevention agreement with Nogata city.



## Yamaroku Kasei Industry Co., Ltd.

19-10 Katayama-cho, Kashiwara-shi, Osaka

#### Number of employees:

48

#### Commencement of operations:

1948

#### Site total area:

5.411m<sup>2</sup>

## **Date ISO 14001**

certification received: June 2005

## **Principal products:**

Phenolic resin molding materials



President and Representative Zenzou Kishikawa

The Yamato River, which runs by the plant of Yamaroku Kasei Industry Co., Ltd., has been cited as the worst class A river in Japan in terms of water quality. In view of this issue and the upcoming celebration in 2010 of the 1,300th anniversary of the moving of Japan's capital to Nara, local governments of cities and towns along the river's course undertook the C Project for steadily cleaning up the main river and its tributaries. The project has made impressive improvements. We have also made a contribution by making sure on a daily basis that polluted water from our facilities does not flow into the river. In addition, we are looking for new approaches for conserving energy and reducing CO<sub>2</sub> emissions through our ISO 14001 activities



Disaster prevention activities in progress

#### <Air> No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	5.8-8.6	7.0-7.1
BOD	mg/L	25	1
COD	mg/L	25	5
Suspended solids	mg/L	90	8
Phenols	mg/L	5	Less than 0.01

## S.B. Techno Plastics Co., Ltd.

#### **Head Office Plant**

Address: 300-2, Motohara Kamikawa-cho, Kodama-gun, Saitama

Number of employees: 29

Commencement of operations: 1964

Site total area: 13,000m<sup>2</sup> **Principal products:** 

Plastic sheets, plastic cutting boards



#### Kitsuregawa Plant

Address: 560-1, Saotome, Sakura-shi, Tochiqi

Number of employees: 9

Commencement of operations: 2002

Site total area: 3,638m<sup>2</sup> **Principal products:** 

Industrial-use protective helmets





President and Representative Shinya Nakata

S.B. Techno Plastics Co., Ltd., unlike most members of the Sumitomo Bakelite Group, is a company that manufactures plastic products that are sold directly to consumers (such as kitchen carving boards and helmets). S.B. Techno Plastics is engaging in activities within its plant facilities to reduce energy consumption and cut CO<sub>2</sub> emissions as well as to reduce industrial wastes. In addition, this company recovers used products that it has manufactured from consumers and is aggressively working to recycle them. In recognition of these activities in 2002, S.B. Techno Plastics received the prize awarded by the Minister of Economy, Trade and Industry from the PC3R Promotion Association



Ditch-cleaning activities are conducted as part of cleanup campaigns (at the Head Office plant).



Greenery planted to provide shade for window and wall surfaces is part of energy-saving activities (at the Kitsuregawa Plant).

## <Air> No relevant facilities

ltem	Unit	Regulatory limit	Actual measurement
рН	_	5.8-8.6	7.4-8.6
BOD	mg/L	20	14.3
Suspended solids	mg/L	50	23

## Akita Sumitomo Bakelite Co., Ltd.

27-4, Aza Nakashima-shita, Aizome-cho, Tsuchisaki-ko, Akita-shi, Akita

#### Number of employees:

267

#### Commencement of operations:

October 1970

#### Site total area:

150,492m<sup>2</sup>

#### **Date ISO 14001**

certification received:

January 2001

#### **Principal products:**

Medical instruments and laboratory wares, phenolic resins, formalin and adhesives, flexible printed circuit boards



President and Representative Directo Akira Takada

Akita Sumitomo Bakelite Co., Ltd., is a company engaged in business activities brought together from several different industries. From an environmental perspective, all personnel participate in ISO 14001 activities, and each department has its own objectives to reducing energy consumption and industrial waste emissions. We all work to comply with environmental standards, as a matter of course, but, in addition, we are striving to implement environmental improvement activities and working toward creating an internal plant and office environment that offers morepleasant working conditions.



Employees participating in the local Tsuchizaki Port Festival



Activities in progress for cleaning ditches in the nearby community

## <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
	SOx	m³N/h	2.94	0.30
Boiler	NOx	ppm	110.00	69
	Soot and dust	g/m³N	0.09	Less than 0.01

## <Water>

(Water)				
Item	Unit	Regulatory limit	Actual measurement	
рН	_	6.0-8.5	6.9-7.6	
BOD	mg/L	30	13.0	
COD	mg/L	30	11.0	
Suspended solids	mg/L	40	7.0	
Phenols	mg/L	0.5	Less than 0.01	
Copper	mg/L	1.0	0.27	
Cyanogen compounds	mg/L	0.1	Less than 0.01	
Lead and lead compounds	mg/L	0.1	Less than 0.01	
Soluble manganese	mg/L	5.0	Less than 0.03	

## Hokkai Taiyo Plastic Co., Ltd.

2-763-7, Shin-Minato-Chuo, Ishikari-shi, Hokkaido

#### Number of employees:

17

#### Commencement of operations:

1972

#### Site total area:

13.650m<sup>2</sup>

### **Date ISO 14001** certification received:

April 2005

#### **Principal products:**

Industrial-use polyethylene pipes, manufacturing/commercial/ household-use polyethylene films



President and Representative Harutake Ohkubo

Hokkai Taiyo Plastic Co., Ltd., understands that the protection of the natural environment is the highest priority task for the sustainable development of humankind. In all aspects of its business activities, Hokkai Taiyo Plastic endeavors to protect the environment, and, to pass this green and verdant land of Hokkaido, Japan's northernmost major island, to future generations, each and every one of its employees are engaging sincerely and with passion in environmental preservation activities.



Staff members participating in the spring cleanup program

<Air> No relevant facilities

<Water> No relevant facilities



## N.V. Sumitomo Bakelite Europe S.A.

Henry Ford Laan 80 3600 Genk, BELGIUM

#### Number of employees:

120

### Commencement of operations:

1967

## Site total area:

99,000m<sup>2</sup>

#### **Date ISO 14001** certification received:

January 2001

#### **Principal products:**

Phenolic resins, polyester resins



Plant Manager **Peter Arits** 

In the production of phenolic and polyester resins, Sumitomo Bakelite Europe S.A. (SBE) Genk is guided by a vision of sustainable entrepreneurship. SBE Genk will always strive towards continuous improvements in the protection of the environment, the community, and the employees. With the participation, engagement, and involvement of all employees throughout the whole of the Sumitomo

