SUMITOMO BAKELITE CO., LTD.

CSR Report 2017

Corporate Message

Expanding the Possibilities of Plastics to Contribute to Establishing a Sustainable Society

Emphasizing environmentally and socially responsible management, Sumitomo Bakelite offers products that are safe and reliable for diverse applications in wide ranging fields extending from telecommunications, automotive and medical to food and construction.
The history of plastics in Japan goes back more than one hundred years and today plastics play a role in every aspect of our lives. But how will plastics be used in the future? Expect innovation triggered by technical progress together with the rapid evolution of sophisticated new needs in the market.

Sumitomo Bakelite is committed to offering life-enhancing products through high performance manufacturing.

Contents

Editorial Policy

This report presents the Sumitomo Bakelite Group's CSR activities in fiscal 2016 clearly and succinctly to facilitate communication with all stakeholders. In March 2017 the Responsible Care Committee determined the content and the editorial policy of the report based on consideration of the principal issues concerning the Company and its stakeholders, in light of the views expressed by our stakeholders and the trends influencing society.
The 2017 edition is made available in an abridged print version focusing on the activities and messages of the Sumitomo Bakelite Group that we want stakeholders to know and a full online version containing further details including our approaches to various activities, targets, and results. Additionally, this report features Universal Design Font and was written in a simple, concise manner that is easy to understand by all.

The full online version:

1 was prepared in accordance with the core option of the G4 Sustainability Reporting Guidelines, Global Reporting Initiative.

2 receives the independent assurance by KPMG AZSA Sustainability Co., Ltd. to attest to its credibility. The indicators that are assured are marked with ☑.

● Period
In principle, the report covers fiscal 2016 (April 2016 through March 2017). Cases in which the coverage is different from this period are indicated.

● Published
November 2017 (The Fiscal 2016 Report was published in October 2016 and the Fiscal 2018 Report will be published in September 2018)

● Boundary
(The names of the companies are generally stated in simplified forms by omitting "Co., Ltd." and "Inc.," etc.)
In principle, this report covers Sumitomo Bakelite Co., Ltd. and its consolidated subsidiaries. Regarding environmental and occupational health and safety, the coverage is limited to the following business sites, which are mostly production sites.

Japan

Sumitomo Bakelite
Head Office and marketing offices etc.*1, Amagasaki Plant, Kanuma Plant, Utsunomiya Plant, Shizuoka Plant, Kobe Facility Office Akita Sumitomo Bakelite, S.B. Techno Plastics, Hokkai Taiyo Plastic, Yamaroku Kasei Industry, Kyushu Sumitomo Bakelite, S.B. Sheet Waterproof Systems, Tsutsunaka Kosan, S.B. Research Osaka Center, Seibu Jushi, Softec*1, Thanxs Trading*1

Overseas*2

Sumitomo Bakelite Singapore, SumiDurez Singapore, SNC Industrial Laminates, Indopherin Jaya, SBP Indonesia, Sumitomo Bakelite (Suzhou), Sumitomo Bakelite (Dongguan), Sumitomo Bakelite (Shanghai), Sumitomo Bakelite Macau, Sumitomo Bakelite (Nantong), Sumitomo Bakelite (Taiwan), Vaupell China Molding & Tooling (VCH), Durez Corporation, Durez Canada, Sumitomo Bakelite North America, Promerus, Sumitomo Bakelite Europe, Sumitomo Bakelite Europe (Barcelona), Vyncolit, Vaupell Northwest (VNW), Vaupell Northeast (VNE), Vaupell Midwest (VMW), Rapid Solutions (VRS), and Russell Plastics (Vcomp)

*1 These business sites and companies are included in the compilation of energy consumption and CO_2 emissions data.
*2 Neopreg closed in fiscal 2016; therefore, it has been removed from the boundary.
Note: In this report, the names of Sumitomo Bakelite Co., Ltd. and its Group companies may be stated in simplified forms by omitting "Co., Ltd." and "Inc.," etc. Quantitative data presented in this report are rounded, in principle. Therefore, in certain cases, the sum of breakdowns may not equal the total.

Tackling New Challenges and Evolving in the Wake of Social Change

A Century of Continually Supporting Society as a Pioneer of Plastics

Watanabe As a consumer, I feel like I use plastics on a daily basis. Could you describe your company's success and development process as a pioneer of plastics?

Hayashi It is no exaggeration to say that plastics are one of the materials that have evolved the most since the Industrial Revolution. The world's oldest plastic was made from phenolic resin, which was first developed in 1907 by Dr. Leo Baekeland in the United States. He named this invention Bakelite, which is the origin of our company name. Today, plastics are used in a certain form in everything from airplanes and automobiles to home electronics, semiconductors, and daily essentials. The history of industry is one in which naturally-derived materials such as iron, aluminium, hemp, and silk, among others, have been replaced with plastics.

Pride of the Materials Industry Underpinning the World Economy's Infrastructure

Watanabe Fiscal 2016 was the first year of your company's mid-term business plan. How was the operating environment in fiscal 2016?

Hayashi In recent years, our group has faced a number of challenges in Japan, including a declining birthrate and aging population and the hollowing out of industry. This is why we have worked to rebuild our businesses with greater focus on addressing risk, which has included improving business processes and M&A of overseas companies. In fiscal 2016, we just missed the ¥200 billion mark in terms of net sales, but we were able to reach our initially planned milestone for operating income of ¥15.5 billion*[1]. Overall we became a stronger company. Nevertheless, I believe we must evolve further in order to build a business structure that helps resolve social issues while generating higher added value by harnessing our accumulated technologies as a pioneer of plastics.

Watanabe Is it correct to say your company's identity is fulfilling a responsibility to enhance management and be of greater use to society by providing high quality products to stakeholders?

Hayashi Yes, that's exactly our identity. The most important element determining whether we can be of use to society and increase profits is the type of value we deliver to customers. From the perspective of a manufacturer of finished goods, materials manufacturers are nearly always viewed as a tier-three supplier, under tier-one and tier-two suppliers. In other words, our mission is to provide value to tier-one and tier-two suppliers by helping create better components. This is why our most cherished desire is to correctly identify business themes and needs from tier-one and tier-two suppliers, build positive relationships with them, and play a helping hand in development as a key partner.

Watanabe The importance of companies doing much of the work behind the scenes is immeasurable for consumers. For example, in news broadcasting, we check the authenticity of news stories as a team and only broadcast them after detailed vetting. Viewers know that the process behind the scenes leading up to the actual broadcast is the most important. In the case of your company, does this means that you form a piece of social infrastructure from the sense that plastics support our daily lives?

Hayashi Semiconductors represent one of our products that is contributing to society as a form of infrastructure. Today, semiconductors are used in just about every aspect of our lives, from airplanes and automobiles to home electronics and mobile phones. We maintain a high worldwide market share in epoxy molding compounds for encapsulation, which protects and is essential to ensure the quality of semiconductors.

Watanabe The pride that your company's products are essential to our lives and help underpin the very fabric of society in unforeseen places must be a source of pride for the company. Could you share some of the areas where you expect to see growth in the future?

Hayashi In our mid-term business plan, we have decided to concentrate resources on four areas. First is automotive parts, where we excel the most. The fact that plastics are being used as an alternative to metal to reduce the weight of vehicles is becoming a driving force behind growth. The use of electronics in automobiles continues to accelerate, given advancements in autonomous driving systems and in China spurred on by government subsidies aimed at promoting the spread of eco cars (electric cars [EV] and others) due to environmental regulations. This is a very promising market and I believe we can directly capitalize on our accumulated technologies and knowledge.

Watanabe Autonomous driving systems are in the testing stage and EVs have already hit the market. This area could see a sudden acceleration in demand given the efforts of each country to cut back on CO_2 emissions for environmental reasons.

Hayashi Going forward, there will be growing demand for rationalization, lighter, thinner, shorter and smaller designs, and speeding up of the manufacturing process. Currently, we have laboratories in Japan, China and Singapore, where we are building a system for development involving open innovation together with our customers. We have already implemented open innovation for two-wheeled vehicles, and now we will do the same for four-wheel vehicles. We will also look to set up open laboratories in Europe and North America so that we work with manufacturers from around the world on new product development using our tools and resins.

Watanabe It's wonderful to be able to work together with partners from around the world. I'm excited to think about the useful new products that could be coming our way in the future.

Hayashi The second core area is aircraft interiors. This area, too, faces the never-ending challenge of finding ways to reduce weight. This represents another area where we can capitalize on the technologies we have developed for automotive parts. In 2014, we acquired Vaupell, a tier-one supplier for aircraft manufacturer Boeing, marking our full fledged entry into the field. We are aiming to establish a model where we combine our added value as a tier-three materials manufacturer with Vaupell's molding, coating

*1 Profit in real terms that excludes actuarial differences from retirement benefit accounting

and assembly processes to become an integrated supplier for all aircraft manufacturers.
The third area is highly integrated devices. As I noted earlier, the semiconductor field will underpin the new infrastructure of the future, such as next-generation power devices, next-generation memory, and high speed telecommunications devices, among others. Leveraging our advanced technologies, we will contribute to the evolution of society by continually delivering even greater added value.

Watanabe All of your company's technologies are connected to our future lifestyle. In this sense, I wonder what you have in store for the fourth core area of health care, as this is even more familiar to us.

Hayashi We have engaged in medical related businesses for about half a century, but growth has been sluggish. Medical devices are classified from Class I to Class IV to indicate the risks and effects on human life. We have developed products in the Class I and Class II categories that have a lower degree of impact. However, the technical barrier for these devices is not particularly high, so they have become generalized. Therefore, we launched R&D over 10 years ago with the goal of developing Class III and Class IV medical devices. Among these, our steerable microcatheter received FDA approval in 2016 after being approved in Japan, and now the business has started to take off. This is a revolutionary product because its articulating tip can be moved freely in all directions without the need for a guidewire, compared to conventional catheters that can only be maneuvered in a straight line. Physicians can smoothly insert the catheter and adjust its position in curving veins using the handheld dial while looking at x-ray images. Initially, we developed the steerable microcatheter to treat liver cancer, but it is expected to be used for visceral artery aneurysms, abdominal aortic aneurysms, and uterine fibroids, as well. In the future, we hope to create catheters that can treat brain tumors and even cerebral infarction.

Watanabe No matter how skilled a physician may be, they cannot treat an illness without the right medical devices. In this sense, your steerable microcatheter represents a marked advance and reduction in burden for not only medical professionals, but also patients, too.

Hayashi During the development phase, we worked closely with a number of leading physicians in Japan and abroad. We hope to expand the possibilities of endovascular treatment so as to reduce the burden placed on patients as much as possible.

President and Representative Director

Shigeru Hayashi

Joined Sumitomo Bakelite in 1970. Appointed General Manager of Curing Materials in the Molding Materials Business Marketing Division in 1991; General Manager of the Utsunomiya Plant in 1992; General Manager of Molding Material at the Osaka Branch in 1995; General Manager of the Molding Materials Business Marketing Division in 1997; General Manager of the Functional Molding Materials Business Marketing Division in 1999; and Director in 2000. After serving as Vice President from 2008, appointed President in 2010. Chair of the CS Promotion Committee since 2006.

Reducing Food Loss and Contributing to Agriculture as a Business

Watanabe As a consumer, I'm interested to know more about your company's food packaging products.

Hayashi I think the product you are talking about is P-Plus® freshness preserving film for fruits and vegetables.

Watanabe I see this product is already being used by many convenience stores and supermarkets for freshly cut vegetables.

Hayashi P-Plus® helps to significantly reduce food loss because it extends the shelf life of vegetables. This also has a huge benefit economically, and I feel it contributes a great deal to society from the standpoint of reducing food loss. P-Plus® locks in freshness, too, so it is now being used to export Japan's high quality agricultural produce to overseas markets. It has created quite a buzz, actually.

Watanabe Food issues will become even more critical in the future, so it is very important to find ways to reduce waste.The quality of Japan's agricultural produce is extremely high, and although there is strong demand overseas, I hear that distribution hurdles remain high. Therefore, I feel P-Plus® is a technology with great future potential for addressing these issues.

Aiming for a Better Tomorrow with Stakeholders

Watanabe As a manufacturer that owns and operates factories, what are your thoughts regarding the relationship between environmental issues and local communities?

Hayashi We use nature's bounty such as raw materials and energy to power our businesses, but we also have direct and indirect impacts on the environment from waste as well as the discharge of chemicals and effluent. Reducing environmental impacts from our businesses and implementing initiatives for environmental conservation represent the absolute bare minimum we must do. Therefore, as one of our efforts, we created the biotope called "Ikoi no Mori" (Calming Woods) at our Shizuoka Plant, which is helping to preserve local biodiversity. In this way, we are protecting flora and fauna that have lived in the local area since ancient times, including the prefecture's endangered killifish and kingfisher. Our biotope is also open to local residents for use as a place of recreation and learning.

Watanabe Hearing about the company's many initiatives, I recognize the involvement of employees plays an indispensable role in your company's growth. Over the past several years, the importance of diversity, including the greater involvement of women in the workplace, is garnering a great deal of attention in Japan. What type of initiatives is your company implementing in this regard?

Hayashi It should be second nature to develop human resources and provide workplaces where everyone can be actively involved, regardless of nationality or gender. However, the nature of our business is rather unique, so we still face challenges in terms of women's empowerment. This includes the clear issues of having few female managers and the average years of service of women in career-track positions is short. As a result, we have created an action plan to address these issues. We have set a goal to double the number of female managers compared to fiscal 2014 over the four-year period from April 2016. Under this action plan, we are now working on educating employees about our programs, changing our workplace culture, fostering professional mindsets, and increasing the number of women we hire.

Watanabe In closing, what path will your company follow in the future and what are your expectations for the future?

Hayashi The fact more than 100 years have passed since our founding demonstrates we have overcome a number of market changes and upheavals in business climate. In recent years, we have faced difficult challenges due to globalization, and changes in industrial structure, society and the environment. Nevertheless, we find ourselves at a stage for our next evolution thanks to our long-standing technologies and the support of stakeholders. To achieve this evolution, we must create new products that resolve social issues as well as generate economic and social value, while building relationships with customers, under the basic policy of giving customer satisfaction the utmost priority. Expanding this new value globally will enable us to contribute to the planet, society, and people's lives.

Today, we have operations in 15 countries and regions around the world. I feel it of equal importance to fulfill our social responsibilities by making efforts to comply with local laws and understand the culture, enhancing and reinforcing corporate governance, and giving consideration to the environment and safety as a chemicals company. Going forward, we will support and follow the Responsible Care Global Charter that calls for companies to voluntarily implement and continually improve environmental, health and safety measures.

Newscaster

Mari Watanabe

Joined Tokyo Broadcasting System Television, Inc. in 1990. Served as an anchorwoman for various programs including Tetsuya Chikushi News 23 and other programs. After becoming a freelance newscaster in 1998, she has appeared in a number of TV programs including News Station and BS Rekishikan, among others.

Sumitomo Bakelite's Materiality

We identified Sumitomo Bakelite's materiality (priority items) in order to determine the social issues we should address and to carry out CSR activities closely in tune with the needs and expectations of stakeholders in an integrated manner on a company-wide basis.
In fiscal 2016 and beyond, we will continue to carry out activities that take into account the materiality we have identified.

Materiality determination process (Initiatives for Fiscal 2015)

1 Identification

We selected issues, referencing international guidelines such as G4 Sustainability Reporting Guidelines of the Global Reporting Initiative and ISO 26000, based on our previous efforts in various fields of CSR including the environment, safety and peace of mind, professional motivation, and society, which form part of our fiscal year plan.

2 Prioritization

We assessed the impacts that the identified issues have on the company and on stakeholders. After internal discussions based on the results of this assessment, we selected 14 items with particularly high priority.

3 Confirmation of Validity

Further discussions were held with each business division on these 14 priority items. Next, we narrowed the items down to 11 to focus our efforts based on the results of these discussions. On top of this, we asked outside professionals to review and provide comments on these 11 items. Simultaneously, the Responsible Care Committee confirmed the validity of these items.

Responsible Care Committee

4 Review

We will now implement CSR activities based on the materiality of these 11 items as well as conduct a review led by outside professionals and employees about the nature of these activities. The results of this review will be utilized for corporate social responsibility reports and subsequent years as well as for activity planning.

Initiatives for Fiscal 2016 and Beyond

In fiscal 2016, we conducted an annual review of each business division and made changes to next year's targets based on the materiality items identified through the materiality determination process.
In fiscal 2017 and subsequent years, we plan to implement the plan, do, check, action (PDCA) cycle based on these materiality items.
The results will be utilized to examine future materiality items.

Materiality Items Identified

Materiality items identified using the process outlined on page 8 are as follows. In fiscal 2016, we compared each category of materiality items with the SDGs. Our group will now work on initiatives for materiality items that were identified so as to contribute to the fulfillment of the SDGs.

The SDGs are a set of goals for the time frame from 2016 to 2030 cited in the 2030 Agenda for Sustainable Development adopted at the UN summit held in September 2015.

Field	Materiality item	Related stakeholders	Page number
Issues related to ensuring harmony with environment Related SDGs: 13 CLIMATE ACTION	Mitigate environmental impacts	● Local communities ● Business partners	Full online version pages 35 to 40
	Resource and energy conservation	● Business partners ● Employees	Full online version pages 35 to 40
Issues related to providing safety and peace of mind Related SDGs: 12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Safety and security	● Local communities ● Governments ● Business partners ● Employees	Full online version pages 41 to 43
	Management of chemical substances	● Business partners ● Governments ● Employees	Full online version page 44
	Product liability	● Customers	Full online version pages 45 to 46
Issues impacting society Related SDGs: 8 DECENT WORK AND ECONOMIC GROWTH, 15 LIFE ON LAND	Biodiversity conservation	● Local communities	Full online version page 55
	Improving stakeholder satisfaction	● Customers ● Shareholders ● Local communities ● Governments ● Business partners ● Employees	Full online version pages 47 to 58
	Human resource development	● Employees	Full online version pages 50 to 52
	Work-life balance	● Employees	Full online version page 49
Issues representing the foundation of business activities Related SDGs: 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	CSR procurement	● Business partners	Full online version page 34
	Compliance	● Employees	Full online version pages 31 and 32

Please see page 24 to 25 for more details about our initiatives under each materiality item.

Outside opinion of materiality items

Sumitomo Bakelite Co., Ltd. has made steady progress with its CSR initiatives since it began identifying materiality in fiscal 2015. This report compares Sumitomo Bakelite's materiality with the social issues presented in the SDGs, while this materiality was used when determining the fiscal 2016 CSR action plan, results and assessment and the action plan for fiscal 2017 (see pages 24 and 25). The PDCA cycle is indispensable to continually improve CSR activities in an appropriate manner. As such, I commend the fact that Sumitomo Bakelite's materiality and CSR activity items align with one another.

The process for identifying materiality involves first determining and organizing issues based on such international frameworks as the GRI Guidelines and ISO 26000. Next, Sumitomo Bakelite Co., Ltd. identified 14 items with a high priority given the impacts they have on its stakeholders, and after examining these items further both internally and externally, the company narrowed the 14 items to 11 items. This approach and framework is very logical. However, society is changing continually. I would like Sumitomo Bakelite Co., Ltd. to regularly verify and update its materiality with an eye on the future by establishing a firm grasp of the environment surrounding the company and its stakeholders. It's important that initiatives are not just an extension of the status quo. For example, if Sumitomo Bakelite Co., Ltd. is to pursue the further globalization of its businesses, it can narrow its definition of human resources development to global human resources development. Also, the scope of activities and KPI can be enriched to give greater priority to CSR procurement in the supply chain, which is an issue of growing concern for the world. I have high expectations for Sumitomo Bakelite Co., Ltd. to take its CSR activities to the next level.

Mika Takaoka

Mika Takaoka is a professor at Rikkyo University's College of Business. She has a doctorate in economics and specializes in retail management, franchise systems, sustainable communication and consumer behavior. She also serves as a member on a number of committees, including the Evaluation/Verification Working Group, Global Environment Subcommittee, Industrial Structure Council (for follow-up on the low-carbon society action plan).

Familiar Sumitomo Bakelite Products Around You

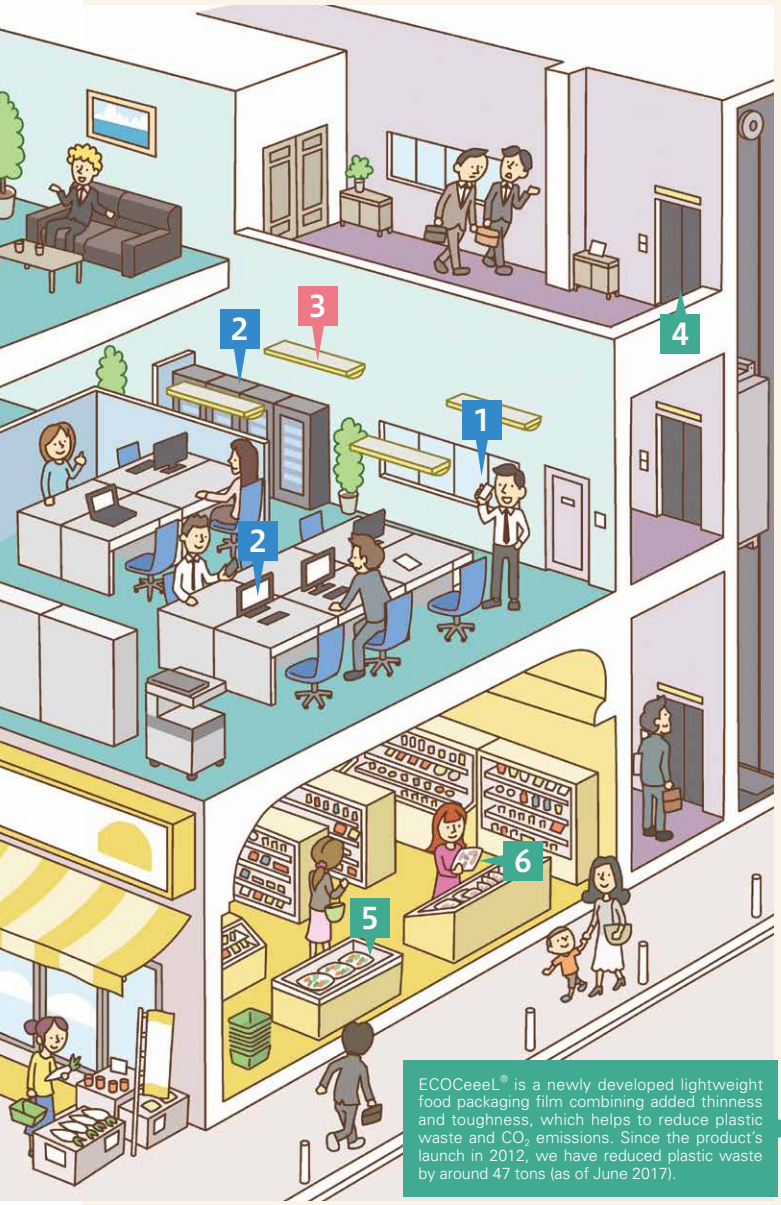
Most of Sumitomo Bakelite's products are processed in various ways after being supplied to customers and then delivered around the world as finished goods. Here, we will introduce a number of products made by our group that are used in various situations and play an important role in our lives.

- ···Semiconductor Materials
- ···High-Performance Plastics
- ···Quality of Life Products

Please visit the "Familiar products of our company around you" page on our corporate website to learn more about the products we make.

Link → http://www.sumibe.co.jp/around_you/en.html

Shop/Office



ECOCeeeL® is a newly developed lightweight food packaging film combining added thinness and toughness, which helps to reduce plastic waste and CO_2 emissions. Since the product's launch in 2012, we have reduced plastic waste by around 47 tons (as of June 2017).

1 Electronic components for computers and mobile phones, etc.

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

We carry a lineup of epoxy resin molding compounds that protect delicate semiconductors from the external environment, including moisture and impacts, contributing to improved reliability.

Semiconductor Package Substrate Materials (LaZ®)

We deliver new value to customers with our substrate material for semiconductor packages called "LαZ," which offers reduced thermal expansion and highly consistent dimensions.

Coating resins for semiconductor wafers (SUMIRESIN EXCEL®CRC)

Coating resins protect semiconductor elements from external stress and impurities, greatly improving reliability.

Paste for Die Bonding (SUMIRESIN EXCEL®CRM)

Semiconductor paste is used to attach semiconductor chips or LED chips to various substrates (lead frames, organic substrates, ceramic substrates).

2 Optical circuit products for servers, etc.

Optical waveguide sheets

Optical waveguide sheets are film-like materials for optical circuits. They are very flexible and easy to form into any shape, making them ideal for not only data communications, but various other purposes as well.

3 Lighting substrates

Copper-clad laminates (SUMILITE®ELC/ALC)

Composite materials and aluminum substrates with excellent heat dissipation are used in LED lighting applications, helping to reduce energy usage.

4 Interior materials of elevators and office walls

Melamine-Faced Decorative Sheets (DCOLA INNOVAIR®)

Our decorative melamine laminates, just 0.2mm thick, are used for walls and elevators in buildings, hotels, shops, and hospitals.

5 Freshness preserving films (for fruit and vegetables and cut vegetables, etc.)

Freshness Preserving Films (P-Plus®)

This cling wrap slows deterioration in quality of fruits and vegetables in transit and storage, maintaining them as fresh as possible at the point of sale.

6 Food packaging films for ham, sausage, etc.

Multilayered Films for Food Packaging (SUMILITE®CEL)

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

Car

7 Semiconductor material for electronic controls

Epoxy Resin Molding Compounds for Encapsulation of Electrical Components (SUMIKON® EME)

These products are used as bulk encapsulation materials for specialized electronic control units (ECU) that need to be highly reliable and work in high-temperature and harsh environments, which results in smaller, lighter weight, and lower cost designs.

8 Substrate for electronic devices such as car navigation and car audio

Copper-Clad Laminates (SUMILITE® ELC)

Our highly heat-resistant substrate material is used in electronic control circuit boards improving fuel economy and riding comfort.

9 Tire reinforcement

Tire-Reinforcement Material (SUMILITERESIN® PR)

Our phenolic resins are added to the rubber components required for the tire stiffness, contributing to improved rolling resistance in fuel conserving tires.

10 Material for powered parts
11 Material for disk brakes

Materials for Pulleys and Disc Brake Pistons (SUMIKON® PM)

Phenolic resin molding material used in auxiliary engine parts and brake components requiring high heat resistance and strength. This material contributes to automobile weight reduction and fuel economy.

12 Polarizing plate for sunglasses, etc.

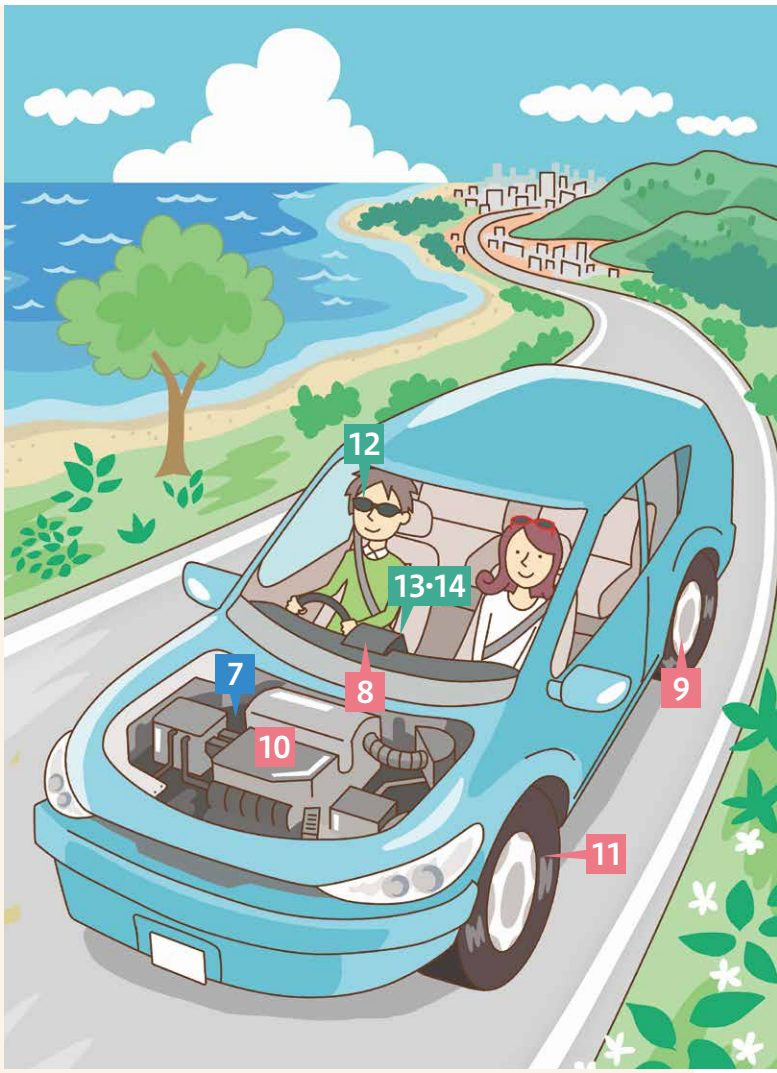
Polycarbonate polarizing sheets

Made from polycarbonate with excellent optical qualities and impact resistance for safer and more comfortable vision.

13 Covers for head-up displays

Polycarbonate Sheets (Coated PC sheets)

Excellent optical qualities contribute to high resolution and brightness in projection images.

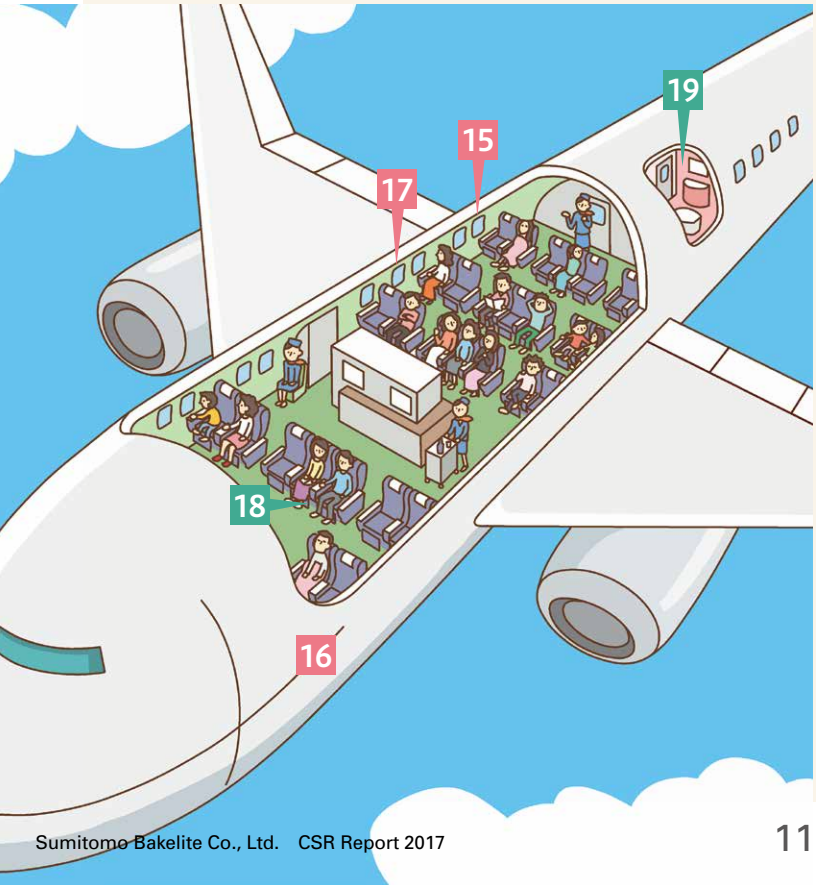


14 Display panel of in-vehicle meters and In-vehicle center panel

Polycarbonate Sheets (Extruded PC sheets)

Offers improved reliability and visual design of instruments because it is made from polycarbonate sheets with excellent printability and moldability.

Aircraft



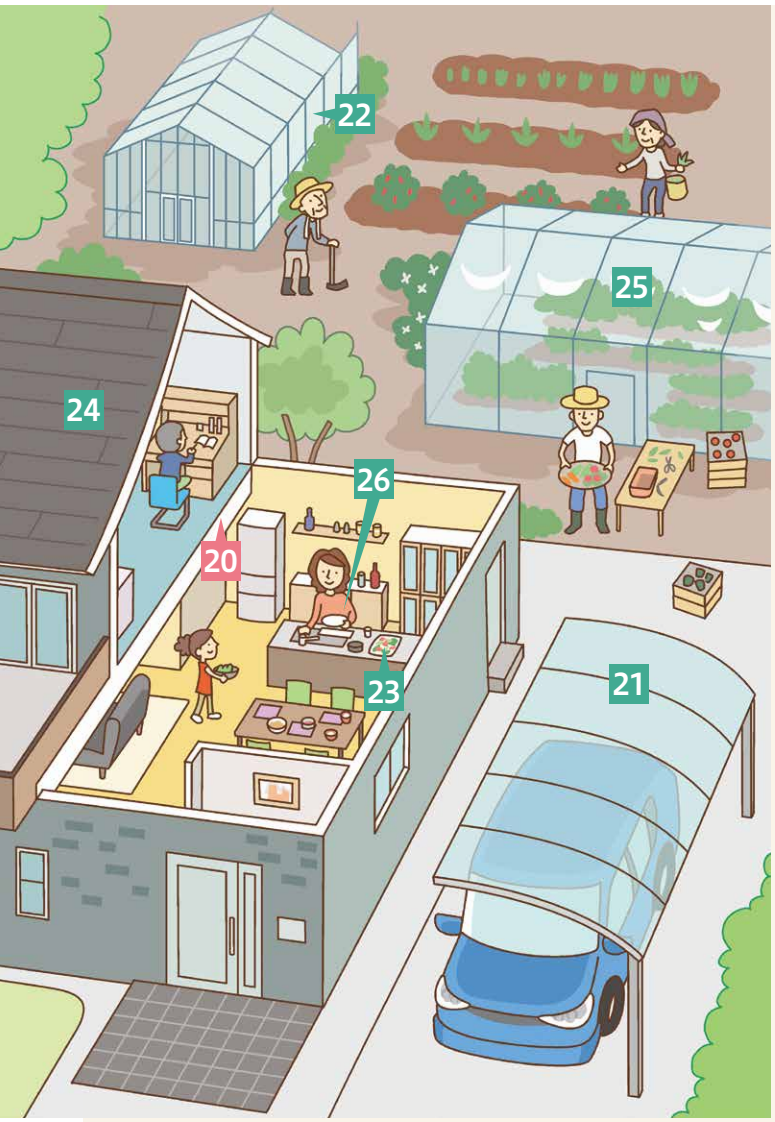
15 Window assembly
16 Ventilation lid (for cabin pressure adjustment)
17 • Air outlet valves • Service unit for AC, lights, etc. (for passengers) • Seat markers

High performance plastics for metal replacement achieve weight saving, low-fuel consumption, and a comfortable environment for passengers.

18 Seat tables
19 Lavatories

KD, Acrylic-modified PVC Plate

Having many superior properties such as flame retardancy and impact resistance, these plates are used for various applications such as interior decoration for aerospace transportation and trains.



House/Farms

20 Plywood adhesive used for floors, walls and residential fixtures

Adhesives for Plywood Production and Boards (Sumitac)

This adhesive uses low formaldehyde phenol that cures quickly at low temperatures, improving the productivity of plywood manufacturing and contributing to protecting the environment.

