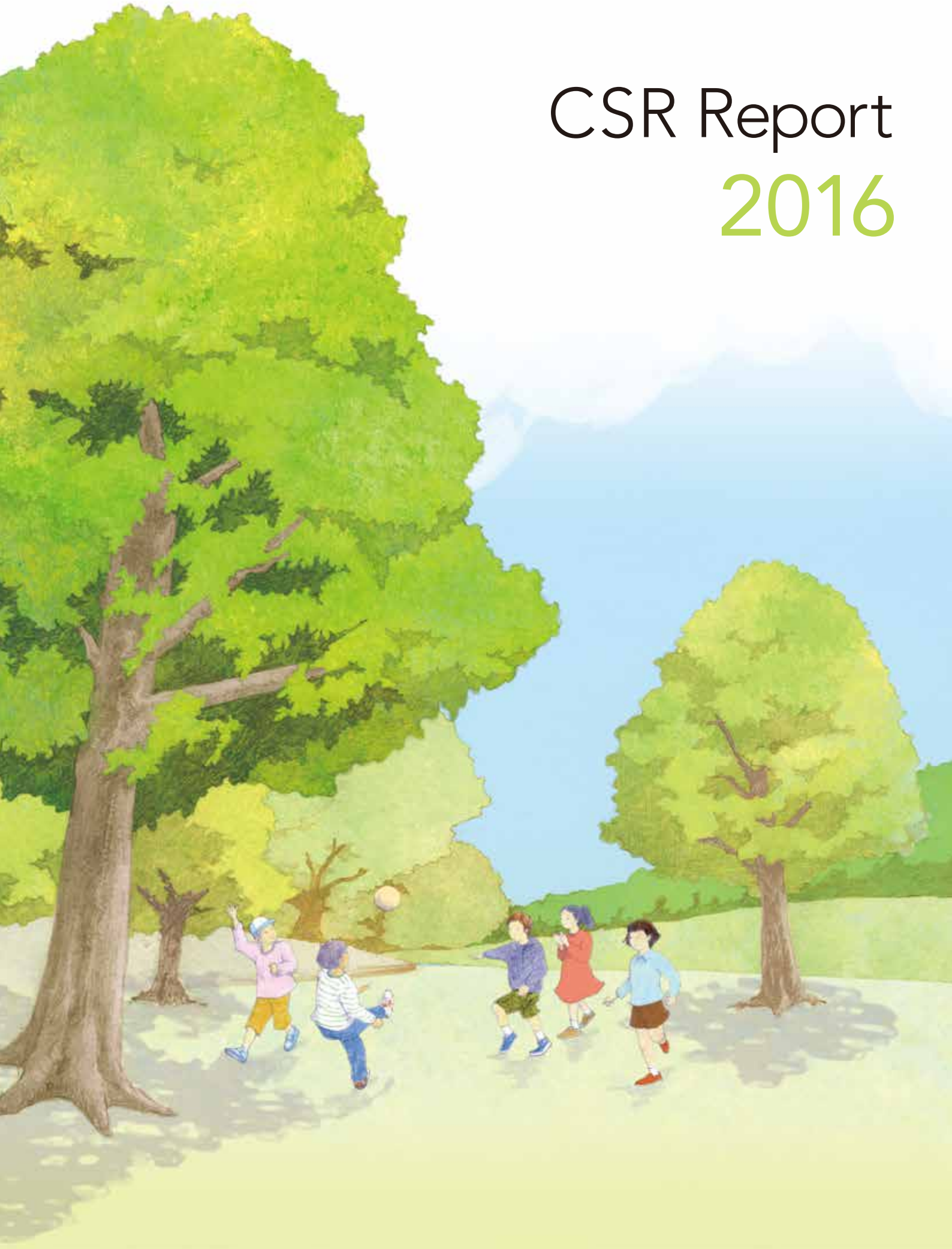
SUMITOMO BAKELITE CO., LTD.

CSR Report 2016



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.

Editorial Policy

This report presents the Sumitomo Bakelite Group's CSR activities in fiscal 2015 clearly and succinctly to facilitate communication with all stakeholders. In March 2016 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 2016 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 2015 (April 2015 through March 2016). Cases in which the coverage is different from this period are indicated.

● Published

October 2016 (The Fiscal 2015 Report was published in September 2015 and the Fiscal 2017 Report will be published in September 2017)

● 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

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)*2, Durez Corporation, Durez Canada, Sumitomo Bakelite North America, Promerus, Sumitomo Bakelite Europe, Sumitomo Bakelite Europe (Barcelona), Vyncolit, Vaupell Northwest (VNW)*2, Vaupell Northeast (VNE)*2, Vaupell Midwest (VMW)*2, Vaupell Rapid Solutions (VRS)*2, Russell Plastics (Vcomp)*2, Neopreg*3

*1 These business sites and companies are included in the compilation of energy consumption and CO_2 emissions data.

*2 Vaupell has been included in the compilation of data on environmental performance and occupational health and safety beginning with fiscal 2015.

*3 These companies are not consolidated subsidiaries, and reporting only covers their data on occupational health and safety.

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.

Contents

Interview with the President

Transforming Market Changes and Social Issues into Opportunities to Create New Businesses

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.

Newscaster and Visiting Professor of Chiba University

Hiroko Kiba

Joined Tokyo Broadcasting System Television, Inc. (TBS) in 1987. Served as anchorwoman for various sports programming including Tetsuya Chikushi News 23 and others. Became a freelance newscaster in 1992. She was appointed as a part-time lecturer of Chiba University's Faculty of Education in 2001, then a Visiting Professor in 2013. She has served as member of various councils at the Prime Minister's Office, including the Council for Regulatory Reform and Education Rebuilding Council, and currently participates as a member on councils and commissions for eight different ministries and agencies in Japan to provide a consumer perspective. She has in-depth knowledge of environmental and energy issues.

Contributing to Society as a Pioneer of Plastics

Kiba Plastics are an essential part of our lives. As a pioneer of plastics, tell me about Sumitomo Bakelite's progress and identity.

Hayashi The history of plastics dates back to 1907 when Dr. Leo Baekeland became the first in the world to develop a plastic, phenolic resin, meaning plastics have been with us for a little over a century. He named this invention Bakelite, which is the origin of our company name. Sumitomo Bakelite was established in 1955 with the merger of Sumitomo Synthetic Resin Industries, Ltd. and Nippon Bakelite Co., Ltd., which was Japan's successor to this new technology. Since then, as a pioneer of plastics, we have striven to contribute to the growth of society using the advanced functions of plastics to underpin customers' value creation. Today, Sumitomo Bakelite has grown into a global corporation with a wide-ranging portfolio of businesses that includes automotive, medical, food, and housing-related products.

Using Solutions for Social Issues as a Driving Force Behind Growth

Kiba Looking back, how was Sumitomo Bakelite's operating environment in fiscal 2015?

Hayashi In fiscal 2015, China, which had been a major driver of the world economy, and other emerging countries saw a mounting economic slowdown, which caused a slump in demand for our products for smartphones, computers, automobiles and other segments, resulting in weaker sales. As a result, net sales of the Group totaled ¥207 billion, down somewhat year on year, but operating income stood at ¥12.2 billion and ordinary income was ¥12.5 billion, both higher than the previous year. Overall, results were adequate, I believe. However, net income came in at ¥5.2 billion*1, which was below our expected figure. This was attributable to extraordinary losses booked due to the impairment of unprofitable businesses and facilities as well as the streamlining of our workforce through such measures as voluntary retirement, within the structural reform process initiated from the second half of last year given Japan's sluggish economy.

Kiba Sumitomo Bakelite has created a new mid-term business plan for fiscal 2016 to fiscal 2018. What are the points of emphasis within this new plan?

Hayashi Our first point of emphasis is the smart community infrastructure-related field. This involves efforts to achieve a sustainable society by solving various issues in such fields as energy, power, and transportation. This area is expected to bring us major business opportunities, such as connecting homes, buildings and transportation systems, including vehicles, with IT networks as well as next generation systems for maximizing photovoltaic, wind and other renewable energy usage in communities. To fully capitalize on what this field has to offer, we established the Smart Community Marketing & Development Dept. in January 2016. We are now working on developing this into a truly global organization that includes not only Japan, but also Europe and North America, and building an open innovation laboratory in an effort to establish a structure to promote smart community-related businesses. In addition to automobiles, we will also make inroads into energy, transportation, robotics and medical fields for establishing new businesses.

Kiba Smart communities are set to become more important in the future. It is really impressive how you keep taking up new challenges while modifying existing products by using your technologies developed with your materials.

Hayashi The next point of emphasis is the field of aerospace. In June 2014, we acquired Vaupell, a tier-one supplier of commercial airplane interior components based in the United States. With this acquisition, we made our full-fledged entry into the field. Until then, we had marketed automotive materials in Japan, North America and Europe, but we were unable to do the same for aerospace materials because of differences in the applications and sales channels. Of course, even before the acquisition, we have had enough technical prowess to utilize existing products and modified products as new interior materials for commercial airplanes. In doing so, however, we were faced with the disadvantage of being a chemical manufacturer, as chemical products manufacturers are generally regarded as tier-two or tier-three suppliers. We therefore had to find a way to become a tier-one supplier who can talk directly to airplane manufacturers in order to make useful proposals to them.

Kiba I believe your foray into the field of aircraft interior components is to promote the use of plastics as an alternative to metals, but what about their strength?

Hayashi Some parts under the hood of automobiles have already been switched over to plastics. Plastics have been adopted for these applications since around the 1950s, so there are absolutely no problems today in terms of heat resistance and durability. If the use of plastics expands in commercial aircrafts in the future, this will contribute to making "aircraft lighter," the never-ending business and environmental objective pursued by airlines.

Kiba Lighter aircraft will go a long way toward reducing CO2 emissions, not to mention the better fuel economy.

Hayashi Over the past several years commercial aircraft have become around 20% lighter. In order to shed even more weight, there will be a need to shift from steel and aluminum in favor of plastics.

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

In the Sense of Ensuring Business Continuity, It's Important to Create Goods without Relying on Fossil Resources

Kiba Here, plastics will likely contribute a great deal to society.

Hayashi The third point of emphasis is the medical field. In terms of medical devices, we deliver various solutions that alleviate patient burden in various fields including IVR, endoscopy, and drainage, to name a few, based on our principles of delivering customers with safety and peace of mind. In October 2015, we concluded an exclusive distribution agreement outside of Japan with Merit Medical Systems, Inc. of the United States for our new steerable microcatheter in the field of IVR. This catheter was also approved for inclusion in Japan's National Health Insurance, and now full-fledged marketing has begun both in Japan and overseas. This product represents the world's first catheter with a tip that can be steered manually by hand. It does not use a guidewire. It is able to reach the affected area of a patient all by itself. This catheter will improve the safety of surgeries and alleviate the burden placed on patients by reducing surgical time.

Kiba Is this catheter included in everyone's insurance coverage (National Health Insurance)?

Hayashi Of course. It is now being used to treat liver cancer, but it is also effective against intravascular aneurysms. Ultimately, we would like to produce a number of different catheters and expand the medical fields where we can contribute to treatment solutions.

Kiba Offering more of these products will greatly alleviate the burden placed on patients' bodies.

Hayashi With medical devices, if we are to achieve the objective of alleviating the burden placed on patients, we would need to develop devices that doctors can easily use in surgery without spending much time for training and that can reduce surgical times. So, from the initial design stage, we make sure to ask a number of physicians and medical institutions for their opinions about the usability of medical devices and their surgery guidelines. Based on the information gathered, we strive to develop and keep improving products through repeated trial and error.

Kiba I now know that plastics are playing an important role in the medical field as well. On an even closer scale, I have also heard that plastic films used to maintain the freshness of food have become a topic of major interest.

Hayashi The film you are talking about is P-Plus® freshness preserving film for fruit and vegetables. In fact, the product is already used for more than 70% of the cut vegetables sold by supermarkets and convenience stores in Japan, so in most cases this film has made its way all the way to consumer households. A huge amount of unsold products used to be thrown away prior to the introduction of freshness preserving film, but after the film came along, the shelf lives of fruit and vegetables have become much longer, which has greatly reduced the amount of food wasted. The effectiveness of this product is quite visible.

Kiba Freshness preserving films are contributing greatly to reducing food loss, which has become a major social issue.

Hayashi Yes, you can say that. Prolonging freshness means products can now be shipped by sea, even though it takes longer, which is beneficial for exporting agricultural produce grown in Japan.

Kiba Usually, fresh fruit and vegetables need to be sent by air or they will spoil. Being able to send these products by sea will have amazing effects in terms of cost. This will also lead to greatly expanded business opportunities for Japanese agricultural produce.

Product Development that Reduces Environmental Impacts and Generates Profits

Kiba Reducing food loss is one way of indirectly contributing to the environment. Speaking of the environment, what are your thoughts on the depletion of petroleum resources as a global warming issue?

Hayashi As long as plastic are made from fossil resources, plastics manufacturers maintain an obligation to lower their CO_2 emissions. We keep facing the issue of the future depletion of petroleum, so in the sense of ensuring business continuity, it's important to come up with ways to manufacture products without relying on fossil resources.