Bakelite organization, we chase this ongoing, everlasting goal. To cope with this, SBE Genk has implemented several management tools. One of them is the ISO 14001, which is certified by Lloyds Register Quality Assurance (LRQA), and that was for the first time in 2001. The last certificate renewal visit took place on January 19-21, 2010 and resulted in the renewal of the certificate for a new 3-year period.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Boiler	NOx	mg/m³N	150	118

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	6–9	6.4-8.5
COD	mg/L	136	20
Suspended solids	mg/L	1,000	2
TOC	mg/L	50	Less than 1
All nitrogen	mg/L	15	Less than 2
All phosphorus	mg/L	3	0.31
Phenols	mg/L	3	Less than 1
Chlorendic acid	mg/L	3	Less than 0.1
Hexachlorocyclopentadiene	mg/L	0.005	Less than 0.005
Monochlorobenzene	mg/L	5	Less than 1

#### Sumitomo Bakelite Europe (Barcelona), S.L.U.

08170 Montornès del Valleès, Barcelona, SPAIN

#### Number of employees:

#### Commencement of operations:

1949

#### Site total area:

19.856m<sup>2</sup>

#### Date ISO 14001 certification received:

March 2005

#### **Principal products:**

Phenolic resins, abrasives, others



José Miralles



We are working to be a compatible plant with the Belgian plant, Genk, and to meet all the strict European environmental regulations.

the core business is friction and abrasives.

In 2005, ISO 14001 was implemented. The current target of the plant is energy saving, mainly in electricity and water consumption. An action plan has been executed to reduce water and electricity consumption, and reuse condensates."

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
	SOx	mg/m³N	4,300	Not detected
Boiler	NOx	ppm	300	27
	CO	ppm	500	7

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	6–10	5.8-8.4*
COD	mg/L	1,500	600
Suspended solids	mg/L	750	77
Phenols	mg/L	2	0.75
Conductivity	μs/cm	5,000	3,288
Total chlorine	mg/L	2,000	594
Total sulfide	mg/L	1,000	525
Total phosphorus	mg/L	50	4.30

<sup>\*</sup>The regulatory limit, or allowable range, for pH values within the relevant industrial park is 5.5 to 11, and the company has kept within this range. The wastewater from the industrial park is treated at a treatment pond and then released, and the pH values of this water upon release have been kept within the permissible range.



Sumitomo Bakelite Europe has two production facilities for phenolic resins, one in Belgium and the other in Spain. The two plants are fully integrated with the same management and policies. The aim of both plants is to fully comply with the new European Safety & Environmental legislation. Both plants have implemented ISO 14001 for many years. Last year, action plans were implemented to reduce energy and water consumption.

General Manager, SBE; Manufacturing Director, SBEB Alex Geskens

## Vyncolit N.V.

#### Address:

Wiedauwkaai 6, 9000 Gent, BELGIUM

#### Number of employees:

100

### Commencement of operations:

1992

## Site total area:

20.506m<sup>2</sup>

### **Date ISO 14001** certification received:

1999

#### **Principal products:**

Thermoset molding materials



Plant Manager **Gerard Wildeman** 

At the Vyncolit plant, our core business is molding compounds for the automobile industries. Our targets are there to keep our waste down, our energy waste low, our air emissions zero, and our accidents as low as possible. At this moment, we reached these targets thanks to the participation of all Vyncolit employees.





Fifteen employees completed the 10km course of a marathon event organized by the city of Gent.

## <Air>

Item	Unit	Regulatory limit	Actual measurement
Phenols	mg/m³N	20	3.3
Ammonia	mg/m³N	35	12.8
Formaldehyde	mg/m³N	20	0.9
Soot and dust	mg/m³N	150	13.2

## <Water>

Item	Unit	Regulatory limit	Actual measurement
Zinc	mg/L	1.4	0.802
Copper	mg/L	0.2	Less than 0.020
Phenols	mg/L	0.4	0.004
Molybdenum	mg/L	5	0.025
Total phosphorus	mg/L	14	0.17

## Durez Canada Co., Ltd.

100 Dunlop Street, Ontario L2A 4H9, CANADA

#### Number of employees:

57

#### Commencement of operations:

1970

#### Site total area:

93.000m<sup>2</sup>

#### **Principal products:**

Phenolic resin molding materials





Plant Manager Robert Hunt

The year 2009 was a very challenging year not only economically but in the environmental area as well. The lower sales demand during the year caused us to become a more flexible production facility. The need for more frequent stops and starts required us to become more efficient at handling materials. We were presented with the challenge to meet a higher sales volume of general-purpose molding compound at the Fort Erie plant. We are still addressing a needed reduction in landfill generation as we look to improve our capability to run these materials. The year also resulted in us losing a recycling outlet for our distillate and we are challenged in 2010 to find a more environmentally friendly outlet for this material—our biggest waste volume. The Fort Erie plant is looking forward to a profitable year in 2010 and continuing to find ways to reduce our impact on the environment.



On Earth Day each year, the company organizes groups of cleanup volunteers and invites groups of local high school students for study tours of its plant.



Containers used in connection with waste product reduction activities

## <Air> No relevant facilities

### <Water>

Item	Unit	Regulatory limit	Actual measurement
pH	_	6.0-10.5	7.6–10.4
Suspended solids	mg/L	350	Less than 100
Phenols	mg/L	1	Less than 1.0

Note: From fiscal 2010, Durez Corporation has been reorganized as Durez Corporation and Durez Canada Co., Ltd.



### **Durez Corporation (Kenton Plant)**

13717, U.S. Route 68, South Kenton, Ohio 43326, USA

#### Number of employees:

57

### Commencement of operations:

1955

## Site total area:

263.100m<sup>2</sup>

#### **Principal products:**

Phenolic resins





Plant Manager William Bazell

The Kenton facility formerly produced both phenolic resin and phenolic molding compounds, but since last August has produced only resins. However, resin production volume has increased to the highest level since 2000, an almost 40% increase over the average for the years 2001-2009. This additional volume, while welcome, poses additional waste disposal issues. Our current efforts focus on waste minimization through recycling of solid waste (nuisance dust from collectors and other waste) into low grade powder resin and enhanced recovery of phenol from distillate to avoid offsite disposal (and to reduce raw material usage). CO<sub>2</sub> emissions and energy usage are similarly being reduced by upgrades to combustion equipment (hot oil furnace controls in 2009) and conservation efforts.

