



Environmental & Social Report 2012

 **SUMITOMO BAKELITE CO., LTD.**

Contents

2	Message from the President
---	----------------------------

About Sumitomo Bakelite Co., Ltd.

3	Corporate Data
5	Sumitomo Bakelite Group Products Found Nearby
7	Special Feature: Plastic's 100th Year Anniversary in Japan Exhibition
8	Special Feature: Roundtable Discussion on the Next Century of Plastics
11	Special Feature: Supporting the Education of the Next Generation
13	The Sumitomo Business Philosophy and Management Policies
15	Corporate Governance, Compliance, and Risk Management
17	Targets and Actual Results in Fiscal 2011, Plans for Fiscal 2012

Environmental Protection Efforts

18	Material Flows and Investments for Environmental Conservation
19	Reduction of Environmental Impact
20	Environmental Performance
22	Reduction of Environmental Impact Substances
23	Biodiversity Conservation

Relations with Society

Relations with Customers

24	Product Responsibility
26	Chemical Substance Management
27	<i>Monozukuri</i> Innovation

Relations with Shareholders, Investors, and Business Partners

28	Shareholders, Investors, and Business Partners
----	--

Relations with Employees

29	Employment and Human Rights/Human Resource Development
32	Occupational Safety and Health
34	Environmental Audits and Environmental Education/Safety and Accident Prevention

Relations with Society

35	Exchanges with Local Communities
----	----------------------------------

37	Site Report
----	-------------

45	Data
----	------

55	GRI Content Index
----	-------------------

57	Independent Assurance Report
----	------------------------------

Editorial Policy

The content of this report was discussed and determined from a corporate social responsibility (CSR) perspective by the Company's Responsible Care Committee in March 2012. Based on consideration of feedback we have received and societal trends, we have determined that the importance of information disclosure is increasing, particularly with respect to information related to societal issues. Accordingly, we have decided to prepare our *Environmental & Social Report*, beginning from the 2011 edition, in accordance with version 3 of the Sustainability Reporting Guidelines 2006 (G3) of the Global Reporting Initiative (GRI).

Regarding the preparation 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, and since 2001, we have included an independent assurance report to raise the report's credibility.

The indicators that are externally assured are marked with the  mark from the 2011 edition.

● Period

In principle, the report covers fiscal 2011 (April 2011 through March 2012). In cases when the coverage period is different from this period, the coverage periods are explained individually.

Some activities mentioned in the report include those undertaken in fiscal 2012.

● Published

October 2012 (The Fiscal 2011 Report was published in November 2011 and the Fiscal 2013 Report will be in September 2013.)

● **Boundary** (The name of the companies may be represented in simplified forms by omitting "Company, Limited", "Inc.", and/or other legal entity identifications.)

In principle, this report covers Sumitomo Bakelite Co., Ltd. and its consolidated subsidiaries. Regarding environmental and labor safety and health indicators, the boundary is primarily limited to production business sites and companies as shown below.

(Japan)

Sumitomo Bakelite

Head Office and marketing offices*1, Amagasaki Plant, Kanuma Plant, Utsunomiya Plant, Shizuoka Plant, Advanced Technologies R&D Laboratory, Totsuka Office*2

Akita Sumitomo Bakelite, S.B. Techno Plastics, Hokkai Taiyo Plastic, Yamaroku Kasei Industry, Kyushu Sumitomo Bakelite, Tsutsunaka Kosan, S.B. Research Osaka Center, S.B. Sheet Waterproof Systems.

*1. These offices are not included in the compilation of labor safety and health.

*2. The Totsuka Office was closed in June 2012.

(Overseas)

Sumitomo Bakelite Singapore, Sumicarrier Singapore, SumiDurez Singapore, SNC Industrial Laminates, Indopherin Jaya, SBP Indonesia, Sumitomo Bakelite (Thailand)*1, Sumitomo Bakelite Vietnam*2, Sumitomo Bakelite (Suzhou), BASEC Hong Kong, Sumitomo Bakelite (Shanghai), Sumitomo Bakelite Macau, Sumitomo Bakelite (Nantong), Sumitomo Bakelite (Taiwan), Durez, Durez Canada, Sumitomo Bakelite North America, Promerus, Sumitomo Bakelite Europe, Sumitomo Bakelite Europe (Barcelona), Vyncolit

*1. Plans for restarting the production of the manufacturing department at Sumitomo Bakelite (Thailand) have been abandoned because of the effects of flood damage, and production is being transferred to Sumicarrier Singapore, with a target date of August 2012.

*2. Agreement has been reached to transfer all of the shares of Sumitomo Bakelite Vietnam to Sumitomo Electric Industries as of September 2012.

In this report, the name of the companies may be represented in simplified forms by omitting "Company, Limited", "Inc.", and/or other legal entity identifications. For example, "Sumitomo Bakelite Company, Limited" may be represented as "Sumitomo Bakelite Co., Ltd.", "Sumitomo Bakelite", or "the Company".

Message from the President



First of all, I would like to once again offer my heartfelt sympathy for the many people who were greatly affected by the Great East Japan Earthquake of 2011 and express my prayers that the severely impacted regions can rebuild and reinvigorate their local societies as quickly as possible.

Last year marked the 100th anniversary of the birth of Japan's plastics industry. On that occasion, Sumitomo Bakelite Co., Ltd. and its Group took the opportunity to look back on the progress achieved by the industry in its first century as well as to reexamine the industry's role in society—the ways that the industry should be striving during its second to leverage the potentials of plastics in ways that contribute to the realization of a society of abundance—and reaffirm its commitment to carrying out that role in an exemplary manner.

In fiscal 2011, Sumitomo Bakelite's operations were impacted by such natural disasters as the Great East Japan Earthquake and the major flooding in Thailand as well as by slack conditions in the global economy and the record high levels of yen appreciation, and these factors, unfortunately, prevented the Company from attaining its original performance targets. On the other hand, we also saw our previous strategic efforts bear fruit during fiscal 2011 in such forms as increases in sales of new products and growth in the profitability of our operations in the United States and Europe. Our strategy of concentrating resources in strategic growth fields has been progressively reforming our business structure, and we are making steady progress toward restoring our capabilities for sustained business growth. We are positioning fiscal 2012 as a year for completing the reestablishment of our sustained growth capabilities and launching a new surge of corporate performance. By resolutely overcoming the challenges we face, we are aiming to be a company that shares "happiness" with all its shareholders going forward.

Management policies that are highly harmonious with the environment and society

Sumitomo Bakelite's Business Philosophy is "We 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 the quality of life worldwide." It is in accordance with this philosophy that we are promoting our fundamental policy of "society and environment-compatible management." Both these approaches stem directly from the Sumitomo Business Philosophy, which has been inherited and kept dynamically alive for centuries, and we are determined to maintain business operations in accordance with this timeless

business spirit through which we offer assurance, safety, and reliability to global society.

Excellent corporate management requires a fundamental focus on quality, productivity, customer satisfaction-oriented service, and innovation. We have spared no effort in implementing the Sumitomo Bakelite Production System (SBPS)—which is based on the Toyota Production System—to realize quality improvement, production innovation, shorter lead times, and other objectives. Besides augmenting our core manufacturing strengths through the implementation of the SBPS, we are endeavoring to gain a clear understanding of our customers' real needs as well as to propose and provide ways of delivering new kinds of value to customers and thereby build frameworks for creating more solid relationships with our customers that are based on mutual trust and confidence. In these and other ways, all Sumitomo Bakelite employees are concertedly striving to ensure that we thoroughly leverage our understanding of the perspectives of customers and society at large throughout our operations.

Last year, we established our Environmental Impact Reduction Committee, which has begun creating systems for measuring and reducing the environmental impact of our manufacturing operations, products, and services from the perspectives of energy conservation and product life cycle assessment (LCA). Each day, we are doing our best to provide plastics that satisfy new kinds of functional requirements while concurrently fulfilling our mission of contributing to the protection of the natural environment.

We are fostering the development of "human assets."

In 2007, we established the SB School to develop human assets that have a good understanding of Sumitomo Bakelite management policies and work in accordance with Sumitomo Bakelite traditions as well as to enable those human assets to acquire practical know-how based on a solid foundation of experience and self-discipline, so that they can manage the Company in ways that contribute to sustainable business growth. Many of our employees have participated in SB School programs during the past five years. Going forward, we intend to redouble our emphasis on cultivating robustly individualistic human assets with global perspectives.

In closing

I would like to reiterate that Sumitomo Bakelite is endeavoring to be a pioneer of plastics by developing and supplying plastic products with new functions that create new value for customers. Through its activities stemming from a strong fundamental emphasis on customer satisfaction, the Company will continuously strive to be "a company that provides happiness" to all its stakeholders, "a company that pleases all its customers," and "a company that is welcomed by society." Aiming to fully carry out its responsibilities to society as a member of the chemical industry, Sumitomo Bakelite will continue to actively support the Responsible Care Global Charter.

A handwritten signature in black ink, reading "S. Hayashi".

August 2012
Shigeru Hayashi, President

Corporate Data

Name

Sumitomo Bakelite Co., Ltd.

Head Office

Tennoz Parkside Building, 2-5-8 Higashi-Shinagawa,
Shinagawa-ku, Tokyo 140-0002, Japan

President

Shigeru Hayashi

Established

January 25, 1932

Capital (As of March 31, 2012)

¥37.1 billion

Number of Shareholders (As of March 31, 2012)

17,808

Stock Listings (As of March 31, 2012)

Tokyo Stock Exchange, First Section
Osaka Securities Exchange, First Section

Number of Employees (As of March 31, 2012)

2,194 (non-consolidated)

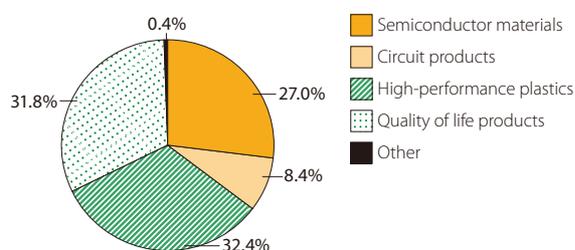
6,997 (consolidated)

Net Sales (Fiscal 2011)

¥96.6 billion (non-consolidated)

¥185.2 billion (consolidated)

Fiscal 2011 Net Sales by Division (Consolidated)



Major Products by Division

Semiconductor 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
Semiconductor materials for semiconductor packages

Circuit products

Epoxy resin copper-clad laminates
Phenolic resin copper-clad laminates

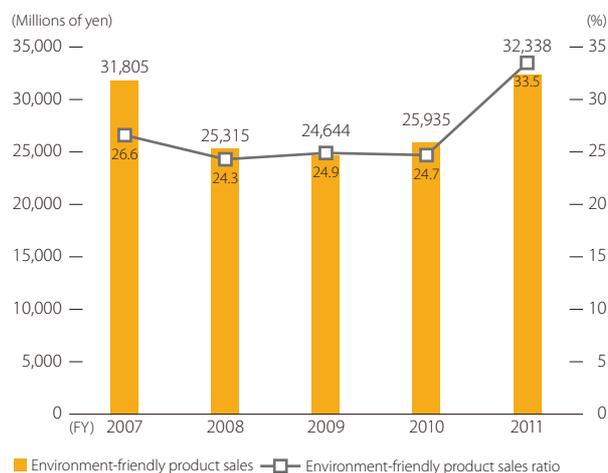
High-performance plastics

Phenolic resin molding compounds
Industrial phenolic resins
Precision molded products

Quality of life products

Medical devices
Vinyl resin sheets and multilayer sheets
Melamine resin decorative laminates and fireproof decorative board
Polycarbonate resin boards
Vinyl resin boards
Waterproofing construction and design contractor

Sales of Environment-Friendly Products



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

Group Companies

Sumitomo Bakelite Co., Ltd. and its Group companies have developed their operations in 13 countries and regions, including Japan.

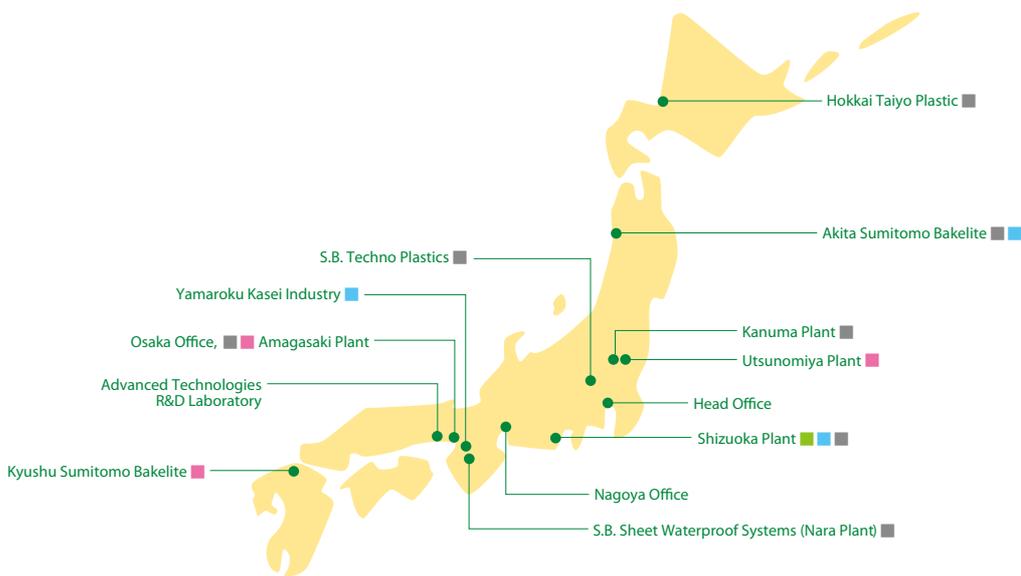
Global Network

■ Semiconductor materials
 ■ Circuit products
 ■ High-performance plastics
 ■ Quality of life products



Domestic Network

■ Semiconductor materials
 ■ Circuit products
 ■ High-performance plastics
 ■ Quality of life products



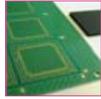
Sumitomo Bakelite Group Products Found Nearby

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

Information and Communications Materials (Semiconductor materials and circuit products)

1 Semiconductor Package Substrate Materials (SUMILITE LaZ®)

A LaZ, semiconductor package substrate material with superior properties that offers customers new value that they have not had before



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

Widely used as a molding compound for encapsulation of semiconductor devices to provide protection from moisture and physical impacts and to act as an electrical insulator



3 Wafer Coating Resin (CRC)

Protects semiconductors from the external environment, including stress and impurities and contributes to the reliability of devices



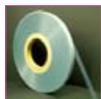
4 Pastes for Die Bonding (CRM)

An adhesive used for attaching semiconductor dies and LED chips to various types of substrates (lead frames, organic and ceramic substrates)



5 Cover (Carrier) Tapes (SUMILITE® CSL)

Used for transporting semiconductors and other electronic components, contributes to surface-mounting reliability, and protects components from static electricity



6 Copper-Clad Laminates (SUMILITE® ELC)

Have highly heat-resistant glass-epoxy substrate materials used in electronic control circuit boards to improve fuel economy and riding comfort



High-Performance Plastics

7 Tire-Reinforcement Material (SUMILITERESIN® PR)

Phenol resins that are added to rubber materials for greater stiffness to make tires more fuel efficient by increasing rolling resistance



8 Electronic Components (SUMILITERESIN® ECP)

Used in components that are used in electronic control systems for automobile motors, coils, and condensers and are made of environmentally friendly, halogen-free materials



9 Pulleys and Disk Brake Pistons (SUMIKON® PM)

Phenolic resin molding material used in auxiliary engine parts and brake components requiring high heat resistance and strength. Lowers automobile weight and improves fuel economy



10 Adhesive for Plywood Production and Boards (Yuroid)

Phenolic resin used in making plywood that features hardening at low temperatures and low formaldehyde emissions. Increases efficiency of plywood making and contributes to environmental protection





Quality of Life (Daily Life/Medical)

11 Waterproofing Sheet & System (SUNLOID® DN System)



Employing PVC sheets, this product is used on the roofs of buildings, for the waterproofing of tanks and veranda flooring, and on the roofs of high-quality prefab housing.

12 Melamine-Faced Decorative Laminates (DECOLA®)



Coming in a wide choice of types and colors, used as a decorative material in signage as well as for shops and other interiors, in public, commercial, medical, and other facilities

13 Polycarbonate Sheets and Films (SUNLOID PC®)



Highly transparent and widely used to allow light to enter and as a building material in many applications, including domes, canopies, windows, and roofs

14 Acrylic Light Guide Sheets (SUNLOID® LUMIKING)



Acrylic-based, light-conducting material used in signage panels, interior decoration for shops, and lighting fixtures

15 Freshness Preserving Films (P-Plus®)



Slows the deterioration in quality of fruit and vegetables in transit and storage and helps deliver fresher produce to consumers

16 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.

17 Pharmaceutical Products Packing Materials (Materials for PTP) (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 beads products are contributing to the reduction of waste and lowering of running costs by contributing to the speeding up and downsizing of equipment for biological sample testing.

19 Laboratory Plastic Wares (SUMILON®)



SUMILON® products are plastic laboratory consumables that are indispensable for biological research. By their simple packaging and since they are made of a single uniform material, these products lighten the environmental impact by the research.

20 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 us.

Special Feature: Plastic's 100th Year Anniversary in Japan Exhibition

This exhibition was organized to celebrate the centennial of the "birth of phenolic resin" in Japan and review the history of plastics from the emergence of phenolic resins to the present day as well as to project the growing range of new potentials for plastics that are emerging currently and expected to be realized in the future.

Plastics—Past, Present and Future Exhibition

100-year footsteps after the birth of phenolics in Japan and our voyage to tomorrow



1 Lego® blocks manufactured in 1949 2 A typewriter designed by Ettore Sottsass 3 Futuristic tree employing LUMIKING light guide sheets and LED light sources to display seven changing colors 4 Film director Toru Ichikawa appeared as a guest at the showing of "SAKURA SAKURA—a life of a samurai chemist." 5 Numerous plastic products were exhibited, including valuable items owned by the Amsterdam Bakelite Collection. 6 The number of visitors has exceeded 2,500. 7 A scene from a workshop designed to enable participants to understand the joys of chemistry

In 1911, Dr. Jokichi Takamine mediated for the trial production in Japan of phenolic resin, which has the longest history among the various plastics. From that time to the present day, plastics have been progressively developed alongside such other important materials as steel, glass, and metals into forms that have helped improve the day-to-day lives of people in Japan and elsewhere.

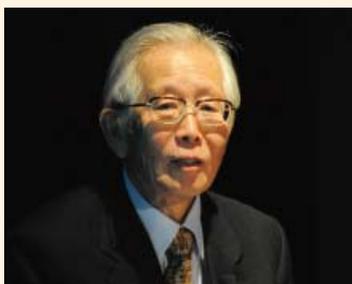
The year 2011 was the centennial year for plastics manufacturing in Japan. To celebrate that historical landmark, Sumitomo Bakelite worked in partnership with the Amsterdam Bakelite Collection to create an exhibition entitled "Plastic's 100th Year Anniversary in Japan—Plastics—past, present and future," which was held in Tokyo's Chiyoda district from December 22 (Thursday) through 25 (Sunday) of 2011. Targeting adults as well as children, the exhibition was designed to be an enjoyable event that promotes a greater understanding of the appeal and diverse hidden potentials of plastics. It included workshops for elementary school

students as well as a conversation between Dr. Hideki Shirakawa (recipient of the Nobel Prize in Chemistry) and Shigeru Hayashi (President of Sumitomo Bakelite) on past and future progress in plastics for which Ms. Naoko Yamashina was invited to serve as facilitator. Another feature of the exhibition was the showing of a film describing the life of Dr. Jokichi Takamine entitled "SAKURA SAKURA—a life of a samurai chemist." More than 2,500 people attended the four-day event, which was a highly educational opportunity for both young and old people to "see, listen, touch, and think about" Plastics—past, present and future.

With due reference to the ideas expressed during the conversation with Mr. Shirakawa, Sumitomo Bakelite will work going forward to lay the foundation for the next century of plastics and thereby contribute to society's progress by developing products to meet needs associated with emerging plastics applications.

Special Feature: Roundtable Discussion on the Next Century of Plastics

To commemorate the 100th anniversary of the plastics industry in Japan, we arranged for a discussion between Dr. Hideki Shirakawa, an inventor of electroconductive “polyacetylene” and recipient of the Nobel Prize in Chemistry, and Sumitomo Bakelite’s President Shigeru Hayashi. They frankly discussed topics that included the past and current roles of plastics, the potentials of plastics in the future, and the best policies and approaches for plastics manufacturers and researchers to take.



Chemist

Dr. Hideki Shirakawa

Dr. Shirakawa is Professor Emeritus of the University of Tsukuba, a member of the Japan Academy, an inventor of electroconductive “polyacetylene”, and a recipient of the Japanese Order of Culture and the Nobel Prize in Chemistry 2000.



President

Shigeru Hayashi

President Hayashi joined Sumitomo Bakelite in 1970, became a director of the Company in 2000, was appointed vice president in 2008, and assumed his current position in 2010.



Facilitator

Naoko Yamashina

In addition to being a Project Professor at the Science Interpreter Training Program, the University of Tokyo, Ms. Yamashina has since 2011 served as program coordinator for the Nissan Global Foundation.

An Epochal Advance in Chemistry Leads to the Birth of Electroconductive Plastics

Yamashina: Since the commercialization of phenolic resins, it seems that the practical usages of plastics have grown in step with the needs of the times. In the 1950s, “engineering plastics” with excellent strength and heat resistance properties were developed to meet the needs of the mass-production era, and those engineering plastics were further developed into “high-performance plastics” with special luminescent and heat resistance characteristics. Subsequently, Dr. Shirakawa’s efforts led to the discovery of electroconductive polyacetylene. Currently, such electroconductive plastic has found applications in the lithium-ion battery electrodes incorporated in the backup batteries of electronic equipment and the main batteries of mobile phones, which are indispensable for the sophisticated information society.

Shirakawa: I discovered the “seed” of electroconductive plastic when I was still working as an assistant in a university, but I failed in the initial acetylene polymerization experiments.

On the other hand, those failures led to a miracle—we were able to create a thin film of polyacetylene similar to a sheet of aluminum foil, although we couldn’t initially pass an electric current through it. Subsequently, after repeating experiments in cooperation with my fellow recipients of the Nobel Prize in Chemistry 2000, electroconductive plastic was discovered.

Yamashina: Dr. Shirakawa’s discovery of “conductive polymers” is a great achievement in and of itself, yet, it served as a starting point for the subsequent surge of progress in electroconductive polymer research. Your discovery was not only epochal within the history of plastics but also represented a new epoch in the history of chemistry.

Hayashi: Yes, indeed. Sumitomo Bakelite has also been proactively moving ahead with the development of electroconductive plastics. For example, “our pastes for die bonding” include products incorporating electroconductive filler materials, and they are indispensable for the bonding of semiconductor chips and lead frames.

Yamashina: Companies must continually offer excellent new products that meet the changing needs of the times. In other words, it can be said that they are always racing against time.

Hayashi: We have to complete research for meeting new needs in limited periods of time. However, in some of our research we are looking ahead to the next few decades and are aiming to produce the “seeds” of future discoveries. That kind of research requires considerable money and time to carefully refine and bring to fruition. One cannot expect such “seeds” to sprout immediately. Good business management requires “patience.” It is when the management believes firmly in its technologies and takes good care of associated research programs that it can pioneer paths to new possibilities.

Shirakawa: Corporate research requires considerable time, and it is also restricted by many other factors, such as personnel and funding limitations. Universities are the only ones able to pursue some kinds of fundamental research, and so it is important to promote academic research that alleviates the burdens born by corporate research programs.