Kiba Does the same hold true for bioethanol and other products?

Hayashi Fundamentally it is the same. We believe the industry is obligated to develop green phenol for making plastic from non-edible biomass such as rice straw and corn stalks. Currently, we are conducting demonstration tests jointly with the Research Institute of Innovative Technology for the Earth (RITE), with the goal of commercializing a product in fiscal 2018.

Kiba Very little CO_2 is produced during the production process of bioplastics, correct?

Hayashi Yes. However, phenolic resins are a low-cost plastic. Even if we succeeded in producing a great bioplastic, if it doesn't generate a profit, then we can't realize a sustainable cycle of production for the product. Therefore, we are now looking for other substances with commercial potential that are generated in the process used for producing phenolic resins.

Kiba Can you do that? It sounds like something only possible in the world of advanced chemistry.

Hayashi Bioprocesses produce biofine chemicals from the ancillary substances. These chemicals can be used in intermediates for pharmaceuticals or the raw materials for cosmetics.

Kiba So you are looking to branch out from bioplastics into higher margin products like cosmetics. The business case for bioplastics is important not only for the company but also for society.

Producing Human Resources with a Global Mindset that Can Underpin Our Growth

Kiba Expanding product categories and developing new applications requires developing human resources who can underpin these efforts. What are your thoughts concerning human resource development?

Hayashi Human resource development has always been an important theme for us. In 2007, we established SB School. Here, employees are able to learn various fields using 139 courses led by outside lecturers and in-house professionals. According to our data, some 180,000 employees have taken a course through SB School.

Kiba Do you offer on-the-job training in a format that allows junior employees to experience working abroad?

Hayashi We have a program in place to let employees in their third year with the company take part in a two-year overseas practical training program in turn. The program aims to foster global mindsets in our employees through having them work in assistant roles in our offices overseas to gain overseas business experiences including interacting with our local staff in other countries. We must make this into a mechanism where large numbers of employees are able to participate to gain business experiences overseas, learn through such experiences, harness their potential globally, return to Japan afterwards and become senior managers who will lead the company forward.

It is because you have the core technology that you also have ideas.

Kiba What a great experience. Finally, can you share a short message for Sumitomo Bakelite's stakeholders?

Hayashi Our ideal vision is to grow our businesses and provide positive returns to society as well. To accomplish this, we will create new products to address social issues while fostering closer relationships with customers, all under the basic policy of "customer satisfaction comes first." By having these products create social and economic value and rolling them out to markets around the world, Sumitomo Bakelite's work will contribute even more to the earth, society and people's lives.

We currently have operations in 16 countries and regions around the world. In our pursuit of global business development, we recognize that it is important to fulfill our social responsibility by observing the laws of the countries where we do business and deepening our understanding of their cultures, enhancing and strengthening corporate governance, and giving due consideration to health, safety and the environment as befits a chemical company. We will continue to endorse the Responsible Care Global Charter and fulfill its voluntary obligations of continuously implementing health, safety and environmental initiatives and improving their performance.

Having the core technologies gives you all these great ideas.

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.

Materiality determination process

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 in 2017 and subsequent years as well as for activity planning.

Materiality Items Identified

Field	Materiality item	Related stakeholders	Page number
Issues related to ensuring harmony with society	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 36 to 40
Issues related to providing safety and peace of mind	Safety and security	Local communities Governments Business partners Employees	Full online version pages 41 to 43
	Chemical substances	Business partners Governments Employees	Full online version page 44
	Product liability	Customers	Full online version pages 45 to 46
Issues impacting society	Biodiversity	Local communities	Full online version page 55
	Improving stakeholder satisfaction	Customers Shareholders Local communities Governments Business partners Employees	Full online version pages 47 to 57
	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	CSR procurement	Business partners	Full online version page 34
	Compliance	Employees	Full online version pages 31 and 32

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

Outside opinion of materiality items

The identified issues of materiality cover a wide scope of the company's overall CSR activities rather exhaustively. I feel this conveys the company's commitment to faithfully respond to these issues as a good corporate citizen by identifying all of the channels it has with society, and attempting to address the needs of society from every possible direction.

However, materiality should be thought of in the same light as the factors having material impacts on management, so materiality items and the boundary can be narrowed further going forward. This is because CSR can be fulfilled more successfully through committing management resources efficiently based on the importance given to each item in line with the company's assigned levels of materiality. As an example, for the materiality item of "improving stakeholder satisfaction," the company has included the six stakeholders of customers, shareholders, local communities, governments, business partners and employees as the boundary. I believe that these stakeholders were selected because they are all important, but I would recommend further narrowing the boundary by including new criteria such as risks and opportunities in the assessment of relationships between the company and each of these stakeholders.

About 60% of the Sumitomo Bakelite Group's sales and workforce come from other countries than Japan, so I would like to see more overseas perspectives included and reflected in the selected items. For example, work-life balance is a very important factor for employees working in Japan and it is also truly significant in terms of corporate management to have a workforce that is content with both work and their private life. Outside of Japan, however, there are many cases where work-life balance is not necessarily regarded as an important factor because there are a quite a few countries where work-life balance has long been achieved as a social norm. Additionally, outside of Japan, issues of not only strange and loud noises, but environmental pollution including chemical leaks and water pollution and health issues are of the greatest concern to local residents living around chemical plants. Therefore, these issues should not be thrown together into the item of "mitigating environmental impacts;" instead they should be made into different items and addressed separately so that the company can clearly demonstrate that it is paying close and equal attention to both objectives. I look forward to the future efforts of the company.

Makiko Akabane
CSR Asia
Japan representative for CSR Asia. She has covered the CSR efforts of a number of multinational corporations from various sectors for more than a decade. She has given lectures throughout Japan and around the world, including at the Ministry of the Environment, International Christian University (ICU), Keio University, Seisen Jogakuin College, Rikkyo University, Meiji Gakuin University, the World Bank, APABIS, the British Council, and Toyo Keizai Inc.

Familiar Sumitomo Bakelite Products Around You

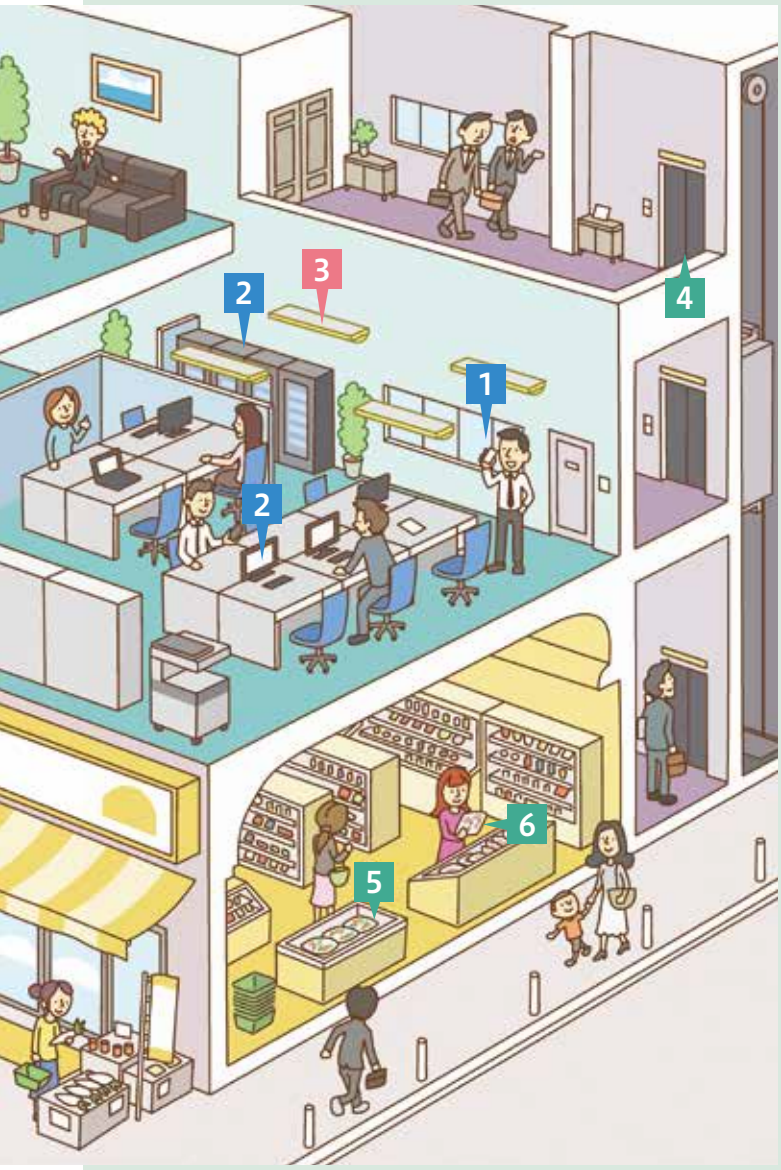
Most of Sumitomo Bakelite's products are processed in various ways after being supplied to customers and then delivered around the world as finished goods. Here, we will introduce a number of products made by the Sumitomo Bakelite Group that are used in various situations and play an important role in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



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.

Sumiconductor Package Substrate Materials (LaZ®)

We deliver new value to customers with our substrate material for semiconductor packages called "LαZ," which offers reduced heat 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.

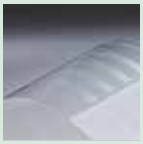
Paste for Die Bonding (SUMIRESIN EXCEL®CRM)

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 Elevator cages 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 film (fruit and vegetables and cut vegetables, etc.)

Freshness Preserving Film (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 film 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 control

Molding Compounds For Encapsulation of Semiconductor Devises (SUMIKON® EME)

Our lineup of products for semiconductor packaging protects delicate semiconductors from external moisture and impact.

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 Polarizers for UV filter glass

Polycarbonate Sheets and Films (SUNLOID® PC)

Through the use of a new blending and dispersion technology, maintaining transparency that is nearly equal to glass, these plates cut heat rays of used such as UV filter glass, carport.

Aircraft

13 Window Assembly
14 Ltd vents (for cabin pressure adjustment)
15 • 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.

16 Seat tables
17 Lavatories

SUNLOID® KD Acrylic-PVC Alloy 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

18 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.

19 Carport roofs

Polycarbonate Sheets and Films (SUNLOID®PC)

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

20 Film for greenhouse siding (walls)

Polycarbonate Sheets and Films for Agricultural Use (SUNLOID®PC)

"SUNLOID" PC films have the same transparency and impact resistance as other Polica Ace applications. They can be used for covering the lower part of greenhouses and other covering materials.

21 Freshness preserving film (fruit and vegetables and cut vegetables, etc.)

Freshness Preserving Film (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.

22 Waterproofing sheets/systems for roofs

Waterproofing Sheet 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.

23 Greenhouse material

Polycarbonate Plate (SUNLOID PC Corrugated Sheet)

Material is made of polycarbonate resin with excellent impact strength and transparency as well as weather resistance. It also has excellent moisture and thermal resistance. A plentiful assortment of colors is available for a wide range of uses.

Medical

24 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.

25 Plastic wares for cell culturing

Biotechnology-Related Products

These bio chip and bead products are helping to reduce waste and lower costs by speeding up and downsizing equipment for biological sample testing.

26 Plastic wares for testing

Laboratory Plasticware (SUMILON®)

SUMILON® is our brand of laboratory plastic wares that include plates, flasks, dishes, and cryogenic tubes.

27 Medical instruments for surgery and drainage

28 Supplies 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.

29 Energy-saving heat storage tank waterproofing system

Thermal insulation and waterproofing Sheet & 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

30 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.

31 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.

32 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.

33 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.

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

PVC Plate (SUNLOID PVC Heat Resistant Plate)

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

Train/Station

35 Ceilings, doors, walls, etc.

Aluminum based decorative laminates (Decola MA)

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

36 Armrests and tables for seats

PVC Plate (SUNLOID® KD Acrylic-PVC Allay 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.

37 Station billboard material

Acrylic Light Guide Panel (SUNLOID® LUMIKING)

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

Special Feature 1

Making Farm Fresh Produce Fresher and Better Tasting

Tokyo Seika and Sumitomo Bakelite

Freshness preserving film P-plus® carries with it the potential to influence marketability and distribution channels of fruits and vegetables by keeping them fresh for a longer time. A round-table discussion was held with representatives of Tokyo Seika Co., Ltd. of the Tokyo Central Wholesale Market (Ota Market), the largest distributor of fruits and vegetables in Japan, about how they are using the freshness preserving film and what they expect from the product.

Round-table discussion

Changing Japan's Agriculture by Innovating Distribution and Packaging

Film that Preserves the Taste and Appearance of Fruits and Vegetables

Ishikawa Sumitomo Bakelite has manufactured and marketed freshness preserving film P-plus® for fruits and vegetables for close to a quarter century now. After the product's initial release, we had absolutely no connections with fruit and vegetable wholesale markets, so our sales efforts in the beginning focused on producers and we used to go to farming communities to promote our product. However, we gradually noticed the need to approach major distributors, and during this process, we gained the cooperation of Tokyo Seika Co., Ltd. Our cooperation with Tokyo Seika allowed us to convey the advantages of using P-plus® to vendors, buyers and others working in their market, making it possible to eventually convince producers of the advantages of using the film and win their trust in us and in our products. This has also enabled us to build a strong partnership with Tokyo Seika over the years.