21 Carport roofs

Polycarbonate Plates (Extruded PC Plates)

Having outstanding impact resistance and transparency, these plates are applicable for construction and architectural needs such as canopies and windows.

22 Film for greenhouse sides (walls)

Polycarbonate Films for Agricultural Use

These films have various properties of polycarbonate material, such as transparency and impact resistance. They can be used for covering the lower part of greenhouses and other covering materials.

23 Freshness preserving films (fruit and vegetables and cut vegetables, etc.)

Freshness Preserving Films (P-Plus®)

This cling wrap slows deterioration in quality of fruits and vegetables, maintaining them in a fresh state for a longer time. Our lineup includes not only films for commercial applications, but also zipper bags for home use.

24 Waterproofing sheets/systems for roofs

Waterproofing Sheets and System (SUNLOID DN®)

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

25 Greenhouse roof material

Polycarbonate Plates (Extruded PC Corrugated Sheet)

Transparent corrugated plate made of polycarbonate, with excellent impact strength as well as weather resistance. It also has excellent heat insulation and thermal resistance. A plentiful assortment of colors is available for a wide range of uses.

26 Plastic chopping boards

Plastic Chopping Boards (MYKITCHEN®)

Since developing the first plastic chopping board in Japan (MYKITCHEN®), we have developed a number of kitchen utensils under the theme cleanliness and hygiene that meet various needs from commercial to common kitchens, including the Super Heat Resistant Chopping Board, which offers excellent heat resistance and disinfecting qualities.

Medical

27 Packaging material for pharmaceutical products

Push-through pack (PTP) packaging materials for pharmaceuticals (SUMILITE® VSS)

These materials help maintain the quality of a wide range of drugs that require careful attention to sanitation and safety.

28 Plastic labware for cell culture

Laboratory wares (SUMILON®)

Wide variety plastic labware for cell culture including dish, plate, flask, and cyogeenic vial.

29 Testing kits

Bio-related Products (S-BIO®)

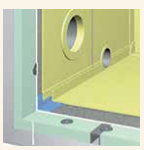
S-BIO chips and beads help to reduce waste and lower costs by downsizing and speeding up analysis and testing of biological specimens.

30 Medical devices for gereral surgery
31 Medical devices for patient drainage and nutrition management

Medical and Therapeutic Devices (sumius®)

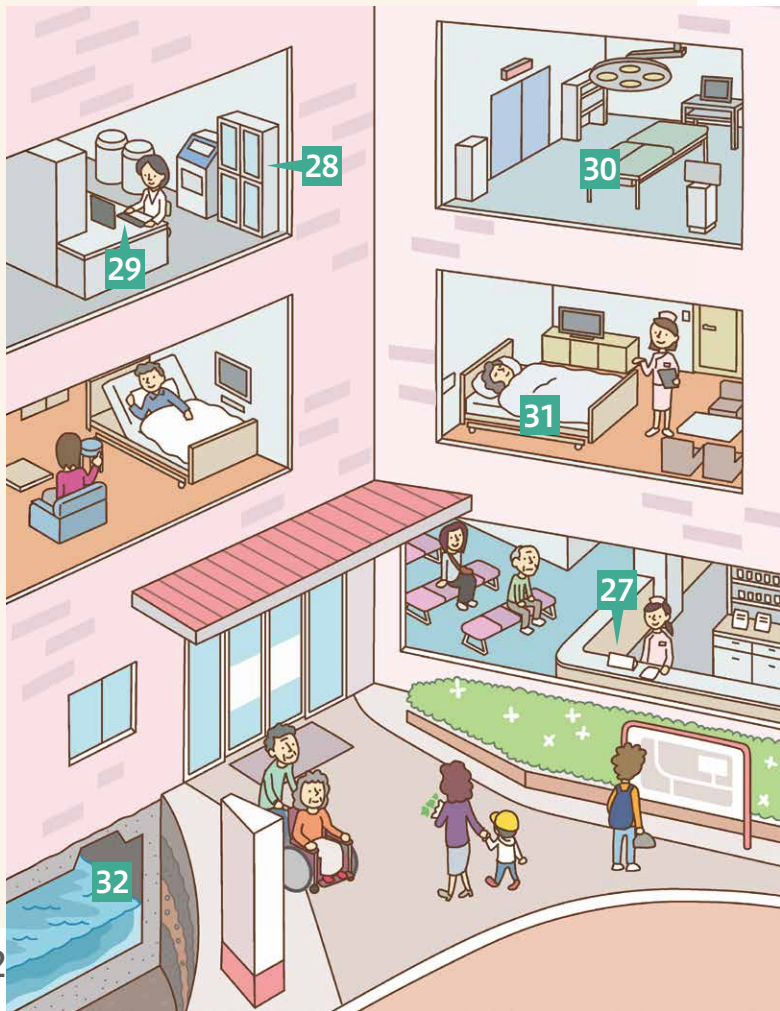
Our medical equipment contributes to safety and reliability in healthcare, supporting everyone's health.

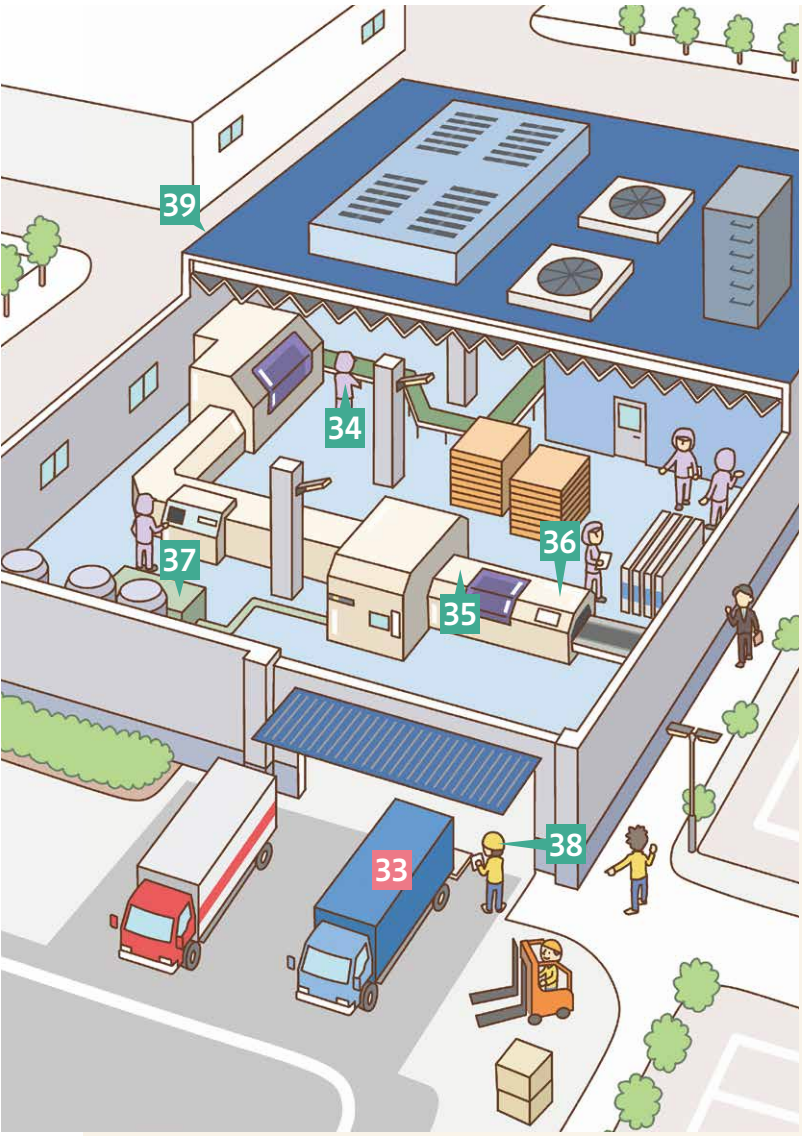
32 Energy-saving heat storage tank waterproofing system



Thermal insulation and waterproofing Sheets & System (for thermal storage tanks of energy conservation systems)

Regenerative heat pumps contribute to energy savings. Our waterproofing and insulation system for heat storage tanks supports the energy saving activities in urban cities.





Factory

33 Purifying water for nitrogen compounds from diesel engine gas exhaust

*Diesel Exhausts Fluid (AdBlue)**

This high purity urea water is used in systems for lowering nitrogen oxide from diesel exhaust, contributing to protecting the environment.

*AdBlue® is a registered trademark of the Association of German Chambers of Commerce and Industry.

34 Manufacturing facility covers, security windows, partitions, etc.

Multilayered Films and Sheets for Industrial Use (SUMILITE® CEL)

Our PVC Heat Resistant Plate offers heat resistance for industrial use, corrosion resistance, and chemical resistance.

35 Packaging, transport, and mounting tape for semiconductor parts, etc.

Cover Tapes for mounting semiconductors (SUMILITE® CSL)

Our tape is used for transferring and mounting semiconductors, playing a role in protecting semiconductors from static electricity.

36 Wafer adhesive tape used for dicing process of semiconductor parts

Tape for dicing process in semiconductor and related field (SUMILITE® FSL)

Tape for the dicing process in semiconductor and related fields. Dicing tape is designed to meet a variety of customers' requirements.

37 Manufacturing facility covers, security windows, partitions, etc.

PVC Plate (PVC Heat Resistant Plate)

These products have excellent corrosion resistance and chemical resistance, and used under high-heated condition.

38 Helmets

Safety Helmets (SUMI HAT®)

Our helmets are used at both factories and plants as well as for disaster relief operations because they offer advanced safety features, comfort and vents.

39 Roof waterproofing structures/systems

30-minute Roof Fire Retardant & Waterproofing Method (SUNBRID)

A light weight and insulating rooftop waterproofing structure made from waterproof sheets with excellent durability and heat shielding performance, which helps conserve energy and lower life cycle costs (LCC).

Train/Station

40 Ceilings, doors, walls, etc.

Aluminum based decorative laminates (ALUMI DECOLA®)

Having flame retardancy, light weight, and design variations, ALUMI DECOLA® products are used for interior materials of railway vehicles and busses, and contribute to comfortable spaces of vehicles.

41 Armrests and tables for seats

KD, Acrylic-modified PVC Plate

Having many superior properties such as flame retardancy and impact resistance, these plates are used for various applications such as interior decoration of aerospace transportation and trains.

42 Station billboard material

Acrylic Light Guide Panel (LUMI-KING)

Our acrylic light guide panels for signboards and lighting applications are used for sign panels, ornamentation, and illumination in shops.


Endoscopy


IVR


Drainage


Nutrition

Special Feature 1

Saving Lives with Technology

Sumitomo Bakelite's Medical Products Business

Everyone who has been diagnosed with an illness hopes to receive the appropriate testing and therapy to recover his health. To realize this hope, Sumitomo Bakelite has been supplying the medical devices to the market. We aspire for "Patient-friendly medicine" by providing the variety of products.

Supporting Every Patient's health through the Medical Devices

General Manager
Medical Products Business Division

Yoshihiro Terao

Market Growth Continues, but Curtailing Medical Expense is our big Challenge

Sumitomo Bakelite began the medical device business by importing the medical devices from overseas. Later, since 1978, we had developed, manufactured and sold various medical devices in Japan by utilizing our plastic processing technologies Today, the medical device & equipment market in the United States alone is valued at more than 13 trillion yen, while the market is growing significantly in rising nations as well.
Even in Japan, the market growth rate is about 3% annually with a total value estimated at around 2.8 trillion yen, and this growth is expected to continue in the future.
However, we faced the big challenge to overcome the optimization of medical expense.
Particularly, Japan needs to curtail the social security expense due to its coming super aging society.

Saving Patients' Lives with the Power of Technology

As a partner to the frontlines of medicine, and in our capacity to support patients, we have continually worked to achieve "patient-friendly medicine." We are proud of the fact that the medical devices we supply not only improve patients' quality of life (QOL), but also help to curtail medical costs.

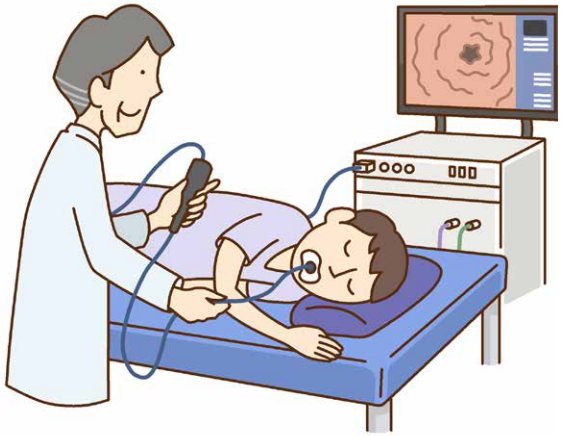
The four fields we currently focus on are gastrointestinal endoscopy, vascular IVR, surgical drainage and nutrition management. Among these, over the years we have developed a number of surgical drainage products used to remove blood or pus stuck in the body or gastrointestinal tract, improve wound healing, and restore physiological functions. Additionally, in the field of minimally invasive treatment, which is expected to grow the most going forward, we are focusing on IVR and gastrointestinal endoscopy, among others, that result in smaller surgical wounds whereby reducing the duration of hospital stays.

Working Closely with Physicians to Open the Door to New Possibilities

We deliver technologies essential to the frontlines of treatment and testing that save lives. This is why we never comprise when it comes to quality to ensure peace of mind. In addition, it is important to have a track record in popularizing medical devices. No matter how excellent a medical device may be, it will never receive widespread use if healthcare practitioners do not recognize its benefits and safety.
Close-knit relationships with physicians are essential to building a track record. This requires the ability to communicate and design a product based on the needs of the frontlines and the ideas of physicians.
Various procedures must be completed to bring a medical device to market, including testing and legal applications, which requires both time and cost. Nevertheless, this process is meaningful because it gives birth to the possibility of saving the lives of patients who could not be saved before.
After a medical device is used in the field, physicians often discover new ways of using it or use it for broader applications than initially envisioned. While incorporating these needs and knowledge, we will continue to develop and supply devices tailored to various types of treatment.

Product Lineup for Various Treatments and Tests

Endoscopic devices



Our extensive lineup of endoscopic devices provides powerful support to tests and treatment based on the key words safety, peace of mind, and simplicity.

Circulation/IVR

We supply catheters and devices for carrying out intravascular treatment or surgeries while examining CT, ultrasound or X-ray imaging.

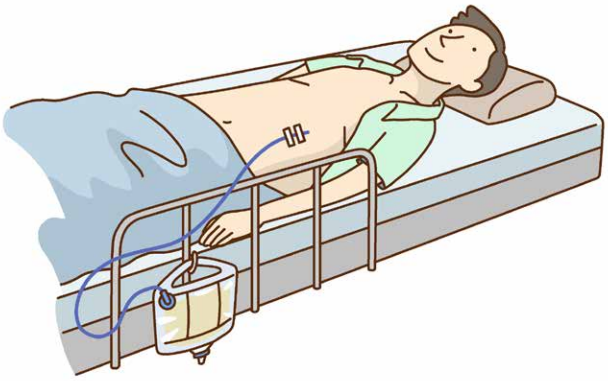
See the next page for details

sumius

Your smile is our success

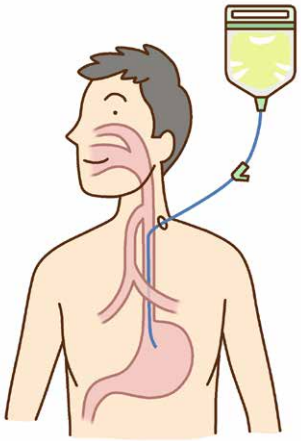
Sumius is the brand name used for our company's medical products.
Your smile is our success. This phrase embodies our commitment to be the best partner to earn your smile by providing safe, secure and high quality medical devices that support people's health.

Surgical/Drainage



These products are used during surgery to remove blood or pus stuck in the body or gastrointestinal tract, improve wound healing, and restore physiological functions.

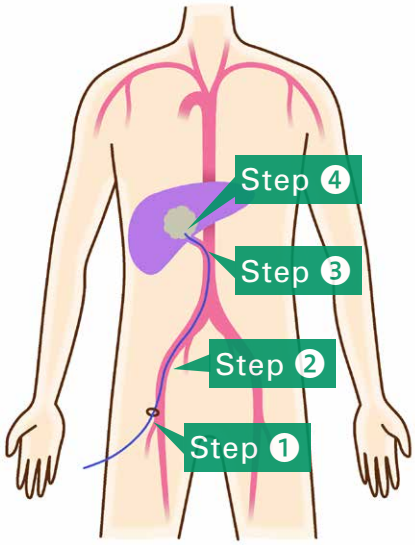
Nutrition Management

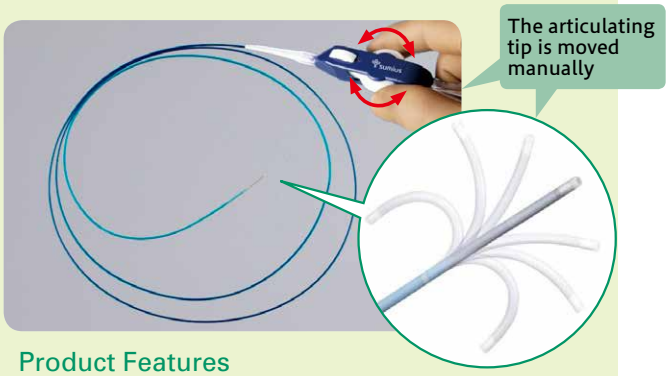


In addition to PEGs (gastrosomy), we also supply PTEG (percutaneous transesophageal gastrostomy kit) for medical cases where it is difficult to create PEGs.

SwiftNINJA® Steerable Microcatheter that is more friendly to Pysicians and Patients

Conventionally, it is required high skill to deliver microcatheter for intravascular treatment in the right localized position deep inside a vessel. At the same time, a guidewire had to be used with a microcatheter and then withdrawn whenever administering contrast or medicine, which required time and caused a heavy burden on physician and patient.
SwiftNINJA® is the only microcatheter with an articulating tip that can be steered remotely using the steerling dial. This makes it possible for the physician to guide the microcatheter to a targetted point deep inside a vessel through a complex and undulating path without a guidewire, ensuring highly precise administration of contrast or medicine.





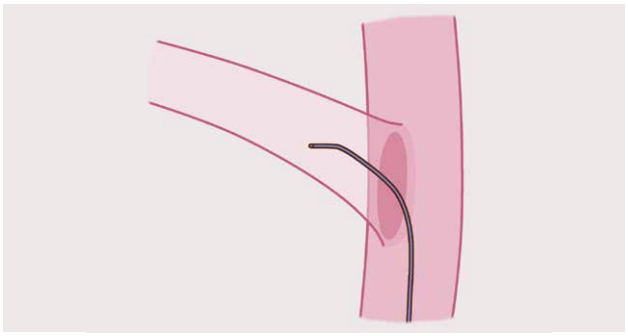
Product Features

- Able to remotely and freely steer the articulating tip of the catheter using a steerling dial
- No need for a guidewire; can check the direction of blood flow with contrast and avoid catheter migration
- Easy to selectively navigate complex blood vessel pathway to a targetted spot
- Reduces surgery time, alleviating the burden placed on physician and patient

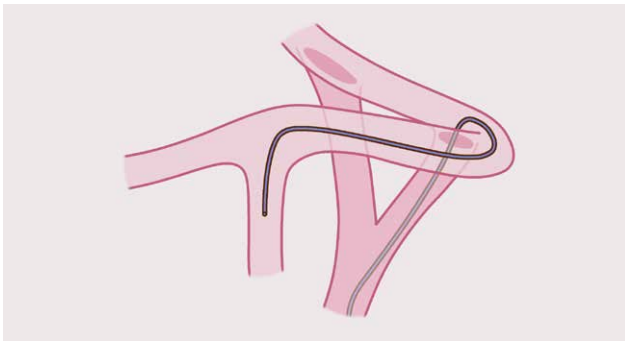
Visit our corporate website to learn more about intravascular surgical device Leonis Mova®.
Link:https://www.sumibe.co.jp/product/medical/endovascular/leonis-mova/index.htm

Treatment process

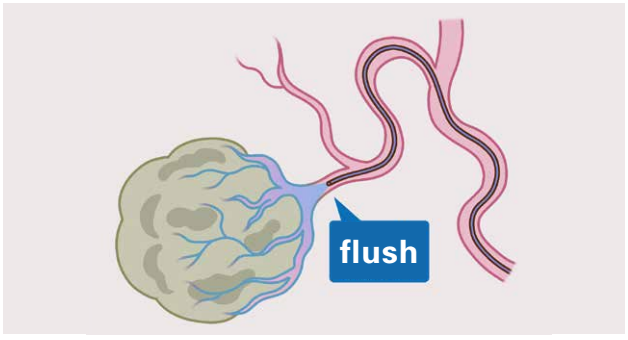
Step❶ SwiftNINJA® is inserted from the base of the groin other location



Step❷ The articulating tip is navigated through the peripheral vessel



Step❸ Can be navigated correctly using steering dial through complex vascular intersections



Step❹ The device deliver embolics, medicine or contrast agent after reaching the affected lesion.

Voice of Business Partner

Looking to explore new areas and fields to deploy Sumitomo Bakelite's advanced technologies and reliable craftsmanship

Merit Medical Systems, Inc.
Executive VP
Acquisition & Product Integration

Chris Durham

Microcatheters are used to deliver embolics, medications and other agents into the vasculature to occlude blood flow, target medications directly into tumors as well as other procedures. The global market for microcatheters is growing at 5% annually due to an increased incidence of cancer and the desire for more minimally invasive techniques.
The SwiftNINJA® increases the appeal of these procedures by simplifying them and making them safer. The articulating tip of the SwiftNINJA® Steerable Microcatheter can potentially reduce the need for guidewire insertions and shorten procedures. This will reduce guidewire induced spasms and, in the case of Y90 procedures for liver cancer, decrease radiation exposure which have large benefits to patients, physicians and hospitals.
Working with Sumitomo is very attractive to Merit Medical as the craftsmanship of Sumitomo is very high and brings added credibility to the quality of the product.
In the future we look forward to expanding the SwiftNINJA® product line into additional lengths and sizes. These additional offerings will give us the ability to expand into additional specialties and applications.

Development Team's Trial and Error Leads to Better Product Development

The concept behind this device took shape based on two points. It must be an extremely small diameter microcatheter with a diameter of less than one millimeter and have an articulating tip that can be moved with a wire. Therefore, during development, we focused on how to develop such an extremely narrow catheter, which had never been seen before.
During the initial development, it was hand maded, so we manually fed a wire the same diameter as a human hair through a tube over 1.5 meters long using a microscope and pin set. On some days it took six of us an entire day just to make a single catheter. Afterwards, we came up with improvements for the process and equipment, which reduced the time it took to insert the wire to several minutes. Through various other innovations, we were finally able to produce devices with consistent quality.
I hope to utilize the technical knowledge gained from the development process of this device to other devices that meet the needs of healthcare practitioners and improve patient QOL.

Senior Research Leader
Device Development Project Team
For Endovascular Treatment
Sumitomo Bakelite Co., Ltd.

Kenichi Kanemasa

Increasing Treatment Options and Further Reducing Patient Burden

After launching the device, one physician noted their surprise, "I thought we could make a breakthrough if only there was a catheter with articulating tip, but I never imagined it could really be possible." Another said, "This product embodies Japan's great attention to detail. I look forward to using it."
Conventional vascular treatment took several hours depending on the condition of the patient's vessels and was often quite a burden. This catheter that can be steered through vessels broadens the options for treatment, reduces surgery or treatment time, and makes it possible to reach locations otherwise impossible before. In this sense, I feel like we were able to make waves in the industry with this device.
Physicians using this device have made requests for a lineup of these microcatheters with several types of diameter and lengths. By expanding the lineup in the future, I hope to provide an effective treatment method for a greater range and more complex cases so as to contribute to the development of medical technology.

Manager
Vascular IVR Product Sales Department
Medical Products Business Division
Sumitomo Bakelite Co., Ltd.

Masashi Nakamura

住友ベークライト・ビオトープ
憩いの杜
IKOINO MORI

Special Feature 2

Nurturing an Ecosystem Together with the Local Community

Ikoi no Mori Biotope at Shizuoka Plant

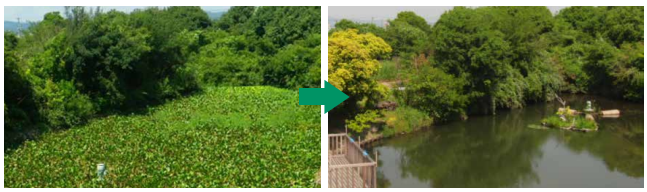
Sumitomo Bakelite's Shizuoka Plant discovered rare species of wildlife living at the proposed site of a land reclamation project based on the results of a survey of flora and fauna conducted there. As a result, the plant decided to create a biotope according to a five-year plan in order to preserve and nurture the vibrant natural environment.

Now Open to the Public After the Completion of the Five-year Project

Our company considered building a biotope as part of its biodiversity conservation activities. During the preliminary review, a survey of flora and fauna as well as a biodiversity assessment conducted in 2011 revealed rare wildlife living at the proposed site at Shizuoka Plant. Given this, we established a goal to preserve and restore the natural surroundings, with land reclamation work focused on the wetland area commencing in 2012 under the five-year plan.
Under the supervision of Professor Tatsumi Yamada of Tokoha University, work took place mainly on the wetland area and in 2014 we began hosting observation events for employees and their families. In 2016, we selected the name ***Ikoi no Mori*** (Comfort Forest) after calling on employees to name the biotope and established the biotope club to look after it. We then made preparations to open the biotope to the general public while completing conservation work and notifying our customers of the project. In April 2017, we opened the biotope to the general public and since then we have been engaging the local community through tours and hands-on seminars.

Activities until now

Creation of *Irodori no Oka* (Irodori no Oka (Hill))
We used fill to form a four-meter tall hill to provide a viewing area overlooking the entire biotope. This hill serves as a meadow for seven autumnal flowers and bamboo lily. It also serves as a nesting ground for the kingfisher.



Measures against non-native species
Water hyacinths were removed as a way to guard against non-native species. A floating mass of waterweeds was set up to adjust the water quality of the regulating pond.

Creation of *Kirameki no Shicchi* (Kirameki no Shicchi (Wetland))
We created a calm wetland isolated from the land as a habitat for the dark-spotted frog, killifish, and dragonflies, among others. Also, shallow and deep areas were created for emergent plants and floating plants, such as lotus.

Construction of organic path
A native grass species was introduced for an organic path along route set up from Irodori no Oka (Hill) and to Donguri Woods (Acorn) to Kirameki no Shicchi (Wetland).

Sumitomo Bakelite's Biodiversity Conservation Initiatives

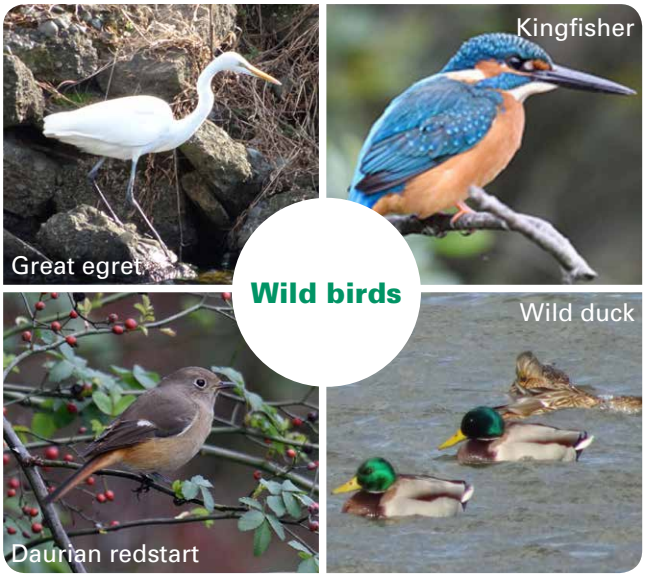
Our company's business activities rely on nature's bounty and for this reason we recognize the importance of conserving biodiversity. As such, we promote reduced environmental impacts and incorporate biodiversity conservation in our procurement policy. In terms of our initiatives during the product life cycle, we develop eco-friendly products, while outside of Japan we take part in local initiatives, including those that protect rare tree species. Furthermore, we are a promotion partner of "The Declaration of Biodiversity by Nippon Keidanren" and are implementing all possible measures following this declaration.

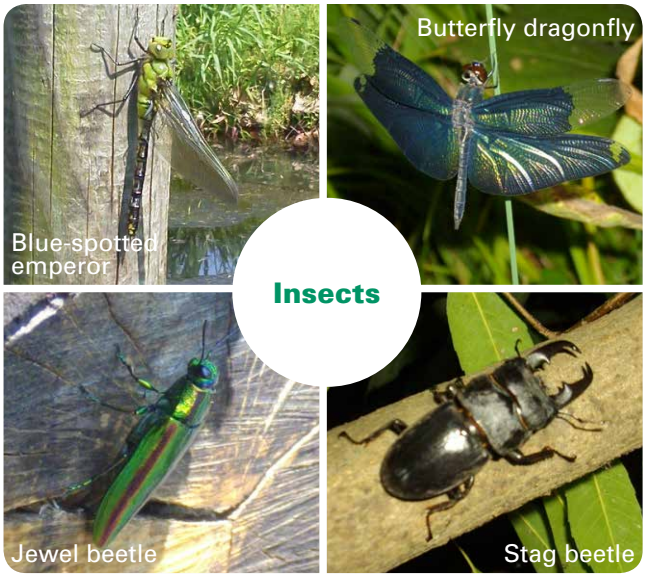
See page 55 "Biodiversity Conservation Initiatives" of our full report published online

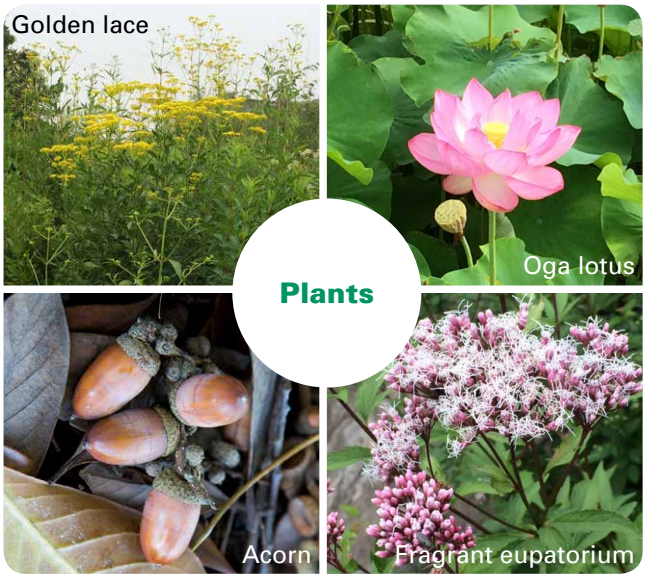
Learn more about our biotope by visiting our corporate website.
If you would like to visit our biotope, please apply online through our corporate website

Link → http://www.sumibe.co.jp/biotope/index.html

A number of organisms are nurtured in Sumitomo Bakelite's biotope







A Biotope that Fosters Greater Involvement with Stakeholders and Preserves Living Organisms

We are working to foster relationships with employees, their family members, and the local community, in order to promote understanding of our biotope among a larger audience.
Internally, the Biotope Committee takes the lead in taking care of the biotope and also plans opportunities for employees and their families to experience nature through observation events held under the supervision of Professor Tatsumi Yamada of Tokoha University and with the cooperation of students attending the university.
Externally, we communicate with city hall and exchange information with companies in the surrounding area.

One of my responsibilities is serving as a biotope guide. Inside the biotope, we have made a number of innovations to ensure more living organisms call the site home. This includes using rocks to create hiding places and making a shallow area in the water to increase the water temperature, to provide a better living environment for certain species. During tours, I make it a point to point out these innovations, which are sometimes hard to see, so that everyone who visits the biotope enjoys their stay.

Biotope Committee
Shizuoka Plant
Azusa Horie

I would like to congratulate Sumitomo Bakelite Co., Ltd. for completing the Ikoi no Mori biotope and opening it to the general public. Ikoi no Mori provides a rather nostalgic environment that feels far away from the hustle and bustle of the city. I hope that many people will be able to witness firsthand the diverse flora and fauna that have resided here since ancient times, including killifish, dragonflies, kingfisher and acorns. Ikoi no Mori is meant to be enjoyed with a smile, while learning about the importance of our natural environment and biodiversity.

Assistant Manager
Environmental Conservation
Manager Lifestyle
Environment Section
Environment and Waterworks
Department
Fujieda City Office
Akira Ichikawa

Fujieda General Affairs
Section
Fujieda Office
Nishinnbo Textile Inc.
Hiroshi Roppongi

In May 2016, we launched a killifish preservation project after receiving endangered minami killifish from Sumitomo Bakelite Co., Ltd. Thanks to this donation, the number of killifish we are raising increased by three-fold in the space of one year. While our conservation pond is merely a miniature version of Sumitomo Bakelite's biotope, we plan to continue our conservation efforts to follow in the footsteps of Sumitomo Bakelite Co., Ltd.

Professor, Socio-Environmental Studies Department
Tokoha University

Tatsumi Yamada

Ikoi no Mori is expected to make a major contribution to the conservation of biodiversity and the natural environment. Until now, the presence of a factory was seen as a reason for the loss of local nature and nostalgic natural scenery, but Sumitomo Bakelite's revolutionary biotope concept makes it possible for this same factory to restore the vibrant nature of a local eco system.

For example, local killifish populations became invisible to the local community because waterways were paved over in concrete, but now at the biotope this species has made a major comeback. Also, dark-spotted frog, a species rarely seen nowadays, is breeding in the biotope's wetland. Moreover, the population of wildfowl and insects has grown because of the biotope, which is protecting local wildlife.

Local people can now enjoy the exciting experience of walking around the biotope to find a variety of wildlife in its beautiful wetland area and forest. This also serves a useful purpose in educating children about what it was like to live in rural communities many years ago.

Floating mass of waterweeds

Over-water deck

Irodori no Oka (Hill)

Kingfisher nesting grounds

I found myself surprised when visiting this biotope for the first time two years ago during an observation event. This is because I saw firsthand how a factory in an urban area was able to completely restore a natural setting that included rare flora such as golden lace and fragrant eupatorium, not to mention the site of colorful kingfisher flying about. Moreover, after seeing children running after grasshoppers and butterflies, I felt convinced that this biotope will provide an important learning opportunity about nature and living things. I hope that Sumitomo Bakelite Co., Ltd. will utilize this space to allow children to have greater interactions with nature.

Senior
Socio-Environmental Studies Department
Tokoha University

Sotaro Nishizuka

A Place to Nurture Together with the Community

Ikoi no Mori preserves a natural environment for Oga lotus, an ancient species of lotus we received from other companies with biotopes, as well as a variety of flora and fauna that have lived in the Shida plain since ancient times. Additionally, the water flowing through the biotope is supplied by effluent from the Shizuoka Plant that has been rendered completely harmless at a water treatment facility.

Going forward, I hope that our customers and people from the local community who visit the biotope will better understand the importance of biodiversity. In this sense, we will use the biotope as a place for raising awareness and educating people about the environment.