#### <Air> No relevant facilities

## <Water>

Item	Unit	Regulatory limit	Actual measurement
Phenols	μg/L	20	Less than 10

## **Durez Corporation (Niagara Plant)**

5000 Packard Road, Niagara Falls, NY 14304, USA

#### Number of employees:

47

#### Commencement of operations:

1930

#### Site total area:

18.960m<sup>2</sup>

#### **Principal products:**

Phenolic resins





Operation Manager Gerry Nardelli

The Niagara plant is fully compliant with the regulatory requirements of the Occupational Safety and Health Administration (OSHA) requirements. Furthermore, our facility is unique in that we have an on-site hazardous waste incinerator which allows us to dispose of our generated hazardous wastewater (distillate) while using it as a fuel supplement to generate steam for manufacturing purposes and building heat. The handling of hazardous waste is closely monitored by the Environmental Protection Agency (EPA), and the facility is operated under the Resource Conservation and Recovery Act (RCRA) permit requirements. Our focus is for continuous reduction of waste generation by improving our production yields and recycling cleaning solvents. Reductions in CO<sub>2</sub> emissions have also been accomplished by upgrading our combustion equipment such as our backup boiler and thermal oxidizer (Incinerator)

#### <Air> No relevant facilities

Item	Unit	Regulatory limit	Actual measurement
рН	_	5–10	7
Phenols	lbs./day	35	0.060
Drainage volume	million gal./day	0.1	0.048
Suspended solids	lbs./day	75	19
Soluble organic carbon	lbs./day	800	325
Phosphorus	lbs./day	17	0.04

#### Sumitomo Bakelite North America, Inc.

24 Mill Street, Manchester, Connecticut 06040-2316, USA

#### Number of employees:

47

## Commencement of operations:

1920

## Site total area:

14.000m<sup>2</sup>

### **Date ISO 14001** certification received:

December 1998

#### **Principal products:**

Thermoset resin molding materials



– Plant Manage **Barbara Olson** 

At the Manchester plant, we are particularly concerned about our plant emissions (noise, air, and water) because we are located in a residential area with neighbors directly next to and across the street from the plant. Our Environmental Policy promotes pollution prevention, continuous improvement of our EH&S management system, and involvement from all employees. The plant's two areas of focus for the past few years have been the reduction of solid waste going to the landfill and the reduction of energy consumption through efficiency projects and employee awareness. We have reduced the quantities going to the landfill by over 50% in the last few years.

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Long fiber process (Drying process)	Acetone*	tonnes/year	40	17.6
	SOx	tonnes/year	0.002	0.0008
Condor	NOx	tonnes/year	0.38	0.131
process**	CO	tonnes/year	0.32	0.110
(Drying process)	Volatile organic compounds	tonnes/year	15	3.5
	Soot and dust	tonnes/year	1.23	0.14
Total plant	Volatile organic compounds	tonnes/year	45	11.8
	Total harmful air pollutants	tonnes/year	25	0.01

<sup>\*</sup> Acetone emissions are calculated based on acetone usage volume.

## <Water> No relevant facilities

## **Basec Hong Kong Limited**

Lingtou Industrial District, Qiaotou Town, Dongguan-city, Guangdong, PRC

#### Number of employees:

1218

#### Commencement of operations:

1994

#### Site total area:

32,930m<sup>2</sup>

#### Date ISO 14001

certification received:

September 2004

#### **Principal products:**

Precision molded products, medical instruments



President Satoshi Tanamura

Our principal business activities are the production of medical devices and molded parts, but we also conduct environment improvement activities on a daily basis. As part of our ISO 14001 program and other activities to reduce the effects of our business activities on the environment, we promote recycling and take initiatives to lower industrial waste and CO<sub>2</sub> emissions. To deepen our ties with the local community, we also provide assistance to primary schools and homes for senior citizens as well as participate in park beautification activities



Employees participating in park beautification activities in Lingtou Plaza

#### <Air>

Facility	Item		Unit	Regulatory limit	Actual measurement
	NOx (concentration)		mg/m³N	400	200
Boiler	SOx (co	oncentration)	mg/m³N	800	52.0
Doller	Soot and dust (concentration)		mg/m³N	100	42.2
	NOx	(concentration)	mg/m³N	120	20.1
	INOX	(speed)	kg/h	0.240	0.020
Electric	SOx	(concentration)	mg/m³N	500	22.2
gener-	SOX	(speed)	kg/h	0.789	0.022
ator	Soot	(concentration)	mg/m³N	120	22.3
	and dust	(speed)	kg/h	1.09	0.022

· water>					
ltem	Unit	Regulatory limit	Actual measurement		
рН	_	6–9	6.1		
Suspended solids	mg/L	70	42		
Ammonium nitrogen	ma/L	10	1.2		

<sup>\*\*</sup> Emissions associated with the condor process during fiscal 2009 are calculated based on natural gas usage volume



#### Sumitomo Bakelite (Suzhou) Co., Ltd.

140, Jinjihu Road, Start-Up Area, China-Singapore Suzhou Industrial Park, Suzhou Industrial Park, Suzhou 215021, PRC

#### Number of employees:

256

#### Commencement of operations:

1997

## Site total area:

30,000m<sup>2</sup>

## Date ISO 14001

certification received:

November 2001

#### **Principal products:**

Epoxy resin molding compounds for semiconductor packaging, phenolic resin molding materials



President Akinobu Kusuhara

Our main lines of business are manufacturing and sales to our Chinese customers of epoxy resin sealant materials for semiconductors and phenol plastic molding materials for use in automobile parts, components for electric equipment, and other applications. Based on ISO 14001, our environment-related activities include reducing the amount of industrial waste, conserving energy, and lowering CO<sub>2</sub> emissions. Our plant is located in an industrial park, but we are located near residential areas and are taking initiatives to promote exchange with the local society and engaging actively in community activities



Employees participate in sports activities (badminton) with members of the local community

<Air> No relevant facilities

<Water> No relevant facilities

## Bakelite Precision Molding (Shanghai) Co., Ltd.

No. 66, Ai Du Road, Wai Gao Qiao Free Trade Zone, Pudong, Shanghai, PRC

## Number of employees:

262

#### Commencement of operations:

2000

#### Site total area:

11,644m<sup>2</sup>

## **Date ISO 14001**

certification received:

April 2007

#### **Principal products:**

Automobile-use molded components (plastic mechanical & structural parts)



President Tadashi Imamura

We are working to take follow-up initiatives related to Sumitomo Bakelite's environmental assessments. Also, as requirements related to environmental improvement in Shanghai, one of China's leading cities, become stricter year by year, in principle, our activities respond to various developments in the local area. Raising awareness among our employees of environmental matters is especially important, and we believe this will lead to improved awareness within our company and in the bonded industrial zone where our operations are locat-



Employees participating in beautification activities in the bonded industrial zone



Results of landscaping activities

<Air> No relevant facilities

<Water> No relevant facilities

## Sumitomo Bakelite (Nantong) Co., Ltd.

Address: No. 81, Tongda Road, Port Industrial Park 3, Economic Technological Development Area, Nantong, Jiangsu, PRC

Number of employees: 73

Commencement of operations: 2009 Site total area: 33,000m<sup>2</sup>

Date ISO 14001 certification received:

Scheduled for receipt during 2010

**Principal products:** 

Phenolic resins





President Takashi Kobayashi

We are a relatively new company that began operations in January 2009. The specifications of the equipment in our plant were set to conform to Japanese domestic standards, and they were designed to comply with environmental policies. We obtained ISO 9001 and ISO 14001 certifications in May 2010 and have begun to implement activities to reduce the effects of our business activities on the natural environ-

ment. We are aiming to be a company that is eco-friendly and complies with environmental standards set by the Chinese government, international environmental organizations, and Sumitomo Bakelite.