Nagahori Ota Market carries fruits and vegetables

produced in places very far from Tokyo. These produce face issues stemming from the long transportation time they need to reach consumers, such as being bruised in transit and suffering degradation of appearance. These issues used to attract many complaints from retailers. However, things changed after Ota Market began using P-plus® in packaging. Today, our fruits and vegetables make it possible to keep store shelves fresh and looking very appealing. We are now receiving less complaints than before.

Minejima Using P-plus® in packaging lets fruits and vegetables breathe, keeping them alive, so to speak. This prevents odors and moisture from forming, maintaining freshness in the process.

Iwaki I'm in charge of mushrooms. Mushrooms contain a large amount of moisture. That's why, when the temperature increases, they spoil quickly. Many people think that a sour smell when you open a package of mushrooms is normal. However, using Sumitomo Bakelite's freshness preserving films eliminates this smell and makes mushrooms taste better.

Minejima To better convey these results, with the help of Tokyo Seika, we invite producers and supermarket buyers to our Fruit and Vegetable Assessment CS Center to see the film firsthand and compare for themselves how different foods taste depending on their packaging.

Iwaki The Fruit and Vegetable Assessment CS Center for P-plus® is conveniently located close to the Ota Market, so we have been able to have buyers view the results for themselves, which are then conveyed to producers.

Nagahori At the Fruit and Vegetable Assessment CS Center, I get to view the testing results of fruits and vegetables that my colleagues are in charge of. The testing results let me see clearly what happens to fruits and vegetables as time passes, so it is very informative. Observing the results first-hand, I am now convinced that P-plus® should be used for fruits and vegetables that spoil quickly.

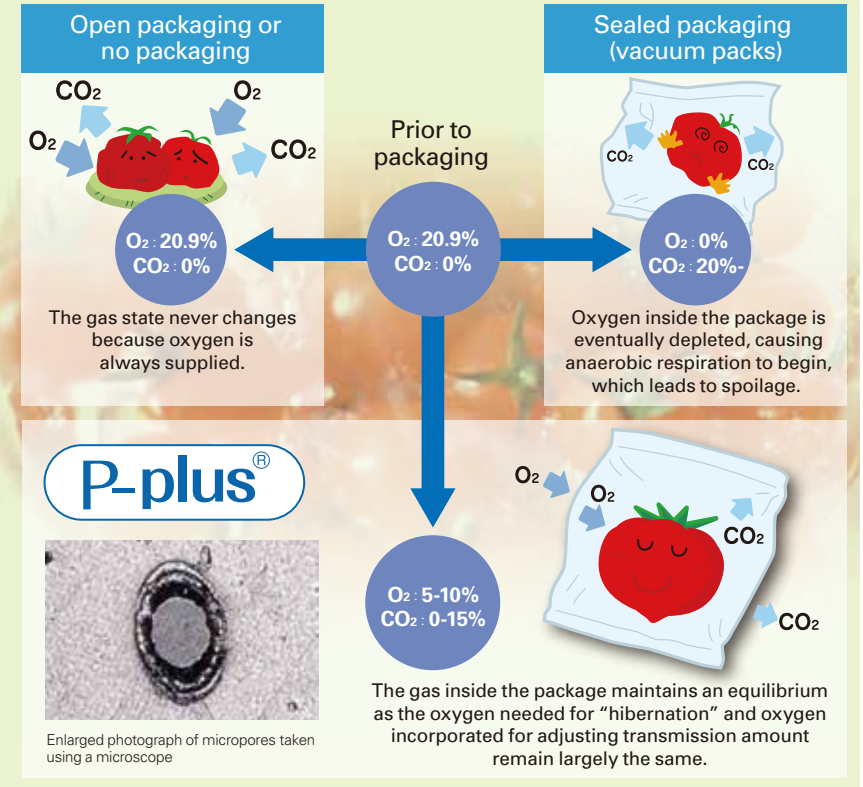
Supporting the Establishment of New Fruit and Vegetable Brands

Ishikawa The Fruit and Vegetable Assessment CS Center has accumulated data on some 7,000 items, including test results. Based on this, we are able to provide customized films fully tailored to the respiration rate and transit process of each category of fruits and vegetables. This is our strength.

Nagahori If the freshness of individual fruits and vegetables can be maintained, this means the amount of loss in transit can be reduced as well and fresh items can be sold at a higher price. In turn, this will increase the unit prices paid to producers. Also, for fruits and vegetables that could not be carried at Tokyo markets because they spoil quickly, using P-plus® may let them find new

What is P-plus®?

Using leading technology in micro perforation, P-plus® matches film permeability to the product's respiration rate. Based on a wealth of data on all categories of fruits and vegetables, the size and number of micro perforations is fine-tuned based on the requirements for distribution, which optimizes the condition of fruit and vegetables in transit. This equilibrium lowers respiration rates, creating a state similar to "hibernation."



markets in Tokyo and beyond.

Minejima Today, consumers in the Kanto region of Japan can purchase unique varieties of edamame such as dadacha-mame from Yamagata Prefecture and cha-mame from Niigata Prefecture. P-plus® has played a part in developing this trend. With previous packaging methods, properties such as sugar content, taste, and color, of these edamame varieties used to decline easily. However, our film has made it possible to distribute these items from remote areas with their freshness intact.

Nagahori Producers today have a strong interest in turning fruits and vegetables they produce into recognized brands. They are making various branding efforts such as giving their products unique names and boosting PR activities. However, the most important thing is quality, so I believe there will be growing demand for packaging that can maintain freshness.

Iwaki For consumers, too, freshness plays the biggest part in finding something delicious. As a consumer myself, I'll be very thankful once having farm fresh produce delivered fresh to stores becomes an everyday occurrence.

Ishikawa In terms of this new brand creation, the use of P-plus® is increasing for the purpose of delivering Japan's high quality fruits and vegetables to markets around the world. It is now possible to send items to faraway places by sea while maintaining their freshness, which will make these products more cost competitiveness internationally. I hope to continuously play a role in revitalizing Japan's agriculture with P-plus®.

Tokyo Seika Co., Ltd.

Coordinator of Fruit and Vegetable Distribution with a Commitment to Bringing Farm Fresh Produce to the Dining Table

3-2-1 Tokai, Ota-ku, Tokyo 143-0001	
Paid-in capital	478 million yen
Annual transaction volume	196.7 billion yen
Employees	510
Business line	Consignment sales and purchases of fruits and vegetables as well as processed foods

Founded in 1947, Tokyo Seika is Japan's largest distributor of fruit and vegetables, as it ranks number one in transaction volume among the 3,500 distributors in Japan (as of June 7, 2016).

Link → http://www.tokyo-seika.co.jp

Fruit and Vegetable Assessment CS Center

The Ota Market, Japan's largest wholesale market for fruits and vegetables, plays host to producers and distributors from across Japan. The Fruit and Vegetable Assessment CS Center has been set up at the front entrance to the Ota Market in order to provide these people with information about the benefits of P-plus®.

This facility conducts comparative testing of packaging and provides market participants with opportunities to experience firsthand the effectiveness of P-plus® by smelling and tasting samples of items packaged in P-plus®. In July 2016, the Western Japan CS Center was opened at the Osaka Market.

Testing in progress at the Ota Market's Fruit and Vegetable Assessment CS Center

Examples of P-plus® in Use

P-plus® is used not only for whole fruit and vegetables across Japan, but also for packaging cut vegetables. P-plus® is also sold in the form of zipper bags for home use.

Link → https://www.sumibe.co.jp/english/product/p-plus/

Farm fresh vegetables

Zipper bags for home use

P-Plus® is being used more across Japan!

Look for this symbol

Examples of specialty fruits and vegetables produced across Japan using P-plus® for shipping.

Every month new topics about fruits and vegetables are introduced on our corporate website under the title "This month's P-plus® fruits and vegetables."

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

Flower Land Kamifurano (Hokkaido)

Asparagus

Flower Land Kamifurano ships about 30 tons of asparagus between the middle of May and June. The farm uses P-plus® to package all 30,000 bags of them (in 1 kg bag) in order to deliver farm fresh asparagus to consumers.

Asparagus harvested in the morning are shipped the same day. P-plus® maintains their freshness, enabling consumers across Japan to enjoy the delicious taste of freshly picked produce.

President of Flower Land Kamifurano Ltd.
Masatoshi Ito

JA Tsuruoka (Yamagata Prefecture)

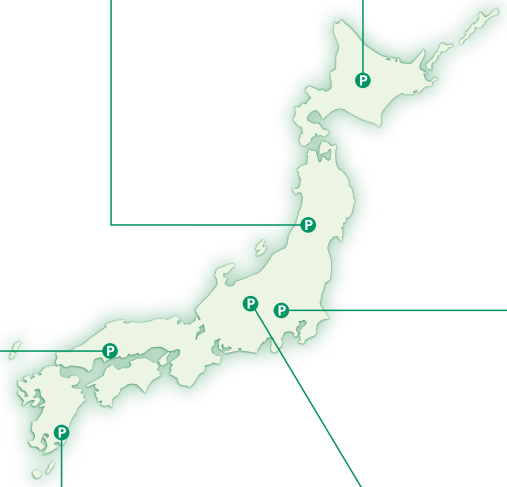
Edamame

The Edamame Growers Committee of JA Tsuruoka was the first in Japan to start using P-plus® for packing their high quality, farm fresh dadacha-mame. Introducing P-plus® packaging and low-temperature logistics system into their supply chains has made it possible for dadacha-mame to be delivered nationwide.

JA Hiroshima Yutaka (Hiroshima Prefecture)

Lemon

JA Hiroshima Yutaka established the ability to individually seal lemons after harvest using P-plus®, storing them in refrigerators for later shipment to retail stores based on a commitment to deliver domestically grown lemons year round. The quality of these lemons has received rave reviews from its customers.



JA Hanzawa (Saitama Prefecture)

Broccoli

Broccoli is one vegetable that loses its freshness quite quickly. JA Hanzawa started using P-plus®, for packaging broccoli, making it possible to preserve freshness longer than before, while also improving work efficiency. JA Hanzawa was also able to lower its total packaging material costs, helping to differentiate itself from other producers.

P-plus® is now synonymous with maintaining the quality of broccoli. Going forward, we hope to maximize the advantages of P-plus® and also make the JA Hanzawa name more visible to consumers.

Manager, Sales Section, JA Hanzawa
Yusuke Sato

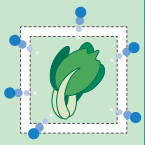
Kushima Aoi Farm (Miyazaki Prefecture)

Sweet Potato

Sweet potatoes grown by Kushima Aoi Farm are shipped throughout Japan, as well as exported to Hong Kong, Taiwan and Singapore. Starting in July 2015, Kushima Aoi Farm became the first in Japan to ship all sweet potatoes packaged with condensation prevention type P-plus® films.

What is condensation prevention film?

Enclosing certain fruits and vegetables in conventional anti-clouding film caused condensation to form on the surface of the film due to the moisture content of the fruit or vegetable, negatively affecting freshness.



After seeking ways to deliver genuine and authentic tastes of our sweet potato to consumers, we found the freshness preserving technology of P-plus®. We expect to see great results from using the newly developed condensation film.

Manager, Sales Section, JA Hanzawa
Makoto Ikeda

JA Minami Shinshu (Nagano Prefecture)

White Beech Mushroom

JA Minami Shinshu used to ship white beech mushrooms by placing them in a tray and enclosing it with plastic wrap, but sought other packaging options with a view to reducing the environmental impact. After introducing P-plus®, JA Minami Shinshu can now ship its white beech mushrooms while maintaining stable quality all year round.

Special Feature 2

Collaboration with a Research Institute Gave Birth to "Green Phenol" Production Technology

Research Institute of Innovative Technology for the Earth (RITE) and Sumitomo Bakelite

Phenols used to be produced from petroleum. A process that radically changes the way it is made was brought about by collaboration between Sumitomo Bakelite and the research institution. We take a look at the various advantages of the new phenol production process using non-food biomass.

Transforming the long-standing production method of phenolic resins into a green process

Phenolic resins have excellent heat resistance, flame retardance, electrical non-conductivity characteristics, and mechanical properties. Their applications have spread from cookware handles for pots to construction materials and electronic components. They have been used to replace metal automotive parts, helping make vehicles lighter, and the technology has even been used in aircraft parts. With a history spanning over 100 years since development, phenolic resins continue to play an important role in industry and our lifestyles. Because phenols, the raw material of phenolic resins, are made from petroleum by using large volumes of solvents in high temperature and under high pressure, their production process has been a known source of substantial CO_2 emissions. Something needed to be done to clear this image. "Green phenol" was developed as part of this effort.

Green phenol development partnership

New Energy and Industrial Technology Development Organization (NEDO)

FY2009--FY2010 commissioned project

Joint research

SUMITOMO BAKELITE CO.,LTD.