Director
Senior Managing Executive Office

Masayuki Inagaki

Helping to Maintain the Freshness of Produce and Reduce Environmental Impacts with P-Plus®

Our company's freshness preserving film called P-Plus® helps to improve distribution and product marketability by retaining the freshness of fruits and vegetables for an extended period of time and effectively delaying quality degradation. This is achieved by keeping the produce in a state of hibernation so to speak (a state of equilibrium with reduced breathing). This means produce can be switched from styrene foam packaging to cardboard boxes, which reduces waste and makes it possible for lighter weight more compact shipments. Also, the improved performance of packaging helps to extend quality even longer, reducing food loss. As a result, P-Plus® reduces environmental impacts across the entire life cycle of fruits and vegetables. In recent years, P-Plus® is being used not only to ship unique fruits and vegetables grown in every corner of Japan, but also to export these items to overseas markets and for distribution between other countries.

New product mascot called P-Plus Man was created. He makes vegetables fresh.

Look for the following logo

MA包装 P-プラス® 鮮度保持フィルム

Every month, we cover topics related to fruits and vegetables on our corporate website as part of "This month's P-Plus produce" page.

Link http://www.sumibe.co.jp/product/p-plus/topics/

Slowing the amount of breathing as much as possible is the most effective way of delaying quality degradation.

Fruits and vegetables breathe even after being harvested.

This breathing process consumes nutrients, resulting in ripening and aging.

Using P-Plus® maintains fruit and vegetables in a low oxygen and high carbon dioxide state that slows breathing.

Enlarged photograph of the micro-sized hole using a microscope

The secret behind P-Plus® is a finely tuned technology for adjusting permeation (micro-sized holes that are invisible to the naked eye). The use of micro-sized holes in the film makes it possible to adjust the permeation of oxygen. The size and number of these micro-sized holes is finely adjusted based on the distribution conditions of each fruit and vegetable.

P-Plus® is being used to ship fruits and vegetables grown in every corner of Japan

Yamadai Farm, Gunma Prefzecture

Spinach

Yamadai Farm was interested in P-Plus® during the development stage more than 20 years ago. After much trial and error, we developed a packaging solution suited to spinach together with the farm. Today, P-Plus® is used by the farm to package about 500,000 packs of spinach throughout the year, underpinning a stable supply of this vegetable.

Flower Land Kamifurano, Hokkaido

Asparagus

Flower Land Kamifurano ships upwards of 30 tons of asparagus from mid-May to June. It uses P-Plus® to package all of the 30,000 one-kilogram packs. Flower Land Kamifurano also uses P-Plus® for some 60,000 packages of corn that it ships across Japan.

JA Hanzawa, Saitama Prefecture

Broccoli

Broccoli is a vegetable that loses its freshness quickly. The introduction of P-Plus® has made it possible for JA Hanzawa to maintain the freshness of its broccoli longer and improve work efficiency. It has also been able to lower its total cost of packaging materials, enabling it to set itself apart from other growers in terms of pricing.

JA Hiroshima Yutaka Hiroshima Prefecture

Lemon

Based on its goal to supply domestically grown lemons year-round, JA Hiroshima Yutaka learned to seal and package lemons in P-Plus® immediately after harvesting and then store them in refrigerated warehouse until shipment to grocers. The quality of its lemons has earned JA Hiroshima Yutaka a solid reputation among its customers.

Fruit Farm Suko, Nagano Prefecture

Shine Muscat

In recent years, Shine Muscat, a newly registered variety in 2006, has become a popular gift item in Japan for Christmas and New Years. The fruit is harvested from the end of September to October and then wrapped in P-Plus® and stored in a refrigerated warehouse. This makes it possible to deliver fruit that is both aesthetically pleasing and great tasting.

Increasing application in overseas markets

Kushima Aoi Farm Co., Ltd. Miyazaki

Vegetable exports

Sweet potatoes

Oyatsu-imo (snack potatoes)

Promotion in foreign supermarket

Star of an overseas supermarket display

The sweet potatoes of the Kushima Aoi Farm are reaching tables beyond Japan and are now exported to Hong Kong, Taiwan and Singapore.
Since July 2015, P-Plus® anti-condensation film has been adopted for all products. Export volumes are growing.

What is condensation-preventing film?

Enclosing certain fruits and vegetables in conventional dew-preventing film results in condensation forming on the surface of the film due to the water content of the produce. In turn, this is a factor behind freshness degradation. Condensation-preventing film effectively prevents condensation from forming because of its dew prevention and water vapor transmission qualities.

Ordinary film

Once water droplets adhere to the film, light reflects randomly making the packaging appear cloudy.

Conventional dew-preventing film

The film effectively turns water droplets into a membrane, but excess water droplets make the packaging appear cloudy.

Condensation-preventing film

Effectively prevents condensation from forming because of its dew prevention and water vapor transmission qualities.

With the goal of supplying truly authentic sweet potatoes, we focused on the freshness preserving technology offered by P-Plus®. We are now able to address increasing demand from outside Japan and we were recognized with the Minister of Agriculture, Forestry and Fisheries Prize at the Fiscal 2016 Awards for Exporter Excellence. Going forward, we hope to expand our operations even further thanks to P-Plus®.

President / Kushima Aoi Farm Co., Ltd.
Makoto Ikeda

Sun International Flower of Thailand

Using P-Plus® for the Distribution of Cut Orchids Locally

Cut orchids

Orchid packaging

The orchid is considered to be a symbol of Thailand. Sun International Flower exports some 1.5 million cut orchids every month to destinations around the world. We have selected P-Plus® for shipments to Europe via air freight. Typically, the quality of an orchid cannot be maintained beyond more than four or five days once it reaches a store, but we have been able to extend this to 10 days thanks to P-Plus®.

Our mission is to provide people around the world with beloved orchids grown in Thailand. Therefore, we require careful consideration of every single process, from selection of flowers to the delivery method. Currently, we are using P-Plus® as a special packaging material reserved for high quality flowers. I feel that our reputation in terms of flower quality is steadily growing, especially in Europe.
With freshness preserving film P-Plus® as one of our greatest assets, looking forward we hope to further grow the market by establishing a shipment and transport system unrivaled by our competitors.

Executive Vice President / Sun International Flower
Wuthichai Pipatmanomai

Highlights of Fiscal 2016 Activities

Our group aims to deliver safety and reliability as well as achieve harmony with the environment and co-existence with society.
We are working to contribute to the realization of a sustainable society by resolving various issues facing society through our businesses, including energy issues and environmental issues. Toward that end, we carry out activities focused on social issues and businesses of note in a steady manner while establishing plans and targets.

○ : Target attained △ : Target not attained (but improvement over the previous fiscal year) ▼ : Target not attained (deterioration from the previous fiscal year)

Area of activities	Major items	Fiscal 2016 targets	Fiscal 2016 results	Fiscal 2017 plan	Achievement evaluation	Related page
Themes related to the promotion of harmony with the environment						
1.Environmental initiatives	Reduction in CO_2 emissions (compared with fiscal 2005)	In Japan: 31% reduction	In Japan: 35% reduction	In Japan: 38% reduction	○	37
		Overseas: 12% reduction	Overseas: 14% reduction	Overseas: 22% reduction	○	37
	Reduction in material loss (compared with fiscal 2005)	In Japan: 31% reduction	In Japan: 33% reduction	In Japan: 38% reduction	○	37
		Overseas: 51% reduction	Overseas: 47% reduction	Overseas: 50% reduction	△	37
	Reduction in chemical substance emissions (In Japan: compared with fiscal 2005) (Overseas: compared with fiscal 2010)	In Japan: 71% reduction	In Japan: 73% reduction	In Japan: 74% reduction	○	37
		Overseas: 49% reduction	Overseas: 56% reduction	Overseas: 64% reduction	○	37
2.Resource conservation, energy saving	Energy saving activities	In Japan, implement specific proposals following the energy conservation plan. Overseas, continue to roll out approaches of activity methods and good practices.	In Japan, reduced energy usage by 1,919kL of crude oil equivalent after implementing specific proposals. Overseas, individual implementation activities were carried out at two business sites as part of the roll out approaches of activity methods and good practices.	As with fiscal 2016, in Japan, establish an energy conservation plan, and overseas, continue to roll out good practices.	△	35
Themes for providing safety and reliability						
3.Safety and security	Environment and safety audits	In Japan: 5 business sites, 7 affiliated companies, 8 plants	In Japan: 5 business sites, 7 affiliated companies, 8 plants	Plan to carry out '*Monozukuri*' Audit* at major production bases inside and outside Japan. *'*Monozukuri*' Audit means integrating SBPS/QA/EHS audits into a single one, and will start as a corporate audit.	○	41
		Overseas: 6 companies in East Asia, 3 companies in Europe	Overseas: 6 companies in East Asia, 3 companies in Europe			
	Prevention of industrial accidents	Number of lost-time accidents In Japan: 0	In Japan: 4	In Japan: 0	▼	42
		Number of lost-time accidents Overseas: under 13	Overseas: 27	Overseas: under 14	△	43
	Security and disaster prevention	• Conduct systematic safety training and disaster prevention training	• Conducted rank-based safety training and disaster training at each business site	• Conduct systematic safety training and disaster prevention training	○	43, 52
4.Chemical Substance Management	Chemical Substance Management	Prepare SDS*1 for legislation	Complied with GHS*2 in Vietnam, Thailand and Canada	Prepare SDS*1 for legislation	○	44
5.Product liability	Quality audits	In Japan: 5 business divisions	In Japan: 5 business divisions	Plan to carry out '*Monozukuri*' Audit * at major production bases inside and outside Japan. * '*Monozukuri*' Audit means integrating SBPS/QA/EHS audits into a single one, and will start as a corporate audit.	○	46
		Overseas: 7 business divisions	Overseas: 7 business divisions			

Area of activities	Major items	Fiscal 2016 targets	Fiscal 2016 results	Fiscal 2017 plan	Achievement evaluation	Related page
Themes that affect society						
6.Biodiversity Conservation	Biotope	• Complete reclamation work at the Shizuoka Biotope under the five-year plan • Prepare to open to public	• Completed land reclamation work as scheduled • Opened to employees and completed preparations for opening to public	• Continue with self-led conservation activities • Open to public and begin communicating externally	○	55
	Initiatives to preserve forest ecosystems	• Continue to support NPO Morino Chonai-Kai (Forest Neighborhood Association)	• Usage of Morino Chonai-Kai paper amounted to about 6,500kg, contributing to tree-thinning of 0.43ha	• Continue to support NPO Morino Chonai-Kai (Forest Neighborhood Association)	○	55
7.Improvement of stakeholder satisfaction	Improvement of customer satisfaction	• Carry out activities to strengthen ties with customers under the leadership of the company-wide CS Promotion Committee • Carry out activities to improve hospitality for customers at business sites	• Carried out activities to strengthen ties with customers under the keyword "creation" • Published pages about product navigation system and research paper search system on our website	• Carry out activities to strengthen ties with customers under the leadership of the company-wide CS Promotion Committee • Carry out activities to improve hospitality for customers at business sites	○	47
	Communicating corporate information, advertising	• Promote preparation of content that helps customers understand our products	• Created a smartphone-compatible version of our website (Japanese, English, Chinese)	• Promote preparation of content that helps customers understand our products easier	○	47
	Development of products that contribute to the environment	Increase sales of environmentally friendly products • Evaluate environmental contributions of existing products • Promote LCA from the R&D stage	Increased sales ratio: 39.6% to 41.3%	Continue to increase sales of environmentally friendly products • Expand evaluations on the environmental contributions of existing products • Promote development of R&D products with a large contribution to the environment	○	28, 35
8.Human resource training	Internal human resource training	Continue to carry out employee training at SB School*3	About 20,000 employees took part, representing about 35,000 hours of training	Continue to carry out employee training at SB School*3	○	50, 51
9.Work-life balance	Support for education of the next generation	Continue to plan and implement tours and lecture on companies' science and technology for science teachers at junior high schools in Fujieda City as a coordinator of the next-generation science education event (8th time in fiscal 2016)	Held lecture on optical reflection and tour of the mirror manufacturing facility at Murakami Corporation. Feedback included, "I learned about the principles of science utilized in everyday products" and "I learned about innovations for improving productivity."	Plan and implement the 9th science education event as coordinator	○	58
	Employment of people with disabilities	• Employment rate of people with disabilities: 2.0% level	• Employment rate of people with disabilities: 2.33%	• Employment rate of people with disabilities: maintain at 2.0% level	○	48
	Women's empowerment	• Conduct training program for female managers	• Dispatched female employees to an external seminar to advance their career awareness. Two female employees took part	• Expand and conduct training program for female managers	○	49
Fundamental themes for business activities						
10.CSR procurement	Practice of CSR procurement	• Conduct CSR survey of suppliers	• Conducted CSR survey targeting 59 primary suppliers	• Request improvements to suppliers based on the results of the CSR surveyng	○	34
11.Compliance	Practice of compliance	• Promote activities that raise awareness about compliance	• Conducted activities that raise awareness about compliance during the month of emphasis in October	• Publish revised version of the booklet "Our Code of Conduct" • Promote activities that raise awareness about compliance	○	31, 32

*1,2 See the glossary on page 71.

*3 SB School is the name of an in-house training institute for all employees, from new hires to executive officers.

Business Policy and CSR

The Sumitomo Business Philosophy and Sumitomo Bakelite Group Business Philosophy

We have inherited Sumitomo's Business Philosophy, passed down by the Sumitomo family, which 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. Approximately 400 years ago, Sumitomo (Monjuin) wrote to his family about business wisdom, urging at the beginning, "Strive with all your heart, not only in business, but in all situations."
The rigorous efforts and honesty demanded by the Monjuin Shiigaki as well as other personal character-building precepts continue to form the foundation of the Sumitomo Group's Business Philosophy and make up the basis of our fundamental policy.

Business Philosophy of Sumitomo Bakelite Group (Company Policy)

Our company places prime importance on trust and sureness, and shall commit itself to contributing to the progress of society and enhancement of people's welfare and livelihood through its business activities.

Our Code of Conduct (Code of Ethics)

Our Code of Conduct

1. We provide products and services designed from the viewpoints of social benefit as well as customer satisfaction on which we place highest priority.

2. We endeavor to improve business performance of the Group of Sumitomo Bakelite Co., Ltd. from a global perspective.

3. We observe corporate ethics, abide by all applicable laws and regulations as well as our internal rules, and, above all, value fairness and transparency in our business activities.

4. We place importance on safety, and voluntarily take actions for environmental protection.

5. We honor and respect each individual's personality and rights, and make efforts to create amicable and lively workplaces.

Management Policy of Sumitomo Bakelite Group

To become an excellent global enterprise that helps enhance customer value through creating plastics with more sophisticated functions, and achieving sustainable growth in the advanced chemical products sector.

Policy on Responsible Care Activities*[1] of Sumitomo Bakelite Group

Philosophy

In all its operations, Sumitomo Bakelite Co., Ltd. will contribute to the sustainable development of society while promoting business activities by meeting the highest standards of the Responsible Care concept and giving due consideration to environmental preservation, human health and safety as well as product quality.

Policy

1. Evaluate the safety, health, and environmental aspects throughout the entire life cycle of a product, from product design to the procurement of raw materials through disposal, strive to minimize the environmental impact of our corporate activities, and undertake to develop safer products and technologies;

2. Make sustained, group-wide efforts to promote resource and energy conservation, waste reduction and biodiversity conservation;

3. Perform Environmental, Safety & Health Audit and Quality Assurance Audit as well as work to maintain and improve systems for managing environmental protection, safety promotion and disaster prevention, worker safety and health, and quality management;

4. Comply with all relevant laws, regulations and agreements associated with safety, health, the environment, and chemicals while autonomously establishing administrative rules with the aim of strengthening management capacity, so as to improve environmental, health and safety conditions for society, customers, and employees;

5. Work to ensure and improve the safety of raw materials, products, transportation operations and process safety, and provide product safety information to employees, customers, and others;

6. Promote continuous improvement in security over facilities, processes and technologies, and implement operational safety management programs to ensure the safety and health of employees and residents of local communities;

7. Publicly disclose information on the environment, safety and products to and promote dialog with interested parties such as customers, employees and residents of local communities, so as to identify their needs and deepen mutual understanding and trusting relationship;

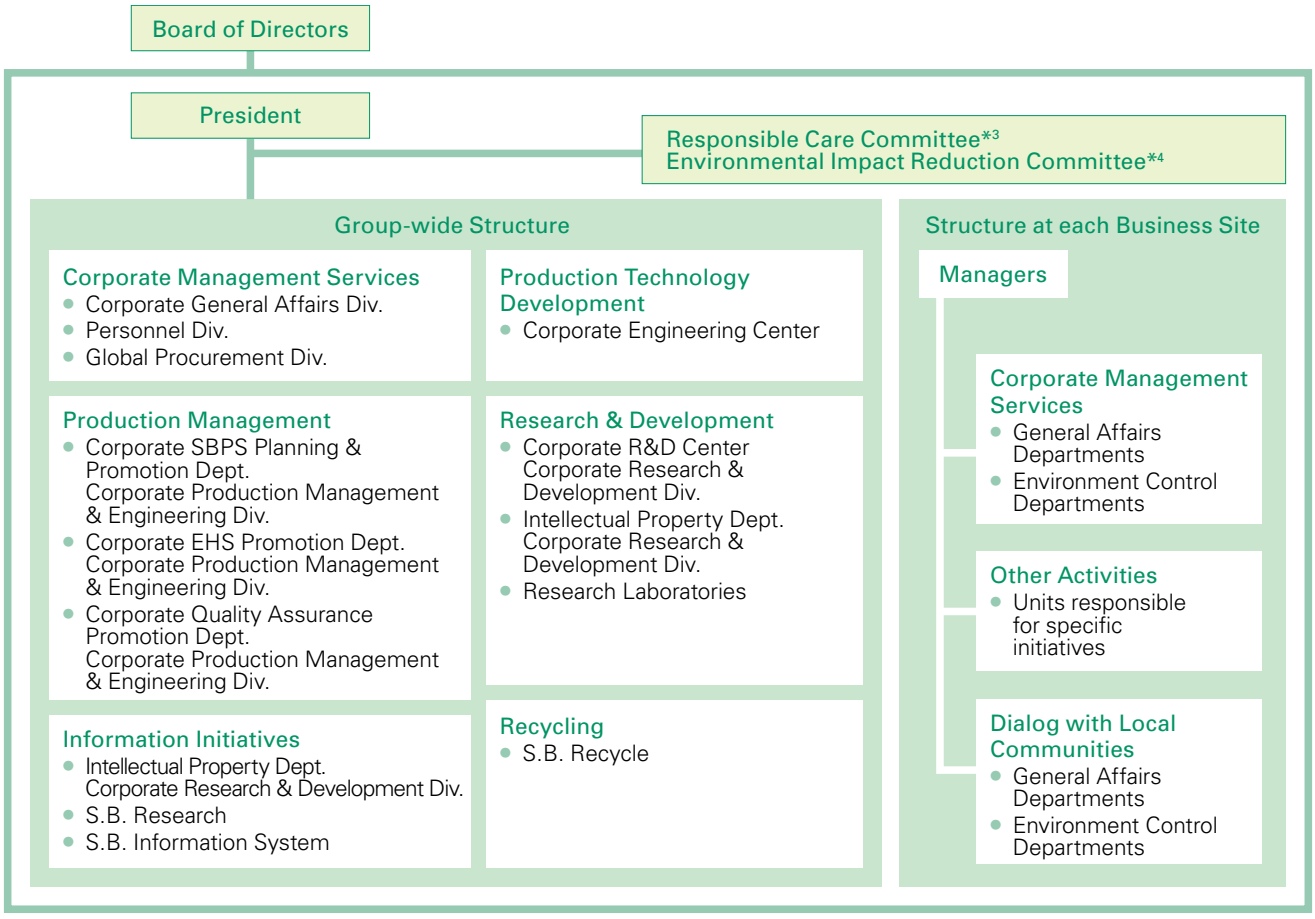
8. In order to ensure environmental preservation, human health and safety as well as product quality, provide employees with training to develop necessary human resources for that end.

*1 Established in August 2015. These policies were newly established by revising the Corporate Policies for Safety and the Environment in line with the amendment of the Responsible Care Global Charter.

CSR Promotion Structure

Our company's structure for promoting CSR activities centers on the Responsible Care*2 concept. Centered on activities of the Responsible Care Committee and Environmental Impact Reduction Committee, it engages in various activities through Group-wide cooperation that involves all functions including the head office, administrative divisions, research and development teams, and all business sites.

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY



*2 Responsible care means that companies should work to secure the environment, safety, and health in all of their corporate activities from the development of chemical substances through production, distribution, usage, final consumption, disposal, and recycling. They should also make information publicly available on the results of their activities and implement measures to promote dialog and communication with the community. (Japan Chemical Industry Association)

*3 Chaired by the officer overseeing the Corporate Production Management & Engineering Div., this committee meets twice each year. It has the objective of promoting Responsible Care activities related to the Company's business operations.

*4 Chaired by the officer overseeing the Corporate Production Management & Engineering Div., this committee has two subcommittees—the Life Cycle Committee and Energy Conservation Committee. It meets once or twice each year. Its subcommittees meet twice each year.
Our goals are to promote the reduction of environmental impact caused by our product life cycles and the conservation of energy and resources at our production plants.

Corporate Data

Name	Sumitomo Bakelite Co., Ltd.
Head Office	5-8 Higashi-Shinagawa 2-chome, Shinagawa-ku, Tokyo 140-0002, Japan
President	Shigeru Hayashi
Established	January 25, 1932
Capital	¥37.1 billion (as of March 31, 2017)
Number of Shareholders	13,190 (as of March 31, 2017)
Stock Listing (as of March 31, 2017)	Tokyo Stock Exchange, First Section
Number of Employees (as of March 31, 2017)	1,751 (non-consolidated) 5,958 (consolidated)
Net Sales (as of March 31, 2017)	¥85.8 billion (non-consolidated) ¥198.2 billion (consolidated)

Major Products by Division

Semiconductor Materials

- Epoxy molding compounds for encapsulation of semiconductor devices
- Photosensitive coating resin for semiconductor wafers
- Liquid resins for semiconductor devices
- Substrate materials for semiconductor packages

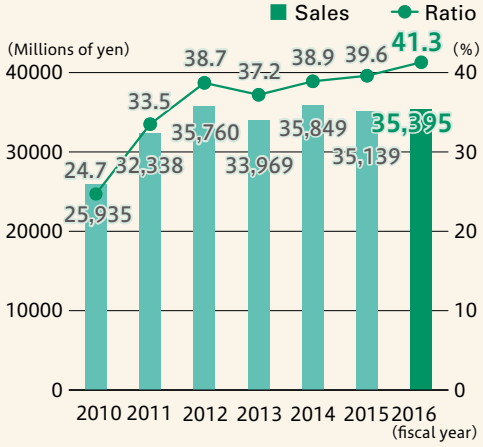
High-Performance Plastics

- Phenolic molding compounds
- Phenolic resins
- Precision molded products
- Synthetic resin adhesives
- Phenolic resin copper-clad laminates
- Epoxy resin copper-clad laminates
- Aircraft interior components

Quality of Life Products

- Medical products
- Vinyl resin sheets and multilayer sheets
- Freshness preserving films
- Melamine decorative laminates and fireproof decorative laminates
- Polycarbonate resin plates
- PVC resin plates
- Design and contracting of waterproofing work
- Biotechnology related products

Sales of Environmentally Friendly Products



Note: Data on Sumitomo Bakelite Co., Ltd. (non-consolidated)

Definition

Environmentally friendly products mean products contributing directly or indirectly to reduction of environmental impacts, including resource saving, waste reduction, prevention of environmental pollution, energy saving, and reduction of greenhouse gas emissions, at the Company, for users, or in society.

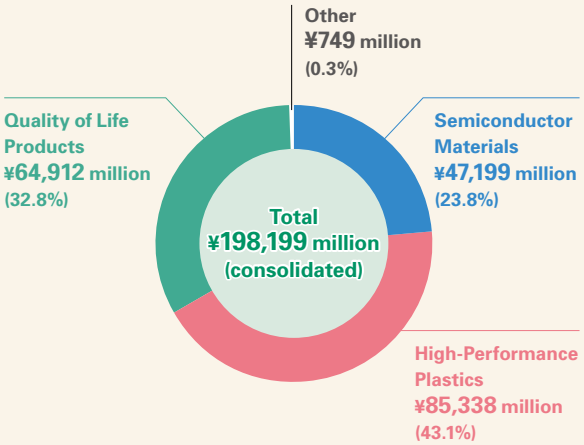
Method of certification

- Regarding existing products or developed or improved products contributing to reduction of environmental impacts, through discussion with divisions, an internal screening committee will review such products, and if it is considered to be appropriate, such products will be certified as environmentally friendly products.
- Regarding products whose environmental performance is to be publicized, those satisfying the following conditions will be certified as environmentally friendly products.

a) Reduction of CO_2-equivalent emissions by 10% or more

b) Reduction impact is objectively assessed by internal LCA review.

Fiscal 2016 Sales Composition by Division (Consolidated)



Relationships with Stakeholders

Our group's stakeholders are the same as those defined in the Corporate Governance Code, and complies with the corporate governance code of the Tokyo Stock Exchange as resolved by the Board of Directors.
Our group emphasizes relationships with stakeholders in promoting business.

Customers

Main Responsibilities

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 the CS Committee, which continuously endeavors to enhance customer satisfaction.

Main Methods of Communication

- Communication through the conduct of daily business
- Quality assurance support
- Exchange of information through trade shows, etc.
- Provision of information through our website and customer support.

Shareholders

Main Responsibilities

The Group is committed to distributing appropriate dividends and is taking steps to disclose all relevant information. To attain these goals, we are increasing the rigor of corporate governance, and ensuring the timely disclosure of relevant information.

Main Methods of Communication

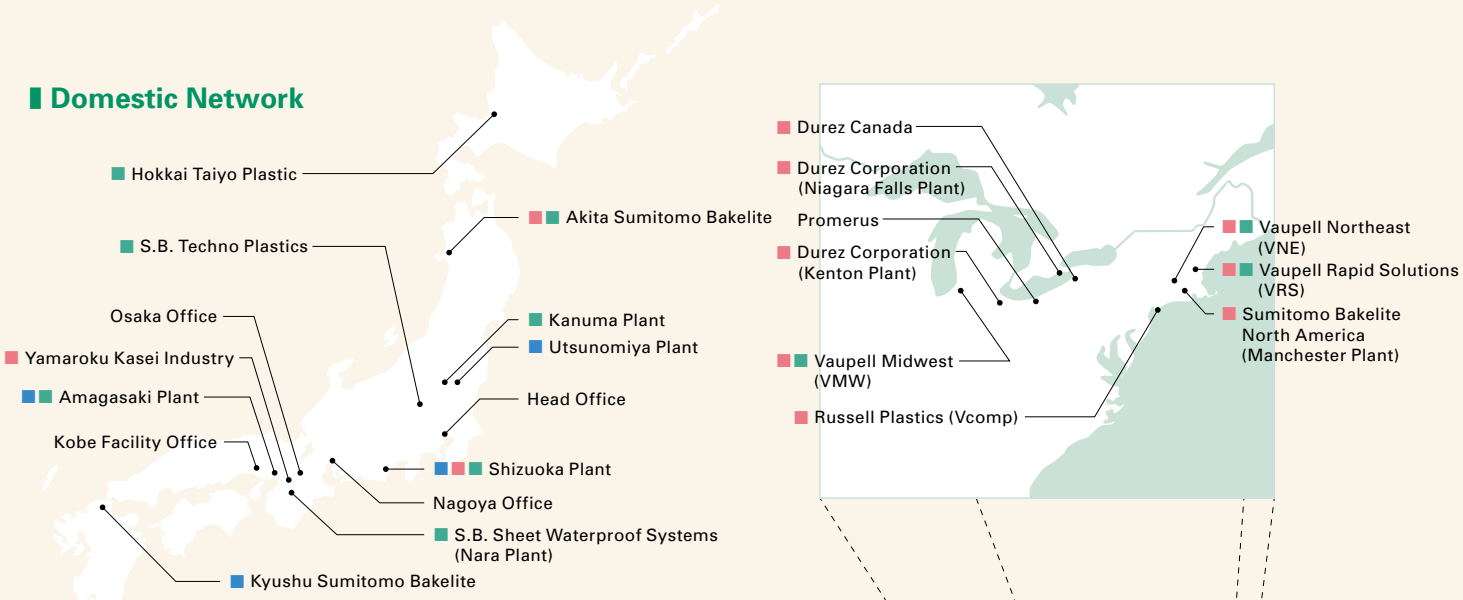
- Shareholders' meeting
- Presentation of financial results and business outlook
- Media response
- Publishing of Annual Report and shareholder reports
- Information disclosure via the website

Group Companies

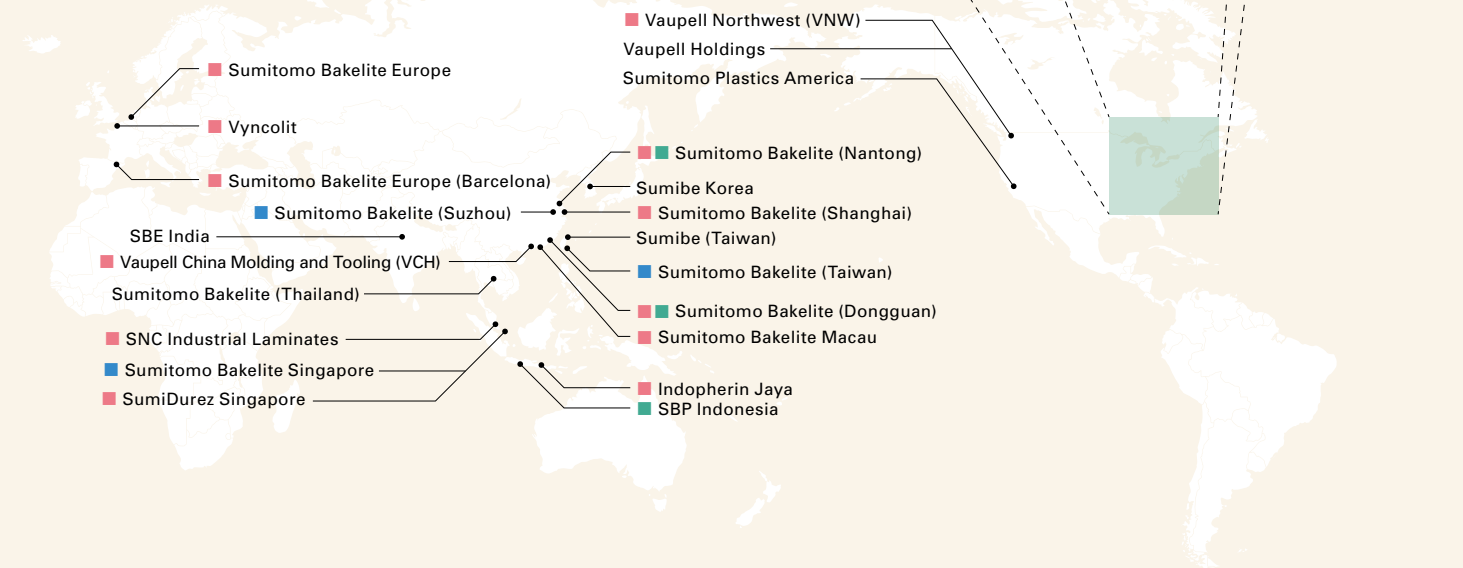
The Group operates in 15 countries and regions, including Japan.
Production sites are color-coded according to the category of products manufactured.

■ Semiconductor Materials ■ High-Performance Plastics ■ Quality of Life Products

Domestic Network



Global Network



Local Communities

Main Responsibilities

Operating as a member of local communities, the Group seeks to contribute to the regions in which it operates while giving careful consideration to environmental protection issues.

We disclose information to local residents by organizing factory tours and proactively participating in local events.

Main Methods of Communication

- Relations with local residents and mutual engagement
- Participation in local events
- Acceptance of next generation internships and site visits
- Participation in the conservation of the local environment and beautification events
- Activities via economic and industry organizations

Government Entities

Main Responsibilities

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

Main Methods of Communication

- Engagement with local and regional governments
- Activities and engagement through economic and industry organizations
- Reply to surveys and questionnaires
- Submission of notifications

Business Partners

Main Responsibilities

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.

Main Methods of Communication

- Engagement through purchasing and procurement activities
- Engagement through surveys and questionnaires
- Disclosure of information on our website

Employees

Main Responsibilities

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

Main Methods of Communication

- Training of all employees through the SB School
- Perform a variety of human resources development and training
- Corporate-level meetings, labor-management meetings, occupational safety meetings
- Sharing of information through publication of a monthly newsletter
- President's homepage and intranet
- Whistleblower system, consultation contact point

Corporate Governance

Aiming to be a Company that is Highly Compatible with Society and the Environment

Strengthening Corporate Governance

As a pioneer in plastics, our company brings "delight" to customers through the creation of new advanced functions from plastics and through the use of its products, with the goal of contributing to value creation for customers and various other stakeholders. For this reason it is important to earn the trust of society and be needed by society, and therefore, we are establishing efficient and effective structures for achieving management that is highly compatible with society and the environment and for addressing risks facing management, including rigorous compliance.

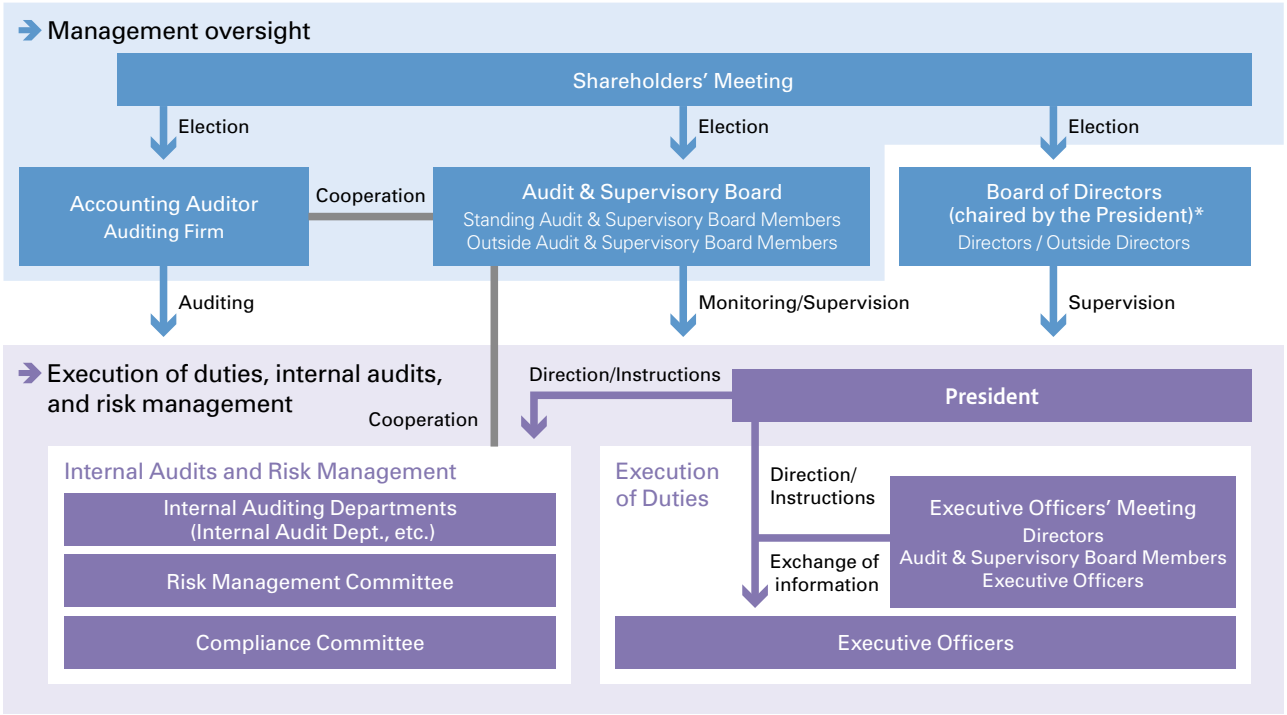
Management System

The Board of Directors, in accordance with laws and regulations, including the Regulations of the Board of Directors, makes decisions on the execution of important operational matters and monitors the progress of each director's execution of operations based on reports on important issues concerning the performance of duties by each director. In the case of situations corresponding to potential conflicts of interest involving any director, potential conflicts of interest are required to be reported in advance to the Board of Directors so that the director in question will be excluded from participation in the decision-making process concerning the matter in question. The Board of Directors deliberates on and selects candidates for the position of director from among appropriate persons in terms of business performance, knowledge and experience, personality, views, and motivation, among other factors, so that the right person is selected for the job. Based on this, directors are appointed by resolution of the Shareholders' Meeting. The remuneration of directors (excluding outside directors) includes basic remuneration (monthly remuneration) and a bonus, with the total amount determined by the Board of Directors within the total amount of remuneration approved by the Shareholders' Meeting.