Employees participating in the Safe Production Monthly Meeting of Nantong

## <Air>

Facility	Item		Unit	Regulatory limit	Actual measurement
	Phenol	(concentration)	mg/m³N	100	0.084
	Phenoi	(speed)	kg/h	0.10	0.0009
Deodor-	Metha-	(concentration)	mg/m³N	190	3.25
izer	nol	(speed)	kg/h	5.1	0.033
	Formal-	(concentration)	mg/m³N	25	0.500
	dehyde	(speed)	kg/h	0.26	0.004
Bag	Partic-	(concentration)	mg/m³N	120	13.4
filter	ulates	(speed)	kg/h	3.5	0.08
	Soot and dust (concentration)		mg/m³N	100	10.1
Detle	SOx (concentration)		mg/m³N	500	15
Boiler	NOx (con	centration)	mg/m³N	400	191
		Combustion gas (concentration) (Lingerman)		1 or lower	Less than 1

### <Water>

Item	Unit	Regulatory limit	Actual measurement	
рН	_	6–9	6.5-6.9	
COD	mg/L	500	74	
Suspended substances	mg/L	400	34	
BOD	mg/L	300	19.8	
Ammonium nitrogen	mg/L	35	7.45	
Phenols	mg/L	1.0	Less than 0.1	
Formaldehyde	mg/L	5	0.77	
Phosphorus	mg/L	8	1.19	

#### Sumitomo Bakelite Macau Co., Ltd.

Address: Zona Ind. do Aterro Sanitario de Seac Pai Van Lote A, junto a Estrada de Seac, Pai Van, Coloane, MACAU

Number of employees: 158

Commencement of operations: 2003 Site total area: 27,513m<sup>2</sup> Date ISO 14001 certification received:

April 2005

**Principal products:** Copper-clad epoxy composite sheets





Ciyozou Yamaguchi

Our company, which is a leading plant for manufacturing epoxy resin copper-clad laminates, is located in Macao. We export our products to other parts of China, Southeast Asia, and Japan. Like other companies using machinery for production, our activities have effects on the natural environment, as we consume energy and generate industrial waste. However, we are working to enhance the ecofriendliness of our business activities by introducing the energy cycle to generate energy by burning waste gas emissions, taking measures to clean up emissions, reduce waste, and promote recycling.





New employees learning fire control and extinguishing techniques

## <Air> No relevant facilities

#### <Water>

_	· · · · · · · · · · · · · · · · · · ·				
	Item	Unit	Regulatory limit	Actual measurement	
F	Н	_	6–9	7.2-8.2	
E	BOD	mg/L	40	17	
	COD	mg/L	150	46	
-	Suspended solids	mg/L	60	11	
Г	Total nitrogen	mg/L	15	1.4	
F	Phenols	mg/L	0.5	0.7*	
	Acetoaldehyde	mg/L	1 or lower	Less than 1	

<sup>\*</sup>There was an incident in which water containing a phenolic fungicide leaked from a production line pump and then was emitted via a crack in a waterproof dike. Countermeasures have been implemented by means of facility maintenance work and a change of water drainage routes.

Note: Water quality data in addition to that shown above are recorded in the company's data



#### Sumitomo Bakelite (Taiwan) Co., Ltd.

No. 1, Hwa Syi Road, Ta Fa Industries District, Ta Liao, Kaohsiung, Taiwan, ROC

#### Number of employees:

127

#### Commencement of operations:

2000

## Site total area:

24,271m<sup>2</sup>

## Date ISO 14001

certification received:

May 2003

#### **Principal products:**

Epoxy resin molding compounds for semiconductor packaging 



President Haruhisa Toda

We are working to prevent any major disasters that might have a major impact on the natural environment and are aiming to create a safe workplace where employees feel a sense of security. We control production materials from the procurement stage to the shipment of products and implement measures to eliminate defects and keep the waste of materials to an absolute minimum. In addition, to reduce CO<sub>2</sub> emissions, we are working to increase the efficiency of energy use and conserve energy, while also promoting the maintenance of green areas within the grounds of our facilities.



Staff members participate in a fire drill.

#### <Air> No relevant facilities

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
рН	_	6–9	7–7.3
COD	mg/L	600	195
Suspended solids	mg/L	300	65

## SNC Industrial Laminates Sdn. Bhd.

PLO 38, Jalan Keluli Satu, Pasi Gudang, Johor, Malaysia

#### Number of employees:

177

#### Commencement of operations:

1992

#### Site total area:

60,000m<sup>2</sup>

### Date ISO 14001 certification received:

January 2001

#### **Principal products:**

Copper-clad phenolic resin composite sheets





Managing Director Takashi Wada

Since our company was founded 18 years ago, in the area of environmental preservation, we have placed the most emphasis on reforming the awareness of environmental issues among our employees. The issue we have focused on has been how to raise the environmental consciousness of employees we have recruited from the host country. Through our ISO 14001 activities, our policy is to work aggressively to reduce energy use and reduce the effects on the natural environment of our business activi-



The company invites middle-school students and teachers from the community as part of its safety and health campaign.