Research Institute of Innovative Technology for the Earth (RITE)

2010 Established Green Phenol Technology Research Association

May 2014 Founded Green Phenol Development Co., Ltd.

RITE

Link http://www.rite.or.jp/en/

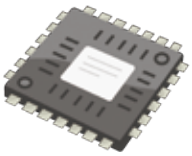
Green Phenol Development Co., Ltd.

Link https://www.rite.or.jp/bio/en/

Diverse applications of phenolic resins

Automobile components

Electronic components



Circuit boards

They are used in a variety of products

Research Institute of Innovative Technology for the Earth
Molecular Microbiology and Biotechnology Group
Group Leader/Chief Researcher
Masayuki Inui

Research Institute of Innovative Technology for the Earth
Molecular Microbiology and Biotechnology Group
Associate Chief Researcher
Kazumi Hiraga

Sumitomo Bakelite Co., Ltd.
Corporate Research & Development Div.
Corporate R&D Center
Principal Researcher
Yusuke Inoue

Sumitomo Bakelite Co., Ltd.
Corporate Research & Development Div.
Corporate R&D Center
Chief Researcher
Hiroyuki Miyauchi

All four members are currently seconded to Green Phenol Development Co., Ltd.

Round-table discussion

The Future Created by the Practical Application of Green Phenol

Collaboration Led to Development of the Groundbreaking Production Process

Miyauchi Up to now, the raw material for phenolic resin has been limited to petroleum, but in using biomass we have managed to diversify the raw material. Also, it takes several to tens of millions of years for plants buried in the ground to turn into petroleum whereas it only takes several years or decades for biomass plants to grow into a raw material. This fact, I think, is a great advantage.

Inui The "RITE Bioprocess", a growth-arrested bioprocess we developed, is unique in the sense that the microbial catalyst utilizes a variety of sugars derived from biomass, such as glucose and xylose, simultaneously.

Another feature of our technology is that it is a growth-independent bioprocess. The "RITE Bioprocess" proceeds without microbial growth in a reactor densely packed with microbial cells, achieving higher efficiency and productivity. The other advantage of our process over conventional fermentation processes is that it is generally tolerant to fermentation inhibitors like phenolic compounds, which are often generated during biomass saccharification process.

Hiraga Phenol is an aromatic compound and is a powerful sterilizer. High concentrations of phenol can kill microorganisms. For these reasons, people used to think producing phenols in a bioprocess was extremely difficult.

The RITE Bioprocess is a growth-arrested process and therefore tolerant to toxic fermentation inhibitors. We found that this property gives an advantage also when you produce toxic products such as phenol.

Inoue Sumitomo Bakelite has been involved in phenoic resin manufacturing since its foundation, but no one in the company was thinking about a phenol production process using microbial catalyst. So, we were extremely interested in RITE's process using completely new technology and knowledge.

When we spoke about the RITE Bioprocess, many on the factory floor were surprised.

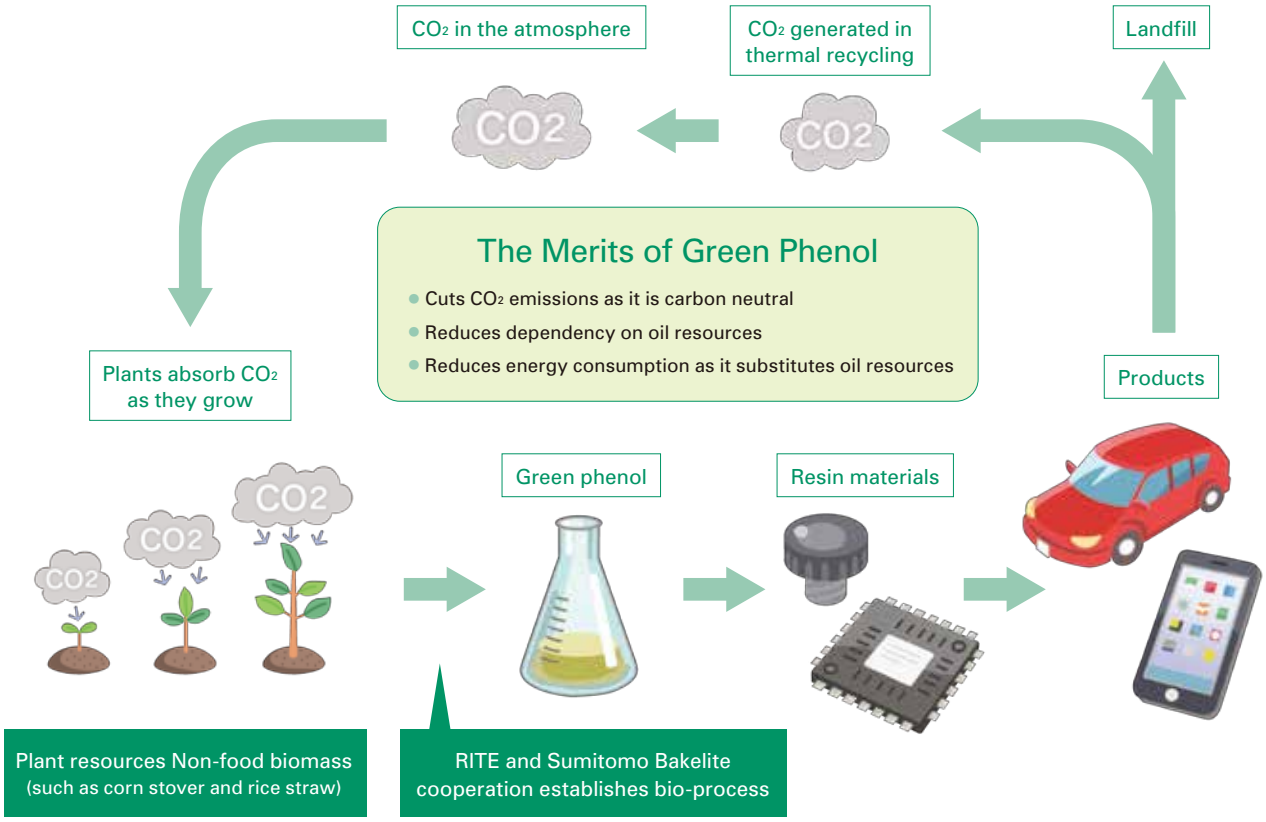
Hiraga Collaboration between RITE and Sumitomo Bakelite, specialists from two different fields, led to development of a groundbreaking technology for green phenol production from biomass. Neither of us alone could have achieved this.

Commercialization Efforts Open New Opportunities

Inoue As we are a private company, research and development is not the end; the aim is commercialization. The Green Phenol Technology Research Association was just about research, so to make the organization go a step further, we decided to incorporate it so that the organization can start seeking ways to commercialize the technology. That is how the Green Phenol Development Co., Ltd. was born in May 2014.

Miyauchi Since the development of the stock company, we changed the research strategy. With clear goals in mind, we carefully set up a plan to achieve them in shortest time possible. For example, R&D programs that used to be conducted as an extension of laboratory projects have now turned into pilot demonstration and verification tests that predicated the construction of mass production facilities. In working toward commercialization, our order of priority in a development project clearly changed.

Green Phenol's Contribution to the Environment



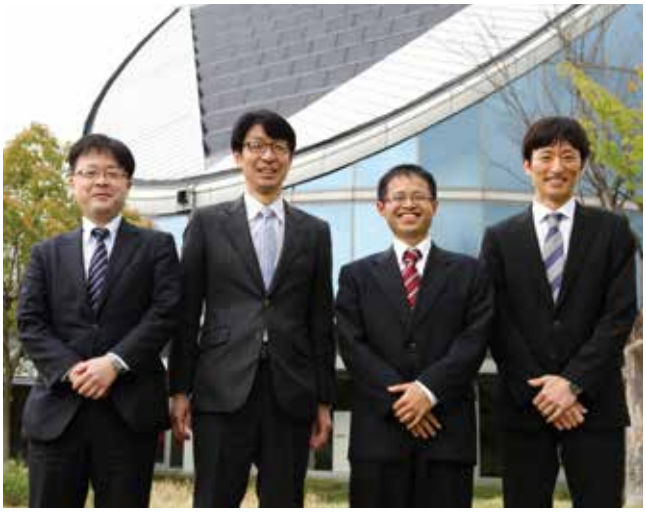
Inui As RITE is a research institute, we rarely have an opportunity to work towards commercialization, which is the step after R & D. Through this incorporation, we became members of the Green Phenol Development Co. Ltd., established with Sumitomo Bakelite. We have learned a lot, and in the course of learning from each other's methods, we grew to feel a strong sense of working together with everyone else to reach the goal of commercialization.

Miyauchi In fiscal 2015, the development bases were consolidated at the Shizuoka Plant, and in 2016, a pilot plant started operations. Doing research at the same plant that has produced vast amounts of phenolic resin allows us to take advantage of the existing knowhow and infrastructures to work toward commercialization.

Inoue We have, at the laboratory scale, successfully produced green phenol that is, in terms of quality, indistinguishable from the petroleum-based phenols. Upon mass production, however, we would have many struggles to produce products that meet our customers' demands on schedule. I want to take on each of these challenges one by one and make steady accomplishments with green phenol.

Hiraga Producing phenol from biomass is a challenge like climbing Mt. Everest and will have a huge impact in academia and industry. If we can achieve practical application, the process can be used as a base for applications in the production of many other aromatic compounds.

Inui In applying the green phenol production process, it will be possible to open new markets by offering value-added chemicals at lower costs, for example. These are the markets hard for other research institutes and companies to explore. I would like to fully enjoy the benefits of our technology and expand business opportunities.



Voice of the Experts

Practical Use Brings New Possibilities to the Chemical Industry

Director
Functional Chemical Products Office,
Manufacturing Industries Bureau, Ministry of Economy, Trade and Industry
Satoshi Inoue

With the amendment of the Research and Development Partnerships Act in 2009, technical research associations could be incorporated without being dissolved, but the new system was not used much. Green Phenol Development Co., Ltd. was the first project that followed the spirit of the law linking research and development results to practical application, which I think is a very significant endeavor.

Many of the chemical products we use daily are produced from oil, and Japan's chemical industry relies heavily on it.

Since bio-plastics are made from biomass, promoting their use helps diversify the raw materials for chemical products. I think it is important for manufacturers to work on developing bio-plastics and their applications that have overwhelming advantages over the ones produced from fossil fuels not only in their contribution to the environment but also in their functions.

In the future, it is my hope that the commercialization of green phenol will help develop a new style of chemical industry where local governments support local production and consumption with each region using the local vegetation as a feedstock for their own town's plastic.

Voice of the Partners

Cooperation with the Private Sector Made it Possible to Put Research Achievements into Practice

Senior Managing Director, Research Institute of Innovative Technology for the Earth (RITE)
Takashi Honjo

Since 1990, RITE has continued to conduct research programs that are unique and specialized in technology to combat global warming.

Using plants as a raw material for phenol instead of oil was thought to be impossible. What made it possible was the RITE Bioprocess that we have developed over many years of research. However, RITE, being a research organization, could not put the process to practical use alone. In collaborating with industrial partner Sumitomo Bakelite, I am pleased that it has progressed to the actual practical usage stage. Collaborating with Sumitomo Bakelite, a private company, has provided us access to financial support and plant facilities for testing, all of which led us to where we are now.

It is significant that, through this practical use, RITE's research can be used across the world and contribute to the mitigation of global warming. Going forward, my hope is that we proceed with full-scale commercialization, increase profits, and develop the basis for taking on further new challenges.

Striving to Contribute to the Environment through Supporting Various Industries

We will focus on enhancing the mass production technology and facilities for our environmentally friendly innovation, green phenol derived from bio-sources. That process will put to use the knowledge accumulated through businesses we have conducted over the years.

If we can make green phenol practical, we will be able to provide new ways to contribute to the environment through proposing eco-friendly materials to industries that use phenolic resins. I want to steadily work to put this new material to practical use as a first step toward making the entire society more prosperous.

Sumitomo Bakelite Co., Ltd.
Executive Officer and General Manager, Corporate R&D Center
Koji Choki


Special Feature 3

The Challenge of Reducing Food Packaging through Cooperation with Various External Partners

NH Foods, Tokyo Foods Machinery, NPO Gomi-Japan, and Sumitomo Bakelite

ECOCeeeL® is a lightweight food packaging film combining thinness and toughness that enables a 20% reduction in the weight of packaging waste compared with our earlier products. Taking advantage of this feature, Sumitomo Bakelite partnered with other companies in an initiative to reduce food container packaging and also exhibited at Eco-Products 2015 as part of their efforts.