Hayashi: Yes, that is why the concept of cooperation involving industry, academia, and government entities has become so generally accepted nowadays. In many cases, the national government is responsible for funding, which is used by universities to generate results from basic research. Then, companies can utilize those results to develop new products to introduce to the world.

Shirakawa: I hope that such three-way cooperation will support the development of products that generate benefits for people throughout the world.

Yamashina: Indeed. Nowadays, such electronic devices as smartphones are constantly evolving. Going forward, the progress made regarding electronic devices will require similar advances with respect to plastics. What kinds of plastics do you two think will be needed in the future?

Shirakawa: Modern society is increasingly seeking ways of reducing its carbon footprint; so, I would think it desirable to develop inexpensive polymers produced using carbon dioxide generated during combustion processes as well as other kinds of plastics that utilize carbon dioxide. I also think it will be interesting to create plastics with "self-healing" or autonomous repair functions. When such plastics are subject to shock or stress and break as a result, they will be able to repair themselves. This self-healing process is modeled after the natural healing powers of animals.

Yamashina: President Hayashi, what are your thoughts and dreams regarding the future direction of progress in plastics?



Hayashi: Well, it is clear that plastics will be required to play increasingly diverse and important roles. We would like to overcome plastic development challenges related to such themes as safety, peace of mind, comfort, convenience, health, and the environment, so that we can enhance people's lifestyles and increase the contribution of plastics to societal development. Currently, we are developing SUMILITE "LoZ" substrate products that we expect to make a major contribution to the realization of a ubiquitous society and "green phenol" products that are highly environment-friendly. Going forward, if we can develop high-strength plastics that can be used in place of metals, it will enable great advances with respect to reducing the weight of transportation equipment ranging from automobiles through aircraft. Such advances will make it possible to augment fuel economy and thereby reduce carbon dioxide emissions.

Enhancing Lifestyles and Contributing to Societal Development

Yamashina: I believe that the progressive rise in the functionality and performance of plastics will make it increasingly difficult to conduct research programs within the fields of polymers and plastics alone. It seems to me that, if researchers do not do some supplemental studying in other fields, they will find it difficult to come up with new concepts. Dr. Shirakawa, do you have any advice for future researchers?

Shirakawa: The number of materials derived from polymers is great, and there is an abundant array of applications for those materials. Accordingly, I hope that polymer researchers will avidly seek to gather information from outside their specialty field, and I would recommend that they go about gathering information by collaborating with specialists in other fields. It is worth noting that my research partners for the electroconductive polyacetylene project were not specialists in polymer synthesis. Cooperation among specialists from

different fields enabled our research to advance based on perspectives that were completely different but complementary. I believe that interaction with other researchers is a crucial driving force that can vigorously propel research projects forward.

Hayashi: In other words, it is important that researchers do things to broaden their mental horizons, right? Researchers should always be considering the kinds of potential markets and applications that there may be for the products they are developing. They have to constantly keep an eye on the markets. In short, they should make their own personal efforts to seek knowledge about what is happening in the markets. In line with the maxim “seeds that result from needs,” I believe that researchers should be proactively seeking needs-related information for consideration in connection with the selection of their research themes.

Yamashina: So, the unanimous conclusion appears to be that researchers will have to become more proactive going forward. At this point, I would like to ask President Hayashi a question about a different subject. When companies make major mistakes, those mistakes may sometimes have a severe impact on corporate viability. Do you have any ideas to offer with respect to mistakes or failures in the work of researchers?

Hayashi: Well, from my perspective, there are likely to be many mistakes in the process of creating new products, but I would not consider those mistakes to be failures. It is by engaging in a protracted process of trial and error accompanied by efforts to accumulate product-related information that we can create strong new products. In the period prior to the launch of a new product, I think it is fair to say that making numerous mistakes is a constructive part of the development process. We should patiently wait for that process to take its natural course, culminating in the creation of powerful new products. Good business management often calls for a considerable amount of rational patience and endurance.



Shirakawa: I also would like to engage in research without having undue concerns about mistakes and failures. Failures are an inherent element of experimentation. Many of my own experiments have been failures, and it is thanks to those failures that electroconductive polymers were ultimately discovered. Properly verified failures always have the potential for leading to good fortune at some point in the future.

Yamashina: Today’s conversation has demonstrated how interactions between a chemist and a corporate executive with completely different backgrounds can generate synergies, and it can be said that promoting such dynamic interaction among researchers will generate results that are equally beneficial. Rather than pursuing research in their specialty fields alone, researchers are likely to realize surprising increases in their productivity if they strive to proactively interact and exchange ideas with people with diverse backgrounds. By maintaining our awareness of the strengths that can be derived from diversity, I hope that we can effectively work to realize the full potentials of plastics going forward.

* This transcript is an edited version of the Special Talk portion of the “Plastic’s 100th Year Anniversary in Japan—Plastics—past, present and future” exhibition held at Japan’s Science Museum in Tokyo on December 23, 2011.

Special Feature: Supporting the Education of the Next Generation

Sumitomo Bakelite provides junior high school science teachers with educational support that helps them to nurture the young generation who will lead the future of the community.

Fujieda-Shi Science Education Support Project Activities

The trend among children to avoid or lose interest in science is becoming a social issue. In order to increase the number of children who like science and assist science teachers at junior high schools, Sumitomo Bakelite started its "Fujieda-Shi Science Education Support Project" activities in 2009 with the cooperation of the Japan Association for Chemical Innovation (JACI). Sumitomo Bakelite chose Fujieda-Shi as a model city for this project as it has a production site there called Shizuoka Plant. This unique project is designed (1) to establish a support system for those teachers and (2) to develop an education system through close collaboration between schools and local communities.

Below are some of the activities we undertook in school year 2011.

◆ Cooperation at knowledge level

To help enrich knowledge, to share information useful for school classes, to provide support for science experiments, etc.

1. The Meiji Tokai Plant, a confectionary based in Fujieda-Shi, kindly presented to school teachers some of their cutting-edge technologies for making sweets. The presentation focused on the technologies that can be useful for science classes, and the teachers actively participated in discussions.



Teachers listening to a lecture by a Meiji engineer on their cutting-edge technologies (January 2012)

2. We made a presentation on our Company activities at a study meeting on science classes held in Fujieda-Shi and received opinions from participant teachers.



We collected opinions and requests from the teachers at the study meeting on science classes. (June 2011)

3. We reported our project at a meeting of the Society of Japan Science Teaching held at Shimane University to make our activities better known among educators. (August 2011)

◆ Cooperation at material level

Providing teaching and experimental materials, etc., to schools

1. We participated in a study meeting on science classes at Takasu Junior High School of Fujieda-Shi. At a class titled "Electric current and its use", our Production Engineering Research Laboratory demonstrated a model, prepared as a teaching material, of the electric motor that is in actual use at our Shizuoka Plant.



Researcher Mr. Sakade of the Production Engineering Research Laboratory demonstrating the model electric motor (June 2011)

2. We provided samples of solar-cell-integrated waterproof systems with LEDs made by S.B. Sheet Waterproof Systems Co., Ltd. for a science class on batteries as a teaching material.

(September 2011)

3. We donated to the junior high schools in the city some laboratory glassware that became idle after the closure of the Fundamental Research Laboratory and the relocation of S.B. Research Co., Ltd. They are used for the preparation of reagents in chemical classes and other activities.

(November 2011)

4. Following the introduction of the new Course of Study by the Ministry of Education, junior high schools now have to give a class on plastics. Upon request by school teachers for teaching materials of plastics, we provided them with some film sheets presented by the Vinyl Environmental Council (VEC) of Japan.



Students feeling the texture of various kinds of plastic films (January 2012)

Comments from the educational circles and school teachers



Akihiro Sakurai

School Education
Section Chief
Fujieda-Shi Board of
Education

Looking forward to good results of the Fujieda-Shi Science Education Support Project

Good things about this project are that schools can obtain the information they need at the right time they need it and that schools are fortunate to be given proposals for classes based on the specialized technologies by the participating companies that teachers do not usually think of.

Classes designed on the basis of these proposals and information gathered through this project bring fresh air to the students and increase the level of interest in science, which consequently helps to develop students with inquiring minds.

In addition, schools are more than grateful for the "arms-length" attitude of the companies toward the project.



Akinori Yamada

Principal of Takasu Junior
High School, Fujieda-Shi
Principal in the Science
Section of Fujieda-Shi
Association of Education

It was in school year 2009 when this project was introduced by Sumitomo Bakelite and the Japan Chemical Innovation Institute (JCII) (currently renamed JACI). At the beginning, although we clearly understood their passion to support science education, we had difficulty in identifying how they could get involved in and cooperate with school activities, and even kindly asked them to accept our selfish request for "give & give" relationships to go forward with the project. We are now organizing the science education exchange program with the full cooperation of Sumitomo Bakelite, Meiji, and Fujifilm every year. This project not only allows teachers to learn cutting-edge technologies, but also has evolved as such that the participating companies do research on and provide educational materials for school science classes. Support goes all the way from developing and providing teaching materials and tools to lecturing teachers and organizing joint classes, etc. The Fujieda-Shi Association of Education filed all information on these activities, and presented it at a meeting of the Japan Association of Education in the last school year. Taking this opportunity, I would like to express my deep appreciation to Mr. Murayama and all of those who have supported us in this project.



Yuki Itoh

Science Teacher of
Hanashi Junior High
School, Fujieda-Shi
Manager in the Science
Section of Fujieda-Shi
Association of Education

I would like to express my sincere gratitude for the Fujieda-Shi Science Education Support Project to Sumitomo Bakelite and all the other members of the companies who have taken part in this project. Through the interaction with the project member companies, we were fortunate to gain firsthand knowledge on the latest technologies that we would not normally see otherwise, and pass that knowledge to our students in the classroom. Last school year, we had a chance to welcome some of you to our science class and to relate what the students had learned as a theory to something that they see in daily life. This certainly helped to increase the desire of the students to learn. Having seen this, I truly am convinced that I could give better classes to the students by means of cooperation and discussions between schools and companies. I believe these activities are quite valuable. Looking ahead, I hope we can provide even better lessons for our students through our relationships with companies. Thank you for your continued cooperation and support.

From the Sumitomo Bakelite Staff Member in charge of the Fujieda-Shi Science Education Support Project

Through the continuation of this project, which provides support to teachers, we are aiming to increase the number of children who like science and, eventually, will be the leaders of their communities in the future. We are also calling on all companies located in

the Fujieda-Shi area for their cooperation and will continue our initiatives to encourage the area to join together to provide broader support for science teachers.

Mitsumoto Murayama
Corporate Technical Department



The Sumitomo Business Philosophy and Management Policies

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.

The Sumitomo Bakelite Group is attaching great importance to its relationships with all of its various stakeholders.

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 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 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.”—also stems directly from the Sumitomo Business Philosophy that has been inherited and kept dynamically alive over a period of 400 years.

Management Policies, Corporate Policies for Safety and the Environment

<p>Our Business Philosophy</p> <p>“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.”</p>	<p>Management Policies</p> <p>Strengthen and expand three core businesses—semiconductor materials and electronic circuit products, high-performance plastics, and quality of life products</p>	<p>Corporate Policies for Safety and the Environment Philosophy</p> <p>Philosophy</p> <p>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.</p> <p>Policies</p> <p>In accordance with this philosophy, we will:</p> <ol style="list-style-type: none"> 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. Endeavor to disclose information to and promote dialog with such stakeholders as employees and local residents.
	<p>Upgrade competitive power in “manufacturing skills”</p>	
	<p>Anticipate customers’ needs and provide next-generation solutions</p>	
	<p>Promote Customer Satisfaction (CS) activities and marketing activities that emphasize B-to-B styles</p>	

Our Standards of Conduct

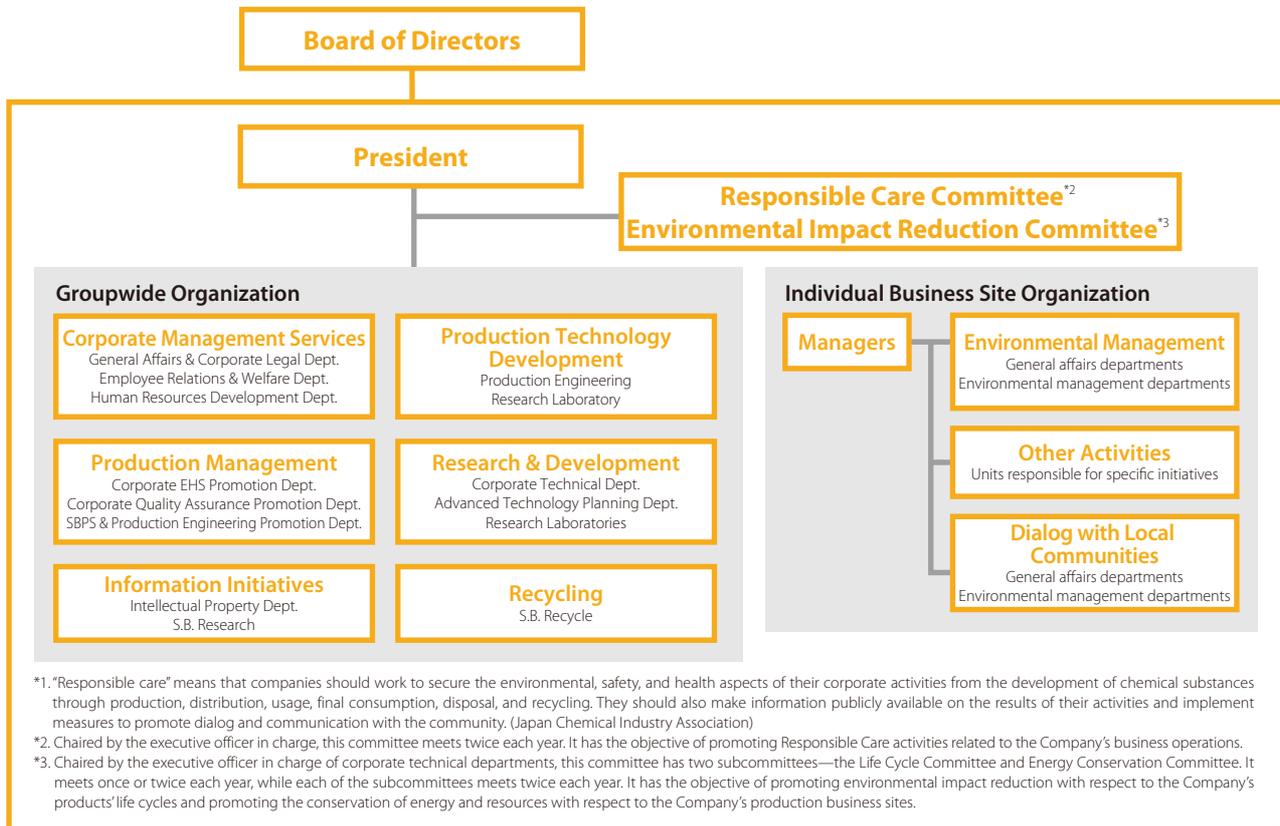
Our Standards of Conduct

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. It has been distributed to all employees.

CSR Activities Promotion System

Sumitomo Bakelite's System for Promoting CSR Activities Centered on Responsible Care*¹ Operations



The Company's Stakeholders

Customers

The Group works in good faith to live up to its responsibilities related to such issues as product quality, delivery dates, and prices as well as to quickly respond to customer needs. To achieve this, we have established a CS Committee that is constantly endeavoring to further heighten the level of customer satisfaction.

Shareholders

The Group is committed to distributing appropriate levels of dividends and is moving ahead with measures to disclose all relevant information. To attain these goals, we are striving to augment the efficiency of its management systems, increase the rigor of its corporate governance, and ensure the timely disclosure of relevant information.

Local Residents

Operating as a member of local communities, the Group seeks to contribute to the regions in which it operates while giving due attention to environmental protection issues. We disclose information to local residents by organizing factory tours and proactively participating in local events.

Government Entities

Besides maintaining rigorous compliance with relevant laws and regulations, the Group endeavors to make information publicly available and engage in two-way communications with local government entities. To this end, we are creating internal mechanisms for monitoring the revision and enactment of laws.

Business Partners

The Group engages in impartial and fair business transactions and cooperates with its business partners to realize CSR procurement objectives. Accordingly, we maintain day-to-day dialog with business partners to confirm the propriety of transactions and clarify the terms of contracts.

Employees

The Group strives to create safe and pleasant work environments and provide employees with meaningful and satisfying careers. We are endeavoring to reduce workplace risks by implementing diverse kinds of risk assessments, and we are providing all employees with educational opportunities through the SB School.

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 recognize that improving transparency and our relationship with society is fundamental to corporate governance. The Company's 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 and are taking steps to further improve corporate governance.

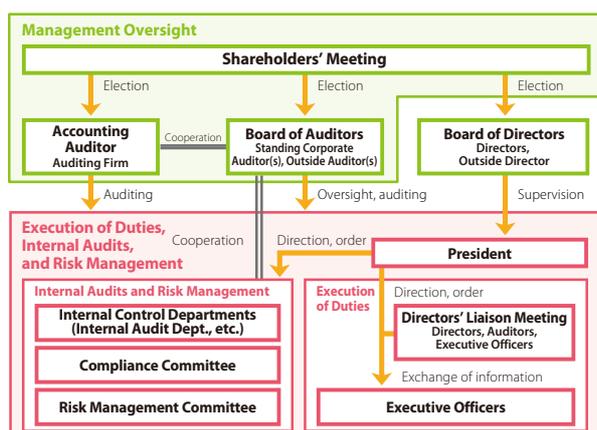
Management System

The Board of Directors, in accordance with laws and regulations, including the Board regulations, makes decisions on important operational execution matters and also monitors the progress of each director's operational execution through the reports on important issues related to performance of duties. In the case of situations corresponding to potential conflicts of interest involving directors, potential conflicts of interest are required to be submitted in advance to the Board of Directors so that the director in question will be excluded from participation in the process of making decisions on that approval. Director candidates are determined by the Board of Directors from among persons with appropriate qualifications and skills for the execution of the Group's management and social responsibility tasks and are appointed based on resolutions of the general meeting of shareholders. In addition, the remuneration of the directors (excluding outside directors) includes basic remuneration (monthly remuneration) and a bonus, and the total value of basic remuneration and bonuses is determined by the Board of Directors within the total remuneration value approved by shareholders.

In addition, the Board appoints executive officers, and the executive officers are responsible for executing their assigned operations under the direction of the president. Currently, the management system includes nine directors and 16 executive officers (including seven who serve concurrently as directors). Of the directors, one is an outside director.

There are four corporate auditors, of which two are outside corporate auditors.

Structure of Corporate Governance



Internal Control

In May 2006, based on Sumitomo Bakelite's Business Philosophy, the Board of Directors determined the "Business Philosophy Regarding Internal Control System Establishment" with the goal of creating systems for ensuring that the Company's operations are appropriately conducted. For more-detailed information on this policy, please visit the Company's website (<http://www.sumibe.co.jp/english/index.html>). This Business Philosophy is reviewed when necessary, and various activities are moving ahead with the objective of further strengthening internal controls.

In addition, with respect to internal control over financial reporting, the Company's "Basic Rules and Regulations for Internal Control over Financial Reporting" were established in April 2008. In accordance with this policy, measures are being taken to strengthen systems for ensuring the reliability of the Group's financial reporting and to appropriately execute measures for implementing, evaluating, reporting on, correcting, etc., internal control systems as well as to execute the disclosure of corporate information in an appropriate and timely manner. Furthermore, in April 2010, aiming to build internal control systems governing subsidiaries and promote the sustained implementation of control activities, the Company established its "Comprehensive Guidelines for Internal Control in Consolidated Subsidiaries" and has clarified the initiatives that such subsidiaries must take.

With respect to the internal control over the Group's financial reporting as of March 31, 2012, the internal control was evaluated and consequently deemed to be effective. In addition, as a result of the financial auditor's audit, the internal control report was recognized to be appropriate with respect to the evaluation related to financial reporting.

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 subsidiaries and affiliates, including those overseas, are establishing codes for conduct based on Our Standards of Conduct.

Under its basic policy on the establishment of internal control systems, Sumitomo Bakelite's Internal Audit Department and departments in charge of internal auditing consider and assess the compliance of operating activities with legal regulations and conformity with various standards.

Regarding the compliance situation in fiscal 2011, there were no material violations of laws or regulations with respect to the

environment, human rights, occupational health and safety, provision and usage of products and services, management of customer information and data, improper accounting, discrimination in the workplace, or improper or illegal conduct (including violations of the antitrust laws).

Our Standards of Conduct

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



Ten Articles for Compliance

To make compliance an integral part of daily activities, each department decides on the key items for compliance and prepares "Ten Articles for 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 subsidiaries and affiliates are also engaged in this kind of activity.

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 to this internal reporting system, employees with such information to disclose can elect to report externally through designated legal counsel. The privacy of those disclosing such information is, therefore, strictly protected.

Three cases were reported in fiscal 2011, but none of these involved major improprieties, and matters were dealt with appropriately.



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 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.



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.

Communication with Employees

The Sumitomo Bakelite Labor Union is an organization that represents ordinary employees of the Company. Representatives of this union and the Company's management regularly hold labor-management discussion meetings, and Companywide-level meetings are held twice each year. The president and other top executives participate in these meetings, at which they explain management situations, exchange opinions with union representatives, and respond to questions. Moreover, at each of the Company's business sites in Japan, labor-management discussion meetings are held each month, and diverse kinds of exchanges of opinions are undertaken at those meetings. In addition to labor-management discussion meetings, labor-management conferences are held each time such individual issues as those related to changes in labor conditions arise, with the conferences being held on a Companywide or business site-based level in accordance with the given situation, and these conferences provide a forum for cooperative efforts to resolve problems.

Targets and Actual Results in Fiscal 2011, Plans for Fiscal 2012

The following table shows the Sumitomo Bakelite Group's activities related to the environmental and social aspects. We present this table from this year to make the Group's activities more transparent.