In addition, the Board appoints executive officers, and the executive officers are responsible for executing their assigned tasks under the direction of the president. As of June 23, 2017, the management structure includes 10 directors and 19 executive officers (including seven who serve concurrently as directors). Of the directors, three are outside directors.

Our company is a company with an Audit & Supervisory Board. There are four Audit & Supervisory Board Members, of which two are Outside Audit & Supervisory Board Members. Among our company board members (director, auditor, executive officer), there are 25 male members and 1 female member, with a female board member ratio of 4%.

Structure of Corporate Governance (as of June 23, 2017)



*The President serves concurrently as Chairman of the Board of Directors, while the supervisory function of the board is guaranteed by the appointment of outside directors and other measures.

Link → Corporate Governance Report

Internal Control

The Company has systems in place for ensuring appropriate operations in accordance with its business philosophy. In accordance with the Basic Policy on Internal Control Systems drawn up by the Board of Directors in May 2006, we periodically review the systems and promote various activities to enhance internal control.
With respect to internal control over financial reporting, based on the Company's Basic Rules and Regulations for Internal Control over Financial Reporting, we endeavor to enhance systems for ensuring the reliability of the Group's financial reporting, appropriately operate internal control systems in terms of implementation, assessment, reporting, and correction, and ensure appropriate and timely disclosure of corporate information.

The Comprehensive Guidelines for Internal Control in Consolidated Subsidiaries covers the items that subsidiaries are required to address in establishing their internal control systems and in their subsequent ongoing implementation of control activities.
The internal control over the Group's financial reporting as of March 31, 2017 was assessed and deemed to be effective by Internal Auditing Departments. In addition, as a result of the accounting auditor's audit, it was confirmed that the internal control report presents fairly the result of assessments of internal control over financial reporting.

Link → Basic Policy on Internal Control Systems

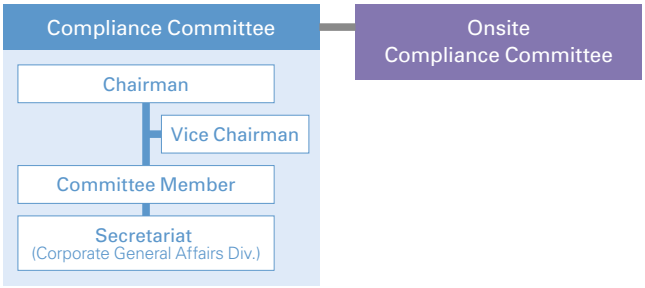
Compliance

With Laws, Regulations, and Corporate Ethics

Compliance System

At our company, we emphasize compliance because we recognize that adherence to laws and corporate ethics is integral to the conduct of business.
As part of the framework to ensure the appropriate conduct of business by directors and employees, the Company has established the Compliance Committee. This committee is responsible for promoting compliance through assessments of compliance levels and, as necessary, undertaking related improvements as well as education and training.

Compliance System



Code of Conduct for Employees

To familiarize employees with corporate ethics and ensure compliance, the Company has established the Standards of Conduct, a code of conduct for daily activities applicable to all employees. A booklet distributed to all employees contains the Standards of Conduct, and offers guidance about their practical implementation. To raise awareness, meetings are held periodically where the Standards of Conduct are read aloud at workplaces. Our subsidiaries and affiliates, in Japan and overseas, are also implementing similar initiatives.

The booklet on the Standards of Conduct

Articles for Emphasis in Compliance

Workplaces in each department apply compliance to daily operations, decide on the key items for compliance and each prepare Articles for Emphasis in Compliance. Although the Articles differ among workplaces, they are displayed prominently and confirmed with all employees periodically by having them read aloud in unison. Our subsidiaries and affiliates, in Japan and overseas, also undertake similar activities.

Compliance Education Using Cartoons

Every month, the Company's internal publication contains a four-frame cartoon about compliance under the title "The Way to Become a Compliance Master." This cartoon explains compliance in an easy-to-follow style. Past cartoons have been compiled into two booklets, which were distributed to employees to raise awareness of compliance.

Profile of Mamoru-kun

Mamoru-kun joined the company 15 years ago. He's a very active mid-level employee, and everyone relies on him. Based on his experience and the knowledge that he's gained from it, he's able to identify issues in the company and offer appropriate advice. He must already be a compliance master!

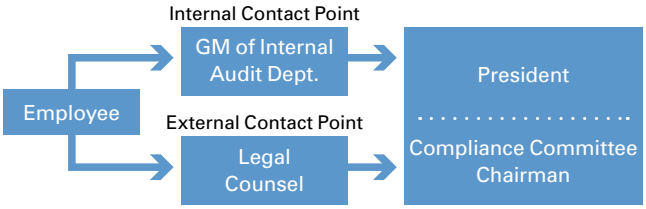
Whistleblower System

We have established a system that enables the Group's employees who have discovered a compliance violation, or suspect that there may have been a violation, to report the matter directly to a designated contact point, on the assumption that reporting to a direct supervisor is difficult. In addition to having an internal contact point at the Internal Audit Dept., employees with such information to disclose can elect to report externally via designated legal counsel. Employees can report anonymously, and the privacy of whistleblowers is rigorously protected to ensure that they are not placed at a disadvantage as a consequence of reporting violations.

Two cases were reported in fiscal 2016, but none of these involved major improprieties, including violations of laws or regulations with respect to discrimination, child labor, forced labor, improper accounting, corrupt practice, or improper or illegal conduct, including violation of antitrust law. The reported matters were dealt with appropriately.

Additionally, subsidiaries and affiliates in Europe, North America and China have set up individual contact points, giving consideration to the local culture and legal customs, and when necessary, the head office of our company will also step in to address matters reported to these local contact points.

Flow of the Whistleblower System



Monitoring

In accordance with the Basic Policy on Internal Control Systems, the Internal Auditing Regulations, the Basic Rules and Regulations for Internal Control over Financial Reporting, the Environmental and Safety Auditing Regulations, the Security Trade Control Regulations and other company regulations, the Internal Audit Dept., Corporate EHS Promotion Dept., Corporate General Affairs & Legal Dept., and other departments involved in internal auditing audit and assess the compliance of the Company, its subsidiaries and affiliated companies, both in Japan and overseas, mainly by means of site audits. Audits and assessments are conducted from the standpoint of whether the operations of departments are in compliance with relevant laws and conform to various standards. Departments where issues are identified are required to submit written reports detailing actions taken to resolve the issues.

In fiscal 2016, compliance auditing and assessment was conducted from the standpoints of environment, human rights, occupational health and safety, provision and use of products and services, management of customer information and data, proper accounting, and fair trade, with no significant violations of laws or regulations.

Risk Management

Preventing Risks Before they Occur

Risk Management Structure

Our company views risks associated with its business from a broad perspective and is committed to always taking action from a safety standpoint, even with issues that have yet to be scientifically demonstrated. To prevent potential risks from materializing and to minimize losses, the Company has established the Risk Management Committee, which operates on a permanent basis and whose responsibilities are Groupwide in scope. The Risk Management Committee meets on a monthly basis. Also, we instituted our Basic Risk Management Regulations, which establish the fundamental policy regarding the risk management of our company and its Group companies. The Regulations require precise management of diverse risks and implementation of appropriate measures.

In fiscal 2016, the Risk Management Committee covered measures against quality complaints, security trade control, information security risk, and other topics, and then worked toward mitigating and eliminating associated risks.

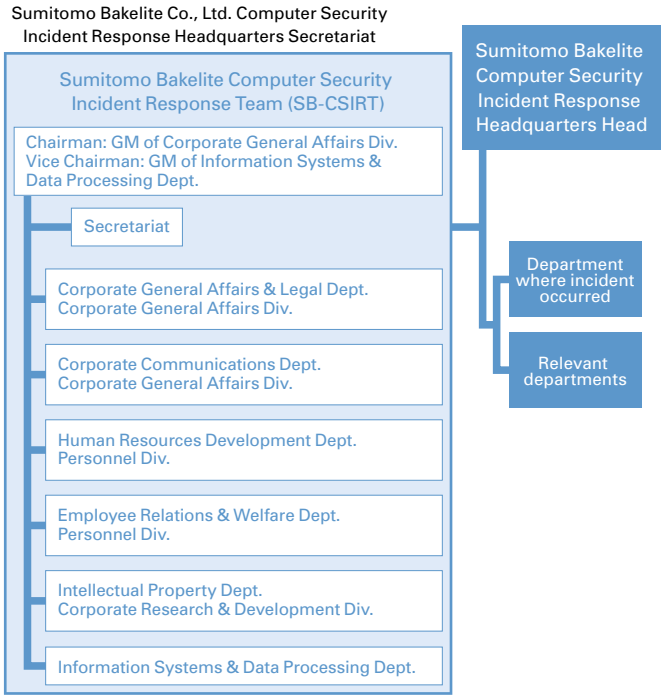
Risk Management Committee

Information Security

We retain an extensive array of personal information on customers, shareholders, employees, and others. In addition to personal information, we also retain trade secrets and other confidential information relating to our business partners. All of this information in our possession is important and must be protected. Therefore, we are committed to ensuring that this information is never leaked.

We also have measures in place to address computer security incidents (cyber attacks, phishing sites, illegal access, malware infections, DoS, and others) in order to prevent information leakages and improve the security of the information systems we operate. In the event of a computer security incident, relevant departments such as the Corporate General Affairs & Legal Dept., Information Systems & Data Processing Dept., Intellectual Property Dept., and Corporate Communications Dept. work together to address the situation.

System for Addressing Information Security Incidents



CSR Procurement

Fulfilling Social Responsibilities Together with Business Partners

Basic Approach

Our company strives to ensure compliance with the laws, regulations, and social norms of Japan and the other countries and regions in which it operates. We also require our business partners to observe these standards of fulfilling their social responsibilities given the changing social expectations placed in companies. In principle, we conclude a basic contract with each business partner we purchase from, which requires the contracting parties to fulfill their corporate social responsibilities (CSR). Our criteria for selecting business partners include their CSR and environmental impact reduction initiatives.

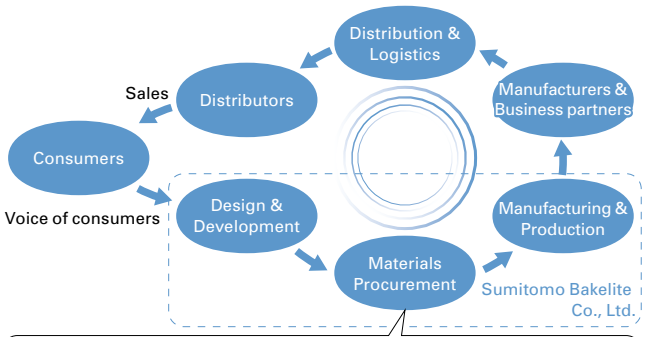
The Global Procurement Division is in overall charge of the purchasing of raw materials, fuel, and equipment for use at the Company's plants and the Group companies worldwide. Our procurement policy and Green Procurement Guidelines are posted on the Company's website.

In October 2015, we amended our procurement policy. The new procurement policy is now published on the Company's website in Japanese, English, and Chinese. Given the standards of the code of conduct of the Electronic Industry Citizenship Coalition (EICC)*1 and changing frameworks for general business dealings, we are working to observe this policy in our procurement activities, and we require our business partners to do the same, too.

*1 See the glossary on page 71.

Link → Procurement Policy

Sumitomo Bakelite's Supply Chain



● **Audit for Stable Procurement**
The Global Procurement Division audits materials manufacturers, focusing on their ability to ensure stable supply.

● **Procurement Crisis Management**
The Global Procurement Division prepares a list of locations of materials manufacturers and keeps it up to date. In the event of a disaster, the division checks the statuses of manufacturers' factories in the affected areas and formulates countermeasures.

CSR Survey of Suppliers

We conducted a CSR survey on our primary 59 suppliers that account for the top 80% of either raw materials purchase value or volume per segment. The questionnaire itself is based on the sample provided by JEITA, with the addition of items taking into consideration the OECD Due Diligence Guidance for conflict minerals and the requirements of the code of conduct of the EICC.

The survey involves a self-assessment on a scale of one to five covering eight fields including overall CSR, human rights and labor, health and safety, the environment, fair trade and ethics, quality and safety, information security and social contributions. For items with a score of less than two, we have a system in place for responsible procurement by requesting suppliers to make improvements.

Results of the CSR survey

	Overall CSR	Human rights and labor	Health and safety	The environment	Fair trade and ethics	Quality and safety	Information security	Social contributions
Average score	4.6	4.5	4.7	4.6	4.5	4.7	4.5	4.1

Selection of Business Partners

When selecting new business partners, the decision to commence transactions is made based on fair and impartial judgment after applying the criteria established by the Global Procurement Division. When commencing transactions, we check whether the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors applies and if it does, we commence the transaction in accordance with this law and the relevant company rules. If we find that this law applies to existing transactions, we immediately take measures to ensure the legality of these transactions under this law.

We have established company rules requiring that we check whether new raw materials comply with chemical substance controls both domestically and internationally, and new raw materials are not adopted unless they conform to these controls. Relevant departments internally work closely together to investigate and make sure that the Company does not violate chemical substance controls.

We are convinced that it is important to establish a relationship of equals based on trust with every business partner and that the transactions should be beneficial to both parties.

Environmental Management

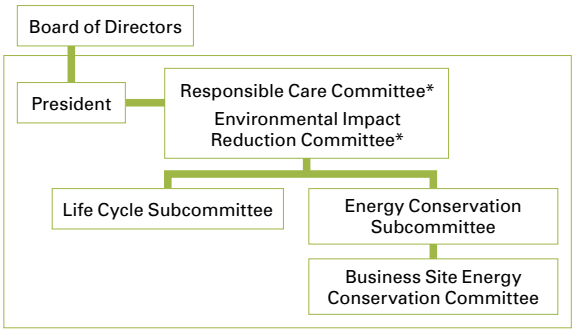
Organized Efforts under the Environmental Management Policy

Environmental Management System

Our company relies upon the earth's natural resources and energy in order to do business. However, doing business will generate garbage and air and water emissions. For this reason, we believe it is important for the Company to adhere to environmental laws and regulations, conduct business in an environmentally friendly manner and engage in initiatives that reduce the environmental impact on the entire society through our products and services. The entire our group works to conserve the environment under its Responsible Care Policy, with the ultimate goal of contributing to the development of a sustainable society.

To actively reduce environmental impacts, conserve biodiversity, and prevent soil and groundwater pollution, our Responsible Care Committee and Environmental Impact Reduction Committee take the lead in conducting environmental assessments throughout the entire life cycle, from R&D to raw materials procurement, production, sales and final disposal. Based on the results, each workplace and work site implements appropriate measures.

Environmental Management System Diagram



* Refer to page 27 for Responsible Care Committee and Environmental Impact Reduction Committee.

Activities of the Environmental Impact Reduction Committee

The Environmental Impact Reduction Committee works on reducing environmental impacts through its two subcommittees.

The Life Cycle Subcommittee continues to focus on life cycle assessment (LCA) at all R&D departments with the aim of establishing production systems with minimal environmental impacts through scientific, quantitative, and objective assessment of environmental impacts from the R&D phase onward. Another priority is the fostering of researchers and development engineers capable of performing LCA.

Additionally, production departments began performing LCA for existing products in an effort to identify the environmental impacts of all of our products.

In fiscal 2017, we will further expand the number of environmentally-friendly products as well as establish guidelines on approaches to LCA for products and work on applying these guidelines to the calculation of CO_2 emissions in the supply chain.

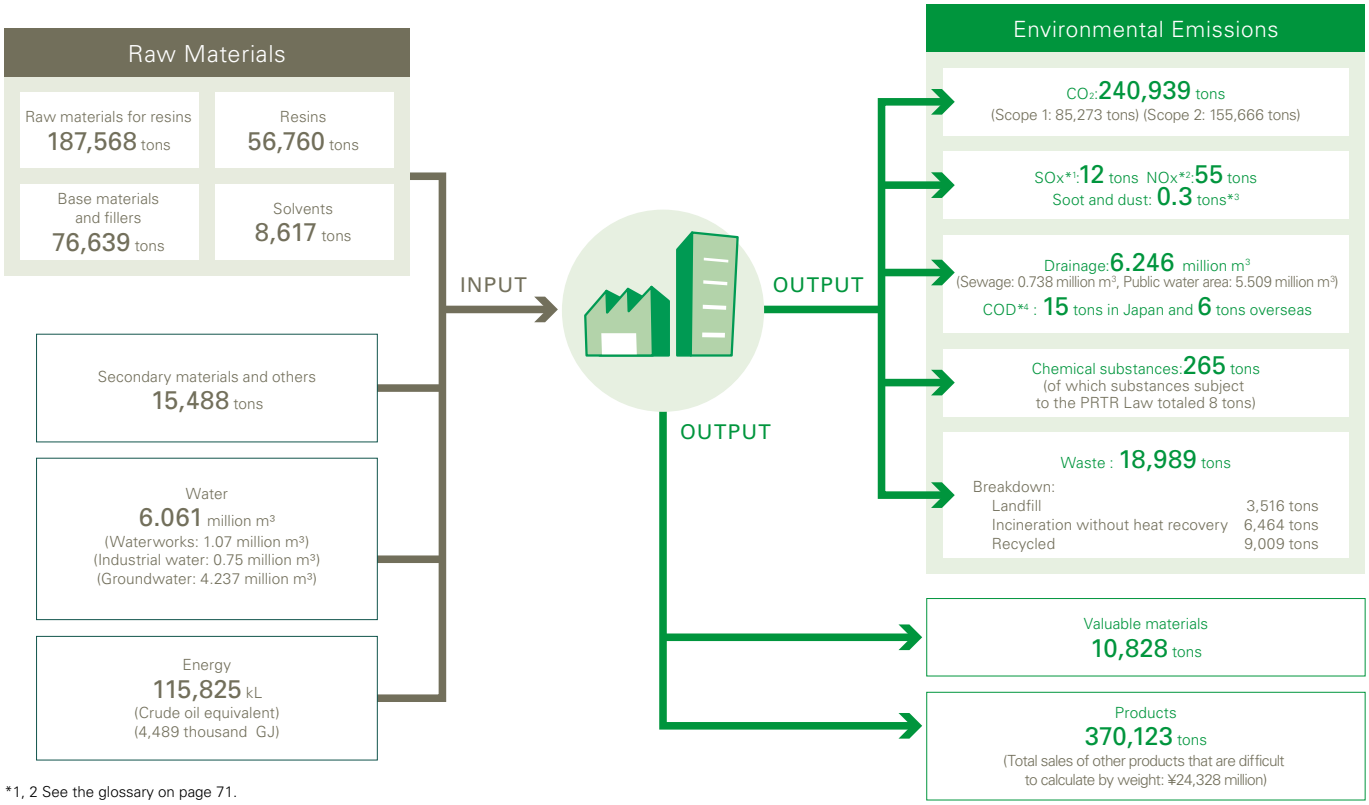
The Energy Conservation Subcommittee worked to establish across all business sites in Japan a mechanism for continuously soliciting and trying out ideas for saving energy through such means as projects implemented in major plants and voluntary implementation initiatives in business sites. Through these efforts, the subcommittee successfully reduced energy consumption by as much as 1,919 kL in crude oil equivalent (4,109 t-CO_2). Overseas, energy-saving best practices and approaches are being rolled out across business sites. Furthermore, through energy-saving campaigns in accordance with the Japanese government's requests in the summer and the winter, we achieved results exceeding the targets. In fiscal 2017, each site will continue to implement its plan by establishing energy consumption reduction targets. We will focus on creating a system across business sites in Japan for sharing practices for reducing energy consumption and technical information related to energy saving in order to improve the level of energy-saving technology throughout the Company; and having the mother plants in Japan provide technical support to their affiliated sites.

LCA training in progress

Material Flows and Investments in Environmental Protection Inputs and Outputs

The figure below shows inputs, including raw materials and energy, and outputs that are products and emissions released into the environment.
The Group is working to minimize its impact on the environment by means of waste reduction and resource saving through promoting more efficient use of raw materials, energy, and water.
Since fiscal 2016, we added the drainage amount for each destination. Also, we present energy usage in joules (J).

Material Flow



*1, 2 See the glossary on page 71.
*3 Since methods of calculating emissions of soot and dust differ among countries, this figure is compiled solely for business sites in Japan at present.
*4 Data on overseas COD covers sites that measure COD within drainage. Data for overseas sites are stated separately because the types of oxidant (potassium dichromate is mainly used overseas) used for measurement differ from those used in Japan.
Note: See the business sites listed on page 3 about the boundary.

Investments in Environmental Protection

Our group has compiled data annually on the amounts of investments in environmental protection of all Group companies in Japan since 2000.
In fiscal 2016, as with last year, we proactively implemented energy conservation measures and spent a total of 440 million yen, in order to maintain at least a 1% average year reduction of intensity of energy usage, which is a requirement under the Act on the Rational Use of Energy.
Note: Data covers the time period and business sites in Japan listed on page 3.

Amounts of Investments in Environmental Protection in Fiscal 2016

Category	Investment amounts (millions of yen)
Emissions control	74
Energy saving	335
Waste reduction, recycling, and treatment	32
Total	441

Medium- to Long-term Environmental Targets and Results Making Group-wide Systematic Efforts

Medium to Long-term Environmental Targets

In fiscal 2009, our company drew up a medium- to long-term environmental plan up to fiscal 2020, and since then we have been implementing activities under this plan.
In particular, with regard to lowering greenhouse gases, we have been participating in the Japan Business Federation's Low Carbon Society Action Plan under the auspices of the Japan Chemical Industry Association (JCIA) since 2010. We are now working on revising our medium-term plan given the government's draft commitment for fiscal 2030 under the Paris Agreement. Our results for fiscal 2016 and plan for fiscal 2017 are presented in the figure below.
In fiscal 2015, we revised the fiscal 2020 targets set for our overseas sites given the impacts of the Vaupell Group of companies that joined our environmental management initiatives.
In fiscal 2016, we continued to make efforts toward achieving our environmental targets.

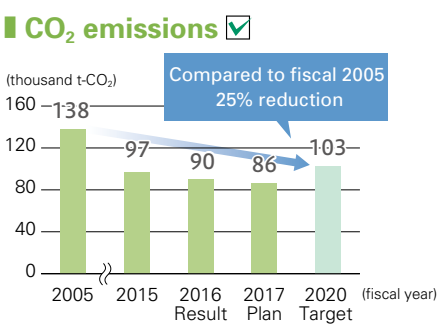
Initiatives at Business Sites in Japan

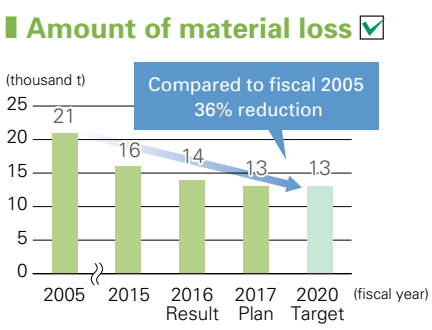
The proactive energy conservation efforts of business sites in Japan have resulted in a continuous reduction of CO_2 emissions in Japan. These energy conservation efforts will be continued in fiscal 2017, too, in an effort to further reduce CO_2 emissions.
Material loss was reduced considerably thanks to waste identification and reduction at plans through MFCA*1. In fiscal 2017, we will promote further reductions.
Chemical substance emissions decreased substantially owing to the effects of the introduction of facilities and optimization of operating conditions. In fiscal 2017, we will work to achieve even greater reductions. Also, emissions of substances subject to the PRTR Law included in chemical substance emissions were reduced greatly compared to fiscal 2015, coming in at 8 tons as a result of consolidating the number of products using these substances.

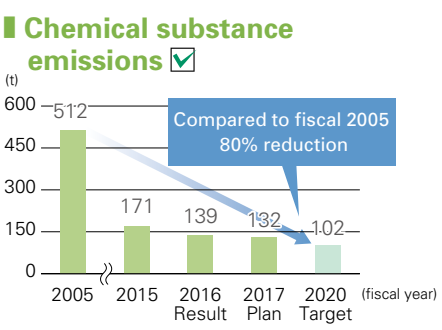
Initiatives at Overseas Business Sites

At the Group's overseas sites, the promotion of energy conservation measures helped to reduce CO_2 emissions compared to the previous year.
Material loss came in below the medium- to long-term plan thanks to reductions over fiscal 2015 owing to the results of MFCA activities, similar to in Japan. Going forward, activities will be continued in order to achieve further reductions.
Chemical substance emissions decreased greatly owing to reduced use of chemical substances in overseas business sites and the optimization of conditions.

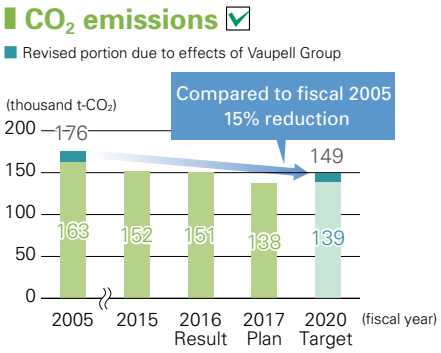
Business sites in Japan

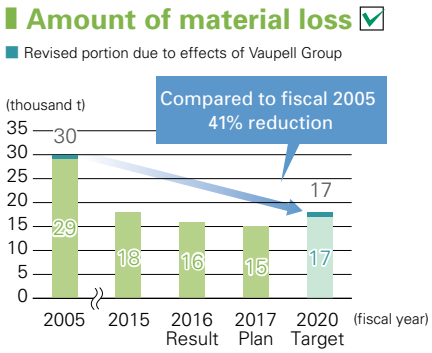


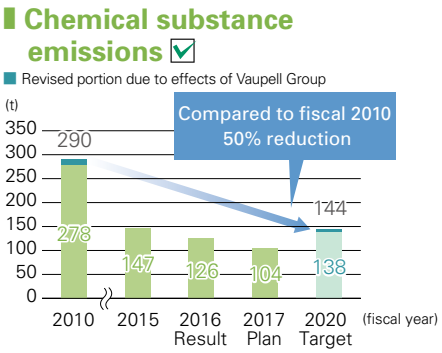




Business sites overseas







* See the business sites listed on page 3 about the boundary.
* For definitions and the calculation method of CO_2 emissions, material loss, and chemical substance emissions, refer to page 67.
* Regarding 38 substances subject to the PRTR Law included in chemical substance emissions, the total amount released by the Group's sites in Japan amounted to 8 tons and the total amount transferred amounted to 111 tons. For the details of transfer and release of substances subject to the PRTR Law, refer to Data Selection on page 69.

*1 See the glossary on page 71.

Environmental Performance

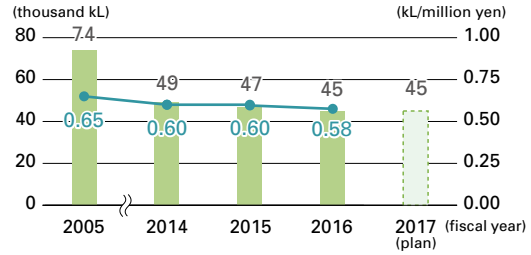
Steadily Reducing Energy Usage and CO_2 Emissions

Reducing Energy Use and CO_2 Emissions

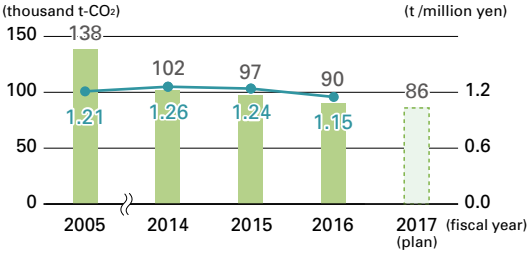
Our company's energy conservation activities are led primarily by the Energy Conservation Subcommittee of the Environmental Impact Reduction Committee.
In fiscal 2016, our domestic business sites were able to reduce both CO_2 emissions and energy usage. Additionally, the intensity of energy usage and CO_2 emissions both decreased.
At our overseas business sites, energy usage and CO_2 emissions both decreased slightly, but intensity increased largely on a yen conversion basis due to fluctuations in foreign exchange rates. Excluding this foreign exchange rate factor, however, the intensity of both remained largely unchanged from the previous year.

Business sites in Japan

Energy usage per production amount value

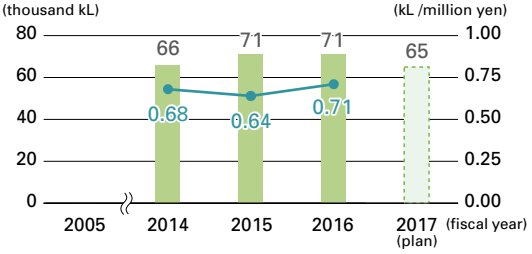


CO_2 emissions per production amount value

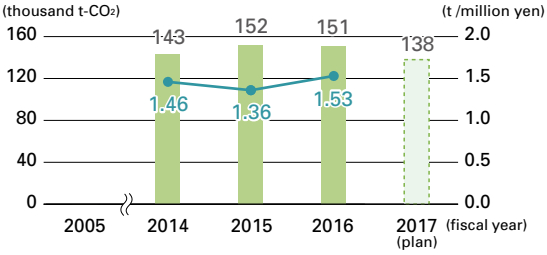


Business sites overseas

Energy usage per production amount value



CO_2 emissions per production amount value



Disclosure of Scope 3*1 Data

In 2015, our group began calculating and disclosing Scope 3 emissions in the supply chain of business sites belonging to Group companies in Japan because of the growing importance of understanding CO_2 emissions covering the entire supply chain.
For fiscal 2016, similar to last year we disclosed data for a total of eight categories including Category 1 "Purchased goods and services." In addition, as with last year, it was also confirmed that three categories including Category 8 "Upstream leased assets" are not applicable.
Data revealed that similar to last year Category 1 "Purchased goods and services" account for a large portion of CO_2 emissions.
For next fiscal year and beyond, we intend to continue to calculate and disclose data in other categories and improve accuracy of data in the categories disclosed this year as part of our efforts to reduce CO_2 emissions throughout the supply chain.

*1 See the glossary on page 71.

CO_2 Emissions in Certain Categories of Scope 3 and Other Scopes (Domestic Sites)

No.	Category	Emissions (Thousand t-CO_2 / year)
1	Purchased goods and services	367
2	Capital goods	13
3	Fuel- and energy-related activities not included in Scope 1&2	12
4	Upstream transportation and distribution	18
5	Waste generated in operations	0.4
6	Business travel	2
7	Employee commuting	2
8	Upstream leased assets	Not applicable
13	Downstream leased assets	Not applicable
14	Franchises	Not applicable
15	Investments	0.3
	Scope 3 Total	414
	Scope 1 (All direct emissions)	41
	Scope 2 (Indirect emissions from consumption of energy)	49

* Data covers all the business sites in Japan listed on page 3.

Calculation method: We calculated the amount of emissions in accordance with the Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain Ver. 2.1 issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry of Japan, using the emission factors stated in the basic database IDEA Ver. 1.1 Carbon Footprint Communication Program developed jointly by the National Institute of Advanced Industrial Science and Technology and the Japan Environmental Management Association for Industry as well as the Emissions Intensity Database for Calculating Greenhouse Gas Emissions of Organizations through the Supply Chain.

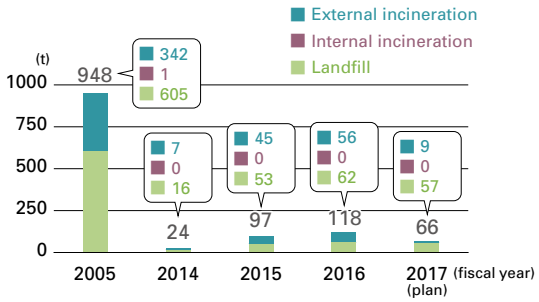
*Energy usage per production amount value is determined using the following equation: Energy usage per production amount value = energy usage/(production amount x unit price)
*CO_2 emissions per production amount value are determined using the following equation:CO_2 emissions per production amount value = CO_2 emissions/(production amount x unit price)
Note: See the business sites listed on page 3 about the boundary.

Reducing Material Loss

Our group is working to increase the efficiency of resource utilization because it regards the reduction of environmental impacts as an opportunity to improve profitability.
Through initiatives in material flow cost accounting (MFCA*1), we are working to reduce not only waste, but material loss, which includes valuable materials.
The Group is implementing measures to attain zero emissions of waste in Japan by promoting recycling and reuse instead of disposing it in landfills or treating it in simple incinerators without heat recovery, in an effort to reduce the environmental impacts of waste.
The graph shows the volume of materials subject to zero emissions measures for the base year of fiscal 2005 and recent years. The volume of landfill waste in fiscal 2015 increased due to the inclusion of Seibu Jushi Co., Ltd. Also, the amount of outsourced incineration increased temporarily due to contractual relationships with treatment providers. We intend to promote further reduction through analysis of losses in our processes using MFCA.

*1 See the glossary on page 71.

Materials Subject to Zero Emissions Measures in Japan

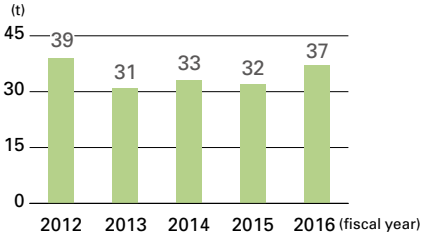


Notes:
1. Zero-emissions-targeted substances comprise landfill waste, internally incinerated waste, and externally incinerated waste. No waste was internally incinerated at business sites in Japan from fiscal 2012 onward.
2. Data covers all the business sites in Japan listed on page 3.

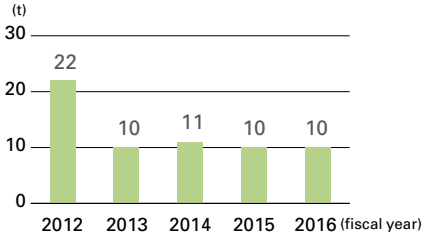
Emissions into the Atmosphere

The Group's business sites in Japan have been promoting a shift of boiler fuel from heavy oil to city gas since fiscal 2004. Fuel conversion was almost completed in fiscal 2013 for areas with access to city gas. Emissions of SOx*2 and soot and dust have been low. Emissions of NOx*3 have increased due to an increase in the nitrogen content of city gas and fluctuations depending on the conditions of combustion of city gas, but these increases have been and continue to be within expectations.