External Collaboration that Strongly Communicates the Product's Appeal

By promoting the use of ECOCeeeL® we want to reduce waste and contribute to society. To achieve that vision, we partnered with Gomi-Japan, an NPO that seeks to reduce waste emissions, and have carried out with them various activities including demonstration experiments.
We have exhibited at Eco-Products every year since 2013, and since the first year, students of Gomi-Japan have helped us every time as booth attendants and explained to visitors about our exhibit. Also, with cooperation from Tokyo Foods Machinery, we have conducted a vacuum packing demonstration every year using the packing machine the company has provided .
NH Foods also helped us in Eco-Products 2015. To show what ECOCeeeL® can do, our exhibit this year displayed NH Food' products as familiar, daily items for consumers. Again this year, we conducted a demonstration of vacuum packing the packaging machine, an all-time favorite component of our exhibit among visitors. The students from Gomi-Japan introduced our efforts for promoting the "Heraso" (reducing food packaging) initiative, showing selected products packed in reduced packaging as real-life examples.
We were able to meet face-to-face with a lot of people at Eco-Products we normally don't have a chance to in business, such as children, grade school and university students, and homemakers interested in the environment. These people came to our booth and grew interested in food packaging after enjoying our exhibits and demonstrations, which was very rewarding for us. We want to make use of the experience we had at the exhibition and will keep working with our partners and contribute to the global environment and society through containers and packaging.

Development of a thin, strong packaging film that contributes to waste reduction

Newly developed ECOCeeeL® deep draw packaging film is thinner and stronger. It reduces plastic waste and CO_2 emissions. Since its introduction in 2012, plastic waste has been reduced by some 30 tons (as of June 2016).

Sumitomo Bakelite Co., Ltd.
Films & Sheets Division
Manager, Food Packaging Sales Dept.
Atsushi Tanaka

Sumitomo Bakelite Co., Ltd.
Films & Sheets Division
Food Packaging Sales Dept.
Akihiro Horikoshi

Collaborating with other Companies

With the help of NH Foods Ltd. and Tokyo Foods Machinery Co., Ltd. in the exhibition booth, we were able to communicate the properties of materials used for packaging and containers and the role that packaging has for the global environment in many ways.

A Booth of "Good Strangeness" Grabbed Attention of Consumers

Food packages must ensure the safety of its contents. On top of that, there are other considerations such as environmental performance, and reflectivity and transparency which affects how the product looks. I feel that everything from Sumitomo Bakelite's clear explanations that were not limited to physical characteristics data, first impressions of customers seeing them at shops, and proposals were met with earnest and speedy responses.

Product using ECOCeeeL® in its package

Eco-Products 2015 was a great opportunity for us, because Sumitomo Bakelite invited us to take part. We were able to have this great opportunity because Sumitomo Bakelite invited us to take part in this opportunity. Displaying our products at Sumitomo Bakelite booth, I believe, made people think: "What are NH Foods' products doing in Sumitomo Bakelite's booth?" By making people feel this kind of "good strangeness," we succeeded in making visitors look twice at our exhibit and having them interested in food packaging. This exhibit provided the visitors an opportunity to know about food packaging, a subject that consumers don't have many chances to learn about.

As a food manufacturer, we want to make packaging lighter but there are technical limitations. By sharing this issue and other concerns with people of Sumitomo Bakelite, we hope to build a deeper cooperative relationship with them.

NH Foods Ltd.
Corporate Management Division
Manager, Corporate Social Responsibility Department
Norihiro Kawasaki

A Valuable Forum for Interacting with Consumers

Ordinary people have almost no opportunity to see the packaging machines we make. We have had one machine installed in Sumitomo Bakelite's booth every year since Eco-Products 2013, and having such a forum to directly interact with elementary school students and homemakers has boosted our motivation. Vacuum packing things that visitors bring us is one of the highlights of the exhibit at Eco-Products, and it is fun to see the expression of joy by children as they take their packaged items home.

All a packaging machine does is create a shape; Sumitomo Bakelite handles the chemical characteristics and technology. While a machine can create a vacuum or change the volume of air, the quality of the film determines the performance of packages, such as how well they block out oxygen and light or prevent clouding. Going forward, we want to keep working with Sumitomo Bakelite on both machinery and packaging materials to deliver even better packaging.



A vacuum packaging demonstration using a packaging machine set up in the booth

Tokyo Foods Machinery Co. Ltd.
Administration Department
Marketing Team
Anneliese Foote

Partnering with Gomi-Japan

At Eco-Products 2015, students of Gomi-Japan helped us as booth attendants at the Sumitomo Bakelite booth.

NPO Gomi-Japan

Gomi-Japan is an organization of seminar students active under Masanobu Ishikawa, a professor at the Graduate School of Economics at Kobe University. It aims to curb the amount of container and packaging waste by partnering with businesses and other organizations to promote initiatives and activities with them including "Herasou (package reduction) Shopping" campaign.

Link → http://gomi-jp.jimdo.com

Inspiration from Learning about Different Businesses' Environmental Activities

Participating in the Eco-Products exhibition made us see "eco" in many different forms. At the venue, it was eye-opening to see things and initiatives we did not know existed or never thought about, all in concrete forms.
It was thought-provoking for me.
It made me want to create a new form of "eco" myself.

Through participation in the Eco-Products Exhibition, I have been able to see how companies in Japan are seriously tackling environmental issues and making contributions in various ways.
There are many different initiatives including activities to cut down on CO_2 emissions, efforts to reduce container packaging, and loans extended based on environmental performance. However, one thing all companies had in common was their determination to be eco-friendly.
This time again, we are proud to contribute what we can by participating in these activities.

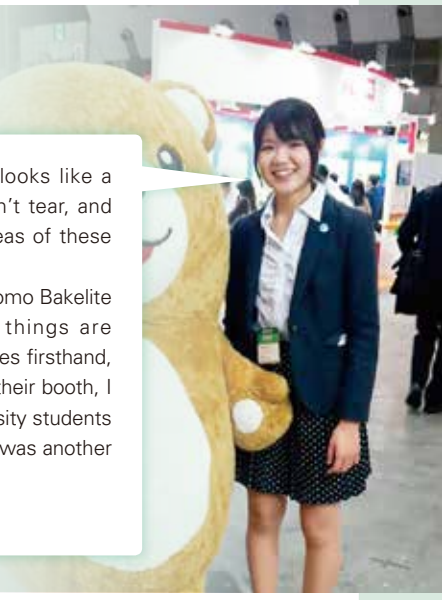
NPO Gomi-Japan
Momoko Morikawa

NPO Gomi-Japan
Satoshi Kuroki

Many Visitors Came to the Booth

I was most surprised when I put something in the machine and it was put in a vacuum.
My dad told me that they use it when packaging ham and sausages and it's amazing that they are incorporating eco in this.
I was taught the 3Rs at school, and thought that if these things progressed then we wouldn't have to worry much about the earth.
(Grade 6 elementary school student)

I learned that even though it looks like a regular film, it's thin and doesn't tear, and was really impressed at the ideas of these companies.
I was impressed with the Sumitomo Bakelite booth as I could learn how things are packaged by seeing the processes firsthand, as if I was on a factory tour. At their booth, I was also able to talk with university students who were about my age, which was another experience I remember fondly.
(3rd year university student)



**The opinions and comments we received from our many visitors is a great resource to the Sumitomo Bakelite.
Building upon cooperation with other companies and NPOs going forward,
we intend to develop and provide more environmentally-friendly packaging.**

FY2015 Activity Highlights

Providing safety and reliability while pursuing harmony with the environment and society.
Through our businesses, we are striving to solve various social issues including the ones related to energy and the environment, and work toward achieving a sustainable society. To that end, we have established plans and set goals for the social issues and businesses we should focus on, and are steadily promoting activities based on them.
For fiscal 2016, we have organized key aspects of our CSR efforts and present them to the public as our challenges to address in an easy-to-understand format.

Fiscal 2015 Activities Plan, Achievements, and Evaluation

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

Area of activities	Major items	Fiscal 2015 targets	Fiscal 2015 results	Achievement evaluation
Environmental initiatives	Reduction in CO_2 emissions (compared with fiscal 2005)	In Japan: 26% reduction	In Japan: 30% reduction	○
		Overseas: 12% reduction	Overseas: 14% reduction	○
	Reduction in material loss (compared with fiscal 2005)	In Japan: 30% reduction	In Japan: 25% reduction	△
		Overseas: 46% reduction	Overseas: 40% reduction	▼
	Reduction in chemical substance emissions (In Japan: compared with fiscal 2005) (Overseas: compared with fiscal 2010)	In Japan: 63% reduction	In Japan: 67% reduction	○
		Overseas: 41% reduction	Overseas: 49 % reduction	○
Initiatives for safety and reliability	Quality audits	In Japan: 4 business divisions Overseas: 4 business divisions	In Japan: 4 business divisions Overseas: 4 business divisions	○
Initiatives for enhancing employee motivation	In-house human resources development	Continue employee education and training at SB school.*1	Cumulative total of about 18,000 employees participated in training programs Cumulative total of about 29,000 hours of education and training provided to employees	○
Relationships with society	CSR procurement	Review the procurement policy (CSR items) Incorporate EICC Code of Conduct*2	Revised procurement policy to incorporate EICC Code of Conduct as of October 1, 2015. Posted on website.	○
	Enhancement of customer satisfaction	• Continue activities to strengthen ties with customers under the leadership of the company-wide CS Promotion Committee • Promote preparation of content that helps customers understand our products • Activities to improve hospitality for customers at business sites	• Relationship-building activities with customers carried out on the basis of cooperation • Promoted the creation of the content in the near future that shows Sumitomo Bakelite in various fields • By promoting activities to enhance hospitality at each base, a hospitality mindset has taken hold among employees	○
	Support for education of the next generation	• Offer science teachers opportunities to deepen relationships with local companies through school-organized study groups • Facilitate companies' provision of advanced science and technology-related information to science teachers through events (support activities) to support education of the next generation	Mitsui Norin Co., Ltd. Held 7th science education event at Fujieda Plant Teacher responses in the post-event questionnaire showed the participants were satisfied with the event and over 90% replied that they could use what they learned in their own classes and in instructing students.	○
	Prevention of occupational accidents	Number of lost-time accidents in Japan: 0	In Japan 1	△
		Number of lost-time accidents overseas: 12	Overseas: 31	▼
	Environmental and safety audits	In Japan: 5 business sites, 7 affiliated companies, 8 plants Overseas: 5 companies in SE Asia 5 companies in North America	In Japan, 5 business sites, 7 affiliated companies, 8 plants Overseas: 5 companies in SE Asia 5 companies in North America	○
	Support for environmental NPOs	Continue support for NPO Morino Chonai-Kai (Forest Neighborhood Association)	Usage of Mori no Chonai-Kai paper amounted to about 9,000kg 28% year-on-year increase) contributing to tree-thinning of 0.55ha	○

*1 SB School (Sumitomo Bakelite School) is an internal training organ for all employees from new hires to executives.

*2 The EICC (Electronic Industry Citizenship Coalition) Code of Conduct is a set of standards on social, environmental and ethical issues in the electronics industry supply chain to ensure that workers are working in safe environments and are treated with dignity and respect, and that the manufacturing process fulfils responsibility for the environment.

fiscal 2016 Activities

Area of activities	Items	Initiative
Issues related to the promotion of harmony with the environment	1. Reduce burden on environment	• Reduce CO_2 emissions • Atmospheric emissions • Reduction in material loss • Reduction in chemical substance emissions
	2. Resource conservation, energy-saving	• Resource conservation, energy-saving activities
Themes for providing safety and reliability	3. Safety and reliability	• Environment and safety audit • Prevention of industrial accidents • Reduction of machine and facility-related risk • Reduction of chemical substance risk • Security and disaster prevention
	4. Management of Chemical Substances	• Management of chemical substances
	5. Product Liability	• Product responsibility
Themes that affect society	6. Biodiversity	• Biotopes • Activities to preserve forest biodiversity
	7. Improvement of stakeholder satisfaction	• Improvement of customer satisfaction • Communicating corporate information, advertising • Development of products that contribute to the environment
	8. Human resources training	• Internal human resources training
	9. Work life balance	• Training of the next generation • Employment support • Employment of people with disabilities • Women empowerment
Fundamental themes	10. CSR procurement	• Practice of CSR procurement
	11. Compliance	• Compliance • Code of conduct for employees • Articles for emphasis in compliance, training • Whistleblower system • Monitoring

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.

Standards of Conduct of Sumitomo Bakelite Group (Code of Conduct, Code of Ethics)

Policy

1. We play an important, beneficial role in our society, offering customers products and services that put customer satisfaction first.

2. We strive to improve the performance of the Group of Sumitomo Bakelite Co., Ltd., always taking a global perspective.

3. We adhere to our corporate ethics, complying with legal requirements and our bylaws both in Japan and abroad, while engaging in fair and transparent business activities.

4. We emphasize safety while independently engaging in environmental protection activities.

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

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.