Area of activities	Major items	Target for fiscal 2011	Actual results in fiscal 2011	Plan for fiscal 2012	Achievement evaluation
Environmental initiatives	Reduction in CO ₂ emissions (compared with fiscal 2005)	In Japan: 27% reduction Overseas: 8% increase	In Japan: 32% reduction Overseas: 6% reduction	In Japan: 27% reduction Overseas: 0.5% reduction	○
	Reduction in material loss (compared with fiscal 2005)	In Japan: 24% reduction Overseas: 28% reduction	In Japan: 27% reduction Overseas: 29% reduction	In Japan 28% reduction Overseas: 30% reduction	○
	Reduction in chemical substance emissions (In Japan: compared with fiscal 2005) (Overseas: compared with fiscal 2010)	In Japan: 59% reduction Overseas: 3% reduction	In Japan: 49% reduction Overseas: 28% reduction	In Japan: 64% reduction Overseas: 20% reduction	△
Relationships with society	Environmental audits	In Japan: implemented in 13 business sites Overseas: implemented in 13 business sites	In Japan: implemented in 13 business sites Overseas: implemented in 12 business sites (One business site in Thailand was impossible to audit because of the floods.)	In Japan: implement in 13 business sites Overseas: implement in 9 business sites	○
	Prevention of labor accidents (in Japan)	Number of accidents resulting in lost work time: 0	Number of accidents resulting in lost work time: 2	Number of accidents resulting in lost work time: 0	△
	Safety and accident prevention audits	In Japan: implemented in 12 business sites Overseas: implemented in 6 business sites	In Japan: implemented in 12 business sites Overseas: implemented in 6 business sites	In Japan: implement in 13 business sites Overseas: implement in 9 business sites	○
	Quality audits	In Japan: implemented in 10 business sites Overseas: implemented in 2 business sites	In Japan: implemented in 10 business sites Overseas: implemented in 2 business sites	In Japan: implement in 10 business sites Overseas: implement in 5 business sites	○
	Increasing customer satisfaction (CS)	Continued meetings of the CS Promotion Committee and implemented activities to increase CS	Held events to strengthen ties with customers with the CS Promotion Committee taking the leadership, including business explanation meetings, exhibits, etc.)	Will continue activities to strengthen ties with customers with the CS Promotion Committee taking the leadership	○
	CSR procurement	Establish Group procurement policy, announce it publicly, and post on the website	As planned, established Group procurement policy, announced it publicly, and posted it on the website. Also, provided additional explanation on the website regarding the three inquiries most frequently made by customers	Take initiatives to gain full awareness of the Group's procurement policy to the Group companies	○
	Support for environmental NPOs	Continue and expand support for "Morino Chonai-Kai" (Forest Neighborhood Association)	Usage of paper products that promote the use of forest thinning support paper increased 73% over the previous fiscal year.	Continue support for "Morino Chonai-Kai" (Forest Neighborhood Association)	○
	Support for education of the next generation	Hold study and exchange meetings with science teachers and provide them with teaching materials. Introduce simulated tests for teachers and students	Held study and exchange meetings with teachers in the region in and around Fujieda, Shizuoka Prefecture, and introduced simulated tests on four occasions for teachers and students	Continue to hold study and exchange meetings with science teachers (support activities), provide teaching materials, and introduce simulated tests	○
	In-house human resource training	Continue to educate personnel at the SB School	Cumulative total of about 18,000 personnel received lectures Cumulative total of about 35,000 hours of education and training	Continue to educate personnel at the SB School	○

○: Achieved Goal △: Goal not attained (but improvement over the previous fiscal year) ▲: Goal not attained (worsened from the previous fiscal year)

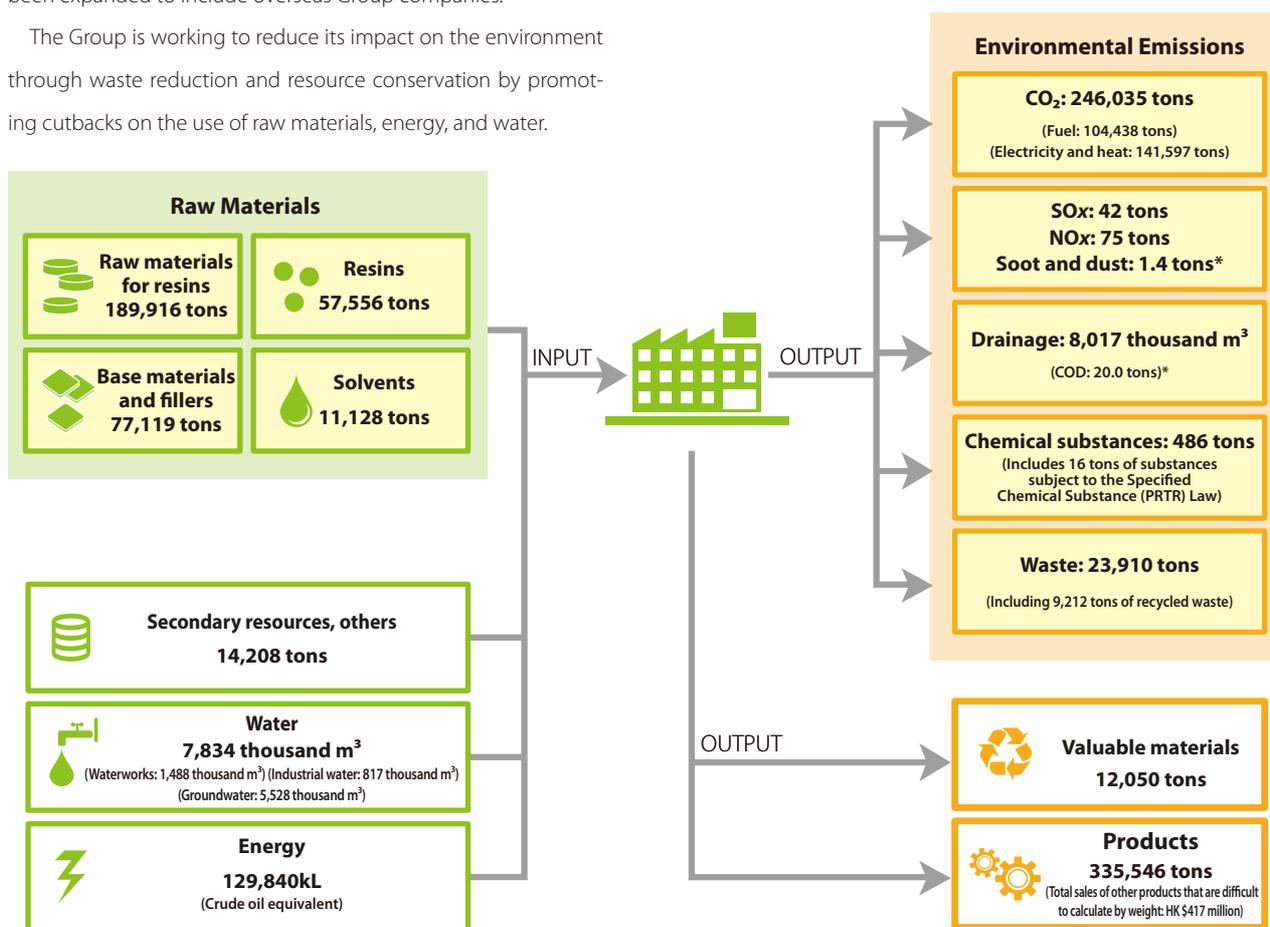
Material Flows and Investments for Environmental Conservation

The environmental impact of Sumitomo Bakelite's business activities and trends in investments for environmental conservation are shown below.

Material Flows

The chart below shows inputs, including raw materials and energy, as well as outputs that are products and released into the environment. Beginning with this fiscal year, the boundary has been expanded to include overseas Group companies.

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.



* Since methods of calculating emissions of soot and dust and chemical oxygen demand (COD) differ among countries, these figures are compiled solely for Japanese operations at present. Note: For information on the coverage of this data, please see the "Boundary" section on page 1.

Investments for Environmental Conservation

Sumitomo Bakelite has compiled data annually on the amounts of investments for environmental conservation of all domestic Group companies since 2000.

As the chart shows, the Group is working to improve its environmental conservation efforts.

Note: For terms covered by the data compilation and domestic business sites, please see page 1.

Note: The unit "tons" here and hereinafter in this report is metric tons.

Investment for Environmental Conservation in Fiscal 2011

Item	Investment (millions of yen)
Emissions control	165
Energy conservation	163
Waste reduction, recycling, and treatment	7
Total	335

Reduction of Environmental Impact

Aiming to reduce our environmental impact, we have set Medium- and Long-Term Environmental Impact Reduction Targets and are promoting their attainment.

In fiscal 2009, we summarized our medium- and long-term plans, and then in fiscal 2010, to strengthen and continue our initiatives to reduce the environmental impact of our activities, we prepared and began to implement a new medium- and long-term plan covering the period through fiscal 2020.

The graphs below show the actual results for fiscal 2011 and the plan for fiscal 2020.

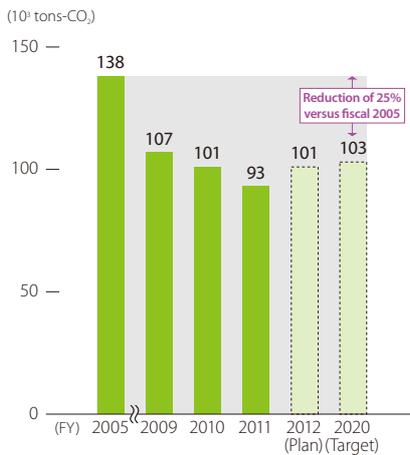
CO₂ emissions from our domestic business sites have been decreasing steadily to meet our medium- and long-term plan target. Material loss and chemical substance emissions increased temporarily in fiscal 2010, but then began to diminish again in fiscal 2011.

In our overseas business sites, each of the indicators was reduced from the previous year in fiscal 2011. Since the volume of production is forecast to rise in fiscal 2012, plans call for increases in CO₂ emissions and the volume of emissions of chemical substances, but we are scheduled to make improvements on a unit basis.

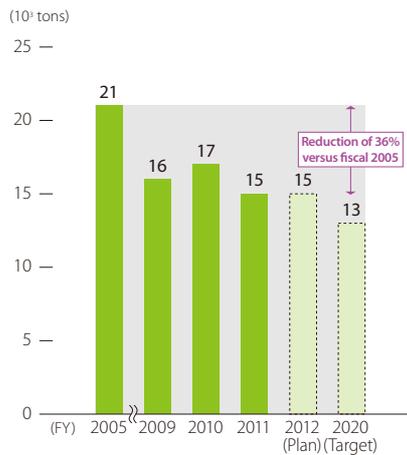
In addition, beginning in fiscal 2011, we have begun to collect information on energy use and CO₂ emissions in our non-manufacturing operations of subsidiaries and affiliates both in Japan and overseas.

Domestic Business Sites

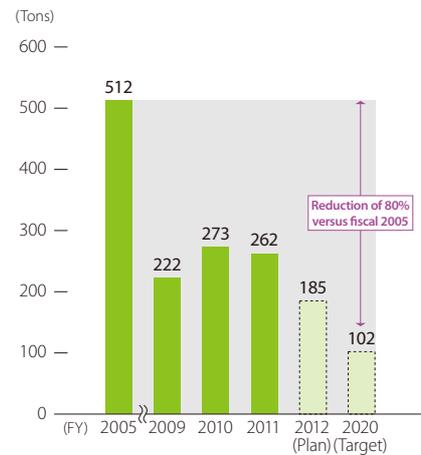
CO₂ emissions



Material loss

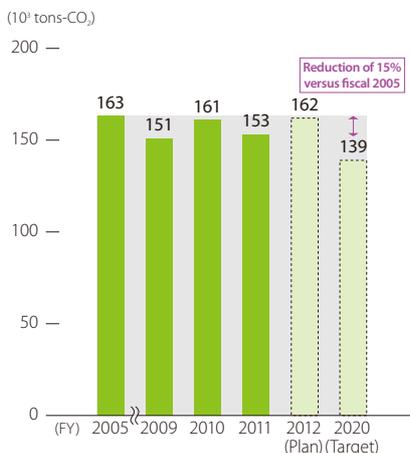


Chemical substance emissions

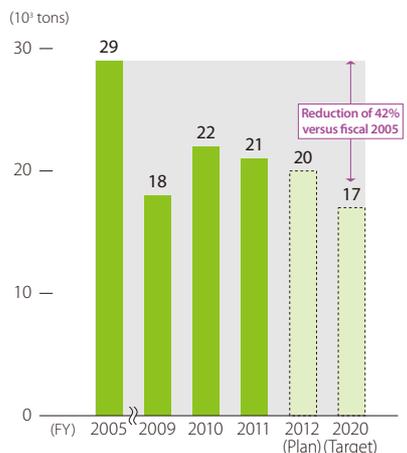


Overseas Business Sites

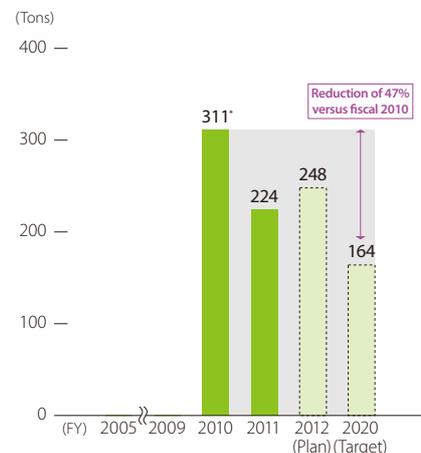
CO₂ emissions



Material loss



Chemical substance emissions



* Since data for Durez Corporation, Durez Canada, and Vyncolit were not finalized at the time of the compilation of data for fiscal 2010, these figures have been revised retroactively.

Notes: 1. For information on the coverage of this data, please see the "Boundary" section on page 1.

2. For definitions and the calculation method of CO₂ emissions, material loss, and chemical substance emissions, please refer to page 45.

3. Regarding the volume of material loss overseas, omissions have been found in past data, and, accordingly, figures have been revised retroactively to 2005.

Environmental Performance

Sumitomo Bakelite implements resource and energy conservation activities and strives to reduce emissions of CO₂ and chemical substances into the environment as well as lower material loss.

Activities of the Environmental Impact Reduction Committee

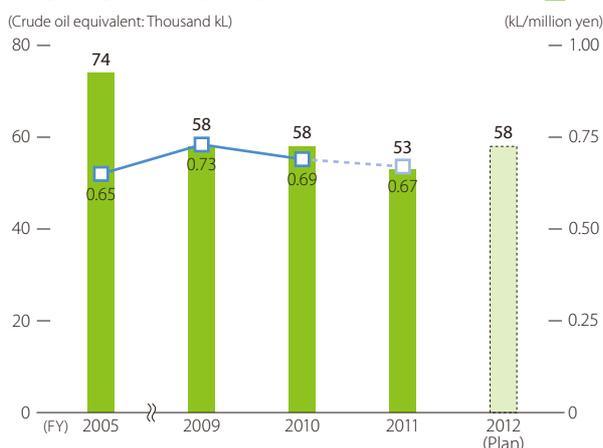
Two subcommittees have been formed under the Environmental Impact Reduction Committee. The first of these is the Life Cycle Committee, which has begun to conduct trials at the development level in all R&D departments to reduce energy consumption from the start of the mass manufacturing of new products. In fiscal 2012, these activities are being expanded, and steps are being taken to train research workers who can conduct LCAs and design reviews. Next, the second of the subcommittees, the Energy Conservation Committee, is engaged in Companywide energy conservation activities. Under the guidance of outside consultants, this subcommittee embarked on a project to formulate energy conservation plans at the Shizuoka Plant in fiscal 2010 and in fiscal 2011 at the Amagasaki Plant, and its activities have moved forward with the implementation of plans to reduce energy consumption by about 20%. In fiscal 2012, an Energy Conservation Promotion Team (PEC) was formed to use experience gained through the external method and implement this as Sumitomo Bakelite's technology. At present, efforts are under way to implement this technology across subsidiaries and affiliates in Japan and overseas as well as to develop systems for continuing these energy conservation activities.

MFCA* Efforts

Sumitomo Bakelite's material flow cost accounting (MFCA) efforts have enabled the Company to improve effective rates of resource utilization, contributing to waste reduction as well as energy conservation. Beginning in fiscal 2011, MFCA has begun to be introduced at all production business sites in Japan, and measures are being implemented for the "visualization" of the losses in various production processes. In fiscal 2012, MFCA will be implemented at overseas production business sites.

* MFCA is designed to concurrently reduce environmental impact and costs. Sumitomo Bakelite uses MFCA as an analysis method.

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 1.

CO₂ Emissions and CO₂ Emissions per Production Amount Value*



* CO₂ emissions per production amount value are determined using the following equation:
 CO₂ emissions per production amount value = CO₂ emissions/(production amount x unit price)

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

Reduction of Emissions of Chemical Substances

Since fiscal 1996, the Sumitomo Bakelite Group has been involved in JCIA PRTR*¹ initiatives, keeping track of the release and transfer of certain substances and setting medium-term and long-term targets for improvement, and we made progress in reducing emissions of chemical substances into the environment.

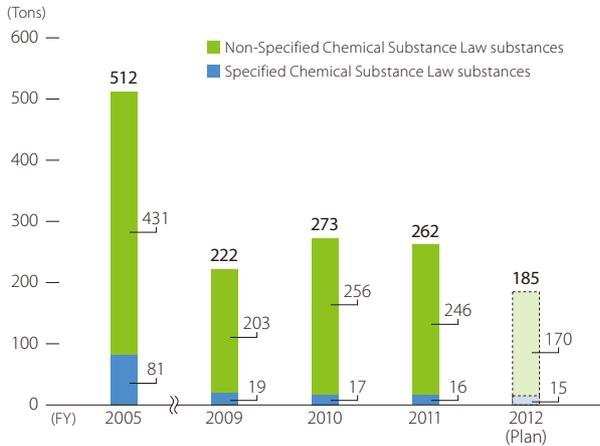
Beginning in fiscal 2010, we expanded the scope of the management target from the volume of atmospheric emissions of solvents to include emissions into the atmosphere, bodies of water, and soil of applicable chemical substances. The emissions volume in the base year of 2005 and the recent trends are shown in the graph.

In fiscal 2010, as a result of the introduction of a new production facility, emissions increased temporarily, but as a result of counter-measures for the facility, emissions were reduced again in fiscal 2011. Also, in fiscal 2012, it is expected that emissions will be further reduced. In addition, atmospheric emissions of substances that are subject to PRTR requirements, as specified in the Specified Chemical Substance Law*², were reduced to a total of approximately 16 tons from fiscal 2010. Looking ahead, based on the medium- and long-term plan, we will take initiatives to make further reductions to attain the objectives set for 2020.

*1. The Pollutant Release and Transfer Register (PRTR) system provides for measuring, compiling, and reporting data on the amounts and sources of various harmful chemical substances that have been released into the environment and the amounts transferred from business locations in the form of waste.

*2. 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 37 substances subject to control under the Specified Chemical Substance Law, which were released/transferred by the Company, are shown in the Data Section on page 53 of the web version. The total volume of these emissions was 16 tons, and the total amount transferred was 157 tons.

Emissions Volume of Chemical Substances



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

Promoting Reduction in Material Loss

The Sumitomo Bakelite Group, to reduce the environmental impact of its activities and increase income, is implementing measures to increase the effective utilization ratio of material resources. To this end, the Group has worked to increase manufacturing process yields, promote recycling within processes, and take other measures.

In fiscal 2010, the Group revised its medium- and long-term plan for reducing the environmental impact of its activities and expanded the scope of materials to include all valuable materials as well as set a goal for reducing material loss.

In addition, to continue to reduce the environmental impact as a result of waste disposal in the domestic business sites, the Group is promoting the recycling and reuse of materials (to attain zero emissions) rather than disposing wastes in landfill sites and/or simple incineration.

The accompanying graphs show the “volume of material loss” and “materials subject to zero emissions measures” in the base year of 2005 and in recent years.

The volume of material loss was steadily declining year by year as a result of the promotion of increases in process yields, recycling, and others.

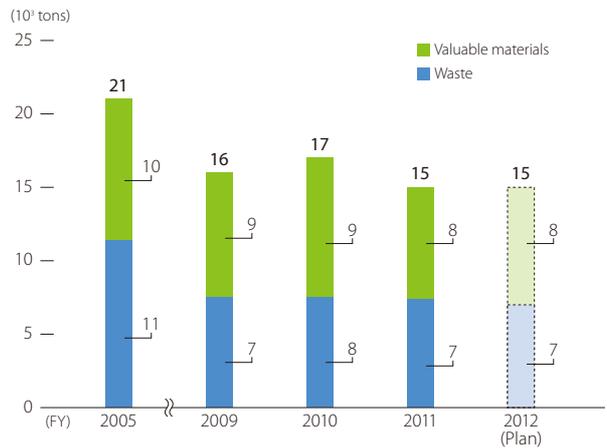
In fiscal 2010, the volume of material loss increased slightly because of the rise in production volume. However, the volume of the loss in fiscal 2011 began to decline again as initiatives were

taken to reduce all forms of loss in production processes, including loss in wastes and valuable materials.

Going forward, the material loss in processes will be analyzed using MFCA, and measures will be implemented to achieve further substantial reductions.

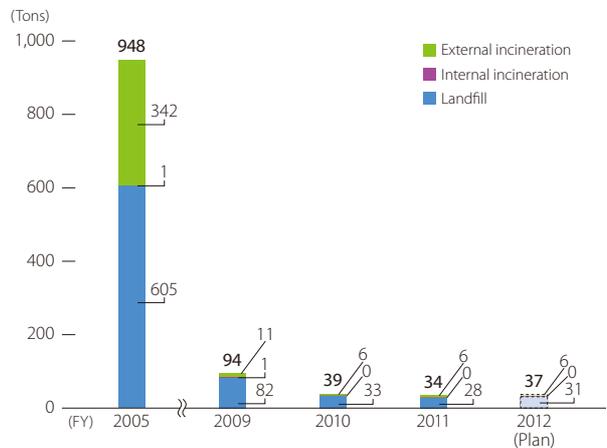
Materials coming under the classification of “Materials Subject to Zero Emissions Measures” had been reduced to almost zero in the latter half of fiscal 2009. We will continue to maintain this low level.

Volume of Material Loss



Notes: 1. Data are compiled from all domestic business sites listed on page 1. However, the Head Office and marketing offices are not included.
2. Waste consists of the amount of landfill waste, externally incinerated waste, internally incinerated waste, and externally recycled waste (expenses paid).

Materials Subject to Zero Emissions Measures



Notes: 1. Data are compiled from all domestic business sites listed on page 1.
2. Zero-emissions-targeted substances include landfill waste, internally incinerated waste, and externally incinerated waste. No waste was internally incinerated at domestic business sites in fiscal 2011.

Reduction of Environmental Impact Substances

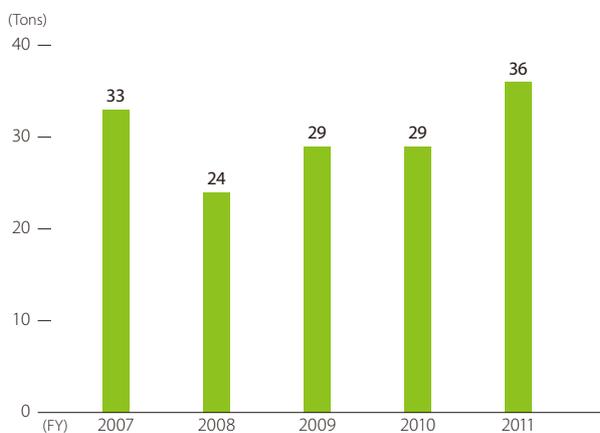
Sumitomo Bakelite is continuing to implement initiatives to reduce the environmental impact substances on air quality and bodies of water.

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 site.

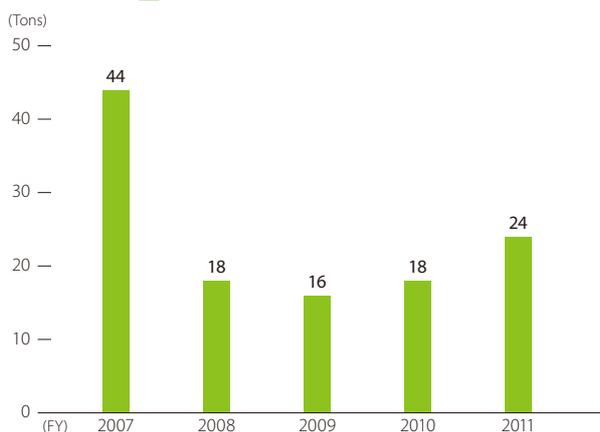
In fiscal 2011, as a result of an increase in the volume of fuel used and a higher sulphur content in heavy fuel oil, emissions of NOx, SOx, and soot and dust rose in comparison with fiscal 2010.

NOx Emissions



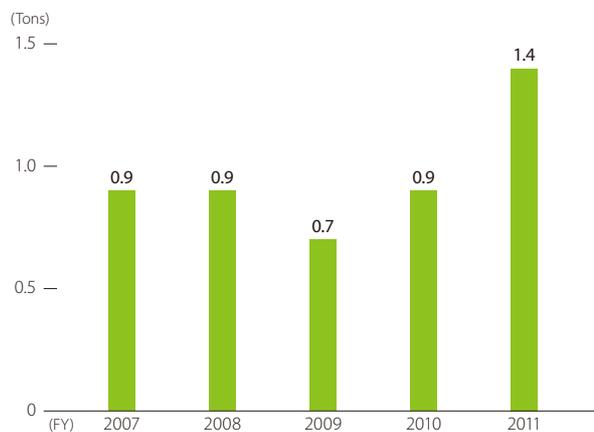
Note: Data are compiled from all domestic business sites listed on page 1.