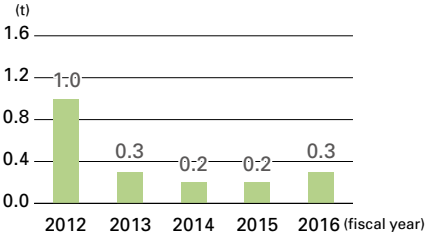
NOx Emissions



SOx Emissions



Soot and Dust Emissions

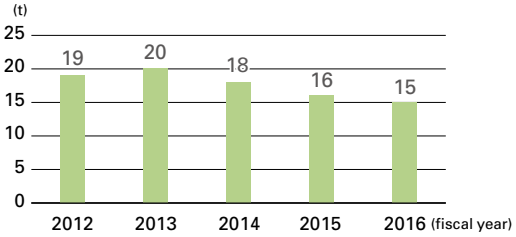


Note: Data covers all the business sites in Japan listed on page 3.
*2,3 See the glossary on page 71.

Emissions into the Hydrosphere

Effluent discharged from plants includes pollutants, which are categorized into industrial and household sewage. Treatment facilities, such as high-concentration phenol recovery equipment and activated sludge treatment equipment, and surveillance systems for constant monitoring are in place to ensure compliance with environmental standards and laws and regulations at the national and local government levels. Additionally risk assessments are conducted on leakages into rainwater that also includes cooling water to prevent sudden and unexpected increases in environmental impacts.
As the graph indicates, COD*4, which is used as a water quality indicator, has remained low.

COD



Note: Data covers all the business sites in Japan listed on page 3.
*4 See the glossary on page 71.

Conservation of Water Resources

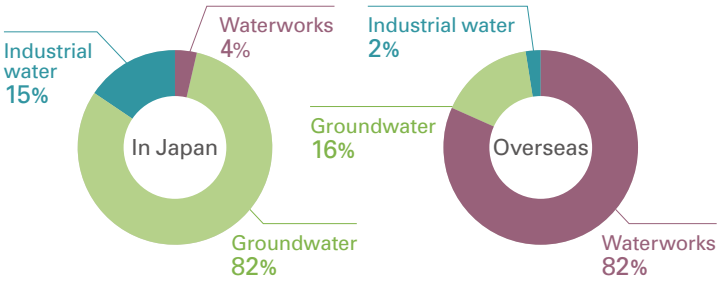
Our group's plants and offices use underground water (well water), water from waterworks, and industrial water. In Japan, the rate of ground water usage is high, while overseas the rate of waterworks is relatively higher. The water used in our plants in Japan accounts for 82% of the water used by the entire Group.

The Group has been continuously working over the years to reduce the amount of water it uses through such measures as increasing the cyclic use of cooling water. In fiscal 2016, water usage increased slightly compared to fiscal 2015 due to increased usage of cooling water owing to increased production at the Shizuoka Plant, which accounts for a large percentage of the Group's water usage in Japan, but overall, water usage by the Group in Japan and overseas has been reduced 39% compared to fiscal 2005.

From fiscal 2015, we began surveying the regional watershed risk of all major plants in the Group (11 sites in Japan and 24 sites overseas). We identified the risks facing each of the regions in which the Group operates based on studies using the WRI Aqueduct* tool, and we compiled these risks into charts. The results indicate the risks of each plant remain unchanged from last year. Going forward, we will continue working to preserve water resource more effectively.

*A tool developed and published by the WRI (World Resources Institute) to provide information about water-related risks.

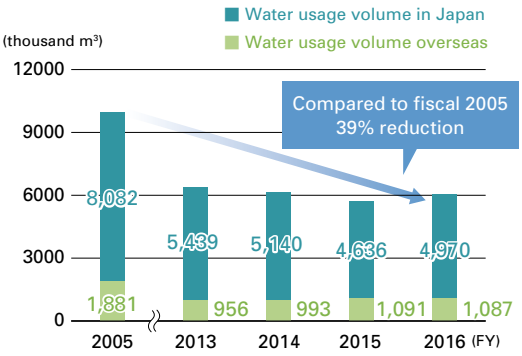
Water Usage by Source in Fiscal 2016



Assessment of Water-Related Risk

Region		Risk level					Total
		Extremely high	High	Medium to high	Low to medium	Low	
Japan	Number of bases			8	3		11
	Water consumption (thousand m³)			1,259	3,703		4,962
China (and Taiwan)	Number of bases			5	2		7
	Water consumption (thousand m³)			355	91		447
Southeast Asia	Number of bases		4		1		5
	Water consumption (thousand m³)		56		103		159
North America	Number of bases		1	3	5		9
	Water consumption (thousand m³)		8	83	256		348
Europe	Number of bases			3			3
	Water consumption (thousand m³)			127			127

Water Usage Volume



Note: Data covers all the business sites listed on page 3.

Soil/Underground Water Pollution Countermeasures

The Group makes efforts to decontaminate soil and groundwater found to be polluted. Risk assessments relating to leakage of chemical substances are also carried out at the Group's business sites in Japan and overseas, and we are moving forward with the creation of a preventative response framework.

No serious leakage-related incidents occurred in Fiscal 2016.

Results of Soil and Groundwater Studies, Related Actions, and Monitoring Results

Site	Results of Investigation	Countermeasures and monitoring results
Amagasaki Plant	Lead was detected by soil content sampling in 2009 and 2010 (max. 500 mg/kg whereas the standard is 150 mg/kg). No groundwater contamination was detected.	Heavy metals exceeding the standard values of the Soil Contamination Countermeasures Act were detected at the business sites on the left. Monitoring of the groundwater is conducted at these sites every year and their contamination levels have been confirmed to be below standard values.
Akita Sumitomo Bakelite	Lead was detected by soil elution sampling in 2005 (max. 0.032 mg/L whereas the standard is 0.01 mg/L). No groundwater contamination was detected.	

Recycling

The Group promotes recycling as a means to make effective use of resources. This recycling includes the recovery and recycling of phenol from waste liquid produced by phenolic resin reactions during the product production process, fine grinding of offcuts from phenolic laminated sheets and decorative melamine resin laminate for use as a filler in phenolic resin molding compounds reuse of molded article by-products (sprues and runners) as raw material for molding materials, as well as reuse of excess sludge from activated sludge effluent treatment equipment as compost (organic fertilizer).

With regard to the recycling of phenol products, we are making practical use of a chemical recycling process through which the products are reused as high value-added raw chemical materials. We were the first in the world to successfully develop and apply a supercritical fluid technology-based chemical recycling method for phenolic resin products.

Safety and Security

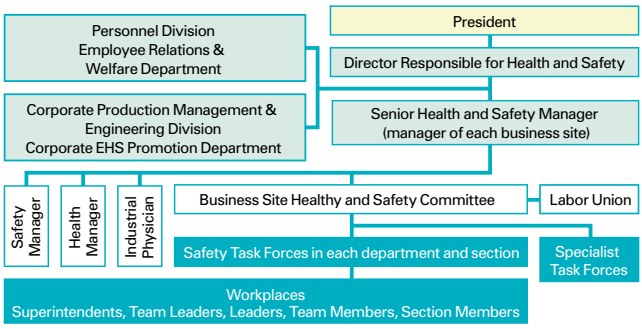
Creating safer working environments with the aim of eliminating accidents and occupational injuries

Occupational Health and Safety Management System

In addition to providing safe and high-quality products to customers, Sumitomo Bakelite is committed to occupational health and safety as they are essential for both a safe work environment and manufacturing processes and for employees to engage vigorously in their daily work.

In 2009, the Group's plants and main domestic subsidiaries and affiliates in Japan began pursuing OHSAS18001 accreditation, followed by the Group's overseas subsidiaries and affiliates from 2010. Today, a total of 23 business sites have received accreditation, including five business sites and three affiliates in Japan and 15 affiliates overseas.

Management Structure



Machinery and Equipment Risk Reduction Activities

All new machinery and equipment installed at domestic production plants and subsidiaries and affiliates from 2008 and at overseas subsidiaries and affiliates from 2009, have been designed in compliance with ISO12100. Existing equipment is also subjected to repeated risk assessments in a move to make machinery and equipment intrinsically safe.

Risk Reduction Activities relating to Chemical Substances

From 2012, systematic chemical substance risk assessment has been carried out at plants in Japan and subsidiaries and affiliates worldwide, and SDS*1-based risk assessment is being used to systematically implement risk reduction measures and prevent impairment to the health of employees.

*1 See the glossary on page 71.

Environmental and Safety Audits

Every year we carry out environmental and safety audits to survey and ascertain conditions at business sites in Japan and subsidiaries and affiliates worldwide. For environmental protection, the audits cover preventive measures, legal compliance, energy conservation activities, waste management, and chemical substance management, and for health and safety and security, they cover related measures, legal compliance, and education and training.

During environmental and safety audits we also confirm the number of complaints that each business site received during the previous fiscal year. In fiscal 2016, five complaints relating to environmental impact were received. These comprised four complaints about odors and one complaint about noise. We addressed each of these complaints in an appropriate manner.

An environment and safety audit being conducted at Amagasaki Plant

Topic Health and Safety Activities at Business Sites in Japan and Overseas

Utsunomiya Plant achieves 5 million continuous accident-free hours of operation

In August 2016, the Utsunomiya Plant achieved five million continuous hours of operation without an accident. It has operated accident-free for eight years since July 2008. In recognition of this excellent track record, the plant was presented with a letter of commendation from the President of our company.

Sumitomo Bakelite (Dongguan) achieves 2 million continuous accident-free hours of operation

In October 2016, Sumitomo Bakelite (Dongguan) (DSB) achieved two million hours of operation without an accident, having operating accident-free since October 2015. In recognition of this achievement, the DSB was presented with a letter of commendation and shield from the President of our company.

Honorable Mention Award for Health and Safety received from the Director-General of the Nara Labor Bureau

The Nara Plant of S.B. Sheet Waterproof Systems Co., Ltd. was recognized with an Honorable Mention Award for health and safety from the Director-General of the Nara Labor Bureau for its various activities involving labor and management to achieve five consecutive years of accident-free operations.

Occupational Accident Figures

Trends in the Frequency Rate of Accidents at Sumitomo Bakelite and Subsidiaries and Affiliates Worldwide

The graph on the right shows the overall frequency rate of occupational accidents including, those occurring at subsidiaries and affiliates world wide.

In Japan, the number of accidents, including those resulting in lost workdays and those not resulting in lost workdays, increased in fiscal 2016 compared to fiscal 2015 when accidents were at a record low. This caused the frequency rate*1 to rise.

Outside of Japan, in fiscal 2016 the frequency rate remained largely unchanged compared to fiscal 2015 because the number of accidents, including both those resulting in lost workdays and those not resulting in lost workdays, decreased only slightly.

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

Notes: Data covers each calendar year.
See the business sites listed on page 3 about the boundary.

Trends in Occupational Accidents at Sumitomo Bakelite and Subsidiaries and Affiliates Worldwide

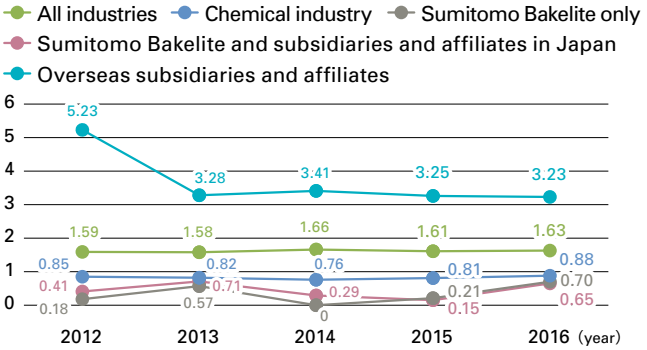
Number of Employees Injured as a Result of Occupational Accidents

The graph on the right shows the number of employees injured as a result of occupational accidents at our company as well as subsidiaries and affiliates in Japan. In 2016, the number of employees injured as a result of occupational accidents (including both those resulting in lost workdays and those not resulting in lost workdays) increased compared to 2015, when figures were at their lowest level on record. Additionally, in August 2016, the Utsunomiya Plant reached five million consecutive hours without an accident, or the equivalent of eight years of accident-free operations.

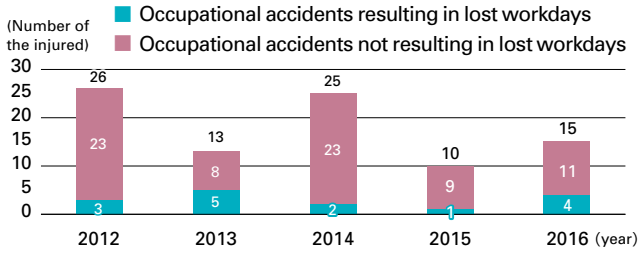
Occupational Accidents by Type

Occupational accidents categorized by type are shown on the graph on the right. In 2016, incidents involving pinching/entanglement accounted for 50% of occupational accidents. Since the majority of these were due to unsafe actions taken when rectifying trouble with machinery, we are working to raise awareness about safety through rank-based safety training and to enhance employees' awareness of possible dangers through education using experience-based safety training machines. Over the last five years 67% of occupational accidents have been the result of the following four causes: pinching/entanglement, falls and slips, cuts and abrasions, and flying/falling objects. We are now implementing preventative measures targeting technical and human factors to reduce the number of occupational accidents.

Frequency Rate of Occupational Accidents at Sumitomo Bakelite and Subsidiaries and Affiliates Worldwide

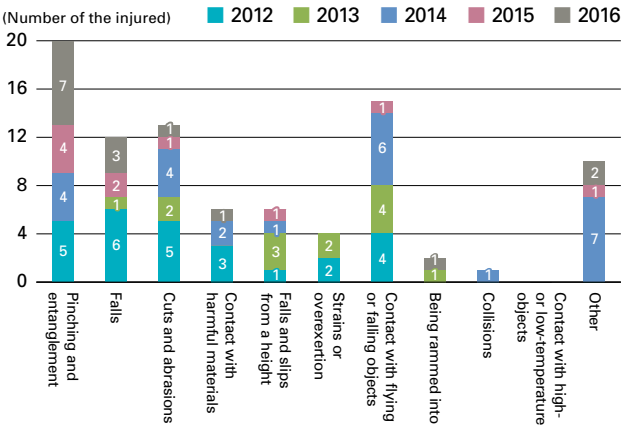


Number of Employees Injured as a Result of Occupational Accidents (in Japan)



Notes: Data covers each calendar year.
See the business sites in Japan listed on page 3 about the boundary.

Occupational Accidents by Type (in Japan)



Trends in Occupational Accidents at Overseas Subsidiaries and Affiliates

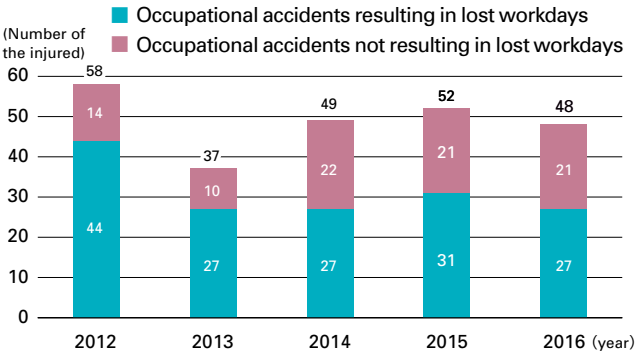
Number of Employees Injured as a Result of Occupational Accidents

The graph below shows the number of employees injured as a result of occupational accidents at overseas subsidiaries and affiliates.
The number of employees injured as a result of occupational accidents includes the Vaupell Group of companies since 2015. The number of injuries with lost workdays decreased slightly in fiscal 2016. In addition, Sumitomo Bakelite (Dongguan) achieved two million consecutive hours of operation without an accident.

Occupational Accidents by Type

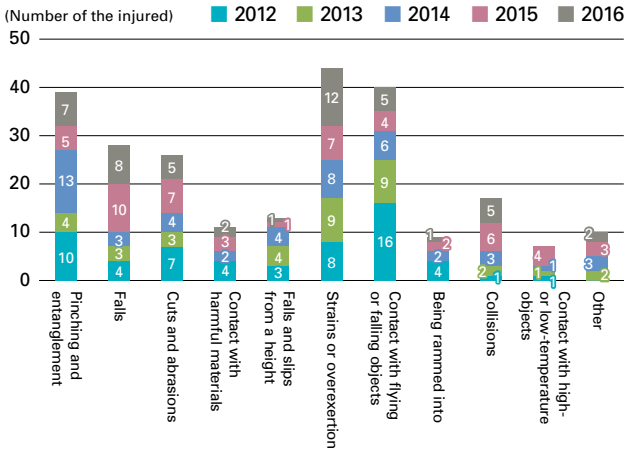
The graph below shows occupational accidents categorized by type.
In 2016, around 40% of occupational accidents occurred as a result of employees' movements, including falls and slips, while there was a significant increase in injuries from reactive movements and ergonomically incorrect postures. Unlike in Japan, there were no pronounced characteristics discernible in the nature of work causing injuries, so continuous efforts are being made to raise awareness about safety through safety videos and the introduction of hazard prediction training.
Since there has been a tendency for a large proportion of accidents to be the result of pinching/entanglement and reckless actions etc., we will work to reduce occupational accidents by making machinery and equipment more intrinsically safe and by implementing ergonomics-based measures.

Number of Employees Injured as a Result of Occupational Accidents (Overseas)



Notes: Data cover each calendar year.
See the business sites listed on page 3 about the boundary.

Occupational Accidents by Type (Overseas)



Accident Prevention

Accident Prevention is the top priority of all our business sites. Our objective is to make business sites safer and more secure, and thus earn the confidence of the local community, ensure employee safety, and maintain stable supplies of products to customers.

Each business site formulates action plans and continually implements education and training designed to maintain workplaces that are free of accidents. To ensure preparedness, we have countermeasures in place and conduct training in order to minimize damage if and when accidents do occur.


Disaster prevention drill held at Shizuoka Plant


Spill recovery drill held at Sumitomo Bakelite Singapore


Disaster prevention training held at Sumitomo Bakelite (Nantong)

Chemical Substance Management

Making Sure Our Chemical Substance Management is Compliant Wherever We Operate Worldwide

Chemical Substance Management throughout Product Life Cycles

The targets for 2020 agreed upon at the WSSD*1 call for the worldwide and comprehensive management of chemical substances throughout the product life cycle, from development to manufacturing, use and disposal, by 2020 in order to minimize the significant adverse effects on human health and the environment caused by the manufacture and use of chemical substances. As a result, the regulatory environment is changing, as regulations have become more rigorous in Asian countries since 2015, following the European REACH*2 regulation that took effect in 2007, and in 2016 the revised TSCA*3 took effect in the United States.

In recent years, new laws have taken effect in many countries, leading to an increased number of inquiries from regulators and customers. As a result, we must address these inquiries accurately while closely monitoring the trends of each country.

To contribute to the targets for 2020, our group carefully manages chemical substances as part of its responsible care activities. We have a system in place for studying and reviewing chemical substance-related laws and regulations in Japan and throughout the world from the product development phase onward. We manage the chemical substances contained in products in order to comply with the laws of the countries where we operate and to minimize environmental impacts throughout product life cycles.

*1,2,3 See the glossary on page 71.

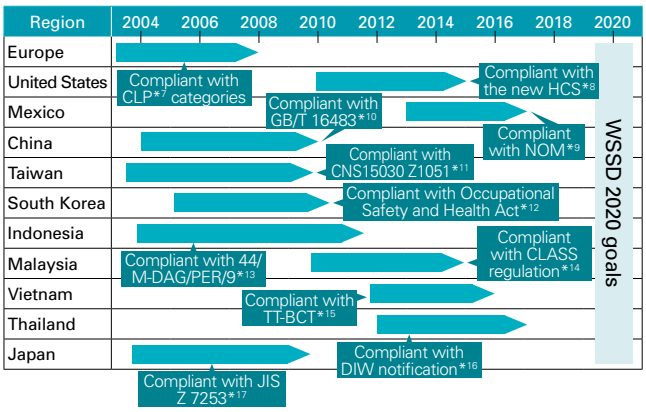
Provision of Chemical Substance Data

We are focussing on promoting the use of SDSs*4 across the Group not only for disclosing information related to chemical substances under regulatory control in Japan and overseas, but also for disclosing relevant information voluntarily so as to improve the quality of Group's information disclosure practices. We were among the first to introduce MSDgen*5 in response to the GHS.*6 This has enabled us to provide SDSs that are compliant with the regulations of 39 countries, including Japan, in the official languages of those countries.

In 2017, we revised the content of SDSs and labeling for Thailand, Canada and Mexico to ensure compliance with GHS.

*4,5,6 See the glossary on page 71.

Status of GHS implementation and countries in which we provide SDS



Countries in which we provide SDS: 39 (North America/Latin America: 4 countries, Europe: 24 countries, Asia/Oceania: 10 countries, Japan)

*7 to 17 See the glossary on page 71.

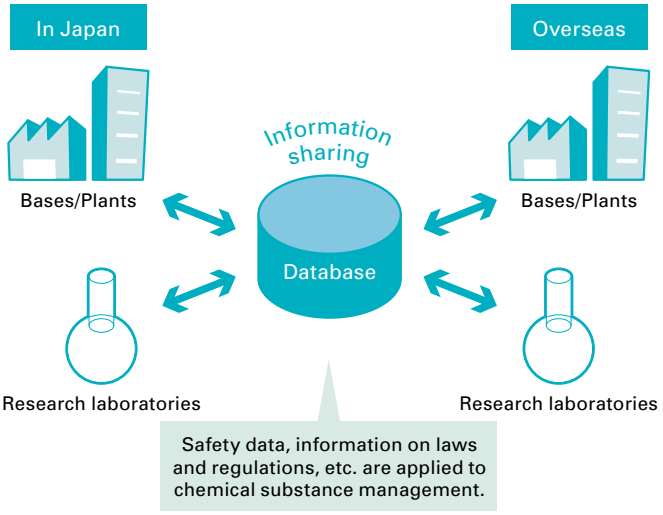
Chemical Substance Management System

We are creating a comprehensive chemical substance management system to centrally manage all chemical substances contained in products and raw materials handled by the Group's plants and research laboratories worldwide. Introducing this system allows us to speed up chemical substance-related investigations (inventory in each country, the safety of products and raw materials, regulatory information, etc.) and to provide accurate information. We are now rolling out the system to plants that manufacture molded articles*18 and expanding application of volume tracking management to products for Taiwan and South Korea, in addition to Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture and Industrial Safety and Health Act as well as Europe's REACH.

We will continue to enhance our system for managing chemical substances in order to ensure even more meticulous management of these substances.

*18 "Molded articles" here refers to all molded articles that have a defined shape with dimensions that can be measured. This applies to molded products and parts of devices, electronic components, paper, packaging materials, etc.

Chemical Substance Management System



Product Liability

Meeting Customer Needs for Safe and Reliable Products

The Group's Basic Policy and System for Quality Assurance

The Group has established quality management systems (QMS) based on ISO 9001 and is continuing to acquire relevant certifications (a total of 36 sites have been certified as of May 1, 2017). To provide products and services that customers can always feel satisfaction and peace of mind in using, all relevant departments collaborate on all processes—from product planning, research, design & development, preparation for production, production, sales & service, to quality assurance—with an awareness of the importance of ensuring the safety of products, and create and appropriately implement and manage frameworks within which to enhance and maintain product safety and quality. We formulated our Quality Management Policy to ensure that every employee of the Group systematically implements quality assurance initiatives in accordance with QMS.

Basic Quality Management Policy for Fiscal 2017

Basic Policy

In mind with Customer First and Quality First, all SB Group employees shall contribute to increasing the company's revenue by creating an efficient workflow of quality formation striving for fundamental improvements:

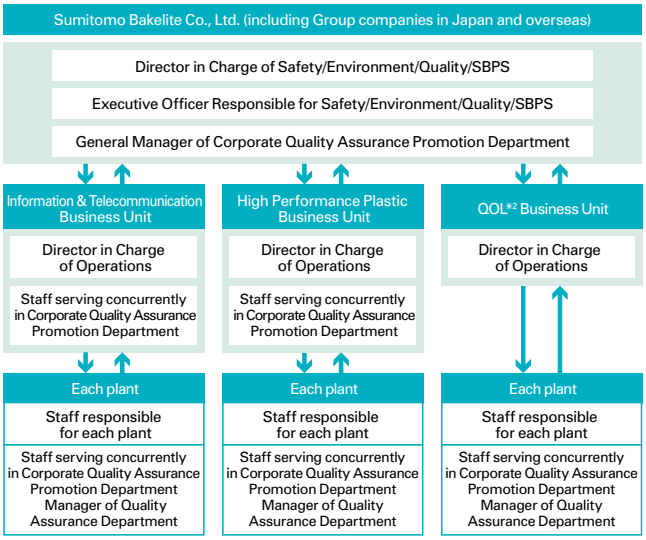
***** Zero Defect* / Proactive* / As one and united SB Group* *****

Action Plan

1. Quality Improvement Activities of Existing Businesses (Complaints Handling Aimed At Improving Customer Satisfaction*[1])
2. Reducing Risks to New Businesses
3. Improvement of the Entire Total Manufacturing (*Monozukuri*) Process through Daily Inspection/Review and Quality Audit
4. Skill Enhancement for Preventing Risks in Design & Development Process and Each Operational Process

*1 See the glossary on page 71.

Quality Management System

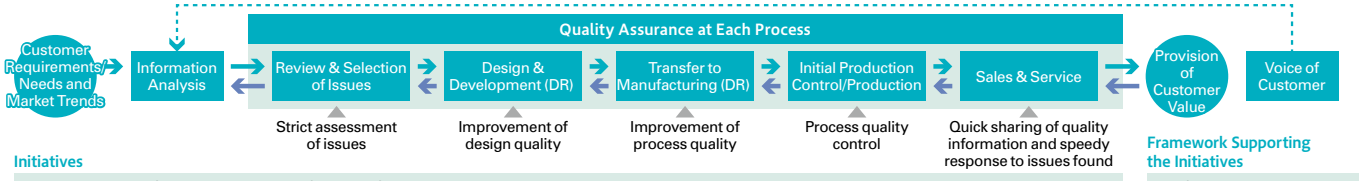


*2 See the glossary on page 71.

QMS Certification Received

Certification Standard	Business/products
ISO9001	Quality of life products (packaging films for food and pharmaceutical products, bio-based products, construction materials, waterproofing products, etc.)
	High performance plastics (included molded articles)
	Semiconductor-related materials
ISO／TS16949	High performance plastics
	Semiconductor-related materials
ISO13485	Medical products
ISO15378	Packaging Materials for Pharmaceuticals
AS9100C	Aircraft components

Future State Vision of Appropriate New-Product Development and Commercialization Processes of the Group



Initiatives

- Implementation of the quality assurance function of the mother site
- Process improvement (new product development review, project review, design and development quality indices, etc.)
- Robust design through quality engineering*3
- Appropriate go/stop decisions at each milestone
- Change Control
- Participation and collaboration of the divisions concerned from the initial stage of design and development
- Prevention of quality problems through reliability engineering, FMEA, DRBFM and FTA
- Close assessment during design reviews
- Reflection of the voice of customer through utilization of support tools etc.

Framework Supporting the Initiatives

- Defining rules
- Building organizations
- Fostering human resources

*3 A powerful design optimization method to create designs that are resistant to a wide variety of noise (error factors)

Quality Improvement Activities for Existing Business

We are working to enhance the quality of our existing products through such efforts as ensuring rapid response to complaints, taking measures to prevent reoccurrences of problems, and utilizing quality-engineering to develop robust designs. Crossfunctional responses are made to rapidly solve not only serious but also minor complaints. In order to prevent new occurrences and recurrence of issues leading to complaints and process abnormality, we use "Why-Why Analysis" and "Further Investigation" to identify what happened, causes, and countermeasures, among other factors, concerning these issues. This information is organized as knowledge that can be shared and used at any time by relevant divisions. In fiscal 2016, we worked on rolling out FTA*[4] across the entire company in order to reinforce our foundation for preventing new occurrences of complaints. To further enhance our efforts, in fiscal 2017 we will establish a workflow to carry out measures that FTA and FMEA*[5] are conducted, and the analysis results are reflected to QC Process Chart. *4,5 See the page 46.

Reducing Risk Relating to New Business

There is a need to improve (optimize) the output quality (degree of perfection) of product designs and process designs when developing new products and to shorten (minimize) the time required for the development process by minimizing rework.

❶ Shortening New-Product Development Periods and Improving Work Quality

In new product development, initial plans are often delayed because of the tendency for a variety of problems requiring reworking to arise. To prevent this, we implement the Plan-Do-Check-Action (PDCA) cycle to increase the degree of perfection of design quality and shorten the development period through collaboration of all the divisions concerned from the initial phases. Furthermore, we implement the following to ensure that the problems do not recur in subsequent development work.

i) Feedback Review Analysis to identify problems through reviews of development processes over time.
ii) Why-Why Analysis and Further Investigation to identify root causes of the occurrence and out-flowing of problems in terms of technology and management. Why-Why Analysis and Further Investigation are also used to determine why problems were not prevented in terms of organizations, allocation of functions, systems, frameworks, and culture and to identify measures for preventing recurrence and new occurrences.

Training session on FMEA at Shizuoka Plant in February 2017

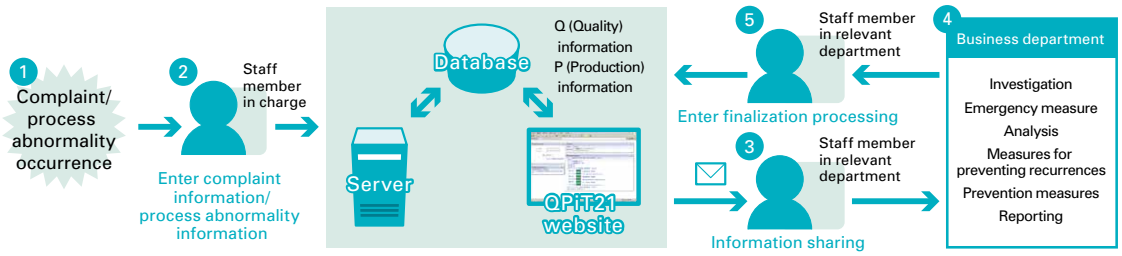
❷ Proactive Use of Various Quality Control Techniques

We proactively use quality control techniques such as Failure Modes and Effects Analysis (FMEA) to predict potential failures or abnormalities in product design and process design phases in order to prevent them from happening in a proper way; Design Review Based on Failure Mode (DRBFM) that focuses on changes to the design and changes to conditions and the environment in conducting design reviews; and FTA (Fault Tree Analysis) that rationally analyzes accidents and defects in a hierarchical manner to discover root causes and fundamental solutions for preventing recurrence. We also utilize quality-engineering (the Taguchi Method) in order to develop robust designs that are resistant to external factors (variations in customer usage conditions and environmental conditions) and internal factors (deterioration of components through wear, contamination, etc.) that can occur, and manufacturing variations (product and component variations).
We use FMEA, DRBFM, FTA and quality-engineering not only for new product development but also for preventing quality-related problems that tend to occur in the 3H situations (*Hajimete*: when something is performed for the first time; *Henkou & Henka*: when there is a change or difference from the previous time; *Hisashiburi*: when something reoccurs for the first time after a long interval). In fiscal 2016, during the initial development phase of products for new businesses we carried out an expanded form of FMEA involving experts from outside each applicable business unit in an effort to reduce quality risks.

The "QPiT" System for Processing Quality-Related Complaints

We manage complaints relating to quality using the "QPiT21" system. QPiT21 (Quality & Production information Tools 21) is a system that allows the central management of quality- and production-related information, and it has been built into the Group-wide intranet. The system was introduced in order to accelerate the communication of quality- and production-related information within the Group, facilitate the sharing of information, and encourage the integration and effective utilization of information levels.
With this system it is possible to respond efficiently, rapidly and appropriately to complaints. In fiscal 2016, we began operation for further improving customers satisfaction by registering and sharing customer information that conventionally is not subject to complaints in the QPiT system.

Complaint Processing Flow



When a complaint or process abnormality occurs, an employee enters the information into the QPiT21 system.
This information is sent to all staff members in charge, and the relevant business units investigate the complaint or process abnormality, and provide an emergency response, carry out analysis, implement measures to prevent recurrences and other similar occurrences, report back to customers, etc.

Internal Quality Auditing and Daily Inspection/Review

The Corporate Quality Assurance Promotion Department periodically conducts onsite quality audits of the Group's business sites in Japan and of subsidiaries and affiliates worldwide. The objectives of quality audits are to audit the enhancement of customer satisfaction, reduction of design/development- and manufacturing-related risks, compliance concerning product liability, etc., and to correct defects and promote improvements.
Quality audits of subsidiaries and affiliates are conducted in cooperation with their mother plants. Quality audits of subsidiaries and affiliates are conducted in cooperation with their mother plants. Quality audits were conducted at 12 sites in Japan and overseas in fiscal 2016. For fiscal 2017 and beyond, we will carry out quality audits under '*Monozukuri*' Audit * at major production bases inside and outside Japan.
We are striving to raise our employees' awareness concerning quality enhancement through having staff of Corporate Quality Assurance Promotion Department participate in quality meetings and design reviews etc. held by each business unit.

* '*Monozukuri*' Audit means integrating SBPS/QA/EHS audits into a single one, and will start as a corporate audit.

Enhancing Customer Satisfaction (CS)

Initiatives aimed at enhancing customer trust and satisfaction

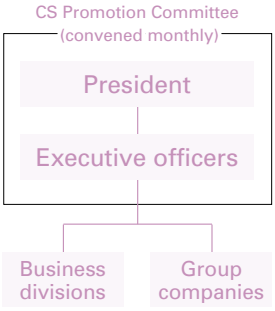
CS Promotion System

Our company has established a basic policy on the promotion of CS though the CS*1 Promotion Committee. In accordance with this basic policy, divisions and Group companies work together to share the voice (needs) of the customers and improve business processes based on this.

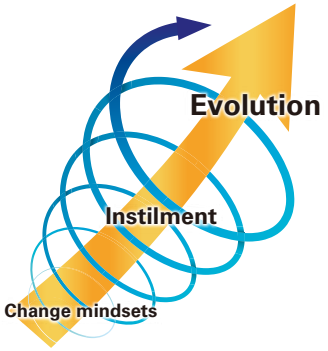
We invite customers in an annual conference to listen to their voices, deepen mutual understanding and trust through questionnaires and other means. Internally, we hold CS discussion meeting annually to share CS activities and enhance awareness of CS. Each business site and business division creates their own CS Declaration comprised of five principles to suit the nature of its business and environment, all employees continue to evolve. Also, we utilize the company newsletter to convey our philosophy toward CS activities to employees.

*1 CS: An acronym for customer satisfaction.

CS Promotion System



Spiraling up of CS activities



Utilizing QPiT Information to Enhance CS

We are utilizing various kinds of information accumulated in the QPiT, our Group's system for managing quality-related information such as complaints and customer requests, to enhance CS.

There are common threads within complaints and customer requests and such information can be useful for other divisions. By analyzing the content and trends of such information and implementing measures to address the issues while building a framework to improve these and sharing these internally, a wide range of divisions can work to achieve the aim of improving CS.

Link → Page 46 The QPiT system for processing complaints relating to quality

Dissemination of Corporate Information

In order to help stakeholders gain a better understanding of the Group's diverse activities, we strive to ensure that all our communications comply with applicable laws, regulations and inhouse rules, and use honest, appropriate, and easy to understand display methods and expressions.

Besides the disclosure of corporate information as mandated by law, we use diverse media to disseminate information, such as press releases, advertising at airports and train stations, in Shinkansen carriages, at baseball stadiums, signage, and other outdoor advertising, as well as our website. In fiscal 2016, we launched a smartphone-compatible version of our corporate website in Japanese, English and Chinese.