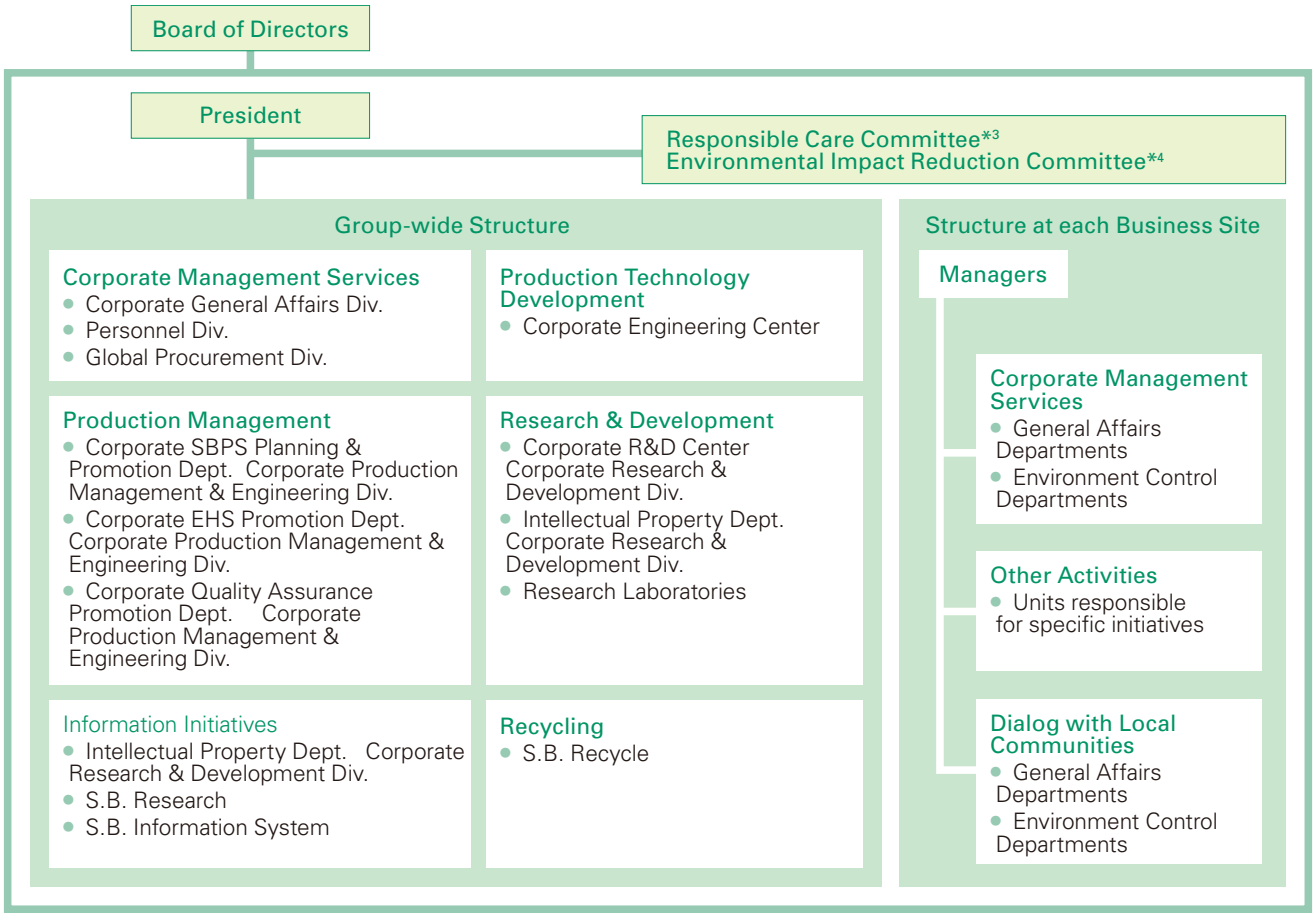
8. In order to ensure environmental preservation, human health and safety as well as product quality, provide employees with training to develop necessary human resources for that end.

*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

Sumitomo Bakelite'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



*2Responsible 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)

*3Chaired 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.

*4Chaired 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, 2016)
Number of Shareholders	15,100 (as of March 31, 2016)
Stock Listing (as of March 31, 2016)	Tokyo Stock Exchange, First Section
Number of Employees (as of March 31, 2016)	1,971 (non-consolidated) 6,358 (consolidated)
Net Sales (as of March 31, 2016)	¥88.6 billion (non-consolidated) ¥207 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

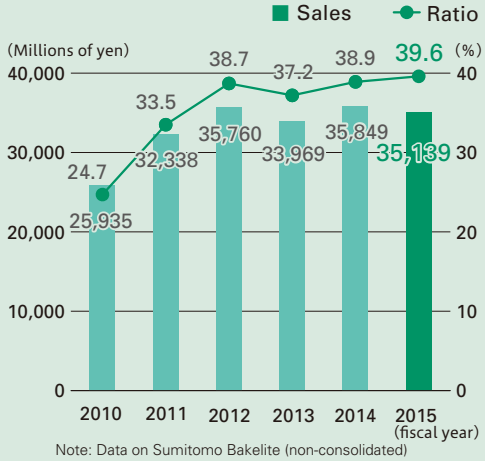
High-Performance Plastics

- 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 (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.

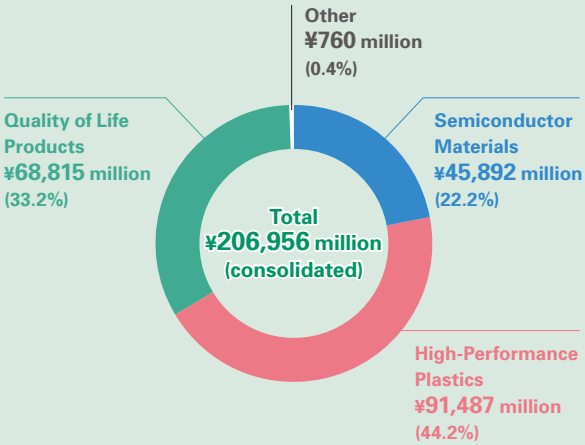
Method of certification

- 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 CO2-equivalent emissions by 10% or more

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

Fiscal 2015 Sales Composition by Division (Consolidated)



Relationships with Stakeholders

Sumitomo Bakelite 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.
The Sumitomo Bakelite 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

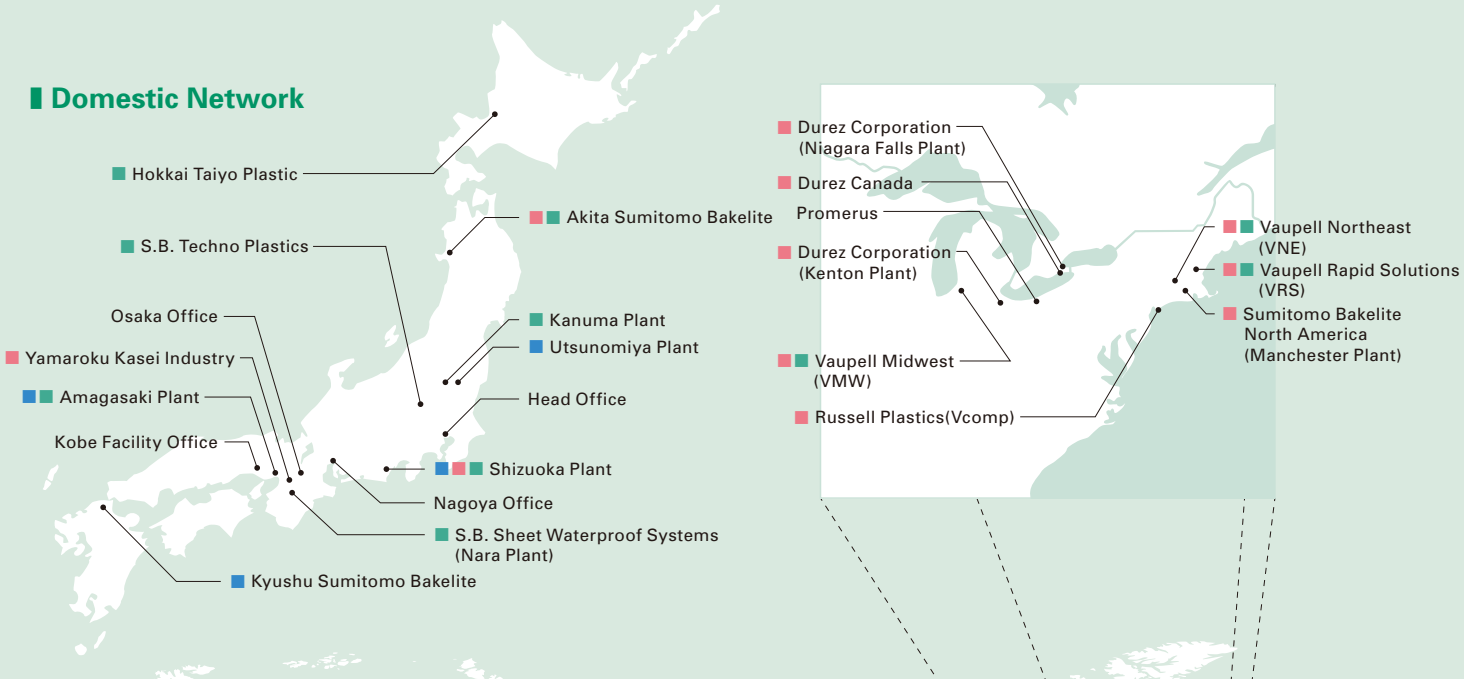
- Shareholders' meeting
- Presentation of financial results and business outlook
- Media response
- Publishing of Annual Report and shareholder reports
- Information disclosure via the website

Group Companies

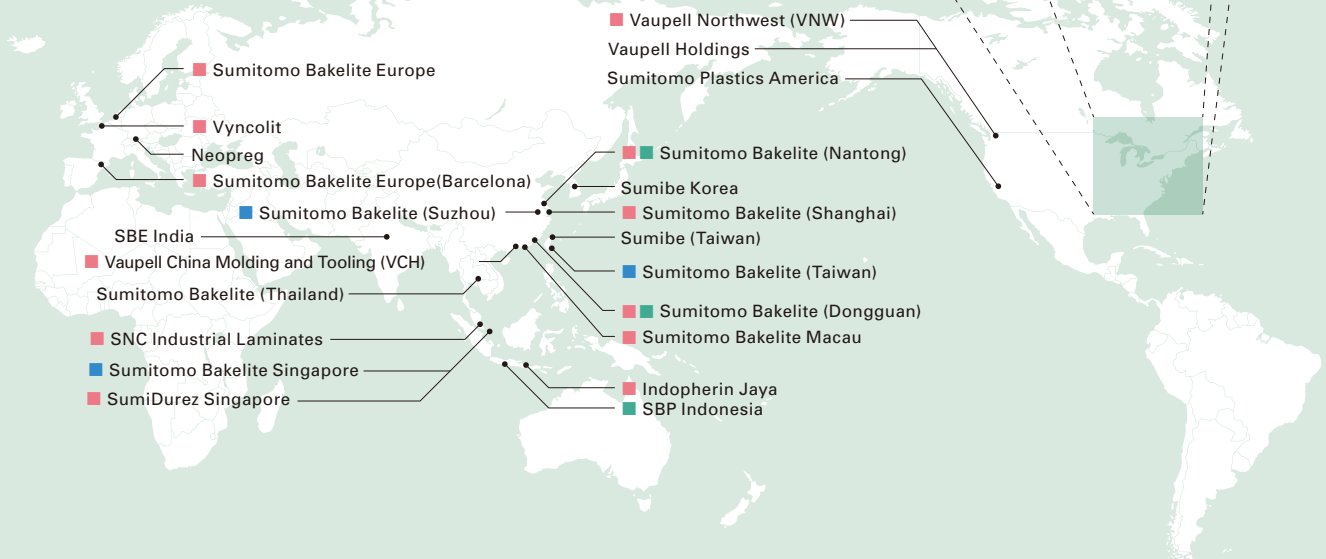
The Group operates in 16 countries and regions, including Japan.
Production sites are color-coded according to the category of products manufactured.

■ 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, Sumitomo Bakelite 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.

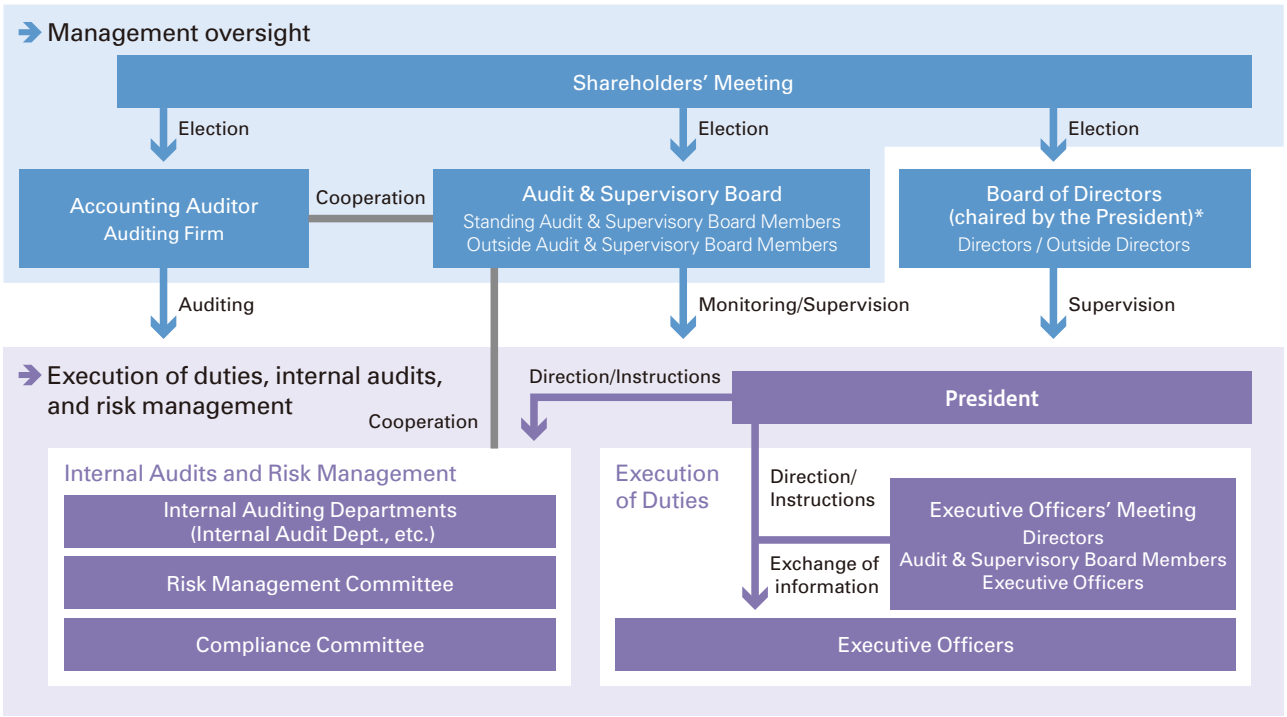
Management System

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 22, 2016, the management structure includes 10 directors and 17 executive officers (including seven who serve concurrently as directors). Of the directors, three are outside directors.