SOx Emissions



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

Soot and Dust Emissions



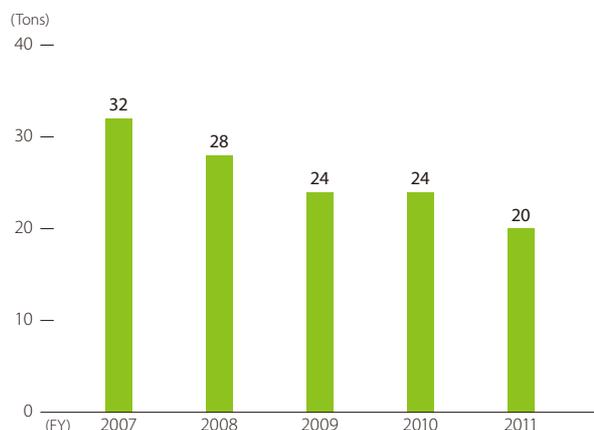
Note: Data are compiled from all domestic business sites listed on page 1.

Water Discharges

Plant water discharges are broadly classified into wastewater, which includes effluent from the production process and domestic effluent, and rainwater, which includes coolant water effluent. 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 monitoring system that uses monitoring devices in an effort to comply with national wastewater standards, ordinances, and agreements with local communities.

COD



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

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.

Biodiversity Conservation

Through its business operations, support activities, and social contribution activities, the Sumitomo Bakelite Group is endeavoring to do what it can to preserve forests and conserve biodiversity.

Sumitomo Bakelite's Approach to Biodiversity

We recognize the need for fundamental measures in our mainstay manufacturing operations to reduce the use of environmental impact substances and thereby contribute to biodiversity conservation. In addition, as a promotion partner of "The Declaration of Biodiversity by Nippon Keidanren," we are taking measures in accordance with that declaration.

Plans for Creation of a Biotope

To increase the employee awareness of biodiversity and contribute to the conservation of biodiversity, Sumitomo Bakelite has obtained the guidance of specialists from local universities and is moving ahead with plans to create a biotope in the surrounding area of the regulating reservoir at its Shizuoka Plant.

Habitat Study on Biotope Candidate Sites

Sumitomo Bakelite has implemented studies to gain an understanding of the status of the habitats in the biotope candidate sites as well as to set directions for improving sites and identifying themes related to biotope creation.

Plant life: In waterways, water hyacinths tend to grow together in colonies, and because they are naturalized plants, it is desirable to remove them. On the other hand, the presence of many types of plants that are food for birds and butterflies has been confirmed.

Fish and aquatic insects: Although the waterside areas are large, they contain relatively few species and populations of fish and insects were limited. Therefore, it is believed that improvements can be made in the habitat area for aquatic plants, etc.

Dragonflies and butterflies: By improving the waterside areas and increasing the amount of food plants, it is expected that the number of species and the insect population can be increased.

Birds: In addition to species of herons, cormorants, and ducks, hawks have also been observed. It is expected that many species will be drawn to this area if such improvements are made, such as creating more gently curved banks and increasing the species of trees and others.

Observing Nature

Sumitomo Bakelite invited the employees of its Shizuoka Plant and their families to observe nature at the biotope candidate site. The participants were able to find more insects, fish, and other living things than they had expected and had a quite pleasant time. This increased their understanding of biotope creation and provided the opportunity to exchange ideas on how the site might be used.



An ammonite dragonfly observed on the site



A cormorant resting on a willow branch



Naturalized water hyacinth plants have propagated in this area.

Plan for Biotope Creation

Based on the results of the on-site study, beginning this year and extending for several years, work will proceed on improvements in the biotope habitats for animals and plant life.

- Forestland improvements
Plant trees that will provide food for butterflies, beetles, and birds. Plant *Enoki* (*Celtis sinensis*) and preparing for *Yamatotamamushi* (jewel beetle) habitats in forests
- Grassland improvements
Plant indigenous grasses, such as Japanese blood grass. Nurture plants that attract the desired types of insects, such as butterflies
- Waterway improvements
Make ponds with gently curved banks
Plant aquatic plants along the shorelines and create habitats for fish and aquatic plants
- Construct a nature walking trail through the biotope as well as rest areas

Product Responsibility

Sumitomo Bakelite is moving ahead with quality management activities on a Companywide level in order to provide products and services that customers can use with satisfaction and peace of mind as well as delight in a sustained and stable manner.

Quality Assurance System

At the domestic and overseas business sites of Sumitomo Bakelite Co., Ltd. (SB) and its Group companies, a quality management system (QMS) has been developed based on ISO 9001, and certifications have been obtained (for a total of 29 sites as of April 1, 2012). A framework has been established to enable related divisions to cooperate with each other and maintain and improve quality in processes (from product planning, R&D, product design and development, manufacturing preparatory work, and manufacturing to sales and service). Under this system, quality is maintained and improved, and, thereby, customers are able to use Company products with satisfaction and peace of mind.

The Company and all other members of the SB Group implement systematic quality assurance initiatives based on the QMS. For this reason, the quality management policy described below has been established.

<Basic Policy>

Truly and sincerely responding to customer requirements and changes in the social and business environments, all SB Group employees shall promote continuous and decisive efforts to enhance "Broad-based Total Manufacturing (*Monozukuri*) Quality (Products and Service)," which enables customers and markets to use our products with confidence as well as to be offered delight, through consolidating all SB's available resources. And besides, we shall strive for the realization of customer value creation process allowing the company to efficiently achieve the planned profit.

< Action Plan >

1. Reflect the real needs of customers appropriately in Product Design & Development, Production, Quality Assurance, and Sales. And provide the products and service, which enable customers and markets to use our products with confidence as well as to be offered delight, in a timely manner.
2. Enhance Quality Assurance Process and organizational framework to establish and implement a system to restrain quality risk.
3. Reduce the negative product cost.
4. Heighten quality awareness and acquire techniques to restrain quality risk.

Introduction about Actual Activities

The chart below is a flowchart of the Future State Vision that SB considers for new product development and commercialization. For each process, we implement risk analyses as well as inspections, verification measures, and other quality assurance measures. In these ways, we are striving for the realization of a customer value creation process.

Review and Maintain Quality Assurance Systems and Structures across the SB Group

For each business segment, we create highly clear "mother" quality assurance organizations and functions that manage all domestic and overseas operations, and we have built and are operating systems that enable increasing amounts of information sharing and increasingly close cooperation between the Corporate Quality Assurance Promotion Department and each "mother" quality assurance department as well as among "mother" quality assurance departments.

Promoting Robust Designs and Strengthening Development Management Power

For new product development and commercialization processes, we create systems to ensure that all related departments participate and cooperate from early-stage processes.

After drafting a detailed development plan, we use quality engineering to move ahead with robust designs.

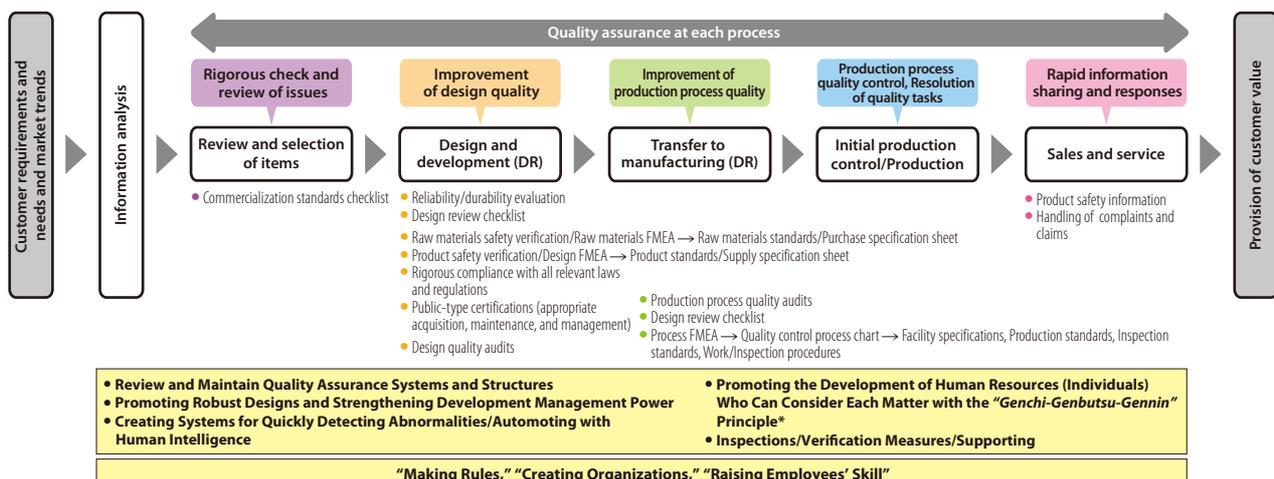
As a result of these measures, we promote concurrent engineering as well as conduct design reviews, and are thereby able to proceed with new product development and commercialization processes with appropriately good efficiency.

Creating Systems for Quickly Detecting Abnormalities/ Automating with Human Intelligence

(1) Design Reviews

To check, inspect, and verify such issues as whether design specifications meet customer requirements, whether processes can realize

Overall Flowchart of Future State Vision for New Product Development/Commercialization



*The "Genchi-Genbutsu-Gennin" principle calls for solving problems by going to the actual location (*genchi*), inspecting the actual situation (*genbutsu*), and confirming the actual facts (*gennin*).

design specifications, and whether product safety is ensured, etc., each business division implements design reviews at each design stage and is moving forward with countermeasures to restrain quality risks. In addition, for products that have high quality risks, the Corporate Quality Assurance Promotion Department provides support by confirming the content of design review, conducting more in-depth verification, and other means.

(2) Standards for Determining Normality/Abnormality

At each design review, checklists and other materials defining standards for determining normality/abnormality are used to determine if the development stage can proceed to the next step. In addition to quality issues, we use these determination standards to implement reevaluations of a wide range of issues, including safety, environmental, production cost, and intellectual property right issues.

(3) Quality Targets

SB adds new quality targets for new product development and commercialization processes with previous targets about actual results. And SB begins to manage both new targets and previous targets repeating the PDCA cycle during the continual process to realize corrective action, preventive action, and improvement.

(4) Creation of Search System for Database of Failure Issues

In new product development and commercialization processes, it is important to prevent previous failures and problems from being forgotten so that their recurrence can be prevented. To this end, related divisions are cooperatively moving ahead with the consideration of the creation of a Companywide database search system to make it easy to find and effectively use data from among the data preserved by each individual business division.

(5) Quality Audits

To ensure product safety, the Corporate Quality Assurance Promotion Department implements periodic quality audits of design, development, and production activities at domestic business sites and principal subsidiaries in Japan and overseas and also conducts programs to heighten awareness of quality control and product safety measures throughout the Company.

In fiscal 2011, the department attained its target of implementing quality audits at ten business sites in Japan and two business sites overseas. In addition, for business departments that are launching new products, we aim to promote smooth commercialization launches by sharing issues related to quality assurance and manufacturing (*monozukuri*) with the relevant persons and cooperatively moving ahead with problem resolution measures.

Promoting the Development of Human Resources (Individuals) Who Can Consider, Manage, and Improve Each Matter with the "Genchi-Genbutsu-Gennin" Principle*

With the aims of heightening quality awareness, restraining quality risk, and improving quality technology, we established 30 programs at the SB School and have used these programs to provide quality-related education to employees. This fiscal year, we are planning still more programs and aiming to promote a real increase in quality

assurance skills. The following paragraphs offer some examples of the SB School programs implemented last fiscal year.

*The "Genchi-Genbutsu-Gennin" principle calls for solving problems by going to the actual location (*genchi*), inspecting the actual situation (*genbutsu*), and confirming the actual facts (*gennin*).

(1) Failure Modes and Effects Analysis (FMEA)

In new product development and commercialization processes, because of needs for a greater degree of perfection in product designs and process designs, it is necessary to perform appropriate FMEA with respect to raw materials, product designs, and production processes so that quality risks can be identified and analyzed as a means of preparing precise risk restraint measures before such risks actually emerge. Therefore, it is important to promote the development of human resources with a full understanding of FMEA who can serve as "FMEA key personnel" and effectively implement FMEA processes.

Last fiscal year was the fourth year in which the FMEA education program was implemented. Under the leadership of the instructor, cross-functional teams of students repeatedly analyzed actual issues and identified quality risk prevention issues. The growing number of students who have participated in the program is making steady progress with respect to the practical application of their knowledge in the actual business operations.



FMEA Education

(2) "Why-Why Analysis" Education

In the case of issues that arise in practical business situations, we work to investigate and identify the root causes of these issues and implement permanent corrective measures. We also consider it important to investigate why the permanent corrective measures were not previously implemented by retrospectively analyzing organizational, systemic, cultural, and other factors as a means of preventing recurrences of previous problems as well as the new incidence of similar problems.

Each business division has previously implemented its own "Why-Why Analysis" in the past. Aiming to promote a lasting increase in the widespread use of more-appropriate why-why analysis as well as the effective application of such analysis in practical business situations, the SB School began organizing study sessions with practical issues as the themes in fiscal 2010, and many participants attended such sessions in fiscal 2011 also.

To promote a lasting increase of understanding with respect to the thinking and implementation methods associated with the application of why-why analysis in practical business situations, we have prepared Companywide guidelines and are now effectively making the most of those guidelines.



"Why-Why Analysis" Education

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

As part of the product development process, when raw materials are to be newly introduced, we are putting 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.

Supplying Chemical Substance Data

The Safety Data Sheet (SDS)^{*1} is a data sheet that provides information on health, safety, and environmental protection. To fulfill our social responsibility as a manufacturer and supplier of plastic products, we issue SDSs 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 SDSs for all materials we purchase is always available to promote the prevention of accidents caused by chemical substances 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 SDSs are becoming increasingly strict. To respond to this, we have introduced a package system for the systematic preparation of SDSs. Under this system, the GHS classification is selected automatically under the laws of each country, and it is possible to prepare and distribute SDSs in the language of the relevant country.

Currently, we have prepared and provide versions of the SDSs of 38 countries (including Japan) translated into 31 official languages.

Region	Country	GHS
North America	3 countries	Non-GHS
Russia-Europe	Non-EU	Combination of categories based on EC ^{*2} and CLP ^{*3}
	EU	
Asia-Pacific	10 countries	Based on JIS Z 7253 ^{*4}
Japan		(Australia employs EC/CLP categories.)

Comprehensive Chemical Substance Management System

Europe's REACH regulations^{*5}, Japan's revised Chemical Substance Act^{*6}, and other increasingly strict chemical-related regulations being introduced throughout the world's countries and regions require risk-based evaluations and make it necessary to monitor and manage data regarding the harmfulness of chemical substances and data for manufacturing and import volumes as well as data on shipment volumes and information on usage situations and other situations. Accordingly, it has become crucial to manage information for each chemical substance on a Companywide basis that is not impeded by boundaries that separate individual business and individual organizational units.

The Sumitomo Bakelite Group is moving ahead with the building of its Comprehensive Chemical Substance Integrated Management System, which is designed to unify the management of information related to the raw materials and products handled in its domestic and overseas production business, R&D centers, and other business sites as well as information related to all chemical substances present in those raw materials and products so that all Group employees can share that information. By breaking down the materials and chemical substances contained in products and registering these in a database, we can now easily confirm such data as that related to environmental quality, safety, and statutory information. Furthermore, having integrated raw material purchasing-volume, production-volume, and product shipment-volume data as well as usage-related information, we can manage the volume-related information required for risk evaluation.

We will continue to improve and upgrade our Comprehensive Chemical Substance Integrated Management System to respond to the needs of customers throughout the world, who must cope with increasingly strict legal regulations, green procurement requirements, supply-chain information provision requirements, communication needs, and other related trends.

*1. SDS (Safety Data Sheet): A form for entering product safety information, former MSDSs

*2. EC: The EU's system for classifying hazardous and harmful substances based on an EC directive

*3. CLP (Classification, Labeling, and Packaging of Substances and Mixtures) Regulations: A set of regulations regarding the classification, labeling, and packaging of substances and compounds in accordance with GHS that during a transitional period must be complied with together with the EC system

*4. Japanese Industrial Standards (JIS) Z 7253: This new (March 2012) standard revises the labeling and in-plant display methods for providing information related to the hazardousness and harmfulness of chemical substances as well as the format of "SDSs" (previously "MSDSs") in accordance with the GHS.

*5. REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals): A set of regulations passed by the European Parliament and European Council regarding the registration, evaluation, authorization, and restriction of usage of chemical substances

*6. Chemical Substance Act: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture (Japanese law)

Aiming for Fast and Accurate Chemical Substance Management

We are providing support for the comprehensive management of chemical substances from procurement of raw materials and development through to final product disposal. 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 customers to meet their needs for green procurement.



Environment & Recycling Department
Chemical Substance Management Group

Monozukuri Innovation

We are concertedly focusing the Company's entire resources to return to a path of sustainable growth, and are pursuing quality and efficiency in business operations in cooperation with respective business and other relevant divisions.

The Kind of Total Manufacturing Management (*Monozukuri*) We Are Seeking

We have been promoting the improvement of our operations by focusing on Total Manufacturing Management (*monozukuri*) that encompasses the entire manufacturing value chain—from marketing to design and development, production, and sales processes. Moreover, by striving to build optimal *monozukuri* systems

in accordance with the concept that "*monozukuri* = the quality demanded by customers and society (Large Q*)," we are positioning ourselves to earn overwhelming competitive superiority in markets as we endeavor to strengthen the coordination between each of the business divisions and promote progressive innovation with respect to *monozukuri* going forward.

* "Large Q (Quality)": Quotation from the Manufacturing Committee of the Japan Association of Corporate Executives

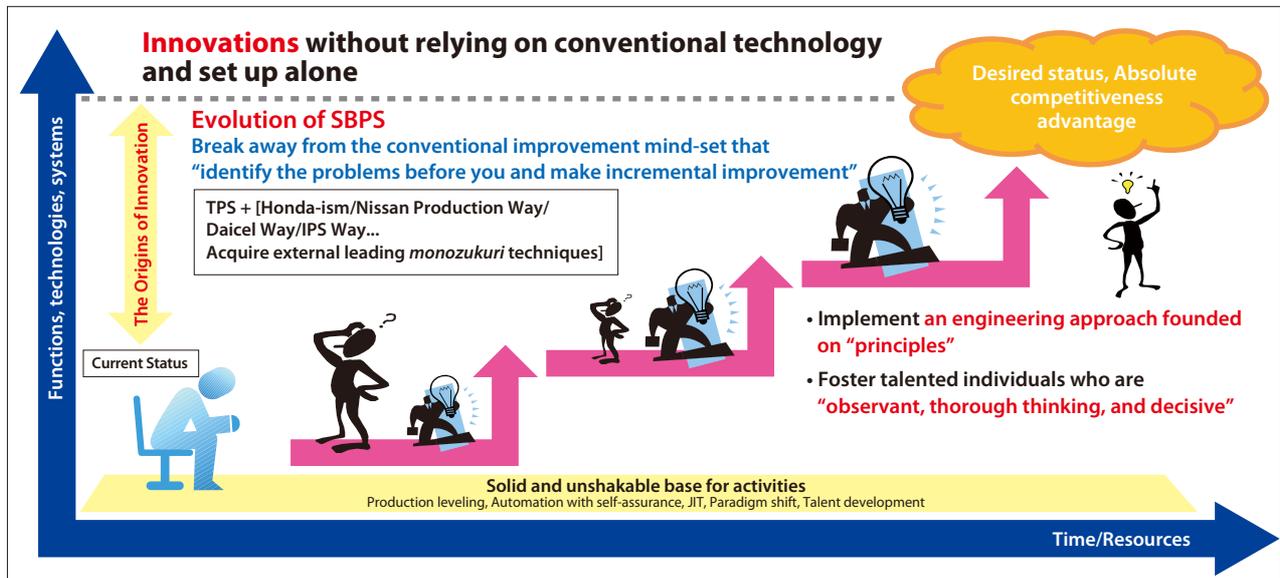
Outline of Total Manufacturing Management Initiatives

The Orientation of Brand-based Total Manufacturing Competitiveness Improvement

The Orientation of Brand-based Total Manufacturing Competitiveness Improvement must pursue the goal of providing the Large Q quality demanded by customers and society.

Broad-based Total Manufacturing Quality (Q) = f (F, C, T, q, Et, Ec...)

F Functionality	C Cost	T Time	q Product quality	Et Ethical element	Ec Environmental element
--------------------	-----------	-----------	----------------------	-----------------------	-----------------------------



Strengthening Motive Force and Momentum

By integrating the SBPS Promotion Department with the Corporate Production Engineering Department, we are striving to increase team spirit in a way that heightens the effectiveness of efforts to realize industrial engineering-based and facility/process improvement.

Human Resource Development

To create a strong organization in order to foster the development of talented individuals (observant, thorough thinking, and decisive) and build a strong organization, we are augmenting our educational programs by managerial level as well as specialized educational programs.



Aiming for the desired status of *monozukuri*, we are promoting the cooperation of related departments to move ahead with improvements based on the "*Genchi-Genbutsu*"—solving problems by going to the actual location (*genchi*) and inspecting the actual situation (*genbutsu*).

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.

Information Disclosure

The Company has prepared Disclosure Guidelines based on the fundamental concept of disclosing information to investors, employees, and other stakeholders on 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.

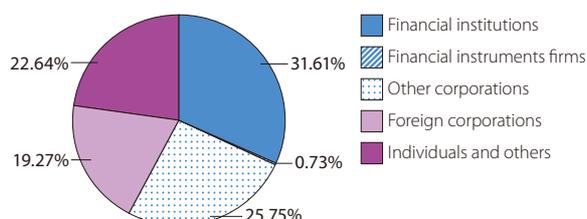
The Company is also actively disclosing information through its website. In addition to the information disclosure mentioned previously, the Company's website contains materials related to financial results, annual reports, and other information.

Encouraging Exercise of Voting Rights at Shareholders' Meetings

Through such initiatives as those to enable shareholder voting by electromagnetic means and to post notices of the general meeting of shareholders on our website, we are working to create an environment that will make it easier for shareholders to exercise their voting rights.

Share Information

- Number of shares issued and outstanding: 262,952,394 shares
- Number of shareholders: 17,808
- Shares held by type of shareholder (as of March 31, 2012):



Relations with Business Partners

The Company's Global Procurement Division is in overall charge of the purchasing of raw materials, fuel, and equipment for use within buildings for the Company's production business sites as well as domestic and overseas Group companies. Regarding the Company's procurement policy, which is posted on the Company's website, we organize procurement conferences and take other initiatives to promote rigorous compliance with that policy by each Group company. In light of the large number of customer inquiries with respect to corporate social responsibility issues and situations, our website offers information on our responses related to business continuity plans, child labor and forced labor prohibition, and conflict minerals as well as explanations of other issues and situations related to procurement operations.

Basic Approach

Sumitomo Bakelite works to be in compliance with the laws, regulations, and social norms of Japan and other countries and regions in which it operates and requests that its business partners also observe such compliance standards. In principle, the Company requests the concluding of basic transactions contracts with its business partners that call for the contracting parties to fulfill their corporate social responsibilities (CSR). In addition, as criteria for selecting business partners, the Company includes the performance of CSR and is working to reduce the environmental impact of business activities.

Relations with Business Partners

When selecting new business partners, the criteria established by the Global Procurement Division are followed, and the decision to commence transactions is taken after judgments related to fairness and honesty.