In addition, we display finished products and digital signage that use our products as components or materials at exhibition corners at our business sites and at some product expositions for helping customers and business partners understand our products better.

Advertisement at Hanshin Koshien Stadium

An advertisement for the biotope project at the Shizuoka Plant, as seen from the JR Tokaido Line

Corner displaying products at our head office

Smartphone-compatible version of our corporate website

Recruiting and Employment

Recruiting personnel able to perform and demonstrate their capabilities

Number of Group Employees and Executive Officers

Number of Employees in Japan and Overseas (as of March 31, 2017)

	Directors	Executive officers	Employees	Temporary employees*1	Total
Sumitomo Bakelite Co., Ltd.	10	10	1,751	233	2,004
Subsidiaries and affiliates in Japan	22	–	753	205	980
Overseas subsidiaries and affiliates	21	–	3,411	138	3,570
Total	53	10	5,915	576	6,554

* The number of employees (consolidated) on page 28 includes our company employees who serve as directors of subsidiaries and affiliates.

*The numbers of directors of subsidiaries and affiliates in Japan and overseas represent the number of full-time directors including our company employees who serve as directors of subsidiaries and affiliates, but excluding those serving concurrently as directors of our company.

*1 Part-time and casual workers

Employees by Region/Proportion of male and female employees (as of March 31, 2017)

		Japan	Europe	North America	East Asia	Southeast Asia	Total
Employees	Male	2,216	297	707	825	477	4,522
	Female	288	47	326	630	102	1,393
Subtotal		2,504	344	1,033	1,455	579	5,915

*The total for Japan includes domestic subsidiaries and affiliates.

Number of Newly Recruited Employees (Including new graduates and mid-career personnel)

	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017 (planned)
Number of people employed	37	34	50	38	34	30
Male	34	28	42	31	31	–
Female	3	6	8	7	3	–

*The numbers in the table do not include personnel transferred from domestic subsidiaries and affiliates.

*Includes temporary employees who are not post-retirement hires.

*Since employee recruitment is gender-neutral, the gender composition of the planned intake of new employees for fiscal 2017 is unknown.

Retention of Newly Graduated Recruits (Retention rate three years after hiring)

	Fiscal 2014	Fiscal 2015	Fiscal 2016
Retention rate after three years of employment	94.4%	89.3%	93.9%

*The numbers in the table represent the rate among newly graduated recruits with at least a bachelor's degree.

*For fiscal 2016, this indicates the percentage of employees hired on April 1, 2014 who were still employed with the company on March 31, 2017.

Continued employment beyond the age of retirement

Following the passing of the Act on Stabilization of Employment of Elderly Persons, we established a system to enable personnel who have reached the mandatory retirement age of 60 to continue working as contract employees.

By facilitating post-retirement hiring, this initiative harnesses the knowledge, technical skills, and knowhow that employees have accumulated over the course of their careers.

Continued employment after retirement

	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016
Number of retirement-age employees	59	37	34	43	18
Number of post-retirement rehires	50	23	27	31	16
Rehiring ratio	85%	62%	79%	72%	89%

Note: For the rehiring ratio, the first decimal place was rounded to the nearest whole number.

Regarding Retirement Benefit Obligations

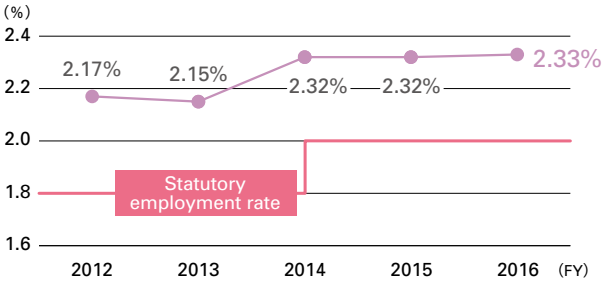
Regarding retirement benefit systems, the Company employs a defined-benefit system in Japan. Overseas, some consolidated subsidiaries concurrently use defined-contribution and defined-benefit systems. The consolidated retirement benefit obligations for fiscal 2016 totaled ¥31.2 billion, ¥28.8 billion of which was for pension funds.

Link → Securities Report (Yuka Shoken Hokokusho (Japanese only))

Employment of People with Disabilities

Our company considers the employment of people with disabilities, as stipulated by law, to be an integral part of corporate social responsibility. While giving the necessary consideration to enabling those with disabilities to carry out their work, we endeavor to offer workplaces that are as safe and secure for those with disabilities as they are for others, and that allow employees to continuously hone and cultivate their skills. We are also making continuous efforts to employ new graduates with disabilities by, for example, accepting students with disabilities for internships so as to provide them with opportunities that suit their conditions and workstyle needs.

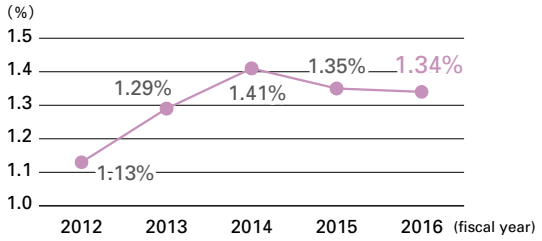
Employment Rate of People with Disabilities over the Past Five Years (As of March 31, 2017)



Initiatives to Promote the Advancement of Women

Our company is working to promote workplace diversity.
We consider promoting the advancement of women in particular to be an issue needing to be proactively engaged, and we are working to provide gender-neutral personnel training and create workplaces in which people can play active roles regardless of their gender.
In fiscal 2016, we carried out efforts following the action plan aimed at creating an environment in which female employees can actively participate that we established in fiscal 2015. The plan covers a four-year period from April 2016 and aims to solve the issues of there being few female management staff and the relatively short length of service of women in career-track positions. We have set the target of doubling the number of female management staff compared to the end of March 2014. In order to meet this target, we are promoting such initiatives as increasing staff awareness of the continued employment support system for women, raising awareness about diversity to reform the workplace culture, dispatching female staff to external seminars to nurture their career consciousness, promoting the basic skills proficiency exam (an exam for those who wish to switch to a career-track position), and increasing the number of female recruits.

Trends in the proportion of female management staff



*"Management staff" refers to Sumitomo Bakelite Co. Ltd. employees at or above the level of superintendent and engineer, excluding executive officers.
*Includes those seconded to other companies with qualifications as managerial staff.
*The ratios are values for the end of each fiscal year.

Work-Life Balance

Initiatives to Achieve More Fulfilling Lifestyles

Our Position on Work-Life Balance

Our company promotes the creation of workplaces conducive to successful work-life balance of employees.
In 2008, our company formed its Work/Life Balance Labor Study Group to consider the options, formulate policies and commence their implementation. The objectives are:

1. To promote flexible approaches to work, while also reducing overtime hours and promoting the full use of annual leave entitlements, and encourage employees to devote the additional time available to worthwhile non-work activities, such as educational pursuits and activities related to family and communities.
2. To offer a greater diversity of working styles that benefit employees who must deal with major life events, such as marriage, childbirth, and child rearing, and thus contribute to nurturing the next generation.

In fiscal 2011, our company increased the number of accumulated annual paid vacation days (annual unused paid vacation days accrued) that may be carried over from 30 days to 40. In fiscal 2013, we expanded the application requirements to allow use for participation in volunteer activities and use in half-day increments. In fiscal 2014, we increased the number of days of leave for those attending the birth of their child from three days to five days.
We will continue to implement such initiatives as part of efforts to further promote better work/life balance.

Number of Overtime Hours Worked and Days of Paid Leave Taken by Regular Employees

	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016
Average number of overtime hours (per annum)	112.7	139.9	140.4	124.5	93.6
Average number of days of paid leave used	12.8	13.3	13.1	13.3	14.3

Note: "Regular employees" means our company (non-consolidated basis) personnel working during daytime hours, excluding managerial personnel.

Employee Support for Various Life Events

We are focusing on creating an environment in which our employees can achieve their goals for both work and life events (such as childbirth and childcare).
We are also encouraging employees to proactively utilize various programs provided by the Group to help them deal with important life events, and since the implementation of childcare leave and nursing care leave programs, the proportion of employees returning to work after taking childcare or nursing leave has been almost 100%. In fiscal 2016 five employees took childcare and no employees took nursing care leave. Furthermore, we are implementing more employee support programs than the ones mandated by law to make it easier for our employees to continue working as they go through critical life events.

Next-generation Certification Mark: "Kurumin"

Programs Relating to Childbirth and Childcare

Childcare Leave Program	Childcare leave can be taken until children reach the age of two (until the day before a child's second birthday)
Altering work start times for workers caring for children	Employees with children in the sixth grade at elementary school or lower are able to shift their work start time in 30 minute increments up to either one hour forward or one hour back with the proviso that there is no change to the length of their set work day.
Reduced work hours for the purpose of childcare	Employees with children in the sixth grade at elementary school or lower may, if they wish, reduce the length of their work days by up to two hours.
Childbirth leave	Female employees can take six weeks' leave prior to giving birth and eight weeks' leave after giving birth.
Outpatient leave	Pregnant employees can take leave after giving birth for receiving health guidance from a health professional or receiving postnatal checkups.
Child nursing care leave	Employees with children in the third grade at elementary school or lower who have been employed at the Company for six months or more can take leave in addition to annual paid leave when any of the following applies. 1. A child is injured or is infected with a contagious disease 2. A child requires a vaccination or a checkup
Accumulated annual paid leave	While statutory outpatient leave and child nursing care leave can be unpaid, we allow employees to take these as paid leave, provided that it is within the scope of the 40-day accumulated paid leave limit.
Exemption from overtime work	Employees who have children younger than three years old may be exempted from overtime work upon request.
Limitation on overtime work	Employees with preschool-age children, if they request, will not be ordered to work more than 24 hours of overtime per month or over 150 hours per year.
Limitations on night work	Employees with preschool-age children who made the relevant application cannot be ordered to work at night.

Human Resources Development

Fostering personnel who can contribute autonomously to the Group's sustainable growth

The type of personnel we look for

Our company seeks to hire and foster people who will share and commit to its Business Philosophy—"Our company places prime importance on trust and sureness, and shall commit itself to contributing to the progress of society and enhancement of people's welfare and livelihood through its business activities." Further, we need people who will embrace the Company's mission to become an excellent global enterprise that helps enhance customer value through its products and services, creating plastics with more sophisticated functions, and can achieve sustainable growth in the advanced chemical products sector. Specifically we seek personnel with the four characteristics listed on the right.

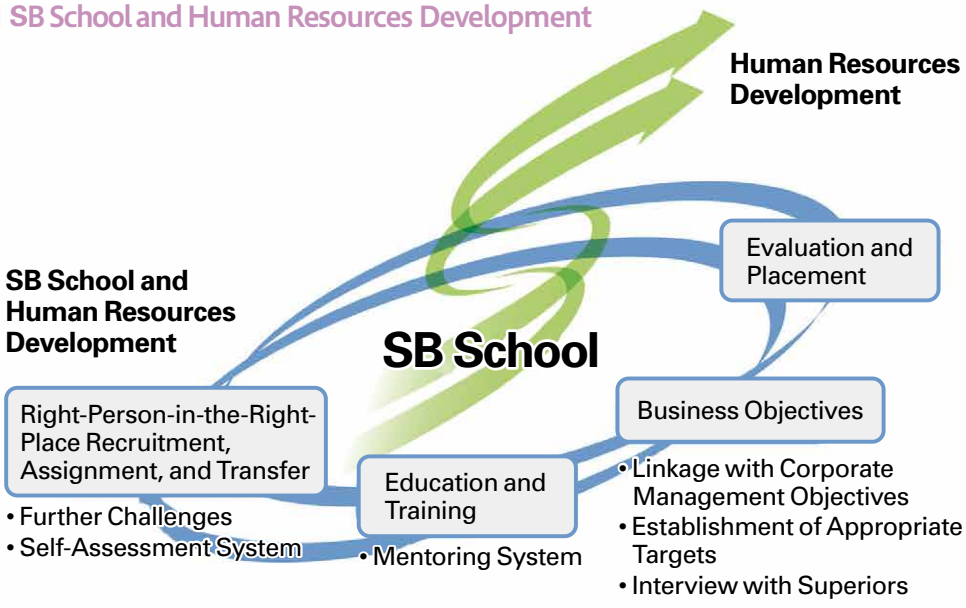
Key characteristics of the autonomously motivated personnel Sumitomo Bakelite seeks

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 professionalism**
   who possess outstanding skills and know-how and can produce results through their work anywhere in the world.

The Group's in-house training institute, "SB School"

In September 2007, we opened the Sumitomo Bakelite School (SB School) as an in-house training institute.
The aim of SB School is to provide lifelong education and training courses that help our group achieve sustainable growth of business operations while maximizing corporate value. The school offers courses for all grades of employees from all departments. These include "all-employee education" courses that confirm and reinforce employees' awareness of the Company's Business Philosophy as well as fundamental knowledge about such issues as enhancement of CS, compliance, human rights, occupational safety, quality, and environmental protection. The school also systematically plans and implements various other kinds of educational and training courses needed by employees. From April 2016 through March 2017, the cumulative participation in SB School courses was about 20,000 employees, and the number of hours of education provided was approximately 35,000. We will plan and implement an increasingly wide range of programs to develop the capabilities of all employees—the Company's most precious management resource.

SB School and Human Resources Development



Education and Training Structure of SB School

	All-employee education	Training by corporate departments	Special purpose training	Education for each employee grade	Self-development support
Executive officers	Basic policies/compliance, Safety, Quality, Environment, CS (enhancing customer satisfaction), Human rights in the workplace			Education for executive officers	Self-development/English conversation training, Correspondence courses
Management staff				Education for management staff	
Department managers				Education for line managers (advanced) Education for line managers (basic)	
Section chiefs		<Basic/Specialist Education> CS, marketing, legal matters, labor, accounting, credit, IT, intellectual property, environment, quality, manufacturing technology, SBPS, technology	- Writing emails in English (basic/advice) - Logical thinking - Presentations - Strategic scenario knowhow/do-how - Marketing - Negotiating skills enhancement	Education for newly appointed section chiefs	
Supervisors/engineers				Education for newly appointed management staff	
Leaders (team leaders)				Education for site leaders	
Sixth year				Education for mid-career employees	
Second year				Education for employees in their third year in the company	
New recruits				Follow-up education for new recruits Education for new recruits	

Education for enhancing negotiating skills

Education for employees in their third year in the company

Education for mid-career staff

SB School Course Participation (fiscal 2016)

Unit: Persons

Type of course	Number of participants
Education for line managers (basic)	16
Education for newly appointed section chiefs	29
Education for newly appointed management staff	44
Education for mid-career staff	29
Education for employees in their third year in the company	32
Follow-up education for new employees	24
Education for new employees	24
Total	198

Topic Manufacturing-oriented SBPS Education

SBPS activities originally began as an offshoot of on-site kaizen (improvement) activities but are now implemented throughout the Company in order to generate the values demanded by customers and society.

The activities are aimed at securing the revenue and safety (personnel, facilities, environmental, and quality) that our company requires to achieve sustainable development. The activities involve setting specific targets (financial, quantitative, and delivery), planning who needs to achieve each of these targets by when, and implementing these plans without delay, meaning the activities are just the same as the daily work tasks carried out by employees.

We believe that, through the ages, technical capabilities, knowledge, experience, and tireless will that each individual has who promotes these activities will always bring about our required results.

Based on this idea, we have organized education programs targeting each employee grade and level as part of the SB School system. The planning and operation of the education is in principle carried out by employees themselves.

Employees receiving training are required to submit reports once the training has ended. These reports make it possible to ascertain how well employees have understood what they have learned and also make it possible to gather employees' opinions about the training and their feedback on how the training could be improved, and this information is reflected in the planning of subsequent training sessions. With regard to employees who participate in specialist training courses, we not only have them submit their reports but also focus on making them implement their learnings in their workplaces and, for that purpose, following up on them with regular verification.

Example of employee grade-specific education
"SBPS Education for new recruits"
Through lecture sessions on the Company's kaizen (improvement) concepts and practical training sessions using assembly kits, new recruits learn about the basics of manufacturing. An on-site learning-based orientation course lasting approximately two-months is also provided.

Example of specialist education
"Training course for plant managers"
This is a training course for management staff aimed at fostering advanced plant managers (managers who fulfill the requirements of plant manager or presidents of affiliated companies). The course involves everything from carrying out checks of actual worksites to discovering the root causes of problems and recommending fundamental countermeasures. Course participants learn about management from a comprehensive perspective. In fiscal 2016, the course was carried out for nine persons selected from each business division. The course was completed after all participants presented a declaration of conduct for the future.

Quality Control Skill Enhancement

We offer 32 quality-training programs at our SB School to increase our employees' awareness of quality, to prevent quality problems, and to improve quality techniques. November every year is designated as "quality month," and quality education via e-learning is provided for all employees.
We continue to implement practical training for effective utilization of FMEA, DRBFM, and quality-engineering*1 Furthermore, we continue to implement training in Feedback Review Analysis, Why-Why Analysis, and Further Analysis, that can also be used in resolving various problems that occur in the course of daily work as well as for quality problems. We conduct this training at subsidiaries and affiliates worldwide in accordance with the objectives and grades of employees.
Also, starting in fiscal 2017 we will switch quality education for second year engineering employees from an outside educational institution to more effective in-house education.

*1 See the page 46.

Environmental Education

Our laboratories and plants handle a wide range of chemical substances. We conduct periodic group education programs for employees, including new employees, with the objective of protecting the environment in the vicinity of our business sites and ensuring that employees work in safety. These programs are designed to enhance employees' understanding of the properties of chemical substances and the content of relevant laws and regulations, thus enabling them to handle chemical substances appropriately.
In addition to group education programs, environmental education by e-learning is conducted every year for all employees in June, a month dedicated to enhancement of environmental protection. This education provides an overview of Responsible Care and various other activities we are conducting to enhance employees' general understanding of the Company's environmental and safety activities.

R&D Tech Day Held

On November 8, 2016 we held the "2016 SB R&D and Tech Day" to share information about technology across the boundaries of the various departments and businesses that we operate with the aim of enhancing our overall Group-wide technological capabilities. More than 250 staff members from Japan and overseas, primarily from research departments, manufacturing-related departments, marketing, and sales participated in the meeting. After introducing case studies based on 10 different themes in the morning and 30 themes in the afternoon, a discussion was held as the poster session while technical exchanges were also conducted.
The case studies that were introduced were streamed online to over 200 employees at eight business sites in Japan.

Awarding of the Grand Prize at 2016 SB R&D and Tech Day

'Gemba Kaizen' Activity Presentation Meeting Held

'Gemba-ryoku' is essential to generating profits without comprising in terms of safety or quality. Since 2015, we have been working on group-wide improvement activities as part of SBPS. On May 26, 2016, we held SB 'Gemba Kaizen' Activity Presentation Meeting 2016 as a venue for presenting successful outcomes of daily improvements. This marked the first time in 10 years that a company-wide presentation focused on the 'gemba' was held. The ten presentations selected from several hundred activity themes from each business site proved to be very in-depth and conveyed a sense of passion and hard work. We plan to continue holding this presentation as a way of improving our 'gemba-ryoku'.

SB 'Gemba Kaizen' Activity Presentation Meeting 2016
Presentation by the top award winners from the Polymer Manufacturing Dept. of Shizuoka Plant

Health and Safety Education

In parallel with measures to reduce the risks posed by machinery and chemical substances, we show our safety video, conduct hazard prediction training as well as initiatives, such as "pointing and calling" and making proposals for reducing near-miss accidents, We have "Safety Gyms" held at each production plant to allow employees to learn about the fundamentals of safety, and these are used to enhance employees' safety consciousness, hazard prediction skills, and ability to identify risks.
We conduct safety education at every level, including the holding of safety meetings in which all plant managers participate to share policies on safety activities, dedicated safety education for managers, basic correspondence education on safety for mid-level employees, and experience-based safety education for new employees.

Forklift safety education

Safety education using experience-based safety training machines

Rank-based safety education

Safety video (DVD)

Human Rights Education

Creating workplaces where employees respect each other's human rights

We strictly prohibit discrimination and harassment in "Our Standards of Conduct" and other policies and this applies throughout the Group. Employees receive education about the Standards of Conduct when they join the company in an effort to raise awareness of human rights issues. We consider and implement human right education commensurate as a company, and urge each employee to gain a correct understanding of discrimination and harassment in society as a whole. In fiscal 2016, we added education about ways to prevent maternity harassment as defined with revisions made to Japan's Child Care and Family Care Leave Act and Gender Equality in Employment Act in January 2017 and education to promote understanding of diversity. We aim to create pleasant and cheerful workplaces in which employees respect each other's human rights.

Employees receiving computer-based human rights education

Health Management

Enabling employees to continue working with healthy bodies and minds

Our company strives to create workplaces conducive to the maintenance of employees' good health, both physical and mental. Our employee health management activities are primarily based on the results of regularly scheduled health checks. In particular, employees over 30 years old are entitled to receive cancer screening (stomach and colon) and those over 40 years old can receive abdominal ultrasonography as well. By ensuring that employees properly understand the results of health checks and receive timely diagnoses and guidance from in-house and external industrial physicians and other medical staff, the Company is contributing to the prevention or amelioration of lifestyle diseases.

In addition, employees engaged in work that involves use of organic solvents and specified chemical substances receive special health checkups twice a year for early detection and prevention of health problems attributable to occupational diseases. We also provide opportunities for employees to receive health consultations at their own discretion with industrial medical staff who offer advice on physical and mental health issues.

In fiscal 2012, we began offering health guidance to employees to help them avoid lifestyle diseases such as diabetes, hypertension, and dyslipidemia. In addition, based on the awareness that the preventive efforts of each employee are important for health enhancement, we are also stepping up employee education concerning health-related matters. With regard to mental health, recognizing the importance of detecting a mental disorder in its early stage, we are conducting "line care" courses for managerial personnel who are responsible for managing other employees in order for them to increase and refine their knowledge about mental health.

With the provision of stress checks being made compulsory, from fiscal 2015 we began providing stress checks, and employees who so wish to can undergo consultations with a doctor. We are also working to put in place necessary measures based on the results of the health checks and enhance workplace environments based on the results of group analysis.

We have also formulated a program to support people with mental health problems. The program is designed to help them return to work and to prevent relapses through a concerted effort of their superiors, people in charge of labor affairs, industrial physicians, and healthcare staff.

Topic **Health Instruction with the Head Industrial Physician**

We set up a special feature page in our company newsletter authored by our head industrial physician that provides seasonal and event-based health information useful for employees and their families to maintain and improve their health.

The special feature on infectious diseases (influenza and norovirus) covered how to prevent them and what to do if an employee actually caught one to make this important information known to all employees.

Mental health education lead by our head industrial physician

Labor-Management Relations

We aim to grow our company and create pleasant workplaces based on labor-management cooperation

We recognize that pleasant and satisfying working environments are not only intrinsically desirable but also contribute to the development of an enterprise. Moreover, good labor-management relations and the collaboration they engender are essential ingredients of such working environments.
Currently, all of our employees are members of the Sumitomo Bakelite Union. Corporate-level meetings of the Company's senior executives and representatives of the Sumitomo Bakelite Union are held twice a year at the head office. These meetings are valuable opportunities to cultivate favorable labor-management relationships by sharing frank views on the business environment and the Company's operations. Major plants also hold monthly labor-management meetings at which information about conditions in each department is shared.
With a view to creating safe and comfortable workplaces through labor-management collaboration, we hold annual labor-management meetings on occupational health and safety based on the provisions of the labor agreement. These meetings are held once annually and attended by Sumitomo Bakelite Union members in charge of occupational safety at facilities across Japan. Through a frank exchange of opinions, management and labor deepen mutual understanding.
These ongoing initiatives help to further deepen long-standing labor-management relations. The Sumitomo Bakelite Union participation ratio is 100% on a non-consolidated basis.

Relationships with Shareholders and Investors

Ensuring Appropriate, Proactive Information Disclosure

Basic Policy on Profit Distribution

Our company is working actively to enhance our corporate value and regards returning a portion of profits generated by our businesses to shareholders as one of its most important management priorities. In allocating profits, we take into consideration 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. We seek to pay stable dividends in line with consolidated financial performance.
In line with the above basic policy, we paid dividends for the year ended March 31, 2017, of 10 yen per share.

Information Disclosure

We carry out appropriate and timely disclosure of corporate information in accordance with the disclosure standards of the Tokyo Stock Exchange and in accordance with the "Information Disclosure Guidelines" in which we have set our basic approach to disclosing information to stakeholders including investors and employees simultaneously, fairly, and accurately.
We also make efforts to proactively disclose our information such as financial results, general shareholders' meeting, along with information disclosed in the manner as stated in the above paragraph, through posting them on our website.

Presentation on financial results and business outlook.

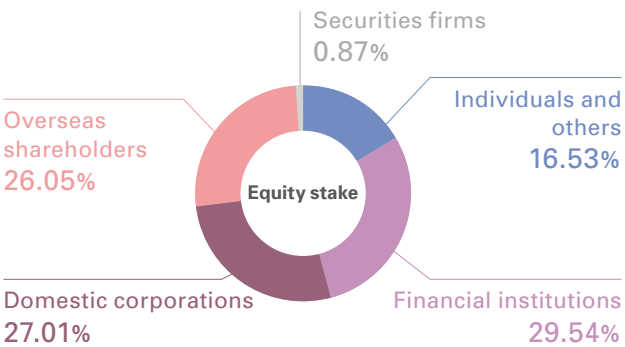
Business Report

Encouraging Exercise of Voting Rights at Shareholders' Meetings

Through such initiatives as enabling shareholder to vote their right by electronic means, sending early and posting on our website convening notices for general shareholders' meetings, we are working to create an environment that makes it easier for shareholders to exercise their voting rights.

Shareholder Information and Equity Stake (as of March 31, 2017)

Total number of shares issued : 247,952,394
Total number of shareholders: 13,190



Relations with Local Communities

Contributing to the Development of a Local Community as its Member

Environment-Related Initiatives

Biodiversity Conservation Initiatives

Our company's business activities rely on nature's bounty and for this reason we recognize the importance of conserving biodiversity. As such, we promote reduced environmental impacts and incorporate biodiversity conservation in our procurement policy. In terms of our initiatives during the product life cycle, we develop eco-friendly products, while outside of Japan we take part in local initiatives, including those that protect rare tree species. Furthermore, we are a promotion partner of "The Declaration of Biodiversity by Nippon Keidanren" and are implementing all possible measures following this declaration.

Biotope Initiatives

The results of an investigation into the relationship between the business sites of our group worldwide and protected areas considered important in terms of biodiversity indicated that none of our business sites were located in these areas. Although not a protected area, the results of an ecosystem survey conducted in fiscal 2011 at the site of our Shizuoka Plant located in Fujieda City, Shizuoka Prefecture, confirmed the presence of killifish, an IA-rated endangered species. After determining the strong need for preserving the biodiversity of this site, we decided to create a company biotope.
The biotope opened in April 2017 after work was completed under a five-year plan running from 2012. The biotope, which occupies about 5% of the Shizuoka Plant's site, is habitat for a wide variety of fauna and flora, including ancient Oga lotus and jewel beetles with rainbow-colored wings, among others, in addition to minami killifish.

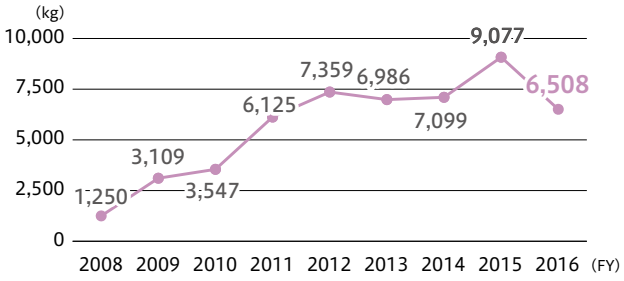
Killifish swimming in the wetland (between lotus leaves)

Initiative to Protect Forest Ecosystems

Our company contributes to conservation of biodiversity by protecting forest environments through supporting forest thinning projects and afforestation activities. Our company has supported forest thinning mainly in Iwate Prefecture since fiscal 2008 by expanding the use of Paper Products that Contribute to Forest Thinning Efforts promoted by the Morino Chonai-Kai (Forest Neighborhood Association). The cumulative amount of this paper used is approximately 51 tons, which corresponds to the thinning of 3.35 hectares.
Additionally, our business site in Indonesia (Indopherin Jaya) carries out mangrove planting activities in order to protect mangrove forests, which provide habitats for a wide variety of marine organisms. Mangrove forests not only help to protect the environment but also improve the living conditions of local residents and prevent erosion of beaches and coastlines. Going forward, each of our business sites will continue to take part in biodiversity conservation efforts tailored to their location.

森の町内会
間伐に寄与する紙
www.mori-cho.org

Amount of Paper Products that Contribute to Wood Thinning Efforts Used by Sumitomo Bakelite



Environmental Conservation and Beautification Activities in the Surroundings of Plants

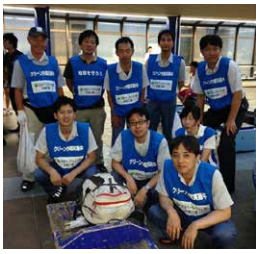
We are working to conserve and beautify the areas surrounding each of our production plants by cooperating with local environmental conservation activities and campaigns against illegal dumping of waste as well as cleaning and beautification events organized by local communities.

Yamaroku Kasei Industry

Participated in the Yamato River and Ishi River cleanup campaign.

Hokkai Taiyo Plastic

Took part in the spring cleanup campaign (organized by the Sapporo Rinko Industrial Park Association) and disposed of illegally dumped waste.



Amagasaki Plant

Participated in the Tasogare Cleanup Campaign to raise awareness about and pickup litter organized by the City of Amagasaki.

Sunbake

We installed an automated supply system for Adblue (for detoxifying nitrogen oxide) at a distribution hub in Shizuoka City.

Initiatives in Society

Environmental and Social Contribution Activities

Our company participates in an environmental survey program run by NPO Earthwatch Japan as a corporate partner, as part of its educational and social contribution activities as well as to expand the scope of these educational and social contribution activities. In fiscal 2016, we participated in the research surveys as part of the two research programs. The first was a monitoring survey for learning about the return of living organisms conducted at Moune Bay in Kesennuma City, Miyagi Prefecture in July 2016 (post-earthquake ocean ecosystem survey) and the second was a tidal flats survey (local living organism survey in areas affected by the earthquake) for monitoring the recovery of East Japan's greenery conducted in the Urato Islands in Shiogama City in August 2016.

Moune Bay, Kesennuma
(ocean water quality survey)

Urato Islands, Shiogama City
(monitoring of tidal flats ecosystem)

A Message from Earthwatch Japan

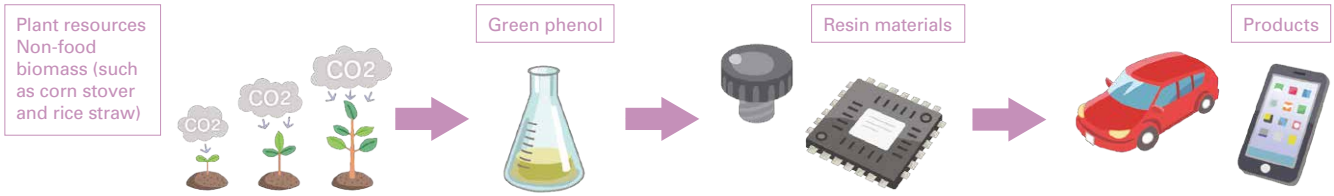
Earthwatch Japan's survey activities provided an excellent opportunity for employees who participated to experience people's connection with nature while enjoying a fun excursion. I hope that participants were able to understand the close relationship biodiversity has with our lives and the importance of preservation based on scientific grounds, and then use this new knowledge at work and in their private lives.

The insight participants gained through these survey activities about connections between forest and ocean and the concerns of researchers can be utilized in Sumitomo Bakelite's environmental education activities. Going forward, I hope Sumitomo Bakelite Co., Ltd. will get more involved in our survey activities in order to expand its in-house environmental education to heighten its ability to disseminate information both inside and outside the company.

Executive Director
NPO Earthwatch Institute
Tomoko Nunoi

Environmental Contributions Aimed at a Broad Range of Industries

Our company was recognized with an Honorable Mention at the 15th GSC Awards for its biomass-derived phenol manufacturing technology related to development. This award also recognized the Company for its research performance that can be expected to be rolled out to GSC in the future.
There are growing expectations for plastic manufacturing from biomass resources in order to address the future issues of global warming and resource depletion. Biomass-derived phenol manufacturing technologies are garnering much attention as a technology that can fulfill such expectations.



Relations with Local Residents and Participation in Local Events

We are working to enhance the welfare of local communities by proactively interacting with local residents and participating in local events to deepen our ties with them, as well as engaging in volunteer activities and making donations.

Kobe Plant
Hosted a volunteer booth at the summer festival of the industrial park in which the plant is situated

SNC Industrial Laminates
Participated in a charity run organized by the Johor Cerebral Palsy Association

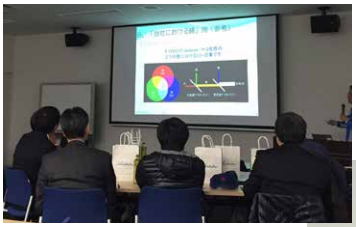
Kyushu Sumitomo Bakelite
Took part in volunteer activities to plan tulip bulbs

Indopherin Jaya
Participated in a quiz commemorating World Environment Day held at city hall (the photograph shows third place finish)

Initiatives Relating to Fostering the Next Generation

Support for Education of the Next Generation (Fujieda City Science Education Support Project)

We are taking the lead in providing support for the education of the next generation as part of an industry-government-academia partnership in cooperation with other companies with production plants located in and around Fujieda City.
On January 20, 2017, the 8th Fujieda City Science Education Support Project was held at the Tsuiji Plant of Murakami Corporation. As with previous years, the event drew a large number of participants that included not only science teachers from public junior high schools in Fujieda City, but also staff from the Education Department and Industrial Promotion Department of Fujieda City as well as employees from companies located in Fujieda City. During the networking event, participants took part in a lecture about optical reflection and a tour of the automobile rear-view mirror manufacturing facility at Murakami Corporation. Feedback from science teachers included, "I learned about the principles of science utilized in everyday products," "I learned about innovations for improving productivity," and "I can use what I learned not only during science classes but also comprehensive studies classes, too."



The 8th Fujieda City Science Education Support Project

Automobile rear-view mirror

Welcoming Next Generation Internships and Factory Visits

In order to support the growth of the next generation of students we proactively accept student interns and also welcome students to company briefings and site visit events (factory tours) to aid their understanding of our business and the work carried out at our production plants.

S.B. Techno Plastics (head office plant)
Hosted an internship from Kodamahakuyo High School.

Sumitomo Bakelite Macau
Hosted plant tour and networking session with students and professors from the nearby University of Macau.

SBP Indonesia
Hosted an internship from PT. Mitsui Indonesia.

Sumitomo Bakelite Europe (Barcelona)
Hosted a plant tour and training program for students majoring in chemistry.

Site Report

Below you will find detailed information about each business site and affiliated company.

* Air and water quality conservation: "No problems" indicates no particular environmental impacts were detected during the period from April 2016 to March 2017 in measurements and assessments on air and water quality in the form of values exceeding the regulated threshold to be complied with (prefectural ordinances, regional agreements, our own standards, etc.). Data for certain business sites covers the period from January to December 2016.