Fire prevention and control training

#### <Air>

Facility	Item	Unit	Regulatory limit	Actual measurement
Exhaust gas	SOx	g/m³N	0.2	0.0005
combustion	NOx	g/m³N	2.0	0.0001
unit	Soot and dust	g/m³N	0.2	0.020

#### <Water>

ltem	Unit	Regulatory limit	Actual measurement	
рН	_	5.5-9.0	5.9-8.8	
Temperature	°C	40	31.3	
BOD	mg/L	50	40	
COD	mg/L	100	67	
Suspended solids	mg/L	100	40	
Phenols	ma/l	1.0	0.1	

Note: Water quality data in addition to that shown above are recorded in the company's data

## Sumitomo Bakelite Singapore Pte. Ltd.

1 Senoko South Road, Singapore 758069

#### Number of employees:

247

## Commencement of operations:

1989

## Site total area:

22.276m<sup>2</sup>

#### **Date ISO 14001** certification received:

July 1997

#### **Principal products:**

Epoxy resin molding compounds for semiconductor packaging, semiconductor die attach paste, semiconductor-use liquid epoxy resin

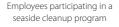


Managing Director Chern Meng Ngan

At the Singapore plant, we recognize the importance of controlling operations to minimize environment pollution. We appropriately separate our waste and transport it directly to the authorized disposal facilities. With the participation of all employees, we pursue improvements through our internal environment audit and reduce waste by improving our product yield ratio.

We continuously seek higher energy conservation throughout the factory, such as through switching off lights during lunch break and standardizing air-conditioning temperature settings in the offices and the use of low energy consumption lamps. We intend to play an even more active role in reducing CO2 emissions in the coming years. But, most importantly, we want to cultivate the right mind-set concerning environment protection and conservation to each SBS staff.







Lights extinguished for one hour during the global Earth Hour event

#### <Air> No relevant facilities

## <Water>

Item	Unit	Regulatory limit	Actual measurement	
рН	_	6.0-9.0	6.8	
Temperature	°C	45	30	
BOD	mg/L	400	220	
COD	mg/L	600	420	
Suspended solids	mg/L	400	47	
TDS	mg/L	3,000	330	
Phenols	mg/L	0.5	0.03	

Note: Water quality data in addition to that shown above are recorded in the company's data book

## Sumicarrier Singapore Pte. Ltd.

#### Address:

72 Senoko Drive, Singapore 758240

#### Number of employees:

102

#### Commencement of operations:

1988

#### Site total area:

6.000m<sup>2</sup>

#### Date ISO 14001 certification received:

April 1998

#### **Principal products:**

Carrier tape, conductive PS sheets



General Manager Kazuo Tajiri

Our principal line of business since the founding of the company has been the manufacture and sales of carrier tape. In July last year, we relocated a conducting PS sheet production line from REGITEX Corporation and began production at our plant. Emissions of effluents, gases, and other substances from this plant are small, but we take care to practice ISO 14001 environmental management and remain in compliance with legal regulations in Singapore at all times. We kicked off another series of SBPS activities internally in December last year and are aiming to increase production efficiency.





All employees participate in evacuation and fire-fighting drills.

<Air> No relevant facilities

<Water> No relevant facilities



## SumiDurez Singapore Pte. Ltd.

#### Address:

9 Tanjong Penjuru Crescent, Singapore 608972

#### Number of employees:

62

# Commencement of operations:

1989

## Site total area:

30,000m<sup>2</sup>

# Date ISO 14001 certification received:

September 1998

#### **Principal products:**

Phenolic resin molding materials



Plant Manager Fumisato Hibino

We comply with rules and regulations in Singapore, and, based on ISO 14001, we are taking measures to reduce industrial waste, prevent atmospheric pollution, and prevent noise pollution in the neighborhood of our facilities. In addition, by introducing new equipment and through our day-by-day activities, we are working to reduce energy consumption and CO<sub>2</sub> emissions through increasing production efficiency and other means.



Fire-fighting training

<Air> No relevant facilities

<Water> No relevant facilities

## P.T. Indopherin Jaya

#### Address

JL. Brantas No. 1, Probolinggo, East Jawa, INDONESIA

#### Number of employees:

84

# Commencement of operations:

1996

#### Site total area:

18,000m<sup>2</sup>

# Date ISO 14001 certification received:

January 2001

#### **Principal products:**

Industrial-use phenolic resins



General Manager **Kanji Shiotsu** 

Our principal line of business is to produce phenol resins for industrial use. In the city of Probolinggo, we are one of the major corporate consumers of energy and chemicals. For this reason, under our Environmental Policy, our environment-related activities include energy conservation, reduction in  $CO_2$  emissions, and cutting down on industrial waste. Our other activities include inviting students from local schools to visit our plant facilities.



Employees participate in greening programs in the city of Probolinggo.



We invite high school students from the neighboring community to visit our plant.

## <Air> No relevant facilities

Item	Unit Regulatory limit				Actual measurement
рН	_	6–9	7.1-8.4		
BOD	mg/L	100	30		
COD	mg/L	300	87		
Suspended solids	mg/L	100	57		
Total nitrogen	mg/L	30	6.8		
Phenols	mg/L	1	0.12		

#### P.T. SBP Indonesia

Kawasan Industri MM2100 Jl. Irian Blok NN 1-1, Bekasi 17520, INDONESIA

#### Number of employees:

163

#### Commencement of operations:

1996

#### Site total area:

30,000m<sup>2</sup>

#### **Date ISO 14001**

#### certification received:

Scheduled for receipt during 2010

#### **Principal products:**

Polycarbonate resin sheets (for signage and construction applications)



Managing Director Takashi Moriyama

At present, we are beginning to take measures to obtain ISO 14001 certification with a target date of sometime during 2010. As we make preparations for certification, we are deepening our understanding of the relationships that exist between the environment and not only our products but also all stages from the procurement of raw materials through final disposal. As a consequence, we have gained a renewed awareness of the importance of environmental preservation and are all working together to reduce waste and CO<sub>2</sub> emissions.



Donations were made for relief following a major earthquake off the coast of Sumatra.

## <Air> No relevant facilities

## <Water>

	· · · · · · · · · · · · · · · · · · ·			
Item		Unit	Regulatory limit	Actual measurement
	рН	_	5.5-9.5	8.16
	Temperature	°C	40	31.3
	BOD	mg/L	200	48
	COD	mg/L	400	118
	Suspended solids	mg/L	400	36
	Phenols	mg/L	1	0.010
	Dissolved solids	mg/L	4,000	440
	MBAS (cleanser)	mg/L	10	1.507
	Oil	mg/L	10	Less than 2.78

Note: Water quality data in addition to that shown above are recorded in the company's data

## Sumitomo Bakelite (Thailand) Co., Ltd.

119 Hi-Tech Industrial Estate (Ban-wa),

Moo 1 T. Banlane A. Bang Pa-in, Ayutthaya 13160, THAILAND

#### Number of employees:

#### Commencement of operations:

2002

#### Site total area:

50,000m<sup>2</sup>

#### Date ISO 14001





General Manager Noriaki Yukawa

Since our plant is located in the Ayutthaya district of Thailand, which has been designated at a UNESCO World Heritage Site, we are especially aware of the importance of efforts related to preserving the natural environment. Based on our environmental policy, we are taking measures to save energy, reduce industrial waste, and conserve resources. In addition, all of our employees are participating in activities to work together with our customers to reduce the burden on the environment, including making proposals for the reuse of auxiliary materials.