Initiatives for Stable Procurement

The Company's Global Procurement Division conducts surveillance of raw materials manufacturing companies. The division 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.

Procurement Crisis Management

The Global Procurement Division prepares lists of the location of materials production business sites and keeps them up to date. When disasters occur, the statuses of the plants of companies in the affected areas are confirmed and policies are formulated for responding appropriately.

Employment and Human Rights/Human Resource Development

We strive to create a pleasant work environment through respect for individual personalities and human rights.

(This is an excerpt from Sumitomo Bakelite's "Our Standards of Conduct.")

In the Sumitomo Bakelite Group, employees with diverse values and personalities cooperate with one another, and this facilitates each employee's self-expression and creates workplaces that are enriched both physically and esthetically.

Number of Employees of the Sumitomo Bakelite Group

Employees in Japan and Overseas

(Employees in Japan as of March 31, 2012; Overseas employees as of December 31, 2011)

	Directors	Executive Officers	Employees	Temporary* Employees	Total
Parent company	10	11	2,194	311	2,526
Subsidiaries and affiliates in Japan	27		796	167	990
Overseas subsidiaries and affiliates	35		3,945	1,001	4,981
Total	72	11	6,935	1,479	8,497

* Part-time and other non-regular employees

Notes: 1. The number of employees on a consolidated basis shown on page 3 of this report includes employees of the parent company seconded to domestic and overseas subsidiaries and affiliates as directors.
2. The number of directors of domestic and overseas subsidiaries and affiliates shown above includes employees of the parent company seconded to domestic and overseas subsidiaries and affiliates as directors.

Employees by Geographic Area

(Employees in Japan as of March 31, 2012; Overseas employees as of December 31, 2011)

Japan	Europe	North America	East Asia	Southeast Asia	Total
3,516	340	353	1,779	2,509	8,497

Recruitment Activities of Sumitomo Bakelite

Employees Newly Recruited

(Including new graduates and mid-career personnel)

	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012 (Plan)
Newly recruited	43	59	54	42	40	35
Male	34	46	45	29	33	—
Female	9	13	9	13	7	—

Notes: 1. Excludes personnel transferred from domestic subsidiaries and affiliates
2. Since employee recruitment is now conducted without regard for gender, the number of persons scheduled to be employed by gender in 2012 is still undetermined.

Providing Continuing Employment Opportunities for Staff Members beyond Retirement Age

Accompanying the enactment of the "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.

Staff Members beyond Retirement Age

	FY2007	FY2008	FY2009	FY2010	FY2011
Number of retirement-age retirees	67	71	61	64	51
Number of post-retirement rehires	40	46	40	44	41
Rehiring ratio	59.7%	64.8%	65.6%	68.8%	80.4%

Note: Fiscal 2010 figures shown above differ from fiscal 2010 figures in "Environmental & Social Report 2011" because of mistakes made in tabulating the numbers of retirement-age retirees and post-retirement rehires that have been corrected in this report.

Projected Benefit Obligations

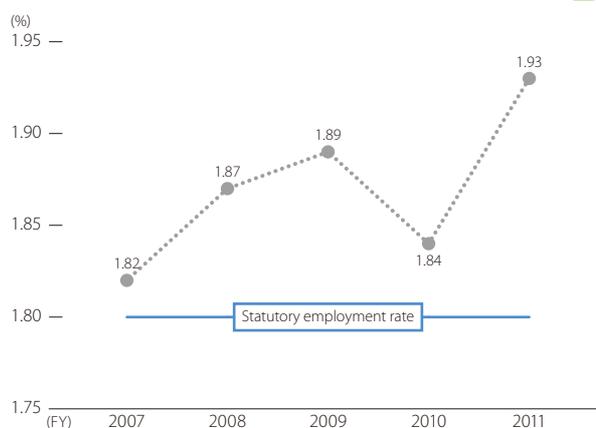
Regarding retirement benefit systems, the Company employs a defined benefit system in Japan. Overseas, some consolidated subsidiaries concurrently use defined contribution and defined benefit systems. At the end of the fiscal year covered by this report, projected benefit obligations of the Company and its subsidiaries totaled ¥27.6 billion, while pension plan assets amounted to ¥20.6 billion.

Note: For details, please access the Securities Report (Yuka Shoken Hokokusho (Japanese only)) on the Sumitomo Bakelite website.

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 safe and secure working environments to enable them to continue to make use of their capabilities and develop their skills.

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.

- 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 self-improvement studies and activities related to the family and the community
- 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

In fiscal 2011, Sumitomo Bakelite increased the number of accumulated annual paid vacation days (which are defined as annual unused paid vacation days accrued) that may be carried over from 30 days to 40 (beginning from January 2012).

Number of Overtime Hours Worked and Vacation Days of Regular Employees 

	FY2007	FY2008	FY2009	FY2010	FY2011
Average number of overtime hours (annual basis)	249.5	240.8	107.5	158.3	142.7
Average number of vacation days used	12.8	13.7	13.0	12.8	13.6

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

Support for Raising Children

Sumitomo Bakelite places emphasis on creating a workplace environment where employees can balance various events in their lives, such as bearing and raising children, with their work activities. Concerning results of agreements with the labor union, the Company has introduced a series of employee benefit systems to make this possible. These include the provision of shorter working hours for use by employees with children through the end of primary school and the expanded usage of accumulated annual paid vacation days for use when bearing and raising children. Shorter working hours, in particular, have steadily come into wider use.

As a result of these various support activities, the Company received certification for using the "Kurumin" mark in February 2011, shown on the right.



<Voices of System Users>

With the Assistance of the Expanded Child-Rearing System and the Understanding of My Colleagues, I Am Striving to Concurrently Perform Well as an Employee and a Mother

In the autumn of 2007, I completed a child-rearing leave for my second child and returned to work while making use of the abbreviated-working hours system. When my first child was born, the Company's systems for raising children had not yet been developed to their current level, so it was quite difficult for me to go back to work while also coping with child-rearing tasks that I was not yet experienced at handling. Fortunately, the systems had been expanded by the time my second child was born, and those systems have made it quite easy for me to deal with both child raising and office work.

Currently, I often obtain special vacation days to handle my children's sudden illnesses as well as such other special situations as school ceremonies, and I have been able to make good use of the various systems the Company has established to support employees who are raising children. Regarding my abbreviated working hours, my colleagues have been very understanding and cooperative, and I greatly appreciate that. Going forward, I will continue doing my best to perform well both as an employee and a mother.



Chiharu Nishida
S.B. Information Systems Co., Ltd.

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.

Beginning in fiscal 2011, we added blood tests for pepsinogen for the early detection of stomach cancer and tests of the e-GFR level for the early detection of chronic kidney disease. Through these various activities, we are working to monitor and improve the health of our employees.

In fiscal 2012, we began to provide specific health guidance to employees to help them avoid various lifestyle diseases, such as diabetes, hypertension, and dyslipidemia.

In addition, based on the awareness that preventive efforts of each and every employee are important for health enhancement, we also place emphasis on staff health education. Especially in the field of mental health, where the importance of early "awareness" is important, 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 courses are useful in enabling them to gain further knowledge as well as brush up the knowledge they have gained previously.

Human Resource Development

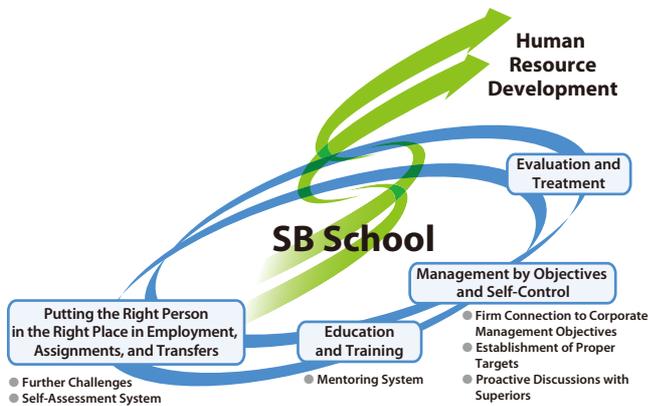
The human resources that Sumitomo Bakelite seeks to hire and foster are people who understand the Company's basic policy—"We value the trust and maintain the steadiness. Based on this, we strive through our business activities to make contributions to social progress and improvements to quality of life worldwide."—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 2012, the cumulative total number of attendances at its courses has been about 110,000, and the number of hours of instruction has been approximately 190,000. 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 Human Resource Development



Education for All Employees: "Workplace Human Rights"

Every December, at the time of "Human Rights Week," which the government has designated, the Company conducts a "Workplace Human Rights" course. This course aims to have employees gain a proper understanding of the issues of discrimination and various forms of harassment, and provides training that focuses around heightening the awareness of human rights in the workplace, which is an area where the Company must take initiatives. The goals of this education include having each and every employee show respect for one another's human rights and foster a stance among employees of working to create a bright and pleasant workplace. In addition, training in this area is offered by employee level, and the

content is adjusted to suit various groups, including young employees and those assuming their first managerial-level positions, with the aim of raising the awareness of all employees about the need for respecting human rights.

Diverse Education and Training Programs in Overseas Business Sites

In its overseas business sites, the Company offers many types of educational courses, such as environmental safety, compliance, the Sumitomo Bakelite Production System (SBPS) fundamental education courses, and various kinds of human skills training of Sumitomo Bakelite Singapore as well as the training for responding to chemical substance regulations, change management education of Sumitomo Bakelite (Taiwan), and other courses.

Belgium-based Vyncolit implements diverse basic education programs on a continuing basis as a means of upgrading employees' skill levels. That company's safety education programs enable employees to acquire a broad range of skills, including those related to emergency response measures and fire prevention as well as forklift operation. It offers "Uniformity Training Programs" through four curriculums that provide employees opportunities for repeated training with respect to cost, capacity, quality, safety and health issues. Vyncolit proactively sends its employees to diverse external seminars that enable the upgrading of skills associated with languages, IT, and other technologies as well as various functional specific competencies.

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.



Educational and training programs at Vyncolit

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 for its domestic production business sites and principal subsidiaries and affiliates in 2009, and preparations for obtaining this certification at overseas subsidiaries and affiliates have been moving ahead since 2010. By the end of 2011, certification had been obtained for four business sites and three subsidiaries and affiliates in Japan, as well as for nine subsidiaries and affiliates overseas for a total of 16 business sites.

Activities to Reduce Risks of Machinery and Equipment

Beginning in 2008 in production business sites and subsidiaries and affiliates in Japan and in 2009 at overseas subsidiaries and affiliates, 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

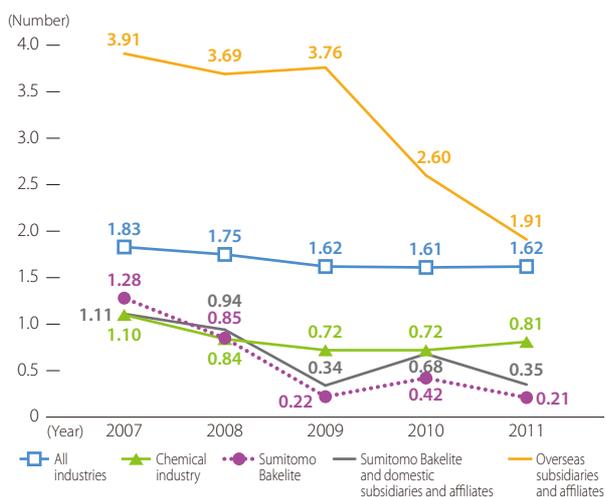
In parallel with measures to reduce the risks inherent in machinery and equipment, Sumitomo Bakelite is continuing its danger alert training that it began in prior years as well as such autonomous initiatives as "pointing and calling" as well as proposals for special caution and safety confirmation.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

Trends in Labor Accidents

1. Trends in Frequency Rate* at Sumitomo Bakelite and Domestic and Overseas Subsidiaries and Affiliates

The following graphs show trends in data on frequency rate, including subsidiaries and affiliates.

The frequency rate of labor accidents at overseas subsidiaries and affiliates decreased, sustaining the downtrend seen in the previous year.

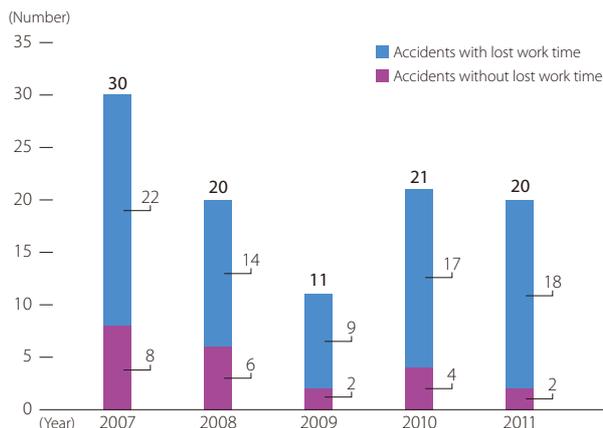


* Frequency rate = (Deaths and injuries/total working hours) x 1,000,000
 Note: Data are compiled from January through December of each year.

2. Trends in Labor Accidents at Sumitomo Bakelite and Domestic Subsidiaries and Affiliates

(1) Number of Labor Accidents in Japan

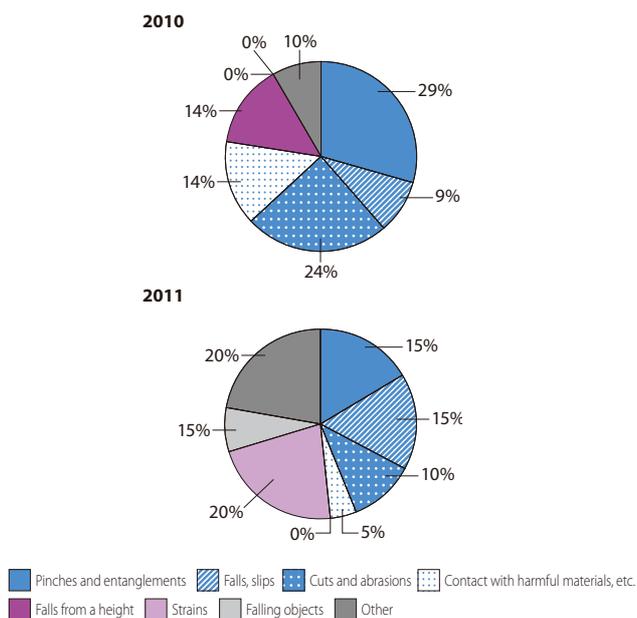
The number of labor accidents during 2011 was 20, approximately the same level as in the previous year.



Note: Data are compiled from January through December of each year.

(2) Labor Accidents by Type (Comparison of 2010 and 2011)

In 2011, we were successful in reducing the percentage of accidents due to pinches and entanglements and other improper contact with machinery from 29% to 15% because of activities to reduce risk of machinery accidents based on ISO 12100, the international machinery safety standard. Going forward, by combining measures to further raise the awareness of safety among employees, we will continue to reduce labor accidents.

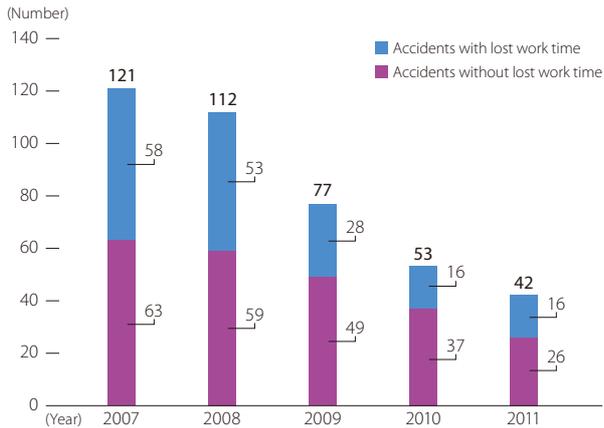


Note: Data are collected for January through December.

3. Trends in Labor Accidents at Overseas Subsidiaries and Affiliates

(1) Number of Labor Accidents

Labor accidents at overseas subsidiaries and affiliates are steadily declining as activities to obtain OHSAS 18001 and ISO 12100 certifications are proceeding.

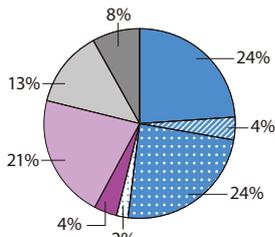


Note: Data are compiled from January through December of each year.

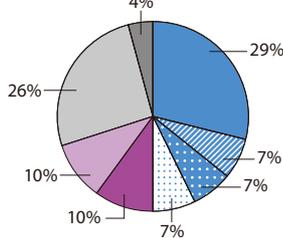
(2) Labor Accidents by Type (Comparison of 2010 and 2011)

Compared with accidents in Japan, the percentage of accidents involving pinches and entanglements with machinery was high, and we are striving to further reduce the incidence of accidents by promoting additional progress related to the OHSAS 18001 and ISO 12100 programs.

2010



2011



Legend: Pinches and entanglements, Falls, slips, Cuts and abrasions, Contact with harmful materials, etc., Falls from a height, Strains, Falling objects, Other

Note: Data are compiled from January through December of each year.

Safety and Health Activities at Business Sites in Japan and Overseas



Firefighting personnel training for rescuing people from reaction vessels (Sumitomo Bakelite Europe)



Firefighting personnel offer training in the use of an automated emergency defibrillating (AED) device (Kanuma Plant)



Dangerous item handling education class at dangerous item storage site (Sumitomo Bakelite (Suzhou))

Surveillance of Safety, Health, and Disaster Prevention

To confirm the status of safety and health, safety maintenance and disaster prevention as well as legal compliance, and related education and training programs at business sites in Japan as well as at domestic and overseas subsidiaries and affiliates, the Company conducts related surveillance activities. In fiscal 2011, these activities were conducted in Japan at six business sites and seven subsidiaries and affiliates as well as, overseas, at seven subsidiaries and affiliates in the rest of Asia.



Surveillance of safety, health, and disaster prevention systems (Nara Plant, S.B. Sheet Waterproof Systems)

Environmental Audits and Environmental Education

Sustaining activities to improve environments of local communities and workplaces

Environmental Audits

Every year, we conduct environmental audits to investigate the preventive measures being taken for environmental protection, legal compliance situations, and status of energy conservation activities of all the Company's business sites as well as subsidiaries and affiliates in Japan and overseas.

In Japan

Regarding fiscal 2011, we conducted environmental audits of eight domestic subsidiaries and affiliates from August 2011 to January 2012, while environmental audits of five domestic business sites were conducted from November 2011 to January 2012.



Sumibe waterproof sheets (Nara Plant)



Shizuoka Plant

Overseas

Regarding surveillance of environmental protection systems and compliance with local laws and regulations during fiscal 2011, such surveillance programs were implemented at five subsidiaries and affiliates in North America in October 2011 and at seven subsidiaries and affiliates in Southeast Asia in the period from December 2011 through January 2012.



Durez Corporation (Niagara Falls Plant)



Indopherin Jaya

Environmental Education

Aiming to protect the environment in the vicinity of business sites and ensuring that employees can work in safety, we conduct periodic Group education programs for new employees and other employees as a means of deepening the understanding of the content of relevant legal regulations and enabling employees to respond appropriately.

In addition to Group education programs, we conduct environmental education via e-learning courses that are available for all personnel.



New employee education

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 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 Activities at Domestic and Overseas Plants

Examples of Cooperation with Local Communities in Conducting Disaster Prevention Activities



Participation in Kanuma-Shi's fire extinguishing competition (Kanuma Plant)



Participation in a self-defense fire extinguishing competition organized by the Northern District of Amagasaki-Shi (Amagasaki Plant)



Prevention Activities Led by Outside Instructors



Fire extinguishing training program led by local fire department members (SPB Indonesia)



Fire prevention education led by local fire department members (Yamaroku Kasei Industry)

Exchanges with Local Communities

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

Opening Up Plants to Nearby Communities

We organize plant study visits by groups of primary school students and a neighborhood community association as well as other groups. Moreover, we invite everyone in local communities to participate in the summer festivals and other events that we organize at our plants. Through these and other activities, we are emphasizing initiatives that promote good two-way communications with local communities.



Students from a local elementary school participating in a plant study tour (Shizuoka Plant)



Neighborhood community association participating in a plant study tour (Amagasaki Plant)



Residents of local communities participating in a summer festival on plant grounds (Shizuoka Plant)

Participating in Local Ceremonies and Other Events

Our business sites proactively participate in the ceremonies and other events organized by nearby communities, thereby striving to further strengthen their relationships with those communities.



Employee volunteers participating in tulip-planting activities for the Naogata-Shi Tulip Fair 2011 (Kyushu Sumitomo Bakelite)



Employees participating in the Honjo Waseda no Mori Monozukuri Fair (S.B. Techno Plastics)



Employees participating in a local marathon event (Sumitomo Bakelite Europe)

Environmental Preservation and Beautification Activities

By undertaking such activities as those to clean up areas near our business sites and plant trees, we are working to protect the environment in the regions where we operate.



Cleanup campaign in the vicinity of the plant
(Akita Sumitomo Bakelite)



Employees participating in a program for promoting local greenification and beautification (Indopherin Jaya)



Beautification program in a green relaxation area in the Lingtong district
(BASEC Hong Kong)

Community Contribution Activities

By organizing volunteer programs and making donations, we seek to augment the welfare of local communities.



Staff of a local welfare facility participating in a plant study tour
(Shizuoka Plant)



Employees participating in a regional charity program
(Sumitomo Bakelite Singapore)



Hosting an Eid ul-Fitr feast (the feast of breaking the fast)
(SBP Indonesia)

Photographs of plant managers and presidents of subsidiaries and affiliated companies shown in the Site Report are those of the persons who were holding those positions as of April 1, 2012.

Advanced Technologies R&D Laboratory

Address: 1-1-5 Murotani, Nishi-ku, Kobe-shi, Hyogo
Number of employees: 94
Commencement of operations: 1991
Site total area: 16,530m²
Date ISO 14001 certification received: December 2003
Principal R&D themes:
 Development in high-performance plastics and research and development in technologies for bioplastics and other products



Director
Toshio Takeda

The environmentally responsive technology development activities of this research laboratory include research related to plant-based alternative materials made from biomass. This laboratory has adopted innovative processes as well as sophisticated analytical technologies and aims to develop materials that combine a low environmental burden with specific functionality to contribute to the next-generation, recycling-oriented society.

Kanuma Plant

Address: 7-1 Satsuki-cho, Kanuma-shi, Tochigi
Number of employees: 311
Commencement of operations: 1970
Site total area: 75,878m²
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



Plant Manager
Kenji Takayama

This plant has taken the electric power situation in the region served by the Tokyo Electric Power Company Co., Inc., into consideration, set up an energy conservation project, and is taking initiatives on a plantwide basis to reduce the unit energy consumption with the help of Sumitomo Bakelite's Head Office. The plant has also installed solar power generating equipment and other in-house power generators with the objective of reducing the burden of its activities on the environment. One of the eco-friendly products the plant is developing is hydrophilic antifouling printed circuit boards and other materials that can retain their transparency properties for long periods.

Shizuoka Plant

Address: 2100 Takayanagi, Fujieda-shi, Shizuoka
Number of employees: 975
Commencement of operations: 1962
Site total area: 287,000m²
Date ISO 14001 certification received: March 1999
Principal products:
 Copper-clad epoxy composite sheets, epoxy coating powder, industrial-use phenolic resins, thermoset plastic molding materials, melamine resin decorative laminates, formalin, molds and dies, etc.