Sumitomo Bakelite 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 23 male members and 1 female member, with a female board member ratio of 4%.

Structure of Corporate Governance (as of June 22, 2016)



*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, 2016 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

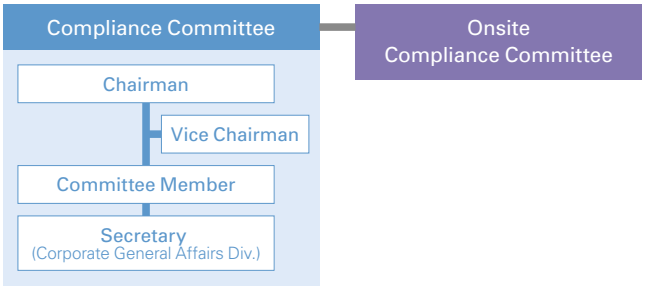
Compliance

With Laws, Regulations, and Corporate Ethics

Compliance System

At Sumitomo Bakelite, 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 14 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!

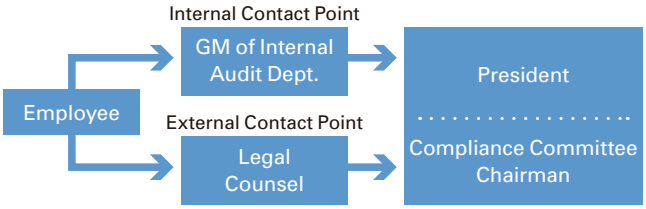
Whistleblower System

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.

Three cases were reported in fiscal 2015, 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 Sumitomo Bakelite 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 Export 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 2015, 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

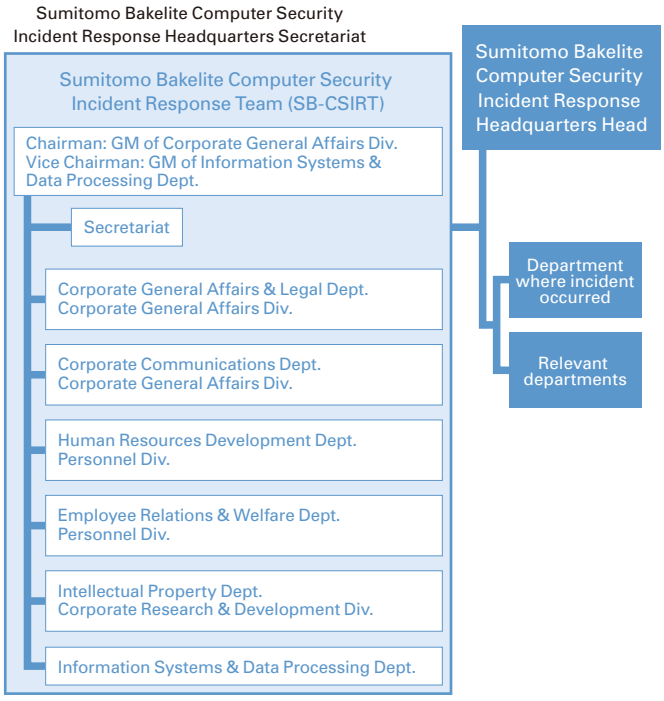
Sumitomo Bakelite views risks associated with its business from a broad perspective and is committed to always taking action from a safety standpoint, even with issues that have yet to be scientifically demonstrated. To prevent potential risks from materializing and to minimize losses, the Company has established the Risk Management Committee, which operates on a permanent basis and whose responsibilities are Group-wide 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 Sumitomo Bakelite and its Group companies. The Regulations require precise management of diverse risks and implementation of appropriate measures.
In fiscal 2015, the Risk Management Committee deliberated on risks of unfair transactions, such as formation of cartels and bribery of foreign officials, and risks of fire, explosions and other accidents and took action to eliminate these 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. In fiscal 2016, we plan on further raising the bar of our management practices pertaining to confidential information.

System for Addressing Information Security Incidents



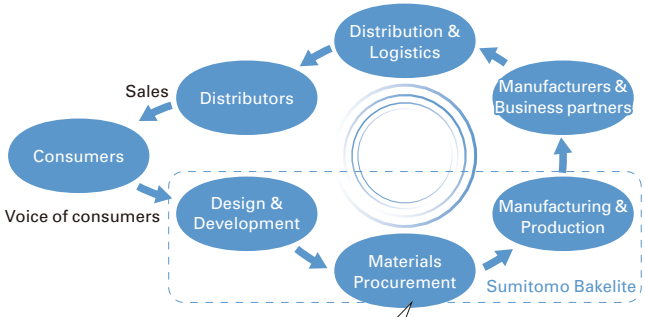
CSR Procurement

Fulfilling Social Responsibilities Together with Business Partners

Basic Approach

Sumitomo Bakelite 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. In principle, the Company concludes a basic contract with each business partner, 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.

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.

Amendments to the Procurement Policy

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. The new procurement policy explicitly requires adherence to the code of conduct of the Electronic Industry Citizenship Coalition (EICC)*, a de facto standard, regarding prohibition of child labor and forced labor, prohibition of bribery, control of conflict minerals, among other matters. We are working to observe this policy in our procurement activities and asking our business partners to do the same. First, we began obtaining letters of consent from around 30 business partners related to electronic materials that are subject to the new procurement policy, and as of April 2016 we had obtained letters of consent from 31 companies. Going forward, we plan on conducting a survey on the CSR activities of major business partners to check and understand the current status of their efforts.

*See the glossary on page 79.

Link → Procurement Policy

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

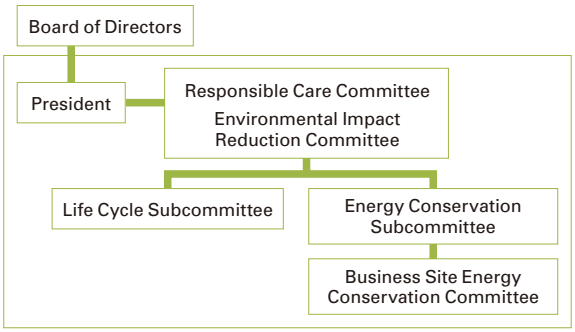
Organized Efforts under the Environmental Management Policy

Environmental Management System

Sumitomo Bakelite 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 Sumitomo Bakelite 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



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 and designing energy-efficient products. In fiscal 2016, the subcommittee's activities will focus on expanding the number of environmentally-friendly products, establishing and rolling out guidelines, and applying these to the calculation of Scope 3 emissions.

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 1,440 kL in crude oil equivalent (2,839 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 2016, 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

Topic The Amagasaki Plant's Environmental Communication with Local Residents

The Amagasaki Plant hosts regular meetings with members of the local community in an effort to listen to their views concerning the environment around the plant and make improvements if necessary.

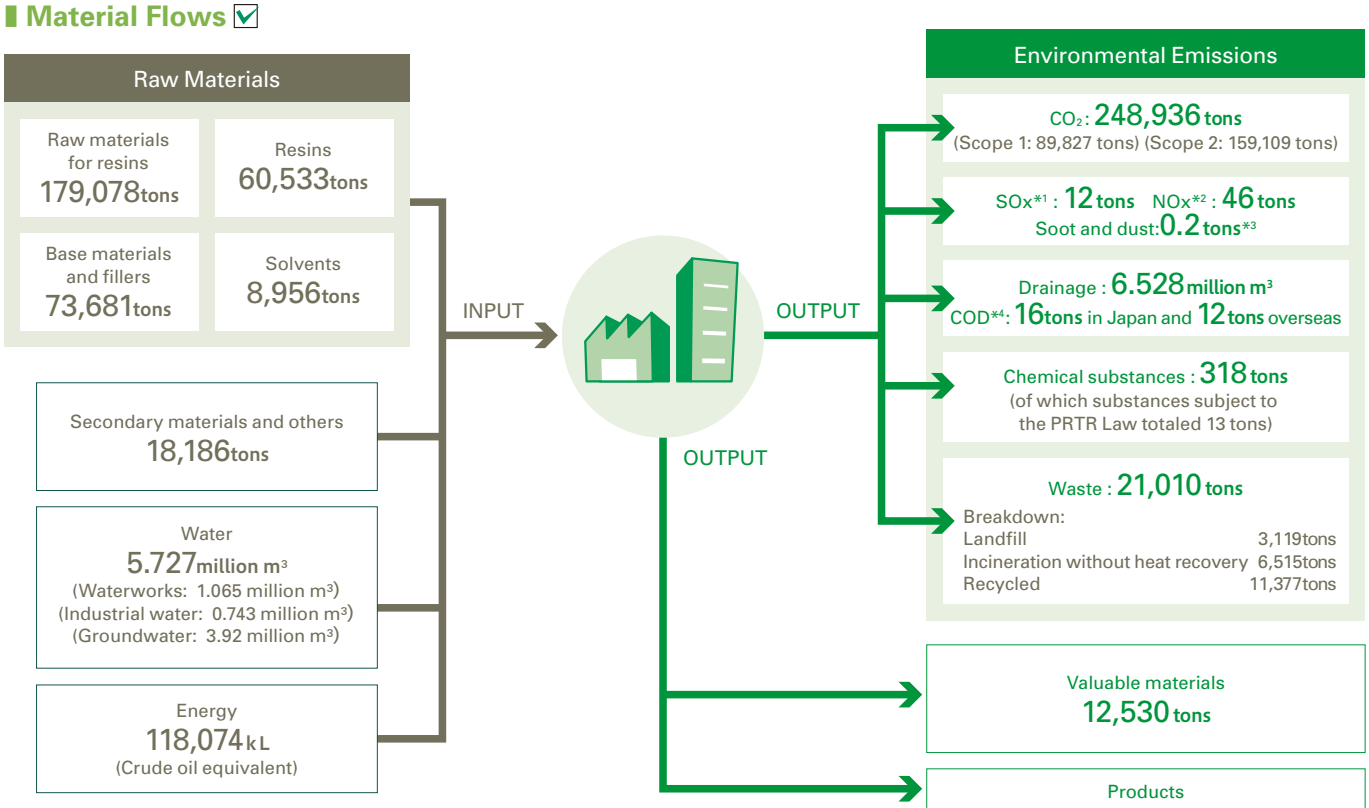
In the event of a noise complaint or other issue, the plant immediately addresses the situation and listens to the views of local residents regarding the community's environment. Based on this approach, the Amagasaki Plant plans and implements environmental activities that are closely in tune with the needs and characteristics of the community.

In fiscal 2015, the Amagasaki Plant invited local neighborhood councils (10 groups totaling 15 individuals) to visit the plant on November 13 where they were given a tour of the plant's production lines and roof-top photovoltaic generation system.

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.
Since fiscal 2015, data from the Vaupell Group of companies is included in the tabulation of inputs and outputs.
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.

Material Flows ☑



*1, 2 See the glossary on page 79

*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: Data covering all the business sites listed on page 3.

Investments in Environmental Protection

The Sumitomo Bakelite Group has compiled data annually on the amounts of investments in environmental protection of all Group companies in Japan since 2000.
In fiscal 2015, we proactively implemented energy conservation measures and spent a total of 383 million yen.

Note: Data covers the time period and business sites in Japan listed on page 3.

Amounts of Investments in Environmental Protection in Fiscal 2015 ☑

Category	Investment amounts (millions of yen)
Emissions control	41
Energy saving	261
Waste reduction, recycling, and treatment	80
Total	383

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

Medium-Term Environmental Targets

In fiscal 2009, Sumitomo Bakelite drew up a medium- to long-term environmental plan up to fiscal 2020, and since then we have been implementing activities under this plan.
Since 2010, we have been participating in the Keidanren's Low Carbon Society Action Plan under the auspices of the Japan Chemical Industry Association (JCIA) and are working to reduce greenhouse gas emissions. Our results for fiscal 2015 and plan for fiscal 2016 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.