Employees participate in blood donation programs.



We make donations to orphanages.

<Air> No relevant facilities

<Water> No relevant facilities



## Sumitomo Bakelite Vietnam Co., Ltd.

C-6 Thang Long Industrial Park Dong Anh Dist., Hanoi, VIETNAM

#### Number of employees:

2,067

Commencement of operations:

2002

Site total area:

65.000m<sup>2</sup>

Date ISO 14001 certification received:

September 2004

#### **Principal products:**

Flexible circuit boards



Managing Director Masaki Sasaki

Along with the entry of multinational corporations into Vietnam, the course of direction of environmental laws and regulations has changed significantly, and the awareness of environmental improvement is increasing year by year. Environmental pollution, in particular, has become an important social issue, and surveillance by the government has become stricter each passing year. Amid these condi-

tions, compliance with relevant laws and regulations has become necessary, and all employees are working on a day-by-day basis to sort wastes for separate disposal by type, reduce CO<sub>2</sub> emissions, and reduce industrial waste.





We engage in various activities that contribute to the community

#### <Air>

Facility	Facility Item		Regulatory limit	Actual measurement
	CO	mg/m³N	1,000	30.08
	NO <sub>2</sub>	mg/m³N	1,000	4.45
Boiler	NOx	mg/m³N	1,500	5.28
	SO <sub>2</sub>	mg/m³N	1,000	9.87
	Soot and dust	mg/m³N	400	1.15

Item	Unit	Regulatory limit	Actual measurement
рН	_	6.0-9.0	5.6-7.7*
Temperature	°C	40	32
BOD	mg/L	300	22
COD	mg/L	350	56
Suspended solids	mg/L	200	71
Total nitrogen	mg/L	13.5	4.5
Total phosphorus	mg/L	3.6	0.85

<sup>\*</sup> Beginning in 2008, there were changes in both items for regulation and regulatory limits, and the measures to be taken for a portion of the items that did not qualify are still under consideration. Since water effluent is disposed of in public waters after it is processed in the regulating pond of the industrial complex, water effluent in the unprocessed state is not discharged into the external environment.

Note: Water quality data in addition to that shown above are recorded in the company's data



# Site-Specific Environmental Impact Data—Overseas Business Sites

In addition to the data disclosed on the "Site Report" pages of the printed and Internet forms of this report, the Company has additional data that it is disclosing in this appendix.

## ■ Sumitomo Bakelite Singapore Pte. Ltd. (Singapore)

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
Chloride	mg/L	1,000	66
Sulfate	mg/L	1,000	30
Sulfur	mg/L	1	Less than 0.01
Cyanide	mg/L	2	0.06
Detergents	mg/L	30	7
Oil and grease	mg/L	60	Less than 1
Caustic alkalinity	mg/L	2,000	Not detectable
Fluorides	mg/L	15	11.1
Arsenic	mg/L	5	Less than 0.01
Barium	mg/L	10	0.04
Tin	mg/L	10	Less than 0.01
Iron	mg/L	50	0.66
Beryllium	mg/L	5	Less than 0.01
Boron	mg/L	5	0.24
Manganese	mg/L	10	0.03
Cadmium	mg/L	1	Less than 0.01
Chromium	mg/L	5	Less than 0.01
Copper	mg/L	5	Less than 0.01
Lead	mg/L	5	Less than 0.01
Mercury	mg/L	0.5	Less than 0.01
Nickel	mg/L	10	Less than 0.01
Selenium	mg/L	10	Less than 0.01
Silver	mg/L	5	Less than 0.01
Zinc	mg/L	10	0.21
Metals (toxic) in total	mg/L	10	0.21

## SNC Industrial Laminates Sdn. Bhd. (Malaysia)

<water></water>		1	1
Item	Unit	Regulatory limit	Actual measurement
Mercury	mg/L	0.05	Less than 0.001
Cadmium	mg/L	0.02	Less than 0.005
Hexavalent chromium compounds	mg/L	0.05	0.01
Arsenic	mg/L	0.10	Less than 0.005
Cyanide compounds	mg/L	0.10	Less than 0.01
Lead	mg/L	0.5	0.19
Trivalent chromium compounds	mg/L	1.0	Less than 0.05
Copper	mg/L	1.0	0.31
Soluble manganese	mg/L	1.0	0.35
Nickel	mg/L	1.0	0.03
Tin	mg/L	1.0	Less than 0.2
Zinc	mg/L	2.0	1.11
Boron	mg/L	4.0	0.3
Soluble iron	mg/L	5.0	3.9
Chlorine	mg/L	2.0	Less than 0.1
Sulfur	mg/L	0.5	Less than 0.1
Oil and grease	mg/L	10.0	Less than 5
Formaldehyde*	mg/L	2.0	1.6
Selenium*	mg/L	0.5	Less than 0.1
Aluminum*	mg/L	15.0	0.10
Silver*	mg/L	1.0	Less than 0.01
Barium*	mg/L	2.0	0.01
Fluorides*	mg/L	5.0	2.1
Ammonium nitrogen*	mg/L	20	1
Color tone*	ADMI	200	32.0

 $<sup>^{*}</sup>$  These items have been included beginning from 2010 (industrial effluent water regulations.)

## P.T. Indopherin Jaya (Indonesia)

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
Iron	mg/L	10	0.19
Manganese	mg/L	4	Less than 0.003
Barium	mg/L	4	Less than 0.1
Copper	mg/L	4	Less than 0.003
Zinc	mg/L	10	0.004
Hexavalent chromium	mg/L	0.2	Less than 0.005
Chromium compounds	mg/L	1	Less than 0.005
Cadmium	mg/L	0.1	Less than 0.0012
Mercury	mg/L	0.004	Less than 0.001
Lead	mg/L	0.2	0.0567
Tin	mg/L	4	Less than 0.001
Arsenic	mg/L	0.2	Less than 0.002
Selenium	mg/L	0.1	Less than 0.001
Nickel	mg/L	0.4	0.11
Cobalt	mg/L	0.8	Less than 0.001
Cyanogen	mg/L	0.1	0.006
Hydrogen sulfide	mg/L	0.1	0.005
Fluorine	mg/L	4	0.8
Chloride	mg/L	2	Less than 0.01
Ammonium nitrogen	mg/L	2	1.95
Nitrate-nitrogen	mg/L	40	0.2
Nitrite-nitrogen	mg/L	2	0.093

Note: Regulatory limit: Standards are set by the industrial complex to which the facility belongs.