Plant Manager
Goichiro Kuwaki

This plant is Sumitomo Bakelite's integrated production facility for production of various thermoset plastics, such as synthetic resins, molding compounds, molded products, and laminated boards, and it is taking initiatives in all aspects of its processes from development of new products to manufacturing of finished products to reduce the burden of its activities on the environment. This plant uses MFCA to analyze negative product costs and is promoting improvement activities with the participation of all employees. Through these activities, the plant has been able to reduce costs, conserve resources, and save energy and aims to become an eco-friendly plant.

Utsunomiya Plant

Address: 20-7, Kiyohara Kogyo Danchi, Utsunomiya-shi, Tochigi
Number of employees: 282
Commencement of operations: 1984
Site total area: 99,000m²
Date ISO 14001 certification received: December 1997
Principal products:
 Semiconductor die bonding pastes, liquid resins for semiconductor packaging, semiconductor bonding tapes



Managing Executive Officer and Plant Manager
Masayuki Inagaki

As in 2011, this plant cooperated with activities to alleviate the peak electric power load during the summer of 2012 by operating on Saturdays and Sundays for certain periods and suspending operations on certain weekdays during the summer. Moreover, in its electronics materials business, it is extending its energy conservation project to other business departments, replacing existing light bulbs with LEDs, introducing sensors to detect the presence of human beings, taking steps to increase the efficiency of air-conditioning systems, and taking other measures to reduce the volume of electric power consumption.

Amagasaki Plant

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

Number of employees: 565

Commencement of operations: 1938

Site total area: 46,000m²

Date ISO 14001 certification received: October 1998

Principal products:

Co-extruded, multilayered films for food product packaging; pharmaceutical products packing materials (Materials for PTP); wrapping tape for electronic parts



Plant Manager
Hidehiro Morita

In 2011, this plant promoted energy conservation activities entitled "ecoE~NE~2020," with the support of an outside consultant, and prepared specific measures for reducing energy consumption by 19% in comparison with 2010. In 2012, the plant will put these specific measures into practice by improving boiler equipment, reducing pressure settings of compressors, installing LED lighting, switching over to energy-saving pumps, and taking other measures to aggressively reduce the burden of its activities on the natural environment.

Kyushu Sumitomo Bakelite Co., Ltd.

Address: 40-1 Oaza-Kamizakai Aza-Mizumachi, Nogata-shi, Fukuoka

Number of employees: 246

Commencement of operations: 1972

Site total area: 50,000m²

Date ISO 14001 certification received: December 1998

Principal products:

Sumicon EME: Epoxy resin molding compounds for semiconductor packaging

Sumiresin Excel CRC: Photosensitive wafer coating resins



President and Representative Director
Plant Manager
Masayuki Inagaki

This company produces environmentally friendly epoxy molding compounds and wafer coating materials for semiconductor devices. During fiscal 2012, as the base business site for energy conservation projects in the electronics product business, this company will place special emphasis on giving guidance to overseas sites, in addition to the new Electronic Device Materials Laboratory that will be established in 2012.

S.B. Sheet Waterproof Systems Co., Ltd. (Nara Plant)

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

Number of employees: 64

Commencement of operations: 1991

Site total area: 20,357m²

Date ISO 14001 certification received: April 2000

Principal products: Waterproof sheets



Plant Manager
Kimimasa Nishimura

This plant produces waterproofing sheets made with synthetic resin, which are one type of building material. Since considerable energy is required in the manufacturing processes, this plant is taking initiatives to conserve energy day by day. In addition, during fiscal 2012, this plant is striving to substantially reduce energy consumption and industrial waste emissions through improvements in its production processes. Moreover, risk assessments have been conducted at the plant regarding the leakage of harmful substances during times of emergency, and measures taken have included making improvements in equipment and conducting related training.

Yamaroku Kasei Industry Co., Ltd.

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

Number of employees: 48

Commencement of operations: 1948

Site total area: 5,411m²

Date ISO 14001 certification received: June 2005

Principal products:

Phenolic resin molding materials and melamine phenolic resin molding materials



President and Representative Director
Shohei Yamada

In 2011, after the Great East Japan Earthquake, appeals were made in the Kansai region, both in the summer and winter, to cut peak power consumption. The manufacturing operations of this company responded by adjusting its work shift schedules, and was successful in reducing peak power requirements by 15%. In the field of energy conservation also, this company reduced total power consumption by 5% and the unit power consumption by 10% through implementing activities to introduce frequent stoppages of machinery that normally operates continuously.

S.B. Techno Plastics Co., Ltd.

Head Office Plant

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



Number of employees: 30

Commencement of operations: 1964

Site total area: 13,000m²

Principal products: Plastic sheets, plastic cutting boards

Kitsuregawa Plant

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



Number of employees: 18

Commencement of operations: 2002

Site total area: 3,638m²

Principal products: Protective helmets, floor mats

To reduce industrial wastes to zero, this company has launched "Ripoly", a product made from recycled remnants of polyethylene chopping boards that thus far had been emitted as waste from its production activities. Ripoly is used for flooring of an ice making plant and other locations that require a high level of environmental sanitation. In addition, last fiscal year, this company participated in the "Monozukuri Fair," which was held by the local community, and, along with launching a protective helmet sold by the company, it introduced its safety and security initiatives to people of the regional community.



President and Representative Director
Keiichi Imura

Hokkai Taiyo Plastic Co., Ltd.

Address: 2-763-7, Shinko-Chuo, Ishikari-shi, Hokkaido

Number of employees: 18

Commencement of operations: 1964

Site total area: 13,650m²

Date ISO 14001 certification received: April 2005

Principal products:

Industrial-use polyethylene pipes, industrial-use and household-use polyethylene films



President and Representative Director
Harutake Ohkubo

Making use of the special characteristics of plastics, this company makes and sells various kinds of pipe, film, and nets. Based on ISO 14001, this company is implementing initiatives based on the themes of reducing industrial waste, conserving energy, and cutting CO₂ emissions with the goal of passing on the verdant area where it is located intact to succeeding generations. To this end, each and every employee participated in the environmental preservation activities with sincerity and passion.

Akita Sumitomo Bakelite Co., Ltd.

Address: 27-4, Aza Nakashima-shita, Souzen-machi,
Tsuchizakiminato, Akita-shi, Akita

Number of employees: 151

Commencement of operations: October 1970

Site total area: 150,492m²

Date ISO 14001 certification received: January 2001

Principal products:

Medical instruments and laboratory wares, phenolic resins, formalin and adhesives



President and Representative Director
Akira Takada

In 2011, to cope with the power shortage following the earthquake, this company implemented electric power conservation measures in addition to previously existing approaches. These included moving more working hours to the night shift and adopting strict requirements for air-conditioner temperatures. In 2012, the company will continue its activities to conserve energy and step up its activities to reduce the burden of its activities on the environment. In addition, to build closer ties with the local community, the company will sponsor plant tours for residents of the communities and participate in community cleanup campaigns.

Sumitomo Bakelite North America, Inc. (Manchester Plant)

Address: 24 Mill Street, Manchester, Connecticut 06042, USA
Number of employees: 56
Commencement of operations: 1920
Site total area: 14,000m²
Principal products: Thermoset resin molding materials



Plant Manager
Barbara Olson

The Manchester Plant is very concerned about plant emissions (noise, air, and water) because we are located in a residential neighborhood. Our primary target area for environmental impact reduction is the process waste currently being sent to a landfill. Our new solvent-free long fiber process line (June 2012) should help us to reduce our air emissions.

Durez Corporation (Niagara Falls Plant)

Address: 5000 Packard Road, Niagara Falls, NY 14304, USA
Number of employees: 59
Commencement of operations: 1930
Site total area: 18,960m²
Principal products: Phenolic resins



Operation Manager
Gerry Nardelli

The Niagara Falls Plant operates an on-site hazardous waste incinerator to dispose of hazardous wastewater (distillate) that also generates steam. Our focus is for continuous reduction of waste generation by improving yields and recycling cleaning solvents. Reductions in CO₂ emissions have also been accomplished by upgrading our backup boiler and thermal oxidizer. In 2011, we undertook incineration of non-hazardous distillate from the Durez Canada and Kenton plants.

Durez Corporation (Kenton Plant)

Address: 13717, U.S. Route 68, South Kenton, Ohio 43326, USA
Number of employees: 60
Commencement of operations: 1955
Site total area: 263,100m²
Principal products: Phenolic resins



Plant Manager
William Bazell

The Kenton Plant has concentrated on energy efficiency and waste reduction. In 2011, we installed high-efficiency lighting to reduce energy use by 143,000 kWh and CO₂ emissions by 111 tons annually. We also reduced off-site disposal of hazardous distillate to zero from 295 tons in 2010. Recovery of phenol for re-use increased to 959 tons for the year.

Durez Canada Co., Ltd.

Address: 100 Dunlop Street, Ontario L2A 4H9, CANADA
Number of employees: 69
Commencement of operations: 1970
Site total area: 93,000m²
Principal products: Phenolic resin molding materials



Plant Manager
Robert Hunt

The year 2011 saw the implementation of a Toxic Substance Reduction Act in Ontario. The requirements of this new law are just another part of our environmental compliance efforts as we continue to strive to be good neighbors and a responsible manufacturer.

Promerus LLC

Address: 9921 Brecksville Road, Brecksville, Ohio 44141-3247, USA
Number of employees: 68
Commencement of operations: 2001 acquired by Sumitomo Bakelite
Site total area: 1,020m²
Principal R&D themes:
 New product development and fundamental research



President
Robert Shick

Promerus leases floor space and services from the Lubrizol Corporation at the Brecksville site. We are fully compliant with all OSHA and EPA regulations. As part of our new product development activities, we are consistently striving to maximize raw material efficiencies and minimize waste generation. In addition, new energy saving programs have been implemented to reduce our environmental footprint.

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

Address: 08170 Montornès del Vallès, Barcelona, SPAIN
Number of employees: 89
Commencement of operations: 1949
Site total area: 19,856m²
Date ISO 14001 certification received: March 2005
Principal products: Phenolic resins, abrasives, others



Plant Manager
José Miralles

At the Montornès (Barcelona) plant, the year 2011 has been a key year with the installation of two big kettles of 25m³ capacity and the needed auxiliary equipment. Also in 2011, we reinforced the safety program through an intensive safety training and the implementation of the new workplace observation system.

The main target for 2012 is to obtain the OHSAS 18001 certification; thus, we will integrate the three management systems (Quality, Environment, and Safety).

N.V. Sumitomo Bakelite Europe S.A.

Address: Henry Ford Laan 80 3600 Genk, BELGIUM
Number of employees: 140
Commencement of operations: 1967
Site total area: 110,000m²
Date ISO 14001 certification received: January 2001
Principal products: Phenolic resins, polyester resins



Plant Manager
Peter Arits

The phenolic resins and polyester polyols which SBE Genk produces find their use in numerous applications in the building and automotive industries as well as in the domestic area.

To cope with the additional volumes, we currently apply for an extension of our exploitation permit. The management tools which SBE has already in place, such as ISO 9001 and ISO 14001, together with the planned OHSAS 18001 certification, will help us to obtain this permit.

Vyncolit N.V.

Address: Wiedauwkaai 6, 9000 Gent, BELGIUM
Number of employees: 110
Commencement of operations: 1992
Site total area: 20,506m²
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 automotive industry.

In 2012, we have the opportunity to install a new production line. This line will be an example about safety, and efforts will be made for emissions reduction and to conserve energy. At this moment, we are preparing for the implementation of the OHSAS 18001 certificate at the end of this year. Like our European colleagues, we strive to achieve zero accidents.

Sumitomo Bakelite (Suzhou) Co., Ltd.

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

Number of employees: 240

Commencement of operations: 1997

Site total area: 30,000m²

Date ISO 14001 certification received: November 2001

Principal products:

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



President
**Yoshihisa
Fujimura**

Sumitomo Bakelite (Suzhou) produces molding compounds for semiconductor packaging. Because we consume considerable energy for the low-temperature management of our production facilities as well as warehouses and other buildings, we undertook deliberations during fiscal 2012 regarding the introduction of high-efficiency management systems for our chillers and air conditioners in connection with our targets for conserving energy and reducing CO₂ emissions. Aiming to be a company highly trusted by society, we are continuously interacting with people in nearby communities and actively participating in social activities.

Sumitomo Bakelite (Nantong) Co., Ltd.

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

Number of employees: 114

Commencement of operations: 2009

Site total area: 66,000m²

Date ISO 14001 certification received: May 2010

Principal products:

Phenolic resins, phenolic resin molding materials



President
**Takashi
Kobayashi**

Since 2009, we have been supplementing our environmental and safety assessments of production expansion projects with energy conservation assessments. As a result, our continuous series of production expansion projects gives additional consideration to energy conservation issues beginning at initial design stages. Going forward, we will continually promote additional environmental impact reduction measures at our phenolic resin plant that entered operation in 2009 and our molding materials plant that began operating in 2012 through programs in which all our employees are participating.

Sumitomo Bakelite (Shanghai) Co., Ltd.

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

Number of employees: 240

Commencement of operations: 2000

Site total area: 11,644m²

Date ISO 14001 certification received: April 2007

Principal products:

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



President
**Yoshihiko
Sasaki**

In August 2011, we changed our corporate name from Bakelite Precision Molding (Shanghai) to Sumitomo Bakelite (Shanghai). As Shanghai has been further increasing the rigor of its environmental regulations, we have been working to reduce electric power consumption and otherwise conserve energy so that we can lower our CO₂ emissions, and we are also striving to increase our production yields and thereby reduce the amount of waste products we generate. Furthermore, we are promoting greenification through tree-planting programs and are working to heighten our employees' consciousness of environmental issues.

Basec Hong Kong Limited

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

Number of employees: 1,085

Commencement of operations: 1994

Site total area: 32,930m²

Date ISO 14001 certification received: September 2004

Principal products:

Precision molded products, medical instruments



President
**Satoshi
Tanamura**

Our plant is engaged in the production of medical devices and molded parts. As part of our ISO 14001 program and other programs for reducing the effects of our business activities on the environment, we promote recycling and take initiatives to lower CO₂ emissions. We are also emphasizing safety/environmental education programs in which all our employees participate. 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 beautification activities in parks near the plant.

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: 27,513m²

Date ISO 14001 certification received: April 2005

Principal products: Copper-clad epoxy composite sheets



President
Chiyozo Yamaguchi

Our company's epoxy resin copper-clad laminates production business site is situated in a special administrative region of Macao, to the west of Hong Kong. In accordance with our previously obtained ISO 14001 certification, we are working to conserve resources and energy while also helping maintain high local environmental quality—which is particularly important in view of Macau's tourism-oriented economy—by undertaking initiatives designed to lower our environmental impact with respect to water quality and air quality and in other ways. In addition, we are conducting firefighting training programs four times each year, proceeding with data loss prevention training programs, and otherwise striving to heighten our employees' consciousness of important issues.

SNC Industrial Laminates Sdn. Bhd.

Address: PLO 38, Jalan Keluli Satu, Pasir Gudang, Johor, MALAYSIA

Number of employees: 170

Commencement of operations: 1992

Site total area: 60,000m²

Date ISO 14001 certification received: April 2001

Principal products:

Copper-clad phenolic resin composite sheets, phenolic resin laminates, aluminum-based copper-clad laminates



Managing Director
Shinichi Goya

Situated in the Malaysian state of Johor, our plant manufactures products centered on phenolic resin copper-clad laminates. Our manufacturing operations employ numerous chemicals and are energy intensive. In view of this, we pay close attention to measures for preventing water and air pollution and are striving to increase energy efficiency, raise recycling rates, and reduce environmental impact. In these ways, we are seeking to be an environment-friendly company.

Sumitomo Bakelite (Taiwan) Co., Ltd.

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

Number of employees: 129

Commencement of operations: 2000

Site total area: 24,271m²

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 environment and are aiming to create a safe workplace where employees feel a sense of security. In fiscal 2012, we have set ourselves targets for reducing electric power consumption per unit of output as well as for decreasing the volume of industrial waste materials we generate to a level 5% lower than the level in the previous fiscal year. In these and other ways, we are making daily efforts to enhance our performance with respect to energy efficiency and energy conservation.

Sumitomo Bakelite Singapore Pte. Ltd.

Address: 1 Senoko South Road, Singapore 758069, SINGAPORE

Number of employees: 199

Commencement of operations: 1989

Site total area: 22,276m²

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
Yukihiko Okabe

In fiscal 2012, our company has launched its "Lion Saver X" energy conservation project. Our naming of this project reflects the fact that the lion is a symbol of Singapore as well as our plans to address energy conservation issues in a "leoninely" ferocious manner, and all our employees participated in the kickoff meeting for this project. Reflecting Singapore's climate, particularly its hot summer weather, air conditioning accounts for a large share of our energy consumption; so, we are giving special attention to raising employees' consciousness of air conditioning-related energy conservation issues as a means of promoting energy consumption reductions going forward.

SumicARRIER Singapore Pte. Ltd.

Address: 72 Senoko Drive, Singapore 758240, SINGAPORE
Number of employees: 67
Commencement of operations: 1988
Site total area: 6,000m²
Date ISO 14001 certification received: April 1998
Principal products: Carrier tape



Senior Manager
**Tetsuya
Nakaniwa**

Our company manufactures carrier tape for semiconductor transport applications. We have been working to reduce our generation of waste products through measures to promote the unification of customer specifications and achieve higher levels of productivity. By upgrading our performance with respect to machinery maintenance and mold and die manufacturing technologies, we are striving to reduce the amount of unnecessary work and thereby lower energy costs. In these and other ways, we are intent on progressively raising the level of our technological sophistication as a means of decreasing our environmental impact.

P.T. Indopherin Jaya

Address: Jl. Brantas No. 1, Probolinggo, East Java, INDONESIA
Number of employees: 88
Commencement of operations: 1996
Site total area: 18,000m²
Date ISO 14001 certification received: January 2001
Principal products: Industrial-use phenolic resins



General Manager
Kanji Shiotsu

We produce phenolic resins for industrial use and market those resins to customers in Indonesia as well as other countries in Asia. As part of our energy conservation and CO₂ emissions reduction programs, at the end of 2011, we installed a steam boiler that recovers waste heat from our wastewater combustion unit. In view of the recent start of housing construction near our plant, we are endeavoring to further upgrade our environmental protection efforts going forward while placing particular emphasis on water quality and air quality.

SumiDurez Singapore Pte. Ltd.

Address: 9 Tanjong Penjuru Crescent, Singapore 608972, SINGAPORE
Number of employees: 55
Commencement of operations: 1989
Site total area: 30,000m²
Date ISO 14001 certification received: September 1998
Principal products: Phenolic resin molding materials



Senior Plant
Manager
**Motoharu
Yasuma**

With respect to our operations manufacturing phenolic resins, we are rigorously complying with Singapore's laws and regulations, and, in accordance with the ISO 14001 standard, we are working to reduce the volume of waste materials we generate, prevent air pollution, and prevent sound pollution affecting nearby communities. Besides seeking to realize additional increases in productivity rates, we are reducing our energy consumption through such measures as those to shift to energy-saving fluorescent lighting fixtures, and we are thereby striving to reduce our CO₂ emissions.

P.T. SBP Indonesia

Address: Kawasan Industri MM2100 Jl. Irian Blok NN 1-1,
Bekasi 17520, INDONESIA
Number of employees: 168
Commencement of operations: 1996
Site total area: 30,000m²
Date ISO 14001 certification received: December 2010
Principal products:

Polycarbonate resin sheets (for signage and construction applications)



Managing Director
**Takashi
Moriyama**

We produce extruded polycarbonate resin sheets at our plant, which is situated in a suburb of Jakarta. In response to the increasingly rigorous environmental management standards introduced in Indonesia in step with that country's economic development progress, we have organized environmental protection programs based on the standards we met to obtain our ISO 14001 certification at the end of 2010, and we are implementing these programs with the participation of all employees. We are aiming to be an environment-friendly company that promotes economic development while also making additional contributions to society.

Trends in Environmental Performance

Domestic Business Sites

Items	Unit	2005	2006	2007	2008	2009	2010	2011	2012 (plan)	2020 (target)
CO ₂ emissions	Tons-CO ₂	137,961	135,326	123,382	109,402	107,233	101,181	93,300	100,697	103,471
Energy usage	Crude oil equivalent (kL)	74,370	72,045	68,151	58,544	58,021	58,156	53,307	58,078	—
Material loss	Tons	20,945	20,507	19,769	16,523	16,137	16,724	15,343	15,011	13,330
Chemical substance emissions	Tons	512	423	340	210	222	273	262	185	102

Overseas Business Sites

Items	Unit	2005	2006	2007	2008	2009	2010	2011	2012 (plan)	2020 (target)
CO ₂ emissions	Tons-CO ₂	163,259	170,554	170,109	143,314	151,074	160,989	152,735	162,453	138,770
Energy usage	Crude oil equivalent (kL)	82,906	84,696	84,966	72,576	72,557	78,702	76,533	80,753	—
Material loss*	Tons	28,858	29,807	26,790	22,613	17,949	21,857	20,617	20,117	16,792
Chemical substance emissions	Tons	—	—	—	—	—	311*2	224	248	164

Note: For information on the boundary, please see the "Boundary" section on page 1.

*1. Omissions have been found in past data, and, accordingly, figures have been revised retroactively to 2005.

*2. Since data was not finalized at the time of compilation of data for fiscal 2010, figure has been revised retroactively.

Definitions/calculation method

• **CO₂ emissions:**

CO₂ emissions are calculated from energy consumed in all kinds of business activities (fuels, heat, electric power, etc.).

The emissions calculation method used is based on the *Manual for Calculating/Reporting Greenhouse Gas Emissions* (March 2009, Ministry of the Environment and Ministry of Economy, Trade and Industry), and figures shown represent the sum of emissions calculated for each energy type (tons-CO₂). For the calorific values of city gas and CO₂ emissions coefficients of electricity, figures published by the respective supplier companies were used.

• **Material loss:**

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. Definitions of each type of waste are as follows.

- (1) Landfill: waste disposed of in landfills by the Company or outsourced contractors
- (2) External intermediate processing: waste incinerated by outsourced contractors (simple incineration without energy recovery)
- (3) Internal intermediate processing: waste incinerated in-house (simple incineration without energy recovery)
- (4) External recycling (expenses paid): waste recycled with payment made to cover processing costs (including thermal recycling)

Note: Waste generated owing to the retirement of facilities, repairs, building demolition (in-house demolition work), etc., is not included in the scope of waste, nor is valuable dismantling scrap material that is sold, facilities resold, or construction material waste (for which a manifest is issued by the Company).

• **Chemical substance emissions:**

Total emissions into the air, bodies of water, and the ground (aggregate volume) of chemical substances targeted by the Japan Chemical Industry Association (JCIA)'s Pollutant Release and Transfer Register (PRTR) assessments (including 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 into the atmosphere, bodies of water, and soil of chemical substances targeted by local laws and regulations corresponding to Japan's PRTR system.

The relevant laws and systems of various countries and regions are as follows:

United States: Toxics Release Inventory (TRI), Canada: National Pollutant Release Inventory (NPRI), European Union: European Pollutant Emission Register (EPER)

However, excluded from this item are substances for which separate compilation guidelines have been established (including emissions into the atmosphere of CO₂, SO_x, NO_x, and soot and dust and emissions into bodies of water of COD, total phosphorus, and total nitrogen) as well as carbon monoxide, BOD, and total organic carbon emissions. 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.

Soil and Groundwater Assessment and Countermeasures

The Sumitomo Bakelite Group has conducted risk assessments of possible leakage of chemical substances at its business sites in Japan and overseas and is putting frameworks in place to take countermeasures. As a result of progress in improvement measures for equipment where there was a high risk of leakage, there were no major leakage accidents in fiscal 2011.

Soil/Groundwater Survey Results, Countermeasures, and Monitoring Situations

At the sites where heavy metals were detected in amounts that exceed the required standards set under Japan's Soil Contamination Countermeasures Act, measures have been taken to monitor underground water on a continuing basis. Readings in excess of the standards were not detected at any of the business sites.