Japan

Kobe Facility Office

Address	1-1-5 Murotani, Nishi-ku, Kobe-shi, Hyogo		
Number of employees	64		
Commencement of operations	1991		
Total site area	16,530㎡		
Month/year of management system certification	Environmental	ISO 14001	December 2003
	Occupational Health and Safety	OHSAS 18001	September 2015
	Quality	ISO 9001	2010 (S-BIO Business Div.)
Principal R&D themes	Development of high-performance plastics and R&D of technologies for bioplastics and other products		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

Our office is wholeheartedly engaged in reducing waste, recycling, cleanup activities, and disaster prevention drills within the complex. The R&D Center is reducing environmental impacts using high yield resin synthesis and carefully calculated process design. The S-BIO Business Division, too, is working to mitigate environmental impacts by developing testing and diagnostic materials and improving the yield of resin made from bio-materials.

Director
Hiroshi Matsuno

Shizuoka Plant

Address	2100 Takayanagi, Fujieda-shi, Shizuoka		
Number of employees	575		
Commencement of operations	1962		
Total site area	287,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	March 1999
	Occupational Health and Safety	OHSAS 18001	March 2008
	Quality	ISO 9001	1995 (laminates, PM, PR, molded products)
		ISO/TS 16949	2007 (laminates, PM, PR, molded products)
Principal R&D themes	Epoxy resin copper-clad laminates, epoxy resin coating powder, phenolic resins, thermoset molding compounds, melamine resin decorative laminates, formalin, molded products and dies, substrate materials for semiconductor packages		
Air and water quality conservation	<Air> No problems <Water> No problems		

We are pursuing initiatives to reduce the environmental burden of all our processes, from product development through to the manufacture of finished products. The target of our three-year plan is a 50% reduction in negative costs by MFCA, and we achieved a 22% reduction in the second year. We will promote further reductions and aim to achieve 50% in fiscal 2016. By promoting early achievement of the energy conservation themes and the reduction of waste and airborne emissions of solvents, we are aspiring to be an eco-friendly plant.

Plant Manager
Toshihide Kanazawa

Kanuma Plant

Address	7-1 Satsuki-cho, Kanuma-shi, Tochigi		
Number of employees	289		
Commencement of operations	1970		
Total site area	75,878 ㎡		
Month/year of management system certification	Environmental	ISO 14001	March 2000
	Occupational Health and Safety	OHSAS 18001	March 2008
	Quality	ISO 9001	2003
Principal R&D themes	Hard resin sheets made from polycarbonate, polystyrene, PET, ABS, PVC, etc.; waterproofing materials incorporating waterproofing processed steel products		
Air and water quality conservation	<Air> No problems <Water> No problems		

As part of the energy conservation activities, we have achieved a reduction of 640,000 kWh (down 2.8% over the previous year) in fiscal 2016. In fiscal 2017, we plan to reduce power consumption by 4.4% year on year (911,000 kWh). In fiscal 2017, we will also continue to actively work toward our plan to reduce material flow cost by 50% compared to fiscal 2013.

Plant Manager
Haruhisa Toda

Utsunomiya Plant

Address	20-7, Kiyohara Kogyo Danchi, Utsunomiya-shi, Tochigi		
Number of employees	255		
Commencement of operations	1984		
Total site area	99,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	December 1997
	Occupational Health and Safety	OHSAS 18001	March 2008
	Quality	ISO 9001	1991
		ISO/TS 16949	2006
Principal R&D themes	Paste for die bonding, liquid resins for encapsulation of semiconductors, substrate materials for semiconductor packages		
Air and water quality conservation	<Air> No problems <Water> No problems		

The plant has developed a culture that always takes ownership and is mindful of accidents and disasters and that never leaves anomalies alone.
We ensure the environment of the surrounding community is preserved and continually take steps to prevent pollution.
We comply with all laws, regulations, agreements and rules and aspire to be a plant that acts with honesty and is trusted by both customers and the local community.

Plant Manager
Keisuke Kurachi

Amagasaki Plant

Address	2-3-47, Higashi-Tsukaguchi-cho, Amagasaki-shi, Hyogo		
Number of employees	441		
Commencement of operations	1938		
Total site area	46,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	October 1998
	Occupational Health and Safety	OHSAS 18001	October 2009
	Quality	ISO 9001	1994 (film sheets and cover tape)
		ISO 13485	2016 (medical devices product warehouse)
		ISO 15378	2017 (primary packaging materials for medicinal products)
Principal R&D themes	Multilayered films for food packaging, PTP materials for pharmaceuticals, tapes for mounting electronic components		
Air and water quality conservation	<Air> No problems <Water> No problems		

Everyone at the plant takes part in our project to conserve energy and reduce environmental impacts. As for material loss, every year we set higher targets and work on reducing this loss. Furthermore, we continually implement risk assessments on the environment and safety, make efforts to eliminate injuries and accidents before they happen through risk evaluations and risk measures.

Plant Manager
Masaya Fumita

Affiliated Companies in Japan

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	56		
Commencement of operations	1991		
Total site area	20,357 ㎡		
Month/year of management system certification	Environmental	ISO 14001	April 2000
	Occupational Health and Safety	OHSAS 18001	March 2008
	Quality	ISO 9001	2003
Principal R&D themes	Waterproof sheets		
Air and water quality conservation	<Air> No problems <Water> No problems		

This plant produces waterproofing sheets that are used for housing and building construction. We are working to mitigate environmental impacts by reducing material flow costs and improving energy efficiency through improvement of our production processes. Last year, we were able to achieve our goal of conserving 251,000kWh of power. Our goal is to be a plant that is trusted by the community because all of its employees seriously address environmental issues.

Plant Manager
Masamori Miura

Kyushu Sumitomo Bakelite Co., Ltd.

Address	40-1 Oaza-Kamizakai Aza-Mizumachi, Nogata-shi, Fukuoka		
Number of employees	269		
Commencement of operations	1972		
Total site area	50,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	December 1998
	Occupational Health and Safety	OHSAS 18001	December 2007
	Quality	ISO 9001	1994
		ISO/TS 16949	2010
Principal R&D themes	Epoxy molding compounds for encapsulation of semiconductor devices, liquid photosensitive coating resins for semiconductor wafers		
Air and water quality conservation	<Air> No problems <Water> No problems		

The plant produces environmentally conscious epoxy molding compounds and wafer coating resins. We are now working to contribute to society and the local environment by improving the corporate value of customers through the improvement and evolution of initiatives mindful of the environment, such as our efforts to halve material flow costs, to improve energy efficiency, and to expand the number of environmentally conscious products.

Plant Manager
Shigehisa Ueda

Yamaroku Kasei Industry Co., Ltd.

Address	19-10 Katayama-cho, Kashiwara-shi, Osaka		
Number of employees	47		
Commencement of operations	1948		
Total site area	5,411 ㎡		
Month/year of management system certification	Environmental	ISO 14001	June 2005
	Quality	ISO 9001	2003
Principal R&D themes	Phenolic molding compounds, melamine phenolic resin molding compounds		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

Last year, we began operating a cooling water recycling system inside the plant, which significantly reduced the amount of effluent we release into public waterways. Our Company is committed to continued efforts in promoting energy saving activities as well as environmental impact reduction based on MFCA. Also, this year marked the sixth time we took part in take the Yamato River Cleanup campaign as part of our activities to preserve the local environment, and our involvement has now become an annual event.

President and Representative Director
Masaei Yamada

S.B. Techno Plastics Co., Ltd. (Head Office Plant)

Address	300-2, Motohara Kamikawa-cho, Kodama-gun, Saitama
Number of employees	32
Commencement of operations	1964
Total site area	13,000 ㎡
Principal R&D themes	Plastic sheets, plastic chopping boards, ceramics made in molds
Air and water quality conservation	<Air> No relevant facilities <Water> No problems

S.B. Techno Plastics Co., Ltd. (Kitsuregawa Plant)

Address	60-1, Saotome, Sakura-shi, Tochigi
Number of employees	13
Commencement of operations	2002
Total site area	3,638 ㎡
Principal R&D themes	Industrial helmets, injection molding products
Air and water quality conservation	<Air> No relevant facilities <Water> No problems

We carry out business activities with a focus on the three keywords of "safety," "reliability," and "the environment" in an effort to contribute to the realization of a sustainable society. In particular, our long-standing initiative to collect used chopping boards from customers and then recycle these materials into hangers and landscaping products has received rave reviews.

President and Representative Director
Shunichi Kuribara

Akita Sumitomo Bakelite Co., Ltd.

Address	27-4, Aza Nakashima-shita, Souzen-machi, Tsuchizakiminato, Akita-shi, Akita		
Number of employees	203		
Commencement of operations	October 1970		
Total site area	255,568 ㎡		
Month/year of management system certification	Environmental	ISO 14001	January 2001
	Occupational Health and Safety	OHSAS 18001	September 2008
	Quality	ISO 9001	2010 (bio), 2010 (resin)
		ISO 13485	2005 (medical)
Principal R&D themes	Medical products and laboratory wares, phenolic resins, formalin and adhesives, negative electrode materials		
Air and water quality conservation	<Air> No problems <Water> No problems		

We proactively implement activities to lessen our environmental impacts. Our energy-saving measures have been a great success thanks to a building track record of simple, everyday actions. As for material flow costs, we have expanded the range of our activities from resins to include medical and bio. We have gone five consecutive years without an accident thanks to efforts to raise awareness involving all employees using a top-down approach led by our head safety manager.

President and Representative Director
Kazuhisa Hirano

Hokkai Taiyo Plastic Co., Ltd.

Address	2-763-7, Shinko-Chuo, Ishikari-shi, Hokkaido		
Number of employees	28		
Commencement of operations	1964		
Total site area	13,650 ㎡		
Month/year of management system certification	Environmental	ISO 14001	April 2005
Principal R&D themes	Polyethylene pipes, polyethylene films		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

We produce and sell polyethylene pipes and films. In addition to our ongoing environmental impact reduction activities, we fully comply with laws and ordinances, and carry out various risk assessments, which allows us to prevent accidents and pollution before they occur. With the aim of passing on a lush, green environment to the next generation, each and every one of us at our plant is passionately committed to environmental preservation activities.

President and Representative Director
Masatoshi Yamasaki

Overseas: China, Macau, and Taiwan

Sumitomo Bakelite (Suzhou) Co., Ltd.

Address	140 Zhongxin Avenue West, Suzhou Industrial Park, Suzhou, Jiangsu, 215021, P.R. China		
Number of employees	193		
Commencement of operations	1997		
Total site area	30,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	November 2001
	Occupational Health and Safety	OHSAS 18001	November 2010
	Quality	ISO 9001	1999 (EME), 2015 (CRM)
		ISO/TS 16949	2006 (EME)
Principal R&D themes	Epoxy molding compounds for encapsulation of semiconductors, die attach pastes		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

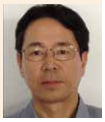
We consume a large amount of energy in order to produce semiconductor encapsulation materials, and so we are pursuing energy conservation activities on an ongoing basis. This fiscal year, we will implement an energy-conservation plan we came up with after receiving instructions from Japan last year, which will help propel our efforts along further. Striving to be a company trusted by the local community, we engage in exchanges with local people and eagerly participate in local civic activities etc. (trash cleanup).

President
Norihisa Fujimura

Sumitomo Bakelite (Shanghai) Co., Ltd.

Address	No. 88, Aidu Road, China (Shanghai) Pilot Free Trade Zone, Shanghai 200131 P.R. China		
Number of employees	112		
Commencement of operations	2000		
Total site area	8,698 ㎡		
Month/year of management system certification	Environmental	ISO 14001	April 2007
	Quality	ISO 9001	2002
		ISO/TS 16949	2013
Principal R&D themes	Molded products for automotive applications (plastic mechanical and structural parts)		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

We produce molded mechanical and structural parts made of phenolic resins for use in automobiles. We are working actively to reduce waste by reducing the number of defects. In fiscal 2017, we are working to upgrade our molding machines to energy efficient models to further reduce power consumption. We are also working on preparations aimed at acquiring ISO 14000 certification (2015 version) in an effort to be a company trusted by the local community.



President
Yasuhiro Takenaka

Sumitomo Bakelite (Nantong) Co., Ltd.

Address	No. 81, Tongda Road, Port Industrial Park 3, Economic Technological Development Area, Nantong, Jiangsu, 226017 P.R. China		
Number of employees	270		
Commencement of operations	2009		
Total site area	100,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	May 2010
	Quality	ISO 9001	2010 (PM, PR) 2014 (film sheets) 2016 (ECR)
		ISO/TS 16949	2014 (PM, PR)
Principal R&D themes	Phenolic resins, phenolic molding compounds, liquid epoxy resins, coextruded multilayered films and sheets for food packaging, tapes for electronic components		
Air and water quality conservation	<Air> No problems <Water> No problems		

We work every year to ensure our four plants (phenolic resin, phenolic resin molding materials, liquid epoxy resin, and co-extruded film sheets) cut back on their various environmental impacts, while making additional efforts to reduce these emissions further. With China's environmental regulations becoming tighter, we hope to serve as a role model in China in an effort to deliver the world's highest level of responses to environmental issues.

President
Takashi Kobayashi

Sumitomo Bakelite (Dongguan) Co., Ltd.

Address	No. 2 Qiao Lin Road, Ling Tou Industrial District, Qiao Tou Town, Dongguan, Guangdong, P.R. China		
Number of employees	587		
Commencement of operations	1994		
Total site area	32,930 ㎡		
Month/year of management system certification	Environmental	ISO 14001	September 2004
	Occupational Health and Safety	OHSAS 18001	September 2013
	Quality	ISO 9001	2003 (molded products)
		ISO/TS 16949	2015 (molded products)
		ISO 13485	2005 (medical)
Principal R&D themes	Precision molded products, molded products for automobiles, medical products		
Air and water quality conservation	<Air> No problems <Water> No problems		

We manufacture medical products, precision molded products, and molded products for automobiles. In October 2016, we achieved one year without injuries covering a period of some two million hours, following a similar feat accomplished last year. In 2016, we lowered our energy costs by around 30% over the previous fiscal year. This year we will once again focus on safety training to enhance safety in the workplace and environmental protection efforts, and we will actively carry out energy conservation activities, too.

President
Hiroshi Hiraoka

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	167		
Commencement of operations	2003		
Total site area	27,513 ㎡		
Month/year of management system certification	Environmental	ISO 14001	April 2005
	Quality	ISO 9001	2003
Principal R&D themes	Epoxy resin copper-clad laminates		
Air and water quality conservation	<Air> No problems <Water> The concentration of iron in effluent increased momentarily, which was determined to be caused by temporary factors including old rusted iron covers falling into the waterway and carrying out welding work close to the waterway. We have already addressed this situation using countermeasures. COD and other indicators increased momentarily, too, but this was determined to be caused by broken water pipes, which have since been repaired and returned to normal.		

We are the principal plant manufacturing epoxy resin copper-clad laminates, which are marketed in China, Southeast Asia, and Japan. Our recent focus has been on automotive applications, where there is greater use of electric equipment. Our products are also being widely used in LED lighting and energy efficient air conditioners. Last year, we switched from light fuel to natural gas and promoted the installment of LED lighting. We are also working on MFCA reductions, including improvements in yield.

Managing Director
Kenichi Hasegawa

Sumitomo Bakelite (Taiwan) Co., Ltd.

Address	No. 1, Hwa Syi Road, Ta Fa Industries District, Ta Liao 831, Kaohsiung, Taiwan, R.O.C		
Number of employees	106		
Commencement of operations	1998		
Total site area	22,334 ㎡		
Month/year of management system certification	Environmental	ISO 14001	May 2003
	Occupational Health and Safety	OHSAS 18001	February 2012
	Quality	ISO 9001	2003
		ISO/TS 16949	2006
Principal R&D themes	Epoxy molding compounds for encapsulation of semiconductor devices		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

Our company researches, manufactures and sells epoxy molding compounds for encapsulation of semiconductor devices. In fiscal 2016, we reduced our intensity of energy usage by 10% compared with the previous year, after completing an energy conservation project with the support of the head office. In fiscal 2017, we plan on carrying out similar activities under the banner of our own project. We will also work with other plants on reducing waste (halving material flow cost).

President
Hikaru Okubo

Vaupell China Molding and Tooling Co., Ltd. (VCH)

Address	Building B32, Tantou Xibu Industrial Park Songgang Town, Shenzhen, Guangdong, 518105 P.R. China		
Number of employees	165		
Commencement of operations	2007		
Total site area	8,637 ㎡		
Month/year of management system certification	Quality	ISO 9001	2011
		AS 9100	2011
Principal R&D themes	Plastic products		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

Vaupell China specializes in designing and manufacturing precision plastic moulds and processing high temperature plastic products. We utilize world class software for design and production such as CAD, CAM and CAE, and utilize high precision injection molding machines and tool manufacturing equipment. Having highly skilled tooling technicians and more than ten-year experience in production quality management enable Vaupell China to produce various types of plastic parts and manufacture complicated precision tools with long service life. There is no accident happened in 2016.

General Manager
NANDEDKAR SUMIT ARVIND

Overseas: Southeast Asia

SNC Industrial Laminates Sdn. Bhd.

Address	PLO 38, Jalan Keluli Satu, Pasir Gudang, Industrial Estate, 81700 Pasir Gundang, Johor, Malaysia		
Number of employees	132		
Commencement of operations	1992		
Total site area	60,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	April 2001
	Occupational Health and Safety	OHSAS 18001	August 2012
	Quality	ISO 9001	2002
Principal R&D themes	Phenolic resin copper-clad laminates, phenolic resin laminates, aluminum-based copper-clad laminates		
Air and water quality conservation	<Air> No problems <Water> No problems		

We mainly manufacture and sell phenolic resin copperclad laminates. Our manufacturing processes tend to be energy intensive as we use large equipment. In fiscal 2016, we shifted about 30% of our lighting to LED. In fiscal 2017, we will switch blower fans to inverters and work to reduce energy consumption still further.

Managing Director
Tomoyoshi Honjoya

Sumitomo Bakelite Singapore Pte. Ltd.

Address	1 Senoko South Road, Singapore 758069, Singapore		
Number of employees	182		
Commencement of operations	1989		
Total site area	22,276 ㎡		
Month/year of management system certification	Environmental	ISO 14001	July 1997
	Occupational Health and Safety	OHSAS 18001	October 2009
	Quality	ISO 9001	1993
		ISO/TS 16949	2005
Principal R&D themes	Epoxy molding compounds for encapsulation of semiconductors, paste for die bonding, liquid resins for encapsulation of semiconductors		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

Our company develops, manufactures, and sells epoxy molding compounds, used for encapsulation of semiconductor devices, and semiconductor die attach paste. We continue with efforts to reduce energy usage by not only developing products that are environmentally conscious, but also shifting to more energy efficient equipment that is also more eco-friendly. We are also reducing waste through various measures, including improving yield.

Managing Director
Yukihiro Okabe

SumiDurez Singapore Pte. Ltd.

Address	9 Tanjong Penjuru Crescent Singapore 608972, Singapore		
Number of employees	54		
Commencement of operations	1989		
Total site area	30,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	September 1998
	Occupational Health and Safety	OHSAS 18001	March 2015
	Quality	ISO 9001	2003
		ISO/TS 16949	2012
Principal R&D themes	Phenolic resin molding compounds		
Air and water quality conservation	<Air> No problems <Water> No problems		

We manufacture and sell phenolic molding compounds. Last fiscal year, we mainly replaced aging facilities with newer, higher efficiency models as part of our energy conservation activities. We are also focusing on material flow cost reduction activities and reduced these costs by 50% over a three-year period. By continuing with these activities, working to reduce waste and complying with laws and regulations, we are carrying out production activities that are mindful of the environment and society.

Senior Plant Manager
Motoharu Amma

P.T. Indopherin Jaya

Address	JL. Brantas No.1, Probolinggo, East Java, Indonesia		
Number of employees	114		
Commencement of operations	1996		
Total site area	18,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	January 2001
	Occupational Health and Safety	OHSAS 18001	December 2012
	Quality	ISO 9001	2001
Principal R&D themes	Phenolic resins		
Air and water quality conservation	<Air> At the launch of our new incinerator, we experienced trouble momentarily involving incomplete incineration due to insufficient incineration conditions, but we have since remedied this situation after optimizing these conditions. <Water> No problems		

We manufacture and sell phenolic resins. We operate mindful of safety and environmental emissions because we handle a large number of chemical substances. Safety always comes first, which we achieve through expanded education and training efforts. In terms of the environment, we will fulfill our responsibility as a member of the local community by reducing waste using both hard and soft means.

Factory Director
Masaaki Fujita

P.T. SBP Indonesia

Address	Kawasan Industri MM2100, JL. Irian Blok NN-1-1, Kec,Cikarang Barat, Bekasi, 17520, Indonesia		
Number of employees	91		
Commencement of operations	1996		
Total site area	30,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	December 2010
	Occupational Health and Safety	OHSAS 18001	July 2014
	Quality	ISO 9001	2003
Principal R&D themes	Polycarbonate extruded resin sheets (for signage and construction applications)		
Air and water quality conservation	<Air> No relevant facilities <Water> No problems		

We manufacture and sell extruded polycarbonate sheets. In fiscal 2016, our energy usage was at 85.2% of the level in 2015 thanks to the introduction of energy efficient compressors and air conditioners. In fiscal 2017, we will share safety information at networking sessions with the local community and cut back on electricity usage and waste by improving productivity. This will help us raise the bar of our safety and environmental efforts.

President Director
Hiromi Imaishi

Overseas: North America

Sumitomo Bakelite North America, Inc. (Manchester Plant)

Address	24 Mill Street, Manchester, Connecticut 06042, USA		
Number of employees	66		
Commencement of operations	1920		
Total site area	14,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	November 2014
	Occupational Health and Safety	OHSAS 18001	November 2014
	Quality	ISO 9001	2003
Principal R&D themes	Thermoset composites		
Air and water quality conservation	<Air> No relevant facilities <Water> No relevant facilities		

Safety is always the number one priority in Manchester and will continue to be our most critical focus. The topic of safety will initiate meetings ahead of production and other business discussions. Our environmental efforts are driven toward waste and emission reduction, parallel with meeting all regulatory requirements and exist in harmony with our neighbors of the community.

Plant Manager
Barbara Olson

Durez Corporation (Kenton Plant)

Address	13717 U.S. Route 68 South Kenton, Ohio 43326, USA		
Number of employees	60		
Commencement of operations	1955		
Total site area	263,100 ㎡		
Month/year of management system certification	Occupational Health and Safety	OHSAS 18001	July 2011
	Quality	ISO 9001	2003
Principal R&D themes	Phenolic resins		
Air and water quality conservation	<Air> No relevant facilities <Water> The Company's capacity for treating effluent was exceeded momentarily due to abnormally high temperatures and an increase in solid waste. The abnormal reading only lasted momentarily, but the Company will consider increasing its effluent treatment capacity in response.		

Safety and evironmental concerns remain the highest priority at the Kenton facility. We are working towards reducing our emissions through consistent operation of the waste recovery system. We strive, every day, to send people home in the same condition that they arrive to work in and to be good stewards of the environment.

Operations Manager
Scott Franks

Durez Corporation (Niagara Falls Plant)

Address	5000 Packard Road, Niagara Falls, NY 14304, USA		
Number of employees	48		
Commencement of operations	1930		
Total site area	18,960 ㎡		
Month/year of management system certification	Occupational Health and Safety	OHSAS 18001	December 2011
	Quality	ISO 9001	2003
Principal R&D themes	Phenolic resins		
Air and water quality conservation	<Air> No relevant facilities <Water> The Company's recovery and removal of peeling paint was inadequate when repainting its water storage tank, resulting in the momentary detection of lead in the water from the paint. Readings returned to normal after removing the residual paint.		

In 2017, we are committed to keeping safety our number 1 priority. We will continue to put safety above production. We also look to continue our positive trend of hazardous waste reduction. Through a systematic approach of analyzing our waste streams and utilization of new technology we are committed to reducing our hazardous waste to under 12 tons/year.

Operations Manager
Michael Wienckowski

Durez Canada Co., Ltd.

Address	100 Dunlop Street, Fort Erie, Ontario L2A 4H9, Canada		
Number of employees	70		
Commencement of operations	1970		
Total site area	93,000 ㎡		
Month/year of management system certification	Occupational Health and Safety	OHSAS 18001	November 2014
	Quality	ISO 9001	1988
Principal R&D themes	Phenolic resin and molding materials		
Air and water quality conservation	<Air> Changes were made to the regulation on emissions of phenols, and currently the Company is in consultation with the Government of Ontario. The Company is examining the introduction of an incinerator to comply with the new regulation. <Water> No problems		

In FY2016, the focus for safety was ergonomics and continued coaching of safety behaviours. We implemented an Energy Management Information System that resulted in reduced electrical usage and corresponding savings. At the end of the fiscal year we received a new environmental permit.

Plant Manager
Robert Hunt

Promerus LLC

Address	9921 Brecksville Road, Brecksville, Ohio 44141-3247, USA		
Number of employees	28		
Commencement of operations	2001		
Total site area	1,020 ㎡		
Month/year of management system certification	Quality	ISO 9001	2006
Principal R&D themes	Functional polynorbornenes		
Air and water quality conservation	<Air> No problems <Water> No relevant facilities		

At Promerus, we continue to thoroughly investigate all incidents and implement corrective actions towards achieving the ultimate goal of zero incidents. In FY2016, we had no OSHA recordable injuries and no environmental releases. Although currently residing on a leased site, we continued to maintain and initiate energy saving activities within our facilities. Our commitment to employee training included additional self-training seminars and webinars covering a broad variety of technical and personal development subject matter.

Senior Manager
Larry Rhodes

Vaupell Northwest (VNW)

Address	1144 N.W. 53rd Seattle, Washington, 98107, USA		
Number of employees	324		
Commencement of operations	1947		
Total site area	10,219 ㎡		
Month/year of management system certification	Quality	ISO 9001	2004
		AS 9100	2004
Principal R&D themes	Airplanes		
Air and water quality conservation	<Air> No relevant facilities <Water> No relevant facilities		

Vaupell Northwest is committed to being a responsible corporate partner in our local community. Our dedication to customer satisfaction is executed every day while keeping in mind our impact to the enviornment. We work every day to ensure the safe and productive team of Vaupell Northwest provides our customers the confidence that Vaupell is a responsible enviornmental partner in the Aerospace Industry.

General Manager
Joseph Kamin

Vaupell Northeast (VNE)

Address	101 HP Almgren Dr. Agawam, Massachusetts 01001, USA		
Number of employees	95		
Commencement of operations	2005		
Total site area	9,290 ㎡		
Month/year of management system certification	Quality	ISO 9001	2012
		ISO 13485	2007
		AS 9100	2012
Principal R&D themes	Injection molding for certain markets including medical product components, etc.		
Air and water quality conservation	<Air> No relevant facilities <Water> No relevant facilities		

Vaupell NE has been committed to reducing its carbon footprint in many ways and will contiue to do so over the comiing years. The NE division has formed a very active Safety committee and particapted in it's first US meeting with SBIO. We contnue to re-cycle most of regrind and we resell most of our waste in cardboard and gaylords. As with the other divsions we perfrom safety audits on a regular basis and get our associates involved where ever possible.

Plant Manager
John Sulikowski

Vaupell Midwest (VMW)

Address	485 Florence Road Constantine, Michigan 49042, USA		
Number of employees	200		
Commencement of operations	1969		
Total site area	7,525 ㎡		
Month/year of management system certification	Environmental	ISO 14001	December 2009
	Quality	ISO 9001	2009
		ISO 13485	2012
		AS 9100	2009
Principal R&D themes	Medical devices made by injection molding		
Air and water quality conservation	<Air> No relevant facilities <Water> No relevant facilities		

Vaupell MW has a very active safety committee with creative ways to get full employee involvement in creating a safer enviroment for our associattes. As with our sister divisions we recycle resin where possible and sell off what can not be reused to a local recycling facitity. We remain commtted to reducing our carbon foot print whereever possible.

Plant Manager
Keith Bridgford

Vaupell Rapid Solutions (VRS)

Address	20 Executive Drive Hudson, New Hampshire 03051-4917, USA		
Number of employees	44		
Commencement of operations	1995		
Total site area	3,500 ㎡		
Month/year of management system certification	Quality	ISO 9001	2011
Principal R&D themes	SLA/SLS, resin cast molding, CNC work, DMLS, molds for injection molding, molding, painting, CAD services, assembly, and inspection services		
Air and water quality conservation	<Air> No relevant facilities <Water> No relevant facilities		

We have begun sharing best practices regarding safety, and we are encouraging the participation of employees at all levels from each of our companies. Recently, partial changes were made to our management structure, resulting in a more active approach to recycling activities at all levels across our plants than before.

Director of Operations/
General Manager
Gregg Lambert

Russell Plastics Technology Co., Inc. (Vcomp)

Address	521 W. Hoffman Ave Lindenhurst, New York 11757, USA		
Number of employees	88		
Commencement of operations	1941		
Total site area	5,575 ㎡		
Month/year of management system certification	Quality	AS 9100	2005
Principal R&D themes	Components for rotary wing aircraft, and OEM interior products		
Air and water quality conservation	<Air> No relevant facilities <Water> No relevant facilities		

Vaupell Composites embraces the notion of being good corporate neighbors and citizens of the community as well as being responsible to our employees by providing a safe and environmentally friendly workplace. We welcome this tool as evidence that we are proactively participating in the management of environmental impact. We as an organization recognize our obligation to proactively manage our processes to ensure no harm, or negative impact, to our surrounding community.

Plant Manager
Richard Spero

Overseas: Europe

Sumitomo Bakelite Europe N.V.

Address	Henry Fordlaan 80, B-3600 Genk, Belgium		
Number of employees	140		
Commencement of operations	1967		
Total site area	110,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	January 2001
	Occupational Health and Safety	OHSAS 18001	July 2012
	Quality	ISO 9001	2003
Principal R&D themes	Phenolic resins, polyester resins		
Air and water quality conservation	<Air> No problems <Water> No problems		

Despite the fact that phenolic resins are the oldest polymers, new procedures and new techniques are being introduced to production every year. Therefore it is absolutely necessary to provide continuous training to all employees in order to manufacture in a safe way and on a high quality level. A structured program is in place to train employees on the job and in group sessions. This training program is part of a clear and transparant communication on company strategy and targets, set by the management on EHS and quality.

Managing Director
Jan Schreurs

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

Address	Gran Vial, 4 Montornes del Valles (Barcelona) 08170, Spain		
Number of employees	90		
Commencement of operations	1949		
Total site area	19,856 ㎡		
Month/year of management system certification	Environmental	ISO 14001	March 2005
	Occupational Health and Safety	OHSAS 18001	February 2013
	Quality	ISO 9001	2002
Principal R&D themes	Phenolic resins, friction particles, adhesives		
Air and water quality conservation	<Air> No problems <Water> No problems		

In 2016, the plant continued pushing in Safety First, but unfortunately there was a severe accident suffered by a mechanic contractor, thus we have improved the procedures, permits and supervision on the non-routine tasks. The plant was updated to start the tackifier production, helping to the high orders volume of the Genk plant. The new facility for wastewater treatment using solvent-based phenol extraction is on-going, thus it is expected to be operative during the first half 2017, which will reduce the operation cost.

Site Manager
José Miralles

Vyncolit N.V.

Address	Wiedauwkaai 6, B-9000 Ghent, Belgium		
Number of employees	129		
Commencement of operations	1992		
Total site area	22,683 ㎡		
Month/year of management system certification	Environmental	ISO 14001	1999
	Occupational Health and Safety	OHSAS 18001	January 2013
	Quality	ISO 9001	1992
Principal R&D themes	Thermoset molding compounds		
Air and water quality conservation	<Air> The Company controls the emission of phenols using filters. Readings momentarily exceeded the regulated threshold by a small margin during a regular measurement, but after changing the filter, readings returned to normal. <Water> No problems		

The core business of our company is the manufacturing of moulding compounds. In 2016 we have transferred the long fibre line from Switzerland to Ghent succesfuly. Also a Demo Centre for moulding big parts has been set up. To reduce the CO_2 reduction, a new heating system based on hot water is installed. To comply with EHS legislation we have installed ATEX equipment on post blending A line, elimination of the R22 gas, renewal of the elevator, and updated the high tension electical cabinet.

Plant Manager
Gerard Wildeman

Trends in Environmental Performance

Business Sites in Japan

Item			Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 (Plan)	2020 (Target)
CO_2 emissions			t-CO_2	137,961	135,326	123,382	109,402	107,233	101,181	93,300	103,165	104,556	101,790	97,238	89,667	86,021	103,471
Energy usage			Crude oil equivalent (kL)	74,370	72,045	68,151	58,544	58,021	58,156	53,307	52,320	50,276	48,845	47,199	45,115	45,320	—
			(thousand GJ)	2,883	2,792	2,642	2,269	2,249	2,254	2,066	2,028	1,949	1,893	1,829	1,749	1,757	
Material loss	Waste generated	Landfill	ton	605	232	143	148	82	33	29	18	13	16	53	62	57	13
		External intermediate processing	ton	342	53	83	52	11	6	6	5	5	7	45	56	9	4
		Internal intermediate processing	ton	0.5	2.2	1.2	0.9	1.0	0	0	0	0	0	0	0	0	0
		External recycling	ton	10,495	11,030	9,790	7,617	7,368	7,511	7,338	7,794	7,477	7,987	7,665	6,090	5,686	5,708
	Total waste generated		ton	11,444	11,317	10,017	7,818	7,462	7,550	7,373	7,817	7,494	8,010	7,762	6,207	5,752	5,725
	Valuable materials		ton	9,501	9,190	9,752	8,705	8,675	9,174	7,970	7,930	8,633	8,326	8,008	7,762	7,273	7,605
Total material loss			ton	20,945	20,507	19,769	16,523	16,137	16,724	15,343	15,748	16,127	16,337	15,770	13,970	13,024	13,330
Chemical substance emissions			ton	512	423	340	210	222	273	249	230	268	202	171	139	132	102
Emissions of substances subject to the PRTR Law			ton	81	39	16	15	19	17	16	12	15	15	13	8	7	—

Overseas Business Sites

Item			Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 (Plan)	2020 (Target)
CO_2 emissions			t-CO_2	163,259	170,554	170,109	143,314	151,074	160,989	152,735	141,491	144,508	142,830	151,698	151,272	137,540	149,419
Energy usage			Crude oil equivalent (kL)	82,906	84,696	84,966	72,576	72,557	78,702	76,533	71,013	68,231	66,466	70,874	70,710	65,661	—
			(thousand GJ)	3,213	3,283	3,293	2,813	2,812	3,050	2,966	2,752	2,567	2,576	2,747	2,741	2,545	
Material loss	Waste generated	Landfill	ton	6,586	5,608	3,864	4,132	3,189	4,050	4,093	3,138	3,027	2,873	3,066	3,455	3,107	—
		External intermediate processing	ton	3,547	3,810	3,413	2,802	3,858	3,462	4,951	3,885	4,122	3,580	3,637	3,737	3,769	—
		Internal intermediate processing	ton	8,196	7,877	6,792	5,549	4,794	6,003	5,620	3,217	2,869	3,105	2,833	2,671	2,713	—
		External recycling	ton	1,564	1,598	1,583	2,095	2,451	4,332	1,874	2,540	3,034	4,387	3,712	2,919	2,705	—
	Total waste generated		ton	20,163	18,893	15,652	14,577	14,291	17,847	16,537	12,780	13,053	13,945	13,247	12,782	12,294	10,410
	Valuable materials		ton	8,695	10,914	11,138	8,036	3,658	4,010	4,079	3,609	2,956	2,800	4,522	3,065	2,570	7,062
Total material loss			ton	28,858	29,807	26,790	22,613	17,949	21,857	20,617	16,389	16,009	16,746	17,770	15,847	14,864	17,473
Chemical substance emissions			ton	—	—	—	—	—	278	191	245	204	164	147	126	104	144

Notes: Data covers all the business sites listed on page 3.