#### ■ Sumitomo Bakelite Vietnam Co., Ltd. (Vietnam)

#### <Water>

Item	Unit	Regulatory limit	Actual measurement
Arsenic	mg/L	0.045	0.0047
Mercury	mg/L	0.0045	0.0012
Lead	mg/L	0.09	0.0023
Cadmium	mg/L	0.0045	0.0003
Copper	mg/L	1.8	0.815
Zinc	mg/L	2.7	0.127
Nickel	mg/L	0.18	0.138
Manganese	mg/L	0.45	0.20
Iron	mg/L	0.9	1.65*
Tin	mg/L	0.18	0.002
Hexavalent chromium	mg/L	0.045	0.029
Trivalent chromium	mg/L	0.18	0.042
Cyanogen	mg/L	0.063	0.042
Ammonium nitrogen	mg/L	4.5	2.25
Phenols	mg/L	0.09	0.02
Mineral oil	mg/L	4.5	1.5
Animal and plant oils	mg/L	9	4.1
Sulfated compounds	mg/L	0.18	0.249*
Residual chlorine	mg/L	0.9	6.8*
Fluoride compounds	mg/L	4.5	3.49
Chlorides	mg/L	450	1,276*
Coliform bacteria	MNP/100mL	2,700	1,100
Odor	_	No odor	No odor
Color	Co-Pt at pH7	20	11

Note: Beginning in 2008, there were changes in both items for regulation and regulatory limits, and the measures to be taken for a portion of the items that did not qualify are still under consideration. Since water effluent is disposed of in public waters after it is processed in the regulating pond of the industrial complex, water effluent in the unprocessed state is not discharged into the external environment.



## ■ Sumitomo Bakelite Macau Co., Ltd. (China)

#### <Water>

Item	Unit	Regulatory limit	Actual measurement		
Oil and grease	mg/L	15.0	5		
Lead	mg/L	1.0	0.004		
Aluminum	mg/L	10.0	0.43		
Arsenic	mg/L	1.0	0.01		
Cadmium	mg/L	0.2	0.002		
Copper	mg/L	1.0	0.035		
Iron	mg/L	2.0	2.14*		
Manganese	mg/L	2.0	0.931		
Mercury	mg/L	0.05	0.0005		
Zinc	mg/L	5.0	1.090		
Nickel	mg/L	2.0	0.014		
Selenium	mg/L	0.5	0.01		
Carbon compounds	mg/L	1.0	0.57		
Hexavalent chromium	mg/L	0.1	0.02		
Chromium	mg/L	2.0	Less than 0.2		
Sulfide	mg/L	1.0	Less than 0.1		
Sulfate	mg/L	2,000	20		
Subsulfate	mg/L	1.0	Less than 1		

ltem	Unit	Regulatory limit	Actual measurement	
Phosphorus	mg/L	10.0	Less than 0.1	
Ammonia	mg/L	10.0	0.42	
Cyanide compounds	mg/L	0.5	Less than 0.2	
Nitrate	mg/L	50.0	0.79	
Detergents	mg/L	2.0	Less than 0.5	
Acetaldehyde	mg/L	1.0	**	
HCH	mg/L	0.2	Less than 0.001	
DDT	mg/L	0.2	Less than 0.002	
PCP	mg/L	1.0	Less than 0.01	
HCB	mg/L	1.0	Less than 0.004	
HCBD	mg/L	1.5	Less than 0.002	
CBNTET	mg/L	1.5	Less than 0.005	
Chloroform	mg/L	1.0	Less than 0.005	
Tetrachloroethylene	mg/L	1.5	Less than 0.005	
Aldrin	ug/L	2.0	Less than 0.5	
Endrin	ug/L	2.0	Less than 0.5	
Dieldrin	ug/L	2.0	Less than 0.5	
Isodrin	ug/L	2.0	Less than 0.5	

<sup>\*</sup> Rust-laden effluent overflowing from an outdoor tank flowed into a water channel. As a countermeasure, the tank in question was equipped with an overflow sensor.

# **Transfer and Release of Substances Subject** to the Specified Chemical Substance Law (Fiscal 2009 Performance)

The amounts of the 28 Specified Chemical Substance Law (PRTR system) controlled substances released and transferred by the Company are shown in the chart below.

Government		Amount used	Amount released			Amount tr	ansferred
order number	Substance	(manufactured)	Into air	Into water	Into soil	As waste matter	As sewage
1	Zinc compounds (water-soluble)	28	0	0	0	0	0
15	Aniline	160	0	0	0	0.2	0
25	Antimony and its compounds	98	0	0	0	4.3	0
29	Bisphenol A	273	0	0	0	0.1	0
30	Bisphenol A-type epoxy resin (liquid)	201	0	0	0	0.5	0
40	Ethyl benzene	1.3	0	0	0	0.0	0
43	Ethylene glycol	701	0	0	0	0.1	0
44	Ethylene glycol monoethyl ether	30	0	0	0	0.1	0
45	Ethylene glycol monomethyl ether	1.1	0	0	0	0.9	0
63	Xylene	36	0	0	0	10.1	0
64	Silver and its water-soluble compounds	19	0	0	0	0	0
67	Cresol	1,489	0	0	0	1.0	0
104	Salicylaldehyde	14	0	0	0	0.1	0
172	N,N-dimethyl formamide	403	2.3	0	0	14.7	0
176	Organic tin compounds	42	0	0	0	3.5	0
177	Styrene	5.8	0.3	0	0	0	0
198	Hexamethylenetetramine	918	0	0	0	19.0	0
202	Tetrahydromethylphthalic anhydride	140	0	0	0	0.1	0
207	Copper salts (water-soluble, except complex salts)	8.1	0	0.1	0	7.9	0
227	Toluene	249	13.5	0	0	15.2	0
232	Nickel compounds*	1.8	0	0	0	0.1	0
242	Nonylphenol	2.5	0	0	0	0.1	0
243	Barium and its water-soluble compounds	65	0	0	0	0	0
266	Phenol	25,284	1.7	0	0	33.1	0
272	Bis (2-ethylhexyl) phthalate	14	0	0	0	0.3	0
300	1,2,4-benzenetricarboxylic 1,2-anhydride	17	0	0	0	1.3	0
304	Boron and its compounds	11	0	0	0	0.6	0
310	Formaldehyde	10,030	0.8	0.2	0	5.0	0
	Torridaeriyae	(12,895)	0.1	0	0	0.4	0

<sup>\*</sup> Specific Class 1 designated chemical substances (others are Class 1 designated chemical substances)

<sup>\*\*</sup> Plans call for beginning tests for this substance from fiscal 2010.