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 3.8mg/L at 3m depth (soil leachate standard: 1mg/L). No groundwater pollution	To prevent the spreading of pollutants, excavation in the contaminated portion has been forbidden. Through 2012, monitoring of underground water has been completed, and it has been confirmed that levels are below all the required standards.
Amagasaki Plant	Lead detected in soil (content, 2009 and 2010). Maximum of 550mg/kg (soil concentration standard: 150mg/kg). No groundwater pollution	Surveys were conducted and groundwater is monitored on a continuing basis to confirm that levels detected are below the required standards.
Akita Sumitomo Bakelite	Lead detected in soil (extracted, 2005). Maximum of 0.032mg/L (soil leachate standard: 0.01mg/L). No groundwater pollution	Established observation well; Surveys were conducted and groundwater is monitored on a continuing basis to confirm that the relevant substances are below the required standards.

Response to Energy Conservation/Global Warming Prevention Acts

	Items	Unit	FY2009	FY2010	FY2011
Sumitomo Bakelite	CO ₂ emissions	Tons-CO ₂	84,469	84,035	75,883
	Energy usage	Crude oil equivalent: kL	46,699	48,903	43,464
	Year-on-year ratio of the unit energy usage	%	—	96.8	103.1
Kyushu Sumitomo Bakelite	CO ₂ emissions	Tons-CO ₂	5,481	6,050	6,325
	Energy usage	Crude oil equivalent: kL	3,373	3,740	3,715
	Year-on-year ratio of the unit energy usage	%	—	96.1	101.1
Akita Sumitomo Bakelite	CO ₂ emissions	Tons-CO ₂	13,003	8,583	6,183
	Energy usage	Crude oil equivalent: kL	5,803	3,751	2,728
	Year-on-year ratio of the unit energy usage	%	—	123.2	90.4

Distribution-Related Energy Conservation Measures

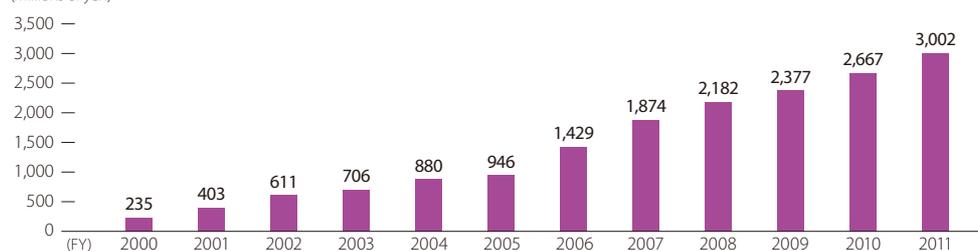
Items		Units	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Shipping tons-kilometers		Thousands of tons-kilometers	30,297	41,265	33,647	32,573	37,271	33,663
CO ₂ emissions associated with energy use		Tons-CO ₂	5,090	6,730	5,580	5,270	5,780	5,208
Energy consumption per shipping unit	Energy consumption (crude oil equivalent; kL)/shipping thousands of tons-kilometers	kL/thousands of tons-kilometers	0.0632	0.0613	0.0624	0.0609	0.0583	0.0582
	Year-on-year ratio (FY2006=100%)	%	100	97.0	98.7	96.4	92.2	92.1

Fiscal Year and Accumulated Investments for Environmental Conservation

	Units	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Fiscal year	Millions of yen	235	168	208	95	174	66	483	445	308	195	290	335
Total	Millions of yen	235	403	611	706	880	946	1,429	1,874	2,182	2,377	2,667	3,002

Accumulated Investments for Environmental Conservation

(Millions of yen)



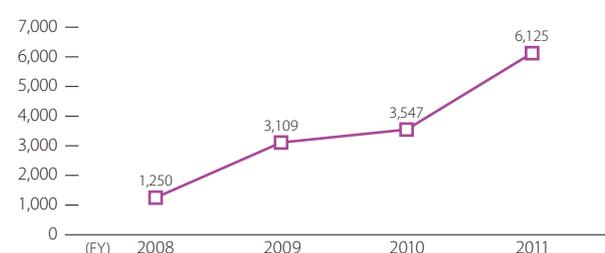
Sumitomo Bakelite Usage of Paper Products that Promote the Use of Forest Thinning Support Paper

Sumitomo Bakelite supports forest thinning activities by using paper made with wood from such activities, which is promoted as Forest Thinning Support Paper by the Morino Chonai-Kai (Forest Neighborhood Association). Through support for this activity to protect forest resources, Sumitomo Bakelite is contributing to the preservation of biodiversity.



Sumitomo Bakelite Usage of Paper Products that Promote the Use of Thinning Wood

(kg)



Data

- The regulatory limits shown for domestic business sites are the most-stringent regulations imposed by ordinances, regional agreements, administrative guidance, and other requirements issued by governmental authorities.
- In the case of overseas business sites, the applicable standards are shown, but, because laws may differ from one country to another, these figures include national and regional regulatory limit, agreement standards, autonomous control standards, reference standards, and other types of standards. In addition, at some business sites, data has been compiled for the January-to-December period of calendar 2011.
- The measured data are the maximum level recorded in fiscal 2011. Please note that, in the case of pH figures, the minimum and maximum levels are shown. In addition, when actual measurements are below the quantifiable limits, the amounts are shown as "Less than (the quantifiable limit)." When the substances in question were less than the lower detection limit, the amounts are shown as "not detected".
- Where "-" (a dash) is shown for the regulatory limit, the autonomous measurement figures are shown for reference.

Site-Specific Environmental Impact Data

Advanced Technologies R&D Laboratory

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5–9	6.6–8.6
BOD	mg/L	2,000	6
COD	mg/L	—	8
n-hexane extract (mineral oil)	mg/L	5	Less than 1
Suspended solids	mg/L	2,000	1

Shizuoka Plant

<Air>

Facilities	Item	Unit	Regulatory limit	Actual measurement
Cogeneration boiler	SOx	K-value	10 or less	Less than 0.47
	NOx	ppm	100	44
	Soot and dust	g/m ³ N	0.05	Less than 0.021

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.1–8.1
BOD	mg/L	15	4.0
COD	mg/L	—	3.1
n-hexane extract (mineral oil)	mg/L	3	Less than 0.5
Suspended solids	mg/L	30	8.2
Phenols	mg/L	1	Less than 0.05
Formaldehyde	mg/L	5	0.4

Kanuma Plant

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.0–7.5
BOD	mg/L	20	7.3
COD	mg/L	20	5.2
n-hexane extract (mineral oil)	mg/L	5	Less than 1.0
Suspended solids	mg/L	40	4.8

Utsunomiya Plant

<Air>

Facilities	Item	Unit	Regulatory limit	Actual measurement
Drying furnace	SOx	K-value	6.0	Less than 0.12
	NOx	ppm	—	Less than 15
	Soot and dust	g/m ³ N	0.2	Less than 0.001

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.5–7.8
BOD	mg/L	25	3.6
COD	mg/L	25	9.9
n-hexane extract (mineral oil)	mg/L	5	Less than 1
Suspended solids	mg/L	25	5.0

Amagasaki Plant

<Air>

Facilities	Item	Unit	Regulatory limit	Actual measurement
Boiler	SOx	m ³ N/h	2.83	Less than 0.03
	NOx	ppm	150	60.6
	Soot and dust	g/m ³ N	0.05	Less than 0.002

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.3–7.9
BOD	mg/L	25	3.9
COD	mg/L	25	5.1
n-hexane extract (mineral oil)	mg/L	20	Less than 1
Suspended solids	mg/L	20	1.9

<Water> Released into sewers

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.7–8.7	6.6–9.5*1
BOD	mg/L	300	340*2
Suspended solids	mg/L	300	180
n-hexane extract	mg/L	30	22

*1. As a result of the malfunction of the pH adjustment equipment for water emissions from the scrubbers, the measurements exceeded the regulatory limit. Adjustments were made in the equipment, and, thereafter, the readings returned to normal levels.

*2. As a result of the malfunction of the condensation and deposition functions of the pressure floatation equipment, the measurements exceeded the regulatory limit. Adjustments were made in the operating conditions of this equipment, and, thereafter, the readings returned to normal levels.

S.B. Sheet Waterproof Systems Co., Ltd. (Nara Plant)

<Air>

Facilities	Item	Unit	Regulatory limit	Actual measurement
Boiler	SOx	K-value	17.5	0.41
	NOx	ppm	180	80
	Soot and dust	g/m ³ N	0.3	Less than 0.01

<Water>

Item	Unit	Autonomous control standards	Actual measurement
pH	—	5.6–8.4	7.2–7.7
BOD	mg/L	50	2
COD	mg/L	50	3
n-hexane extract (mineral oil)	mg/L	2.5	Less than 1
Suspended solids	mg/L	20	3

Note: Because wastewater flows to an industrial park treatment facility, there is no regulatory limit. The autonomous control standards are set at levels that are stricter than those specified by the relevant laws and regulations for the region in which the industrial complex is situated.

Kyushu Sumitomo Bakelite Co., Ltd.

<Air>

Facilities	Item	Unit	Regulatory limit	Actual measurement
Boiler	SOx	m ³ N/h	0.63	0.25
	NOx	ppm	180	60.0
	Soot and dust	g/m ³ N	0.3	0.0068

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	7.4–7.9
BOD	mg/L	160	24.0
COD	mg/L	80	28.0
n-hexane extract (mineral oil)	mg/L	2.5	Less than 1
Suspended solids	mg/L	100	10.0

Yamaroku Kasei Industry Co., Ltd. 

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5.8–8.6	6.9–7.1
BOD	mg/L	25	2
COD	mg/L	25	5
n-hexane extract (mineral oil)	mg/L	4	Less than 1
Suspended solids	mg/L	90	4

S.B. Techno Plastics Co., Ltd. 

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5–9	8.5–8.6
BOD	mg/L	Less than 600	Less than 1
COD	mg/L	—	1.4
n-hexane extract (mineral oil)	mg/L	—	—
Suspended solids	mg/L	Less than 600	Less than 5

Akita Sumitomo Bakelite Co., Ltd. 

<Air>

Facilities	Item	Unit	Regulatory limit	Actual measurement
Boiler	SOx	K-value	3.00	0.25
	NOx	ppm	110	35
	Soot and dust	g/m ³ N	0.09	Less than 0.01

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	6.0–8.5	7.2–7.8
BOD	mg/L	30	4.0
COD	mg/L	30	12.0
n-hexane extract (mineral oil)	mg/L	—	—
Suspended solids	mg/L	40	12.0
Phenols	mg/L	0.5	Less than 0.01
Copper	mg/L	1	Less than 0.01
Cyanide compounds	mg/L	0.1	Less than 0.01
Lead and compounds	mg/L	0.1	Less than 0.01
Soluble manganese	mg/L	5	Less than 0.03

Hokkai Taiyo Plastic Co., Ltd. 

<Air> No relevant facilities

<Water>

Item	Unit	Regulatory limit	Actual measurement
pH	—	5–9	7.7
BOD	mg/L	Less than 600	Less than 2.0
COD	mg/L	—	2.8
n-hexane extract (mineral oil)	mg/L	5	Less than 2.0
Suspended solids	mg/L	Less than 600	Less than 2

Note: Since measurements could not be made in fiscal 2011, the measurements made in April 2012 are shown in the table as the figures for fiscal 2011.

Sumitomo Bakelite North America, Inc. (Manchester Plant) 

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Long fiber process (Drying process)	Acetone emissions	tons/year	40	19.4
	SOx	tons/year	0.002	0.000
Condor process (Drying process)	NOx	tons/year	0.38	0.076
	CO	tons/year	0.32	0.064
	VOC emissions	tons/year	15	4.604
	Soot and dust	tons/year	1.23	0.074
Total site	VOC emissions	tons/year	45	19.11
	HAPs	tons/year	25	0.154

<Water>

Facilities	Item	Unit	Required standards	Actual measurement
NCCW discharges	Chlorine	mg/L	0.029	Not detected
	Copper	mg/L	0.031	0.002
	Flow	gal/day	450,000	209,330
	Lead	mg/L	0.006	Not detected
	Oil and grease	mg/L	5	Not detected
	pH	—	6.0–9.0	7.66–8.11
	Temperature	F	85 or less	66.8
	Suspended solids	mg/L	30	6.5
	Zinc	mg/L	0.203	0.005

Facilities	Item	Unit	Required standards	Actual measurement
Storm water discharge	Copper	mg/L	0.100	0.035
	Lead	mg/L	0.050	0.003
	Zinc	mg/L	0.500	0.437
	COD	mg/L	75	130
	pH	—	—	6.67–6.95
	Nitrate	mg/L	1.5	1.6
	Oil and grease	mg/L	5	<1.4
	Nitrogen	mg/L	2.5	5.7
	Phosphorus	mg/L	0.5	0.35
	Suspended solids	mg/L	100	<5.0
	Aquatic toxicity (survival ratio after 24 hours)	%	>50	100
	Aquatic toxicity (survival ratio after 48 hours)	%	>50	100

Note: Required standards are recommended target values. No action required.

Durez Corporation (Kenton Plant) 

<Air>

Item	Unit	Required standards	Actual measurement
Stack emissions (Non-Title V)	tons/year	—	Less than 50

<Water>

Item	Unit	Required standards	Actual measurement
Phenols	µg/L	20	Less than 10
pH	—	6.5–9.0	6.6–8.8
Ammonia-N	mg/L	Less than 12 (Winter) Less than 2.25 (Summer)	0.98
CBOD	mg/L	Less than 38 (Winter) Less than 15 (Summer)	13
Oil and grease	mg/L	10	Less than 5.0
Phosphorus	mg/L	—	4.41
Dissolved solids	mg/L	—	1,060
Suspended solids	mg/L	45	36
Strontium	µg/L	30,000	5,500

Data

Durez Corporation (Niagara Falls Plant)

<Air> No relevant facilities

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	5–10	6–8
Phenols	lbs./day	30	0.020
Flow	MM Gls/day	0.1	0.056
Suspended solids	lbs./day	75	20.81
Soluble organic carbon	lbs./day	800	351.10
Phosphorus	lbs./day	17	0.50

Durez Canada Co., Ltd.

<Air>

Item	Unit	Required standards	Actual measurement
Phenols	kg/year	21,319	3,085
Formaldehyde	kg/year	504	61
NOx	kg/year	93,830	2,869
Ammonia	kg/year	36,881	23,599
Ethanol	kg/year	672,451	54,382

<Water>

Item	Unit	Required standards	Actual measurement
Chlorides	mg/L	3,000	70
pH	—	6–11	10.3
Total phosphorus	mg/L	10	6.9
Sulfate	mg/L	1,500	253
BOD	mg/L	300	64
Kjeldahl nitrogen	mg/L	100	43.9
Suspended solids	mg/L	350	40
Phenols	mg/L	1	0.4

Promerus LLC

<Air>

Item	Unit	Required standards	Actual measurement
VOC emissions	tons/year	1.0	0.23

<Water> No relevant facilities

N.V. Sumitomo Bakelite Europe S.A.

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Boiler	NOx	mg/m ³ N	150	114
	SO ₂	mg/m ³ N	35	Less than 15
	CO	mg/m ³ N	100	Less than 8

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	6.3–8.8
COD	mg/L	136	43
Suspended solids	mg/L	1,000	2.4
TOC	mg/L	50	2.7
Phenols	mg/L	3	Less than 0.0002
Chlorendic acid	mg/L	3	Less than 0.1
Hexachloro cyclopentadiene	mg/L	0.005	Less than 0.005
Monochloro-benzene	mg/L	5	Less than 0.0005
Total nitrogen	mg/L	15	3.1
Total phosphorus	mg/L	3	1.00

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

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Boiler	SOx	mg/m ³ N	4,300	Not detected
	NOx	ppm	300	70
	CO	ppm	500	215

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	5.5–11	6.3–8.2
COD	mg/L	2,500	1,936
Suspended solids	mg/L	1,500	170
Phenols	mg/L	2	0.83
Conductivity	µs/cm	13,000	4,700
Total chlorine	mg/L	3,500	1,033
Total sulfide	mg/L	1,000	899
Total phosphorus	mg/L	75	2.10

Note: Beginning from 2011, required standards that are applicable to the effluent discharged into the wastewater treatment facility (CIV) in the industrial complex where the plant is situated are used.

Vyncolit N.V.

<Air>

Item	Unit	Required standards	Actual measurement
Phenols	mg/m ³ N	20	24*
Ammonia	mg/m ³ N	35	12.8
Formaldehyde	mg/m ³ N	20	2.9
Total dust	mg/m ³ N	150	4.3

<Water>

Item	Unit	Required standards	Actual measurement
Zinc	mg/L	1.4	0.491
Copper	mg/L	0.2	0.035
Phenols	mg/L	0.4	0.033
Molybdenum	mg/L	5	0.150
Total phosphorus	mg/L	14	0.22

* The measured value exceeded the standard value, but the circumstances behind this are being investigated.

Sumitomo Bakelite (Suzhou) Co., Ltd.

<Air> No relevant facilities

<Water>

Facilities	Item	Unit	Required standards	Actual measurement
Outlet on the south side	pH	—	6.0–9.0	6.55
	COD	mg/L	500	438
	BOD	mg/L	300	190
	Suspended solids	mg/L	400	312
	Animal/vegetable oils	mg/L	100	12
Outlet on the east side	pH	—	6.0–9.0	6.5
	COD	mg/L	500	116
	BOD	mg/L	300	35
	Suspended solids	mg/L	400	72

Note: There is no drainage required standards for the industrial complex, but for purposes of daily monitoring and management, autonomous measures are made.

Sumitomo Bakelite (Shanghai) Co., Ltd.

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Painting booths	Toluene emission concentration	mg/m ³ N	40	1.94
	Toluene emission speed	kg/h	9.0	0.0112
	Total non-methane carbon hydride emission concentration	mg/m ³ N	120	26.1
	Total non-methane carbon hydride emission speed	kg/h	27.8	0.120

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	7.41–7.42
COD	mg/L	500	22
BOD	mg/L	300	8.86
Suspended solids	mg/L	400	14
Animal/vegetable oils	mg/L	100	<0.1
Ammonium nitrogen	mg/L	40	12.2

Note: There are no regulations imposed on quality by the national or local governments, nor agreements with the regions, nor other such circumstances; however, when ISO certification was obtained, measurements were taken for six items. At that time, guidance was received that the level of water emissions would be considered appropriately managed if the levels of the items measured were kept within the required standards. Therefore, the levels of the six items are measured.

Sumitomo Bakelite (Nantong) Co., Ltd. 

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Deodorizer	Phenols emission concentration	mg/m ³ N	100	0.37
	Methanol emission concentration	mg/m ³ N	190	110
	Formaldehyde emission concentration	mg/m ³ N	25	2.97
Bug filter	Particulates emission concentration	mg/m ³ N	120	3.7
	Particulates emission speed	kg/h	3.5	0.03
Boiler	Soot and dust emission concentration	mg/m ³ N	100	2.4
	SO ₂ emission concentration	mg/m ³ N	500	7

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	7.5
COD	mg/L	500	45
BOD	mg/L	300	6.3
Ammonium nitrogen	mg/L	—	0.16
Phenols	mg/L	2.0	Less than 0.1
Formaldehyde	mg/L	5	0.12
Phosphorus	mg/L	—	2.15
Methanol	mg/L	—	Less than 0.8

Note: There are no required standards for ammonium nitrogen, phosphorus, or methanol, but the Nantong municipal government's environmental monitoring center measures these items for reference.

Basec Hong Kong Limited 

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Electric power generator	SO ₂	mg/m ³ N	550	51
	NOx	mg/m ³ N	120	—
	Soot and dust	mg/m ³ N	120	60.3
	Smoke blackness	—	Class 1	Class 1
Boiler	SO ₂	mg/m ³ N	500	69
	NOx	mg/m ³ N	400	242
	Soot and dust	mg/m ³ N	80	34.3
	Smoke blackness	—	Class 1	Class 0.5

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	7.38
Suspended solids	mg/L	70	24
COD	mg/L	100	46.5
BOD	mg/L	20	13.3
Ammonium nitrogen	mg/L	10	1.22
Phosphate	mg/L	0.5	0.36
Animal/vegetable oils	mg/L	10	0.93

Note: The point for water quality measurement is the wastewater outlet of the cafeteria.

Sumitomo Bakelite Macau Co., Ltd. 

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Boiler/RTO (Exhaust gas combustion unit)	CO	mg/m ³	1,000	16/<1
	CO ₂	%	—	4.8/0.9
	NOx	mg/m ³	400/120	91/27
	SOx	mg/m ³	500	250/<5
	Soot and dust	mg/m ³	100/120	96/17
	Total VOC (RTO only)	ppm	92.3	14

<Water>

Item	Unit	Required standards	Actual measurement
PH	—	6–9	6.7–7.9
Total suspended solid	mg/L	60	20
Color	TCU	—	75
COD	mg/L	150	100
BOD	mg/L	40	3
Aluminum	mg/L	10.0	0.124
Cadmium	mg/L	0.2	0.055
Lead	mg/L	1.0	0.002
Copper	mg/L	1.0	0.023
Chromium	mg/L	2.0	1
Iron	mg/L	2.0	2.2*
Manganese	mg/L	2.0	0.589
Nickel	mg/L	2.0	0.001
Zinc	mg/L	5.0	0.406
Arsenic	mg/L	1.0	0.01
Selenium	mg/L	0.5	0.01
Mercury	mg/L	0.05	0.0005
Hexavalent chromium	mg/L	0.1	0.02
Residual chlorine	mg/L	0.5	0.2
Total residual chlorine	mg/L	1.0	0.2
Phenols	mg/L	0.5	5.0* ²
Cyanide compounds	mg/L	0.5	0.2
Sulfide	mg/L	1.0	0.1
Sulfate	mg/L	2,000.0	36
Phosphorus	mg/L	10.0	0.2
Ammonia	mg/L	10.0	1.63
Total nitrogen	mg/L	15.0	2.2
Nitrate	mg/L	50.0	0.8
Detergents	mg/L	2.0	0.5
Oil and grease	mg/L	15.0	10
Sulfite	mg/L	1.0	1
α-Benzene	ug/L	2,000 (The sum of the three items on the left equals HCH.)	0.5
β- and γ-Benzene	ug/L		1
Δ-Benzene	ug/L		0.5
DDT	mg/L	0.2	0.002
Aldrin	ug/L	2.0	0.5
Endrin	ug/L	2.0	0.5
Dieldrin	ug/L	2.0	0.5
PCP	mg/L	1.0	0.01
Hexachlorobutadiene	mg/L	1.5	0.002
HCB	mg/L	1.0	0.004
Carbon tetrachloride	mg/L	1.5	0.005
Tetrachloroethylene	mg/L	1.5	0.005
Chloroform	mg/L	1.0	0.005
Carbon compounds	mg/L	1.0	0.269
Acetaldehyde	mg/L	1.0	0.01
Isodrin	ug/L	2.0	Not measured* ³

*1. It is believed that the considerable rusting of iron covers above ordinary wastewater lines was the cause of this iron content. As a countermeasure, the iron covers have been coated with a rust prevention agent. Consideration is being given to replacing the iron covers with concrete covers, but, because concrete covers are easily damaged by the passage of large trucks, consideration is also being given to making them sturdier.

*2. Under the government's order to improve the environment of the compounding rooms, the number of exhaust fans has been increased and the ventilation rate has been raised. However, it appears that, as a result, it has become easier for fine powder containing particulate matter to pass through the filters. Therefore, different filters have been selected, and measures are being taken to prevent the spread of fine dust into the surrounding area.