Definitions/Calculation Method

CO_2 emissions:
CO_2 emissions are calculated based on the energy used in all 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-CO_2). For calorific values of city gas, figures published by the respective supplier companies are used. For CO_2 emission coefficients of electricity, CO_2 emissions from business sites in Japan are calculated using CO_2 emission coefficients (actual emission coefficients) of electricity for individual power companies published under the Act on Promotion of Global Warming Countermeasures. CO_2 emissions from business sites overseas are calculated using the latest available CO_2 emission coefficients of electricity for individual power companies at the start of each fiscal year. If an electric power company's emission coefficient is unknown, the latest coefficient at the start of each fiscal year released by the International Energy Agency (IEA) is used.

Waste generated
Total of aggregate volume of industrial and general waste from 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 or treated by other means by outsourced contractors (without energy recovery)
(3) Internal intermediate processing: waste incinerated or treated by other means in-house (without energy recovery)
(4) External recycling (expenses paid): waste recycled with payment made to cover processing costs (including energy recovery)

Valuable materials
The volume of valuable materials that are generated at business sites and sold and that are neither products nor raw materials.

Material loss
Total of the volume of waste generated and the volume of valuable materials. 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 dismantling scrap material of value 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 "The Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof" of Japan [PRTR system]). The emissions calculation method used is based on the latest Manual for Calculating PRTR Emissions (Ministry of the Environment and Ministry of Economy, Trade and Industry). JCIA changed the chemical substances subject to survey in fiscal 2013 and the Group reflected the change in the overall results from fiscal 2014 onward. Major substances that were excluded from the scope of calculation include ammonia and sulfuric acid.

Response to Energy Saving/Global Warming Prevention Acts

		Unit	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Sumitomo Bakelite	CO_2 emissions	t-CO_2	84,035	75,883	81,541	81,471	79,822	76,989	70,764
	Energy usage	Crude oil equivalent (kL)	48,903	43,464	42,314	40,661	39,747	38,600	36,567
	Year-on-year intensity of energy usage	%	96.8	101.3	92.1	96.5	96.4	100.5	100.2
Kyushu Sumitomo Bakelite	CO_2 emissions	t-CO_2	6,050	6,325	7,470	8,038	7,835	7,037	6,365
	Energy usage	Crude oil equivalent (kL)	3,740	3,715	3,437	3,247	3,159	2,957	3,008
	Year-on-year intensity of energy usage	%	96.1	101.1	97.9	94.3	93.3	98.1	98.4
Akita Sumitomo Bakelite	CO_2 emissions	t-CO_2	8,583	6,183	6,776	6,429	6,016	5,176	5,079
	Energy usage	Crude oil equivalent (kL)	3,751	2,728	2,806	2,547	2,393	2,070	2,095
	Year-on-year intensity of energy usage	%	123.2	90.4	121.8	86.1	88.0	98.0	95.4
S.B. Sheet Waterproof Systems (started reporting from FY2012)	CO_2 emissions	t-CO_2			3,645	4,282	4,098	3,865	3,397
	Energy usage	Crude oil equivalent (kL)			1,941	2,017	1,913	1,807	1,683
	Year-on-year intensity of energy usage	%			—	96.4	97.8	94.8	95.4

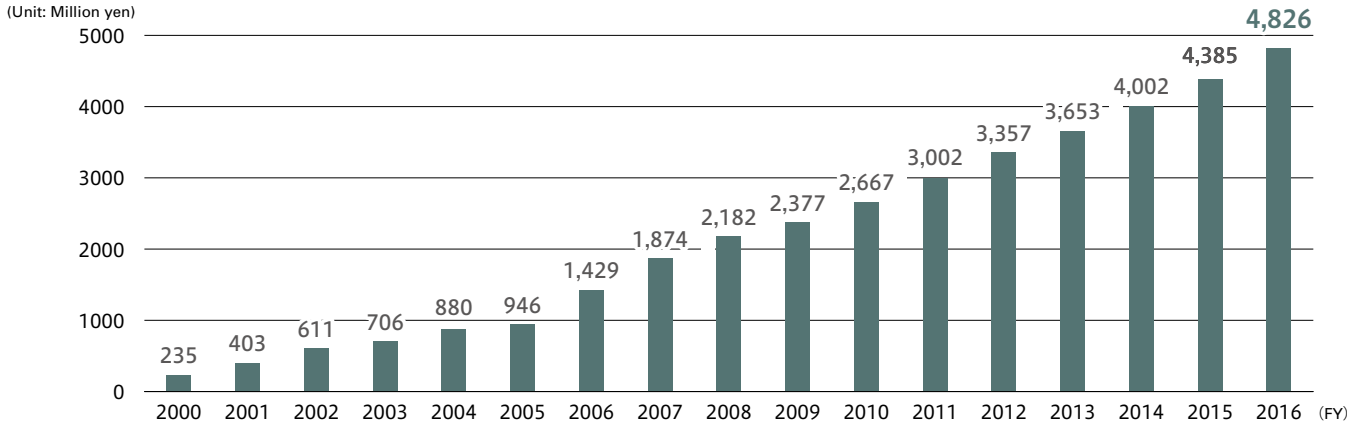
Distribution-Related Energy Conservation Measures

		Unit	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Transportation ton-kilometer		Thousand t-km	30,297	41,265	33,647	32,573	37,271	33,663	29,267	29,117	29,626	30,413	30,399
CO_2 emissions associated with energy usage		t-CO_2	5,090	6,730	5,580	5,270	5,780	5,208	4,592	4,610	4,499	4,476	4,623
Intensity of energy usage	Energy usage (Crude oil equivalent [kL] / Transportation thousand ton-km	kL/ thousand ton-km	0.0632	0.0613	0.0624	0.0609	0.0583	0.0582	0.0590	0.0596	0.0571	0.0555	0.0573
	Year-on-year reduction (FY2006=100%)	%	100	97.0	98.7	96.4	92.2	92.1	93.4	94.3	90.3	87.8	90.7

Fiscal Year and Accumulated Investments for Environmental Protection

	Unit	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Fiscal year	Millions of yen	235	168	208	95	174	66	483	445	308	195	290	335	355	296	350	383	441
Cumulative total	Millions of yen	235	403	611	706	880	946	1,429	1,874	2,182	2,377	2,667	3,002	3,357	3,653	4,002	4,385	4,826

Accumulated Investments for Environmental Protection



Transfer and Release of Substances Subject to the PRTR Law (Fiscal 2016 Performance) ☑

The amounts of the 38 substances subject to the PRTR Law (PRTR system*1) released and transferred by the Group's business sites in Japan are presented in the table below.

(tons/year)

Government order number	Substance	Amount used	Release			Transfer	
		(manufactured)	Into air	Into water	Into soil	As waste material	As sewage
1	Zinc compounds (water-soluble)	18.3					
18	Aniline	277.0				0.4	
31	Antimony and its compounds	54.1				2.1	
37	Bisphenol A	216.0				0.1	
51	2-ethylhexanoic acid	3.1					
53	Ethyl benzene	16.1				4.5	
56	Ethylene oxide	1.1	0.1				
57	Ethylene glycol monoethyl ether	11.6					
71	Ferric chloride	1.9				1.9	
78	2,4-xylenol	18.2					
79	2,6-xylenol	7.6					
80	Xylene	36.6				9.7	
82	Silver and its water-soluble compounds	18.9					
86	Cresol	1,481.4				0.8	
136	Salicylaldehyde	1.4					
207	2,6-di-tert-butyl-4-cresol	3.2					
218	Dimethylamine	1.9					
232	N, N-dimethyl formamide	318.6	1.1			11.1	
239	Organic tin compounds	22.9				2.3	
258	Hexamethylenetetramine	1,070.8				22.8	
265	Tetrahydromethylphthalic anhydride	298.6				0.2	
277	Triethylamine	1.3					
296	1,2,4-trimethylbenzene	1.1					
300	Toluene	80.0	5.4			9.9	
302	Naphthalene	2.1					
309	Nickel compounds	1.8				0.1	
320	Nonylphenol	6.2					
330	Bis (1-methyl-1-phenylethyl) = peroxide	5.5					
349	Phenol	24,581.9	0.2			37.3	
352	Diallyl phthalate	5.3					
355	Bis (2-ethylhexyl) phthalate	1.8					
375	2-butenal	1.4					
392	n-hexane	1.7	0.2			0.1	
401	1,2,4-benzene tricarboxylic acid 1,2-anhydride	11.3				0.9	
405	Boron and its compounds	12.9				1.3	
411	Formaldehyde	8,355.2	0.3			5.0	
		(10,643)	0.3				
413	Phthalic anhydride	1.3				0.2	
438	Methylnaphthalene	22.0	0.1				

☐ Specific Class 1 designated chemical substances *1 See the glossary on page 71.

Memberships in Leading Organizations (Classifications of Organizations Have Been Omitted)

Organization	Role of Sumitomo Bakelite
Keidanren (Japan Business Federation)	Participates in task forces such as the Nature Protection Deliberation Council and the 1% (One Percent) Club
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	Serves in the General Affairs Department, Technical Affairs Committee, Environmental Safety Committee, Responsible Care Committee and Chemicals Management Committee
The Japan Plastics Industry Federation	Participates in the chemicals management committee
Japan Plastic Sheet Association	Hard vinyl chloride plate Subcommittee, Poly carbonate plate Subcommittee, environmental committee, and Japan PCV Environmental Affairs Council as an officer of the Association
Japan Electronics Packaging and Circuits Association	
Medical Technology Association of Japan	Participates in the raw materials committee, regulatory affairs committee, distribution committee, microbe reduction committee, and other committees
Japan Chemical Exports and Imports Association	Participates in the chemical substance safety, environmental committee
Japan Environmental Management Association for Industry (JEMAI)	Dispatches lecturers to LCA seminars, provides database for LCA use, participates in LCA Japan Forum
Japan Industrial Safety & Health Association	Dispatches lecturers for internal training seminars on labor health and safety, participates in seminars
Japan Association for Chemical Innovation (JACI)	Participates in the Planning & Management Council as a member on the board of directors. Participates in committees and subcommittees, including Strategy Committee, Strategic Planning Subcommittee, The Advanced Chemistry/Materials Technology Subcommittee, The Life Science Technology Subcommittee, The Energy and Resources Technology Subcommittee, The Electronics and Information Technology Subcommittee, and The Environmental Technology Subcommittee, and assists in information collection and events.

Environmental Protection Activities

Year	Sumitomo Bakelite Group's Initiatives	Social 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) results in the "Rio Declaration on Environment and Development", "Agenda 21", etc.
1993	● Environment and Safety Voluntary 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 ceases	
1995	● Responsible Care Committee established ● The Company joins 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, and Utsunomiya Plant and Sumitomo Bakelite Singapore obtain ISO 14001 certification	● Kyoto Protocol adopted by the Third Conference of the Parties of the United Nations Framework Convention on Climate Change (COP3)
1998	● First Environmental Activities Report issued	
1999	● All Sumitomo Bakelite plants obtain ISO14001 certification	● Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management enacted ● Law Concerning Special Measures against Dioxins enacted
2000	● Environmental accounting implemented	● Basic Law for Establishing the Recycling-Based Society enacted
2001	● Environmental Report issued (independent reviews conducted)	● Law Concerning Special Measures against PCB Waste enacted
2002	● Scope of Environmental Report expanded to include subsidiaries and affiliates in Japan ● Tokyo Kakohin receives an award for promoting a "3R" policy of reduce, reuse, and recycle ● Risk Management Committee established	● Soil Contamination Countermeasures Act enacted ● Japan adopts COP3 Kyoto Protocol ● World Summit on Sustainable Development adopts Johannesburg Declaration on Sustainable Development
2003	● Yamaroku Kasei Industry certified as the Company's first zero waste emissions plant ● Compliance Committee established	● Building Code revised to resolve "sick building" syndrome
2004	● Shizuoka Plant commences operations of a cogeneration system	● Air Pollution Prevention Law revised to reduce volatile organic compound (VOC) emissions
2005	● Title of annual Environmental Report changed to Environmental & Social Report to reflect broader coverage of social initiatives ● Sumitomo Bakelite (Taiwan) recognized as the Sumitomo Bakelite Group's first overseas zero emissions production business site	● Kyoto Protocol goes 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) comes into force
2008	● Thirty of the business sites of the Sumitomo Bakelite Group in Japan and overseas obtained ISO14001 certification (as of July) ● Start of soil and groundwater pollution remediation measures at a site owned by Sano Plastic following the dismantling of a factory building there (February) ● The company signs Responsible Care Global Charter (November) ● Start of mechanical equipment risk assessment	● G8 Hokkaido Toyako Summit
2009	● Inauguration of multilingual Material Safety Data Sheet (MSDS) system ● Begins participating as a partner in the Declaration of Biodiversity of the Japan Business Federation (Nippon Keidanren)	● Revised Act on the Rational Use of Energy takes effect ● The 15th Conference of the Parties (COP15) held with the United Nations Climate Change Conference
2010	● Establishment of the Environmental Impact Reduction Committee ● The Sumitomo Bakelite Group begins leakage risk assessments at its business sites in Japan and overseas	● The 10th Conference of the Parties (COP10) to the Convention on Biological Diversity
2011	● Presentation to Tochigi Prefectural Government of the report on the remediation construction work conducted at the Sano Plastic site (July) ● Standards for preparation of the Environmental & Social Report 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
2012	● The biotope project starts at the Shizuoka Plant ● Work to excavate and remove contaminated soil and to purify contaminated groundwater in the premises of the Totsuka Office after its closure ● Zero emissions achieved at all domestic plants ● Start of chemical materials risk assessment	● The 18th Conference of Parties (COP18) to the United Nations Framework Convention on Climate Change and the 8th Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP8) ● Following the accident at the Fukushima Daiichi Nuclear Power Plant of Tokyo Electric Power Company caused by the Great East Japan Earthquake, operation of all 54 commercial nuclear reactors in Japan suspended. Of the 54, only two at the Oi Nuclear Power Plant of Kansai Electric Power Company resumed operation
2013	● Completion of decontamination at the former Totsuka Plant reported to Yokohama City	● The 19th Conference of Parties (COP19) to the United Nations Framework Convention on Climate Change and the 9th Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (CMP9)
2014	● The Company signs the revised Responsible Care Global Charter ● Environmental rating by the Development Bank of Japan (DBJ environmental rating): Gained A ● Compilation of certain Scope 3 data starts at business sites in Japan ● Start of risk assessment for fire by explosion	● Revision to the Responsible Care Global Charter (6th element) ● Revision to the Industrial Safety and Health Act starts requiring businesses to perform risk assessments of chemical substances
2015	● Revised the Company's Environment and Safety management guidelines, and established a new Responsible Care Activity Guideline in accordance to the Responsible Care Global Charter revised in 2014.	● ISO 14001 Revised ● Implementation of the amended Law Concerning the Discharge and Control of Fluorocarbons ● Revision to the Water Pollution Control Act (revised wastewater standards) ● Revision to the Soil Contamination Countermeasures Act (amended specified toxic substances)
2016	● Changed the name of the Environment and Social Report to the CSR Report and prepared it in compliance with the GRI Guidelines (Ver. 4)	● Revisions to Japan's Industrial Safety and Health Law (concerning chemical substance risk assessment) take effect ● Revisions made to Japan's Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes (requiring systematic disposal prior to treatment expiration)
2017	● Opened the biotope at Shizuoka Plant to the general public	

Glossary for the CSR Report 2017

■44/M-DAG/PER/9 (page 44)
Rules on Indonesia's chemical substance regulation.

■ CLASS regulations (page 44)
The Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013. Malaysia's GHS regulation.

■ CLP (page 44)
Regulation on the classification, labelling and packaging of chemical products based on GHS with the purpose of mainly communicating hazards in the EU.

■ CNS15030 Z1051 (page 44)
Chinese national standard for classification and labelling of chemicals in Taiwan.

■ COD (pages 36, 39, and 61)
Chemical oxygen demand (COD) is a measure used in water quality analysis, indicating the amount of oxygen consumed by potassium permanganate to oxidize organic compounds in water.

■ CS (pages 45 and 47)
Acronym for customer satisfaction.

■ CSR
Acronym for Corporate Social Responsibility. CSR collectively refers to activities carried out within the scope of a company's operations not only geared toward generating profits, but also for fulfilling a company's responsibilities to society and growing together with society while emphasizing the correlation with all stakeholders.

■ DIW notification (page 44)
Notification of the Department of Industrial Works of Thailand.

■ EICC Code of Conduct (pages 34)
The Electronic Industry Citizenship Coalition (EICC) Code of Conduct establishes standards to ensure that working conditions in the electronics industry supply chain are safe, that workers are treated with respect and dignity, and that business operations are environmentally responsible and conducted ethically.

■ European REACH (page 44)
European Union regulation to protect the health of people and environment during the handling of chemical substances.

■ GB/T 16483 (page 44)
China's state standard for SDS (Safety Data Sheet for chemicals).

■ GHS (page 22 and 44)
Acronym for the Globally Harmonized System of Classification and Labelling of Chemicals.

■ GRI (pages 3 and 72 to 74)
Acronym for Global Reporting Initiative, an international NGO. The organization publishes the GRI Sustainability Reporting Guideline.

■ HCS (page 44)
Acronym for Hazard Communication Standard. Regulation on workplaces handling dangerous and hazardous chemical substances in the United States.

■ ISO 26000 (page 8)
International standard developed in October 2010 to help organizations address social responsibility issues. This is the first international standard created through a multi-stakeholder process, which involved experts representing a multitude of sectors in the deliberation.

■ JIS Z 7253 (page 44)
Integrated version of JIS Z7250 and Z7251 for consistency with GHS.

■ Materiality (page 8)
In the context of CSR, "materiality" refers to significant items that need to be worked on. Materiality items are selected in terms of how they reflect significant effects that an organization has on the economy, environment, and society, and how they have actual impact on evaluations and decisions made by stakeholders.

■ MFCA (page 37 and 39)
Acronym for Material Flow Cost Accounting, an environmental management and accounting tool for companies to improve cost efficiency and reduce environmental impact at the same time. Our Group utilizes this method as an analysis tool.

■ MSDgen (page 44)
A multilingual SDS publishing system introduced in 2008.

■ NOM (page 44)
Official Mexican Standards prepared by the General Directorate of Standards. They contain the absolute minimum requirements that must be met for preventing workplace dangers.

■ NOx (pages 36, 39 and 61)
Nitrogen Oxide

■ Occupational Safety and Health Act (page 44)
The Occupational Safety and Health Act of South Korea.

■ Pollutant Release and Transfer Register (PRTR) system (page 67 and 69)
Japan's PRTR Law requires companies using harmful chemical substances to gather data on the amount of harmful chemical substances 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.

■ QOL (page 14 and 45)
Acronym for quality of life. A concept of satisfaction in all aspects of life, which includes not only material wealth possession but also emotional fulfillment, and self actualization.

■ Responsible Care (page 27)
Activity that assures environmental safety and health in all stages of a chemical material's existence from development to manufacturing, distribution, utilization, final consumption, disposal, and recycling; publishes process results; and promotes dialogue and communication with the public. (Japan Chemical Industry Association)

■ Scope 3 (page 38)
Whereas Scope 1 concerns direct emissions due to combustion of fuel etc. and Scope 2 concerns indirect emissions from consumption of purchased electricity or heat, Scope 3 concerns other indirect emissions, both upstream and downstream, of the supply chain of the reporting entity. The international guidelines of the Greenhouse Gas (GHG) Protocol break down Scope 3 into 15 categories.

■ SDS (pages 24, 41 and 44)
Acronym for Safety Data Sheet. This sheet contains the safety information regarding chemical substances, and is attached with products on their delivery to other businesses.

■ SOx (pages 36, 39)
Sulfur Oxide

■ Stakeholders (page 5, 7, 8 to 9, 21 and 28 to 29)
Persons and organizations concerned. People who have an interest in any decisions made or activities conducted by an organization.

■ TSCA (page 44)
Acronym for Toxic Substances Control Act.

■ TT-BCT (page 44)
Circular notice on regulation for classification and labelling of chemical substances of Vietnam.

■ WSSD (page 44)
Acronym for World Summit on Sustainable Development.

GRI Guidelines Comparison Table

This report was prepared in accordance with the core options of the G4 Sustainability Reporting Guidelines of the Global Reporting Initiative*[1].

General criteria for disclosure items

	Description	Page number
Strategy and Analysis		
G4-1	Provide a statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	4-7
Organizational profile		
G4-3	Report the name of the organization.	28
G4-4	Report the primary brands, products, and services.	10-13,28
G4-5	Report the location of the organization's headquarters.	28
G4-6	Report the number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	29
G4-7	Report the organization's nature of ownership and legal form.	28
G4-8	Report the markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	10-13,28-29
G4-9	Report the scale of the organization, including: Total number of employees Total number of operations 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) Quantity of products or services provided	28
G4-10	a. Report the total number of employees by employment contract and by gender. b. Report the total number of permanent employees by employment type and by gender. c. Report the total workforce by employees and supervised workers and by gender. d. Report the total workforce by region and by gender. e. Report whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors. f. Report any significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries).	48
G4-11	Report the percentage of total employees covered by collective bargaining agreements.	54
G4-12	Describe the organization's supply chain.	34
G4-13	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain: N/A	-
G4-14	Report whether and how the precautionary approach or principle is addressed by the organization.	33,44
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	7
G4-16	List memberships of associations (such as industry associations) and national or international advocacy organizations in which the organization: • Holds a position on the governance body • Participates in projects or committees • Provides substantive funding beyond routine membership dues • Views membership as strategic	69
Identified Material Aspects and Boundaries		
G4-17	a. List all entities included in the organization's consolidated financial statements or equivalent documents. b. Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	3,74
G4-18	a. Explain the process for defining the report content and the Aspect Boundaries. b. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	8
G4-19	List all the material Aspects identified in the process for defining report content.	73
G4-20	For each material Aspect, report the Aspect Boundary within the organization, as follows: • Report whether the Aspect is material within the organization • If the Aspect is not material for all entities within the organization (as described in G4-17), select one of the following two approaches and report either: -The list of entities or groups of entities included in G4-17 for which the Aspect is not material or -The list of entities or groups of entities included in G4-17 for which the Aspects is material • Report any specific limitation regarding the Aspect Boundary within the organization	73-74
G4-21	For each material Aspect, report the Aspect Boundary outside the organization, as follows: • Report whether the Aspect is material outside of the organization • If the Aspect is material outside of the organization, identify the entities, groups of entities or elements for which the Aspect is material. In addition, describe the geographical location where the Aspect is material for the entities identified • Report any specific limitation regarding the Aspect Boundary outside the organization	73-74
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	-
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries.	3
Stakeholder Engagement		
G4-24	Provide a list of stakeholder groups engaged by the organization.	28-29
G4-25	Report the basis for identification and selection of stakeholders with whom to engage.	28-29
G4-26	Report the organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and indicate whether any of the engagement was undertaken specifically as part of the report preparation process.	28-29
G4-27	Report 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. Report the stakeholder groups that raised each of the key topics and concerns.	17,20-21,23,46,47
Report Profile		
G4-28	Reporting period (such as fiscal or calendar year) for information provided.	3
G4-29	Date of most recent previous report (if any).	3
G4-30	Reporting cycle (such as annual, biennial).	3
G4-31	Provide the contact point for questions regarding the report or its contents.	Back cover
G4-32	a. Report the 'in accordance' option the organization has chosen. b. Report the GRI Content Index for the chosen option. c. Report the reference to the External Assurance Report, if the report has been externally assured. GRI recommends the use of external assurance but it is not a requirement to be 'in accordance' with the Guidelines.	3,72-74
G4-33	a. Report the organization's policy and current practice with regard to seeking external assurance for the report. b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided. c. Report the relationship between the organization and the assurance providers. d. Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.	75
Governance		
G4-34	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	30
Ethics and Integrity		
G4-56	a. Describe the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	26-27

*1 See the glossary on page 71.

Basis of matters disclosed using the specific criteria for disclosure items.

Identified materiality items	Related G4 Aspects
● Mitigate environmental impacts	Materials/Water/Emissions/Effluents and Waste/Products and Services/Transport
● Resource and energy conservation	Energy
● Safety and security	Environment-Overall/Occupational Health and Safety
● Chemical substances	Transport/Occupational Health and Safety
● Product liability	Customer Health and Safety
● Biodiversity	Biodiversity
● Improving stakeholder satisfaction	Customer Health and Safety/Products and Services
● Human resources development	Training and Education
● Work-life balance	Diversity and Equal Opportunity
● CSR procurement	Supplier Environmental Assessment/Supplier Assessment for Labor Practices/Supplier Human Rights Assessment/Supplier Assessment for Impacts on Society
● Compliance	Environmental Grievance Mechanisms/Labor Practices Grievance Mechanisms/Human Rights Grievance Mechanisms/Grievance Mechanism for Impacts on Society/Compliance

Note: The boundary confirmed within the materiality determination process under GRI-G4 as it relates to the Group's businesses appears below for each page.

Specific criteria for disclosure items

Description		Page number
Environment		
Materials	[Boundary] ● Our group	
G4-DMA		35-36
G4-EN1	Materials used by weight or volume	36
Energy	[Boundary] ● Our group	
G4-DMA		35,37-38,67
G4-EN3	Energy consumption within the organization	36,38,67-68
G4-EN4	Energy consumption outside the organization	68
G4-EN5	Energy intensity	38
G4-EN6	Reduction of energy consumption	35
Water	[Boundary] ● Our group	
G4-DMA		35,40
G4-EN8	Total water withdrawal by source	36
Biodiversity	[Boundary] ● Our group	
G4-DMA		55
G4-EN11	Operational sites of operation owned, leased, managed in, or adjacent to, protected areas and areas of biodiversity with high biodiversity value outside protected areas	55
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	55
G4-EN13	Habitats protected or restored	55
G4-EN14	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	55
Emissions	[Boundary] ● Our group ● Business partners	
G4-DMA		35,37-39,67
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	36,38
G4-EN16	Indirect greenhouse gas (GHG) emissions (Scope 2)	36,38
G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	38
G4-EN18	Greenhouse gas (GHG) emissions intensity	38
G4-EN19	Reduction of greenhouse gas (GHG) emissions	35
G4-EN21	NOx, SOx, and other significant air emissions	39
Effluents and Waste	[Boundary] ● Our group	
G4-DMA		35,37,39-40
G4-EN22	Total water discharge by quality and destination	36
G4-EN23	Total weight of waste by type and disposal method	39
G4-EN24	Total number and volume of significant spills	–
Products and Services	[Boundary] ● Our group	
G4-DMA		35
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	10
Compliance	[Boundary] ● Our group	
G4-DMA		31,35,41
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	32
Transport	[Boundary] ● Our group ● Business partners	
G4-DMA		35,38
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	36,68
Environment-Overall	[Boundary] ● Our group	
G4-DMA		35,41
G4-EN31	Total environmental protection expenditures and investments by type	36,68

Description		Page number
Supplier Environmental Assessment	[Boundary] ● Our group ● Business partners	
G4-DMA		34
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	34
Environmental Grievance Mechanisms	[Boundary] ● Our group	
G4-DMA		32,41
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	41
Society		
Labor Practices and Decent Work		
Occupational Health and Safety	[Boundary] ● Our group	
G4-DMA		41,53
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	42-43
G4-LA8	Health and safety topics covered in formal agreements with trade unions	54
Training and Education	[Boundary] ● Our group	
G4-DMA		50-51
G4-LA9	Average hours of training per year per employee by gender, and by employee category	50
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	48,50-51
Diversity and Equal Opportunity	[Boundary] ● Our group	
G4-DMA		48-49
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	30,48
Supplier Assessment for Labor Practices	[Boundary] ● Our group ● Business partners	
G4-DMA		34
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	34
Labor Practices Grievance Mechanisms	[Boundary] ● Our group	
G4-DMA		32
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	32
Human Rights		
Supplier Human Rights Assessment	[Boundary] ● Our group ● Business partners	
G4-DMA		34
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	34
Human Rights Grievance Mechanisms	[Boundary] ● Our group	
G4-DMA		32
G4-HR12	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	32
Society		
Compliance	[Boundary] ● Our group	
G4-DMA		31
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	32

Description		Page number
Supplier Assessment for Impacts on Society [Boundary] ● Our group ● Business partners		
G4-DMA		34
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	34
Grievance Mechanisms for Impacts on Society [Boundary] ● Our group		
G4-DMA		32
G4-SO11	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	32

Description		Page number
Product Responsibility		
Customer Health and Safety [Boundary] ● Our group		
G4-DMA		45
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	45-46
Compliance [Boundary] ● Our group		
G4-DMA		31-32
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	32

Sumitomo Bakelite Group (as of March 31, 2017)

Consolidated subsidiaries (38)*1

Akita Sumitomo Bakelite Co., Ltd.
Kyushu Sumitomo Bakelite Co., Ltd.
S.B. Techno Plastics Co., Ltd.
Hokkai Taiyo Plastic Co., Ltd.
Yamaroku Kasei Industry Co., Ltd.
S.B Research Co., Ltd.
S.B. Sheet Waterpoof Systems Co., Ltd.
Softec Systems Inc.
Sunbake Co., Ltd.
Seibu Jushi Co., Ld.
Tsutsunaka Kosan Co., Ltd.
Sumitomo Bakelite Singapore Pte. Ltd.
- Sumitomo Bakelite (Suzhou) Co., Ltd.
- Sumitomo Bakelite (Thailand) Co., Ltd.

SumiDurez Singapore Pte. Ltd.
SNC Industrial Laminates Sdn. Bhd.
P.T. Indopherin Jaya
P.T. SBP Indonesia
Sumitomo Bakelite (Taiwan) Co., Ltd.
Sumitomo Bakelite (Shanghai) Co., Ltd.
Sumitomo Bakelite (Nantong) Co., Ltd.
Sumitomo Bakelite Hong Kong Co., Ltd.
Sumitomo Bakelite (Dongguaan) Co., Ltd.
Sumitomo Bakelite Macau Co., Ltd.
Sumitomo Bakelite North America Holding, Inc.
- Sumitomo Plastics America, Inc.
- Durez Corporation
- Durez Canada Co., Ltd.
- Promerus LLC
- Sumitomo Bakelite North America, Inc.
- H.I.G. Vaupell Holdings, LLC
  - Vaupell Holdings, Inc.
    - Vaupell Industrial Plastics, Inc.
    - Vaupell Molding & Tooling, Inc.
    - Russell Plastics Technology Company, Inc.

N.V. Sumitomo Bakelite Europe S.A.
- Vyncolit N.V.
- Sumi Bakelite Europe (Barcelona), S.L.U.

Non-consolidated companies (11) *2·3·4

S.B Information System Co., Ltd.
Sumibe Service Co., Ltd.
S.B. Recycle Co., Ltd.
SB Holland B.V.
Neopreg AG
Sumibe Korea Co., Ltd.
SBE India Pvt Ltd.
Taiwan Sumitomo Bakelite Co., Ltd.
Rong Feng (H.K.) Industries Limited
- Rong Chang Sheng Plastics Mould (Shen Zhen) Co., Ltd.
- Vaupell China (Dongguan) Co., Ltd.

Affiliated companies accounted for by the equity method (1) *5

P.T. Pamolite Adhesive Industry

Affiliated companies not accounted for by the equity method (5) *6

Otomo Chemical Co., Ltd.
Green Phenol Development Co., Ltd.
Akita EV Bus LLP
Changchun SB (Changshu) Co., Ltd.
Tsu-Kong Co., Ltd.

	Consolidated	Equity method	Non-consolidated	Other	Total
Japan	11	0	3	3	17
Overseas	27	1	8	2	38
Total	38	1	11	5	55

*1 Thanxs Trading Co., Ltd. was removed from the scope of consolidation on December31, 2016.

*2 Sano Plastics Co., Ltd. was liquidated on June 14, 2016.

*3 Vaupell China (Dongguan) was established on August 23, 2016 as a subsidiary of Rong Feng (H.K.) Industries Ltd.

*4 Neopreg was closed and excluded from the business sites listed on page 29, but it appears as a Group company because it still exists as it is currently undergoing liquidation proceedings.

*5 Nippon Denkai, Ltd. sold all of its shares on July 29, 2016, excluding it from the scope of the company as an equity-method affiliate.

*6 Akita EV Bus LLP was established on April 1, 2016.

Independent Assurance Report

To the President and Representative Director of Sumitomo Bakelite Co., Ltd.

We were engaged by Sumitomo Bakelite Co., Ltd. (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators and environmental accounting indicators marked with for the period from April 1, 2016 to March 31, 2017 (the "Indicators") included in its CSR Report 2017 (full online version) (the "Report") for the fiscal year ended March 31, 2017, the Company's self-declaration that the Report is prepared in accordance with the Global Reporting Initiative's G4 Sustainability Reporting Guidelines (the "G4 Guidelines") at a core level, and the completeness of material sustainability information in the Report.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report, which are derived, among others, from the G4 Guidelines and Environmental Reporting Guidelines of Japan's Ministry of the Environment, for self-declaring that the Report is prepared in accordance with the criteria stipulated in the G4 Guidelines, and for including the material sustainability information defined in the 'Sustainability Reporting Assurance and Registration Criteria' of the Japanese Association of Assurance Organizations for Sustainability Information ("J-SUS") in the Report.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have 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', 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements', issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' of J-SUS. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

- Interviewing with the Company's responsible personnel to obtain an understanding of its policy for the preparation of the Report and reviewing the Company's reporting criteria.
- Inquiring about the design of the systems and methods used to collect and process the Indicators.
- Performing 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 recalculating the Indicators.
- Visiting to the Company's overseas and domestic factories selected on the basis of a risk analysis.
- Evaluating the Company's self-declaration that the Report is prepared in accordance with the G4 Guidelines at a core level against the criteria stipulated in the G4 Guidelines.
- Assessing whether or not all the material sustainability information defined by J-SUS is included in the Report.
- Evaluating the overall statement in which the Indicators are expressed.

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; the Company's self-declaration that the Report is prepared in accordance with the G4 Guidelines at a core level does not conform to the criteria stipulated in the G4 Guidelines; and all the material sustainability information defined by J-SUS is not included in the Report. .

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
October 18, 2017

J-SUS Assurance

This mark indicates that Sumitomo Bakelite has fulfilled the Labeling Standards for the Screening and Registration of Sustainability Reports published by the Japanese Association of Assurance Organizations (http://www.j-sus.or.jp) for Sustainability Information with regard to the sustainability information appearing in this report.

Audit being performed at an overseas business site (Indopherin Jaya)

Audit being performed at a domestic business site (Amagasaki Plant)

SUMITOMO BAKELITE CO., LTD.

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

Inquiries
Corporate Communications Department
Corporate General Affairs Division
TEL: +81-3-5462-3479
FAX: +81-3-5462-4899
URL: http://www.sumibe.co.jp/english/

Responsible Care®
OUR COMMITMENT TO SUSTAINABILITY

About the Cover

Illustrator: Satoko Mukumoto

"The subject of my painting is Sumitomo Bakelite's biotope and children playing there. The children's faces are filled with curiosity as they interact with the living organisms, including wildflowers, wildlife and insects. This depicts a very promising scene filled with hope for the future."

UD FONT

UD Font: The easy-to-read font is based on the Universal Design (UD) concept.

Published: November 2017