## **Independent Assurance Report**



## Independent Assurance Report

To the Board of Directors of Sumitomo Bakelite Co., Ltd.,

#### Purpose and Scope

We were engaged by Sumitomo Bakelite Co., Ltd. (the "Company") to provide limited assurance on its Environmental & Social Report 2010 (the "Report") for the fiscal year ended March 31, 2010. The purpose of our assurance engagement was to express our conclusion, based on our assurance procedures, on whether:

- the environmental and social performance indicators and environmental accounting indicators (the "Indicators") for the period from April 1, 2009 to March 31, 2010 included in the Report are prepared, in all material respects, in accordance with the Company's reporting criteria; and
- all the material sustainability information defined by the Japanese Association of Assurance Organizations for Sustainability Information ("J-SUS") is included in the Report.

The content of the Report is the responsibility of the Company's management. Our responsibility is to carry out a limited assurance engagement and to express our conclusion based on the work performed.

#### Criteria

The Company applies its own reporting criteria as described in the Report. These are derived, among others, from the Environmental Reporting Guidelines of Japan's Ministry of the Environment. We used these criteria to evaluate the Indicators. For the completeness of material sustainability information, we used the 'Criteria for Granting a Sustainability Report Assurance and Registration Symbol' of J-SUS.

#### **Procedures Performed**

We conducted our engagement in accordance with 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines of Sustainability Information Assurance' of J-SUS.

The limited assurance engagement on the Report consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviews with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report and reviews of the Company's reporting criteria.
- Obtaining an understanding of the systems used to generate, aggregate and report the Indicators, and of the internal controls at corporate and site level.
- Analytical reviews of the Indicators aggregated at corporate level.
- Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and also a recalculation of the Indicators.
- Visits to Sumitomo Bakelite Singapore Pte. Ltd and Amagasaki Plant.
- Assessment of whether or not all the material sustainability information defined by J-SUS is included in the Report.
- Evaluating the overall statement in which the Indicators are expressed.

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that:

- the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report; and
- all the material sustainability information defined by J-SUS is not included in the Report.

We have no conflict of interest relationships with the Company that are specified in the Code of Ethics of J-SUS.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd. Tokyo, Japan September 8, 2010

## Comment from an Independent Assurance Provider



Naomi Sugo, KPMG A7SA Sustainability Co., Ltd

Previous editions of this report disclosed social performance data with respect to domestic operations only, but to provide a clearer picture of the efforts and performance of overseas business sites, which are increasing in importance, this year's edition has extended its boundary to include overseas subsidiaries for some social performance indicators. In addition, the independent assurance procedures for this report entailed visits to an overseas business site. Through a series of disclosures and assurance processes, efforts are being made to increase the reliability of overseas data.

Regarding social performance indicators, information on the number of employees in the entire Sumitomo Bakelite Group and other Groupwide data are presented. In contrast, overseas environmental performance indicators are presented only in the Environmental Target Review and Site Report sections, and the Material Balance section, for example, which is supposed to show the environmental impact of the Group's business activities, does not include overseas data. In

view of the increasing importance of overseas operations, it is increasingly imperative that the figures be presented for the entire Sumitomo Bakelite Group, including overseas business sites, rather than merely for the parent company and domestic business sites.



Scene from an audit inspection of an overseas business site

#### **Editorial Policy**

Sumitomo Bakelite Co., Ltd., has disclosed its environmental initiatives since the 1998 publication of the Environmental Activities Report, which became the Environmental Report in 2001. Since 2005, we have provided augmented information on our social initiatives in the Environmental & Social Report.

Regarding the preparation of this 2009 version of the report, while giving due attention to Universal Design principles, we have striven to prepare an easy-to-understand, easy-to-read style and format for readers, we have referred to the Ministry of the Environment's Environmental Reporting Guidelines (fiscal 2007 version), and since 2001, we have included an independent review to raise the report's credibility.

Use of the J-SUS mark is granted based on the results of the review of an independent assurance provider. This mark indicates that the reliability of the sustainability information contained in our Environmental & Social Report 2010 meets the standards established by The Japanese Association of Assurance

Organizations for Sustainability Information (J-SUS; http://www.j-sus.org/) for granting an assurance and registration mark.



## Corporate Data

#### Name

Sumitomo Bakelite Co., Ltd.

#### President

Shigeru Hayashi

## **■** Established

January 25, 1932

#### ■ Capital (As of March 31, 2010)

¥37.1 billion

### ■ Number of Shareholders (As of March 31, 2010)

18,207

### ■ Number of Employees (As of March 31, 2010)

2.271 (non-consolidated)

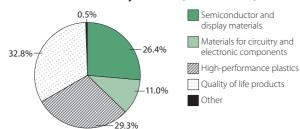
7,537 (consolidated)

#### ■ Net Sales (Fiscal 2009)

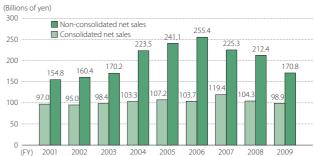
¥98.9 billion (non-consolidated)

¥170.8 billion (consolidated)

#### Fiscal 2009 Net Sales by Division (Consolidated)



## Net Sales



#### Major Products by Division

## • Semiconductor and display materials

Epoxy resin molding compounds for semiconductor packaging

Photosensitive wafer coating resins

Liquid resin for semiconductors

Carrier tape for semiconductor surface mounting

Adhesive tape for semiconductor chips

## • Materials for circuitry and electronic components

Epoxy resin copper-clad laminates

Phenolic resin copper-clad laminates

Flexible printed circuits

#### • High-performance plastics

Phenolic resin molding compounds

Industrial phenolic resins

Precision molded products

## • Quality of life products

Medical devices

Vinyl resin sheets

Multilayer sheets

Melamine resin decorative laminates and fireproof

decorative board

Polycarbonate resin boards

Vinyl resin boards

Water treatment products

Waterproofing construction and design contractor



# ◆ SUMITOMO BAKELITE CO., LTD.

## Contact: Environment & Recycling Dept.

Tennoz Parkside Building, 2-5-8, Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-0002, Japan TEL: +81-3-5462-3479 FAX: +81-3-5462-4873
URL: http://www.sumibe.co.jp/english/