*3. According to the company responsible for measurements, provided three items (namely aldrin, endrin, and dieldrin) are at or less than the regulatory limit, the readings for isodrin are virtually zero and, therefore, are not measured.

Data

Sumitomo Bakelite (Taiwan) Co., Ltd.

<Air> No relevant facilities

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	6.2–7.5
COD	mg/L	600	2,214*
Suspended solids	mg/L	300	197

Note: The required standards are the regulatory limit of the respective industrial complex.

* Since the cause is believed to be the dirty condition of the pipes and water tanks, the pipes and tanks are cleaned periodically and kept under continued surveillance.

SNC Industrial Laminates Sdn. Bhd.

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Exhaust gas combustion unit	SOx	g/m ³ N	0.2	0.0007
	NOx	g/m ³ N	2	0.0001
	Soot and dust	g/m ³ N	0.2	0.007

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	5.5–9.0	5.8–8.8
Temperature	°C	40	33.0
BOD	mg/L	50	43
COD	mg/L	200	120
Suspended solids	mg/L	100	94
Phenols	mg/L	1	0.1
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	Less than 0.01
Arsenic	mg/L	0.1	Less than 0.05
Cyanide compounds	mg/L	0.1	Less than 0.01
Lead	mg/L	0.5	0.05
Trivalent chromium compounds	mg/L	1	Less than 0.01
Copper	mg/L	1	0.90
Soluble manganese	mg/L	1	0.05
Nickel	mg/L	1	0.01
Tin	mg/L	1	Less than 0.2
Zinc	mg/L	2	0.57
Boron	mg/L	4	0.08
Soluble iron	mg/L	5	1.34
Chlorine	mg/L	2	Less than 0.1
Sulfur	mg/L	0.5	Less than 0.1
Oil and grease	mg/L	10	9
Formaldehyde	mg/L	2	1.36
Selenium	mg/L	0.5	Less than 0.1
Aluminum	mg/L	15	1.4
Silver	mg/L	1	Less than 0.01
Barium	mg/L	2	0.22
Fluorides	mg/L	5	1.5
Ammonium nitrogen	mg/L	20	2
Color tone	ADMI	200	29

Sumicarrier Singapore

<Air> No relevant facilities

<Water> No relevant facilities

SumiDurez Singapore Pte. Ltd.

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Bag filter	Soot and dust	mg/Nm ³	100	146.8*

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	7.5
COD	mg/L	600	11.5
Suspended solids	mg/L	400	1.0
Dissolved solid	mg/L	3,000	133.0
Oil	mg/L	160	10.0
Phenols	mg/L	0.5	0.40

* The measurement shown above exceeds the required standards, but no abnormalities were found in an inspection of the line. Following a remeasurement, it was confirmed that the value was less than the regulatory limit.

Sumitomo Bakelite Singapore Pte. Ltd.

<Air> No relevant facilities

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	8.3
Temperature	°C	45	28
BOD	mg/L	400	230
COD	mg/L	600	560
Suspended solids	mg/L	400	2.7
Dissolved solids	mg/L	3,000	270
Phenols	mg/L	0.5	0.12
Chloride	mg/L	1,000	48
Sulfate	mg/L	1,000	35
Sulfur	mg/L	1	Less than 0.01
Cyanide	mg/L	2	0.01
Detergents	mg/L	30	Less than 1
Oil and grease	mg/L	60	4.3
Caustic alkalinity	mg/L	2,000	Not detected
Fluorides	mg/L	15	0.77
Arsenic	mg/L	5	Less than 0.05
Barium	mg/L	10	Less than 0.05
Tin	mg/L	10	Less than 0.05
Iron	mg/L	50	0.64
Beryllium	mg/L	5	Less than 0.05
Boron	mg/L	5	0.37
Manganese	mg/L	10	Less than 0.05
Cadmium	mg/L	1	Less than 0.01
Chromium	mg/L	5	Less than 0.05
Copper	mg/L	5	0.05
Lead	mg/L	5	Less than 0.05
Mercury	mg/L	0.5	Less than 0.0005
Nickel	mg/L	10	Less than 0.05
Selenium	mg/L	10	Less than 0.05
Silver	mg/L	5	Less than 0.05
Zinc	mg/L	10	0.05
Metals (toxic) in total	mg/L	10	0.12

P.T. Indopherin Jaya

<Air> No relevant facilities

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	8.0
BOD	mg/L	100	10.75
COD	mg/L	300	27.13
Suspended solids	mg/L	100	17.5
Total nitrogen	mg/L	30	2.440
Phenols	mg/L	1	0.006

<Air> No relevant facilities

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	5.5–9.5	6.75
Temperature	°C	40	24.8
BOD	mg/L	200	9.880
COD	mg/L	400	31.51
Suspended solids	mg/L	400	19.80
Dissolved solids	mg/L	4,000	265
MBAS	mg/L	10	3.626
Oil	mg/L	10	3.1
Iron	mg/L	10	Less than 0.01
Manganese	mg/L	4	Less than 0.05
Barium	mg/L	4	Less than 0.001
Copper	mg/L	4	Less than 0.004
Zinc	mg/L	10	Less than 0.006
Hexavalent chromium	mg/L	0.2	Less than 0.005
Chromium compounds	mg/L	1	Less than 0.02
Cadmium	mg/L	0.1	Less than 0.002
Mercury	mg/L	0.004	Less than 0.001
Lead	mg/L	0.2	Less than 0.025
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	Less than 0.02
Cobalt	mg/L	0.8	Less than 0.001
Cyanogen	mg/L	0.1	Less than 0.005
Hydrogen sulfide	mg/L	0.1	Less than 0.04
Fluorine	mg/L	4	Less than 0.92
Chloride	mg/L	2	0.13
Ammonium nitrogen	mg/L	2	0.827
Nitrate-nitrogen	mg/L	40	6.482
Nitrite-nitrogen	mg/L	2	Less than 0.01
Phenols	mg/L	1	Less than 0.1

Notes: 1. Required standards are set by the industrial complex to which the site belongs.
 2. Since water effluent is discharged into 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.

<Air> No relevant facilities

<Water>

Item	Unit	Required standards	Actual measurement
BOD	mg/L	500	120
COD	mg/L	750	212
Suspended solids	mg/L	200	66
pH	—	5.5–9.0	7.66
Oil	mg/L	10	Not measured*

* It was not possible to measure the oil content because of the flooding in the region.

<Air>

Facilities	Item	Unit	Required standards	Actual measurement
Boiler	CO	mg/m ³ N	1,000	165
	NO _x	mg/m ³ N	850	39.8
	SO ₂	mg/m ³ N	500	11.5
	Soot and dust	mg/m ³ N	200	48.0
Scrubber	HCL	mg/m ³ N	50	12.6
	H ₂ SO ₄	mg/m ³ N	50	3.7
	HNO ₃	mg/m ³ N	500	18.6
Chelation processing equipment	CO	mg/m ³ N	1,000	182
	Soot and dust	mg/m ³ N	200	9.65

<Water>

Item	Unit	Required standards	Actual measurement
pH	—	6–9	6.6
Temperature	°C	40	24.6
BOD	mg/L	240	1.6
COD	mg/L	350	11
Suspended solids	mg/L	200	Less than 5
Total nitrogen	mg/L	40	Less than 1.0
Total phosphorus	mg/L	5	Less than 0.25
Arsenic	mg/L	0.045	Less than 0.001
Mercury	mg/L	0.0045	Less than 0.001
Lead	mg/L	0.09	Less than 0.01
Cadmium	mg/L	0.0045	Less than 0.001
Copper	mg/L	1.8	0.34
Zinc	mg/L	2.7	0.16
Nickel	mg/L	0.18	0.07
Manganese	mg/L	0.45	Less than 0.01
Iron	mg/L	0.9	0.28
Tin	mg/L	0.18	Less than 0.1
Hexavalent chromium	mg/L	0.045	Less than 0.01
Trivalent chromium	mg/L	0.18	Less than 0.01
Cyanide	mg/L	0.063	Less than 0.005
Ammonium nitrogen	mg/L	4.5	Less than 1.0
Phenols	mg/L	0.09	Less than 0.005
Mineral oil	mg/L	4.5	Less than 1.0
Animal and plant oils	mg/L	9	Less than 1.0
Sulfated compounds	mg/L	0.18	Less than 0.1
Residual chlorine	mg/L	0.9	0.25
Fluoride compounds	mg/L	4.5	Less than 0.1
Chlorides	mg/L	450	273
Coliform bacteria	MNP/100mL	Less than 10 (9)	50
Odor	—	No odor	Very weak
Color	Co-Pt at pH7	20	3
PCB	mg/L	0.0027	0.00008
Pesticide (Organic phosphorus group)	mg/L	0.27	<0.0005
Pesticide (Organic chloride group)	mg/L	0.09	<0.0005
Gross α activity	Bq/L	0.09	0.0450
Gross β activity	Bq/L	0.9	0.1963

Note: Since water effluent is discharged into 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.

Transfer and Release of Substances Subject to the Specified Chemical Substance Law (Fiscal 2011 Performance)

The amounts of the 37 Specified Chemical Substance Law (PRTR system*) controlled substances released and transferred by the Company are shown in the chart below.

(Tons/year)

Government order number	Substance	Amount used (manufactured)	Flow			Amount transferred	
			Into air	Into water	Into soil	As waste matter	As sewage
1	Zinc compounds (water-soluble)	24.8	0	0	0	0	0
18	Aniline	175.5	0	0	0	0.4	0
31	Antimony and its compounds	72.8	0	0	0	3.1	0
37	Bisphenol A	244.6	0	0	0	0.1	0
51	2-ethylhexanoic acid	5.6	0	0	0	0	0
53	Ethyl benzene	1.0	0	0	0	0	0
57	Ethylene glycol monoethyl ether	12.0	0	0	0	0	0
58	Ethylene glycol monomethyl ether	3.5	0	0	0	2.3	0
78	2, 4-xylene	10.0	0	0	0	0	0
80	Xylene	47.4	0	0	0	12.7	0
82	Silver and its water-soluble compounds	18.5	0	0	0	0	0
86	Cresol	1,289.3	0	0	0	0.7	0
207	2, 6-ditertiary butyl-4-cresol	6.8	0	0	0	0	0
218	Dimethylamine	3.1	0	0	0	0	0
232	N,N-dimethyl formamide	358.8	1.7	0	0	13.0	0
239	Organic tin compounds	38.2	0	0	0	3.2	0
240	Styrene	7.9	0.4	0	0	0	0
258	Hexamethylenetetramine	1,015.9	0	0	0	22.1	0
265	Tetrahydromethylphthalic anhydride	183.0	0	0	0	0.1	0
277	Triethylamine	9.5	0	0	0	0	0
296	1,2,4-trimethylbenzene	1.2	0	0	0	0	0
300	Toluene	71.5	9.2	0	0	7.5	0
302	Naphthalene	1.7	0	0	0	0	0
309	Nickel compounds*	1.1	0	0	0	0	0
320	Nonylphenol	2.2	0	0	0	0	0
330	Bis (1-methyl-1-phenylethyl) = peroxide	5.6	0	0	0	0	0
349	Phenol	24,308.7	1.2	0	0	73.6	0
352	Diallyl phthalate	3.2	0	0	0	0	0
355	Bis (2-ethylhexyl) phthalate	16.9	0	0	0	0	0
368	4-tertiary butyl phenol	1.6	0	0	0	0	0
392	n-hexane	3.4	0.9	0	0	1.1	0
401	1,2,4-benzene tricarboxylic acid 1,2	17.5	0	0	0	1.4	0
405	Boron and its compounds	9.9	0	0	0	0.6	0
411	Formaldehyde	9,801.6	1.0	0.3	0	14.0	0
		(12,212.1)	0.4	0	0	0	0
413	Phthalic anhydride	1.6	0	0	0	0.2	0
438	Methylnaphthalene	41.5	0.2	0	0	0	0
448	Methylenebis (4, 1-phenylene) = diisocyanate	19.0	0	0	0	0	0

■ : Specific Class 1 designated chemical substances

* The Pollutant Release and Transfer Register (PRTR) system

Japan's Specified Chemical Substance Law calls for companies using harmful chemical substances to gather data on the amount of harmful chemicals released into the environment and other data as a means of promoting autonomous efforts by those companies to improve their management of such substances and preventing the pollution of the environment by such substances.

Environmental Conservation 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 subsidiaries and affiliates commenced	
1987		• Montreal Protocol on Substances That Deplete the Ozone Layer adopted
1990	• Environmental Issue Action Committee established Appointment of director in charge	
1991	• Recycling Technology Action Office established	• Law Promoting the Use of Recycled Resources enacted
1992	• S.B. Recycle 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	• Environment and Safety Volunteer Plan drafted • Environment and safety management regulations established • Environmental audits of overseas subsidiaries and affiliates commenced	• The Basic Environment Law enacted
1994	• Use of certain CFCs and 1,1,1-trichloroethane ceased	
1995	• Responsible Care Committee established • The Company joined the Japan Responsible Care Council as a founding member	• 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 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	• <i>First Environmental Activities Report</i> 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	• <i>Environmental Report</i> issued (independent reviews conducted)	• Law Concerning Special Measures against PCB Waste enacted
2002	• Scope of <i>Environmental Report</i> expanded to include domestic subsidiaries and affiliates • Tokyo Kakohin 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 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 <i>Environmental Report</i> changed to <i>Environmental & Social Report</i> to reflect broader coverage of social initiatives • Sumitomo Bakelite (Taiwan) recognized as the Sumitomo Bakelite Group's first overseas zero emissions production business site	• 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	• Thirty of the business sites of the Sumitomo Bakelite Group in Japan and overseas had obtained ISO 14001 certification. • Start of soil and groundwater pollution remediation measures at a site owned by Sano Plastic following the dismantling of a factory building there • Signed Responsible Care Global Charter	• G8 Hokkaido Toyako Summit
2009	• Inauguration of multilingual Material Safety Data Sheet (MSDS) system • Began participating as a partner in the Declaration of Biodiversity of the Japan Business Federation (Nippon Keidanren)	• Revised Act on the Rational Use of Energy took effect • 15th Conference of the Parties (COP15) held with the UN Climate Change Conference (Copenhagen Summit)
2010	• Establishment of the Environmental Impact Reduction Committee • The Sumitomo Bakelite Group began leakage risk assessments at its business sites in Japan and overseas.	• 10th Conference of the Parties (COP10) to the Convention on Biological Diversity
2011	• Presentation to Tochigi Prefecture of the report on the remediation construction work conducted at the Sano Plastic site • Standards for preparation of the <i>Environmental & Social Report</i> were changed to conform with the GRI guidelines	• The 17th Conference of Parties (COP17) to the United Nations Framework Convention on Climate Change • The Great East Japan Earthquake

Items in blue represent developments in international society.

Memberships in Leading Organizations (Qualifying Names of Groups Have Been Omitted)

Name of Organization	Role of Sumitomo Bakelite
Keidanren (Japan Business Federation)	Participates in the Nature Protection Deliberation Council, the 1% (One Percent) Club, and other activities
Japan Thermosetting Plastics Industry Association	Participates in the phenol resin/amino resin extrusion materials subcommittee, laminated panel subcommittee, phenol resin subcommittee, adhesives subcommittee, melamine resin decorative panel subcommittee, electronics materials subcommittee, and environment/recycling research subcommittee
The Japan Chemical Industry Association	Participates in the Responsible Care Committee and chemical products management committee
The Japan Plastics Industry Federation	Participates in the chemical substance management committee
Japan Plastic Sheet Association	Participates in the polyvinyl chloride sheet subcommittee, corrugated sheet subcommittee, PC sheet subcommittee, environmental committee, and Japan PCV Environmental Affairs Council as a member of environmental committees
Japan Electronics Packaging and Circuits Association	
Japan Medical Devices Manufacturers Association	Participates in the raw materials committee, pharmaceutical law committee, distribution committee, microbe reduction committee, and other committees
Japan Chemical Exports and Imports Association	Participates in the chemical substance safety, environmental committee

GRI Content Index

With respect to the GRI Application Levels system for evaluating the level of compliance with version 3 of the GRI Sustainability Reporting Guidelines (G3), this year's *Environmental & Social Report* corresponds to Application Level B+. This self-declaration falls within the scope of items externally assured by KPMG AZSA Sustainability Co., Ltd.

Report Application Level	C	C+	B	B+	A	A+
Standard disclosures	G3 Profile Disclosures OUTPUT	Report on: 1.1 2.1.-2.10 3.1-3.8, 3.10-3.12 4.1-4.4, 4.14-4.15	Report on all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5-4.13, 4.16-4.17	Same as requirement for Level B		
	G3 Management Approach Disclosures OUTPUT	Not Required	Management Approach Disclosures for each Indicator Category	Management Approach Disclosed for each Indicator Category		
	G3 Performance Indicators & Sector Supplement Performance Indicators OUTPUT	Report on a minimum of 10 Performance Indicators, including at least one from each of: Economic, Social, and Environmental	Report on a minimum of 20 Performance Indicators, at least one from each of: Economic, Environmental, Human Rights, Labor, Society, Product Responsibility	Report on each core G3 and Sector Supplement* indicator with due regard to the Materiality Principle by either: a) reporting on the Indicator or b) explaining the reason for its omission		
		Report externally assured	Report externally assured	Report externally assured		

* Sector supplement in final version

Item	Indicator	Items Disclosed on Related Pages in This Report
1. Strategy and Analysis		
1.1	Statement from the most senior decision maker of the organization (e.g., CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy.	2
1.2	Description of key impacts, risks, and opportunities.	2
2. Organizational Profile		
2.1	Name of the organization.	3
2.2	Primary brands, products, and/or services.	3, 5, 6
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures.	4
2.4	Location of organization's headquarters.	3
2.5	Number of countries where the organization operates and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	4
2.6	Nature of ownership and legal form.	3
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries).	3-6
2.8	Scale of the reporting organization, including: • Number of employees; • Net sales (for private-sector organizations) or net revenues (for public-sector organizations); • Total capitalization broken down in terms of debt and equity (for private-sector organizations); and • Quantity of products or services provided.	3
2.9	Significant changes during the reporting period regarding size, structure, or ownership, including: • The location of, or changes in operations, including facility openings, closings, and expansions; and • Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private-sector organizations).	1
2.10	Awards received in the reporting period.	Not Applicable
3. Report Parameters		
Report profile		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided.	1
3.2	Date of most recent previous report (if any).	1
3.3	Reporting cycle (annual, biennial, etc.).	1
3.4	Contact point for questions regarding the report or its contents.	See back cover

Item	Indicator	Items Disclosed on Related Pages in This Report
Report scope and boundary		
3.5	Process for defining report content, including: • Determining materiality; • Prioritizing topics within the report; and • Identifying stakeholders the organization expects to use the report.	1
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers).	1
3.7	State any specific limitations on the scope or boundary of the report.	1
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations.	1
3.9	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	32, 45
3.10	Explanation of the effect of any re-statements of information provided in earlier reports and the reasons for such re-statement (e.g., mergers/acquisitions, change of base years/periods, nature of business, measurement methods).	19, 29, 45
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	Not Applicable
GRI content index		
3.12	Table identifying the location of the Standard Disclosures in the report.	55, 56
Assurance		
3.13	Policy and current practice with regard to seeking external assurance for the report.	57
4. Governance, Commitments, and Engagement		
Governance		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight.	15
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement).	15
4.3	For organizations that have a unitary board structure, state the number of members of the highest governance body that are independent and/or non-executive members.	15

Item	Indicator	Items Disclosed on Related Pages in This Report
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body.	16, 28
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance).	15
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided.	15
4.7	Process for determining the qualifications and expertise of the members of the highest governance body for guiding the organization's strategy on economic, environmental, and social topics.	15
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation.	13
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles.	14
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance.	14
Commitments to external initiatives		
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization.	26
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses.	2
4.13	Memberships in associations (such as industry associations) and/or national/international advocacy organizations in which the organization:	54
4.14	List of stakeholder groups engaged by the organization.	14
4.15	Basis for identification and selection of stakeholders with whom to engage.	14
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group.	14
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	7~10

Management Approach and Performance Indicators

Item	Performance Indicator: Core ●/Additional ○	Items Disclosed on Related Pages in This Report
Economic		
	Management Approach	13, 28
Economic performance		
● EC3	Coverage of the organization's defined benefit plan obligations.	29
Environmental		
	Management Approach	13, 14, 17, 19, 45
Materials		
● EN1	Materials used by weight or volume.	18
Energy		
○ EN7	Initiatives to reduce indirect energy consumption and reductions achieved.	46
Water		
● EN8	Total water withdrawal by source.	18
Biodiversity		
○ EN14	Strategies, current actions, and future plans for managing impacts on biodiversity.	23

Item	Performance Indicator: Core ●/Additional ○	Items Disclosed on Related Pages in This Report
Emissions, effluents, and waste		
● EN16	Total direct and indirect greenhouse gas emissions by weight.	18, 19, 20, 45, 46
● EN17	Other relevant indirect greenhouse gas emissions by weight.	46
○ EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved.	19, 20
● EN20	NO, SO, and other significant air emissions by type and weight.	22
● EN23	Total number and volume of significant spills.	45
○ EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally.	Not Applicable
Compliance		
● EN28	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.	15
Labor Practices and Decent Work		
	Management Approach	13, 14, 17, 29~32
Employment		
● LA1	Total workforce by employment type, employment contract, and region.	29
Occupational health and safety		
● LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region.	32, 33
● LA8	Education, training, counseling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases.	30
Training and education		
○ LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.	30, 31
Human Rights		
	Management Approach	29, 31
Non-discrimination		
● HR4	Total number of incidents of discrimination and actions taken.	15
Society		
	Management Approach	13, 15
Anti-competitive behavior		
● SO7	Total number of legal actions for anticompetitive behavior, anti-trust, and monopoly practices and their outcomes.	15
Compliance		
● SO8	Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with laws and regulations.	15
Product Responsibility		
	Management Approach	13, 24~26
Customer health and safety		
● PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.	24~26
○ PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.	15
Customer privacy		
○ PR8	Total number of substantiated complaints regarding breaches of customer privacy and loss of customer data.	15
Compliance		
● PR9	Monetary value of significant fines for noncompliance with laws and regulations concerning the provision and use of products and services.	15

Independent Assurance Report



Independent Assurance Report

To the President 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 and Social Report 2012 (web version) (the "Report") for the fiscal year ended March 31, 2012. 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 marked with  for the period from April 1, 2011 to March 31, 2012 included in the Report (the "Indicators") are prepared, in all material respects, in accordance with the Company's reporting criteria;
- all the material sustainability information defined by the Japanese Association of Assurance Organizations for Sustainability Information ("J-SUS") is included in the Report; and
- the Company's self-declaration on the Global Reporting Initiative ("the GRI") application level (B+) conforms to the application level criteria stipulated by the GRI.

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 and Sustainability Reporting Guidelines 2006 of the GRI. 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. For the GRI application level, we used the criteria stipulated by the GRI.

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.
- Reviews of the Company's reporting criteria.
- Inquiries about the design of the systems and methods used to collect and process the Indicators.
- Analytical reviews of the Indicators.
- 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 the Company's overseas and domestic factories selected on the basis of a risk analysis.
- Assessment of whether or not all the material sustainability information defined by J-SUS is included in the Report.
- Evaluating the Company's self-declared GRI application level against the application level criteria.
- Evaluating the overall statement in which the Indicators are expressed.

Conclusion

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;
- all the material sustainability information defined by J-SUS is not included in the Report; and
- the Company's self-declaration on the GRI application level does not conform to the application level criteria.

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 24, 2012



This mark indicates that the reliability of the sustainability information contained in this report 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.



SUMITOMO BAKELITE CO., LTD.

Contact: EHS Promotion 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/>