Initiatives at Business Sites in Japan

The proactive energy conservation efforts of business sites in Japan resulted in a reduction of CO_2 emissions in Japan. These energy conservation efforts will be continued in fiscal 2016, too, in an effort to further reduce CO_2 emissions.
Material loss was largely unchanged from the previous year.
We will promote waste identification and reduction at plants through MFCA*[1].
Chemical substance emissions decreased substantially year on year owing to the introduction of facilities and a further decrease is expected in fiscal 2016. Emissions of substances subject to the PRTR Law included in chemical substance emissions were reduced in fiscal 2015 to 13 tons.

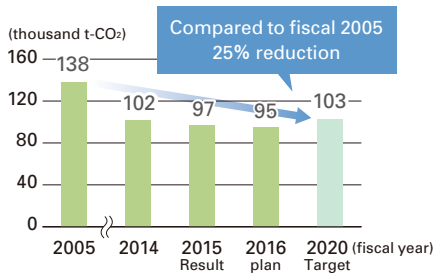
Initiatives at Overseas Business Sites

At the Group's overseas sites, CO_2 emissions have increased since fiscal 2014 due to the inclusion of emissions from the Vaupell Group of companies. CO_2 emissions are expected to slightly increase in fiscal 2016, reflecting higher production output, but energy conservation measures are expected to curb the degree of increase.

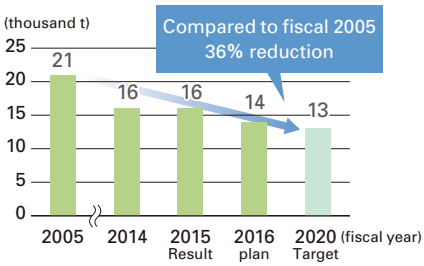
Material loss increased slightly due to the impacts of the Vaupell Group of companies, but is expected to decline in fiscal 2016 as a result of recycling efforts. We will continue with MFCA in Japan and overseas alike in an effort to realize further reductions.
Chemical substance emissions decreased owing to reduced use of chemical substances in overseas business sites.

Business sites in Japan

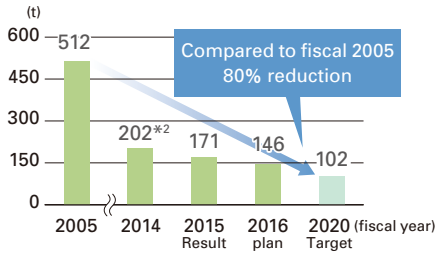
CO_2 emissions



Amount of material loss



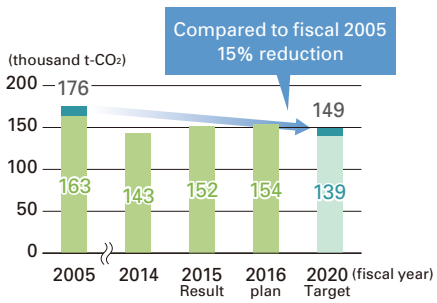
Chemical substance emissions



Business sites overseas

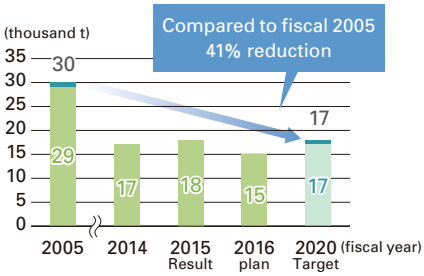
CO_2 emissions

Revised portion due to effects of Vaupell Group



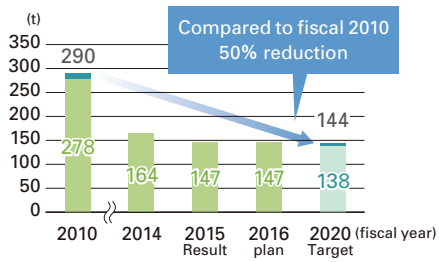
Amount of material loss

Revised portion due to effects of Vaupell Group



Chemical substance emissions

Revised portion due to effects of Vaupell Group



Notes:
* Data covering all the business sites listed on page 3.
* For definitions and the calculation method of CO_2 emissions, material loss, and chemical substance emissions, refer to page 66.
* Regarding 39 substances subject to the PRTR Law included in chemical substance emissions, the total amount released by the Group's sites in Japan amounted to 13 tons and the total amount transferred amounted to 108 tons. For the details of transfer and release of substances subject to the PRTR Law, refer to Data Selection on page 77.
*1 See the glossary on page 79.
*2 Revisions were made back to fiscal 2011 based on a detailed review of calculations (2014: 237 tons to 202 tons)

Environmental Performance

Steadily Reducing Energy Usage and CO_2 Emissions

Reducing Energy Use and CO_2 Emissions

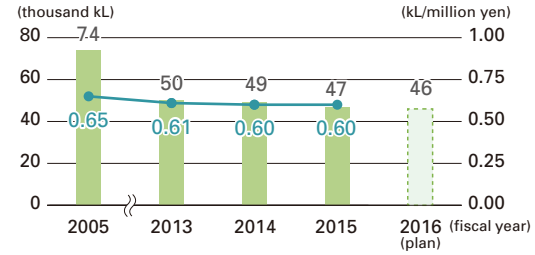
Sumitomo Bakelite's energy conservation activities are led primarily by the Energy Conservation Subcommittee of the Environmental Impact Reduction Committee.

In fiscal 2015, our domestic business sites were able to reduce both CO_2 emissions and energy usage. Additionally, energy usage per production amount value was largely unchanged year on year, while CO_2 emissions per production amount value decreased slightly.

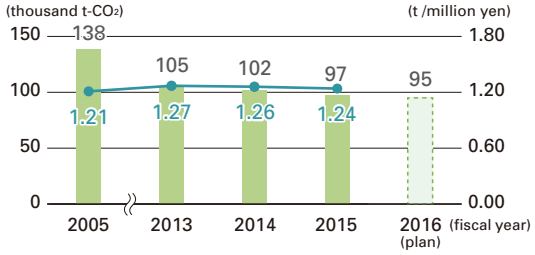
At our overseas business sites, the CO_2 emissions and energy usage both increased due to the inclusion of the Vaupell Group companies, but each per production amount value declined.

Business sites in Japan

Energy usage per production amount value

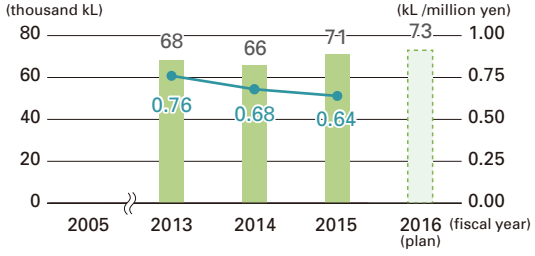


CO_2 emission per production amount value

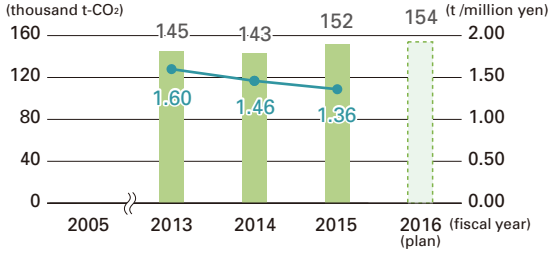


Business sites overseas

Energy usage per production amount value



CO_2 emission per production amount value



Disclosure of Scope 3*1 Data

Last year, the Sumitomo Bakelite Group began calculating and disclosing Scope 3 emissions in the supply chain of the 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 2015, in addition to the five categories of Scope 3 from last year, results in the following categories were also disclosed: Category 2 "Capital goods," Category 5 "Waste generated in operations," and Category 15 "Investments." It was also confirmed that Category 8 "Upstream leased assets," Category 13 "Downstream leased assets" and Category 14 "Franchises" are not applicable. Even with this new scope, the 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 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 79.

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	357
2	Capital goods	12
3	Fuel- and energy-related activities not included in Scope 1&2	12
4	Upstream transportation and distribution	17
5	Waste generated in operations	1
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	8
	Scope 3 Total	411
	Scope 1 (All direct emissions)	44
	Scope 2 (Indirect emissions from consumption of energy)	53

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

*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: Data covering all the business sites listed on page 3.

Reducing Material Loss

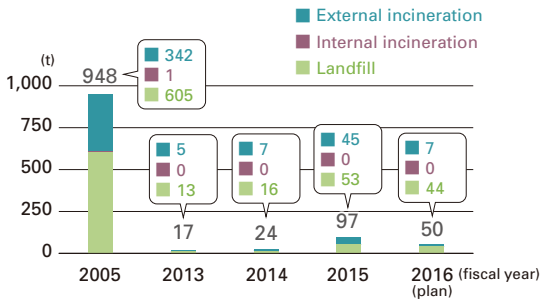
The Sumitomo Bakelite Group is working to increase the efficiency of resource utilization because it regards the reduction of environmental impacts as an opportunity to improve profitability. Through initiatives in material flow cost accounting (MFCA), we are working to reduce not only waste, but material 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 fiscal 2012, all the Group's business sites in Japan achieved zero emissions (certified internally) and are maintaining zero emissions.

The graphs show the volumes of materials subject to zero emissions measures for the base year of fiscal 2005 and for 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.

Materials Subject to Zero Emissions Measures in Japan

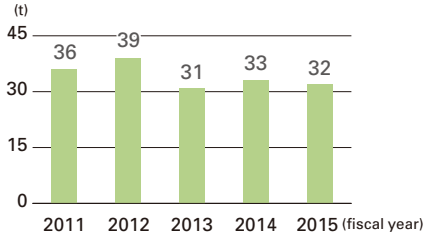


Notes:
1. Zero-emissions-targeted substances comprise landfill waste, internally incinerated waste, and externally incinerated waste. No waste was internally incinerated at business sites in Japan from fiscal 2012 onward.
2. Data covering all the business sites in Japan listed on page 3.

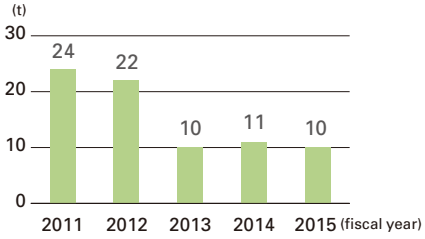
Emissions into the Atmosphere

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*1 and soot and dust have been low. Emissions of NOx*2 have also been low despite slight fluctuations depending on the conditions of combustion of city gas.

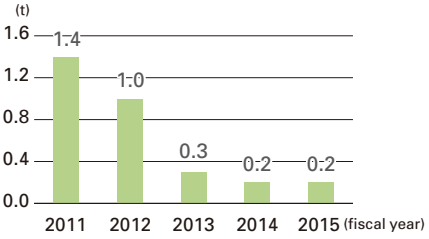
NOx Emissions



SOx Emissions



Soot and Dust Emissions



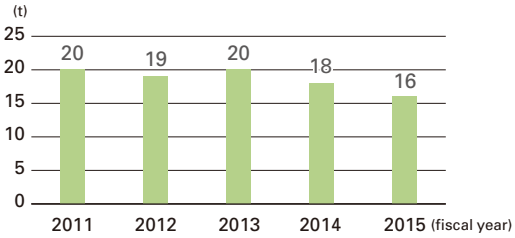
Note: Data covering all the business sites in Japan listed on page 3.
*1,2 See the glossary on page 79.

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*3, which is used as a water quality indicator, has remained low.

COD



Note: Data covering all the business sites in Japan listed on page 3.
*3 See the glossary on page 79.

Conservation of Water Resources

Our plants use ground water (well water), water from the 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 plants in Japan accounts for 81% of all water used in the Group.

The Group has been continuously working over the years to reduce the amount of water it uses through such measures as promoting the cyclic use of cooling water to avoid wastage. As a result of such reduction efforts, 43% less water was used in fiscal 2015 than in fiscal 2005.

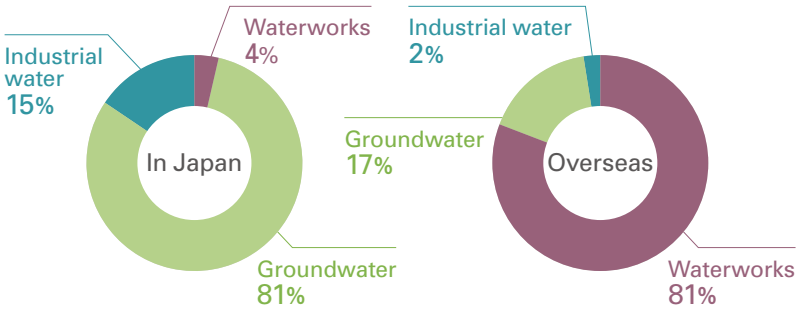
From FY2015, we began surveying the regional watershed risk of all major plants in the Group (11 sites in Japan and 24 sites overseas). We identified the risks facing each of the regions in which the Group operates based on studies using the WRI Aqueduct* tool, and we compiled these risks into charts. Based on the survey results, we are working to preserve water resources more effectively.

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

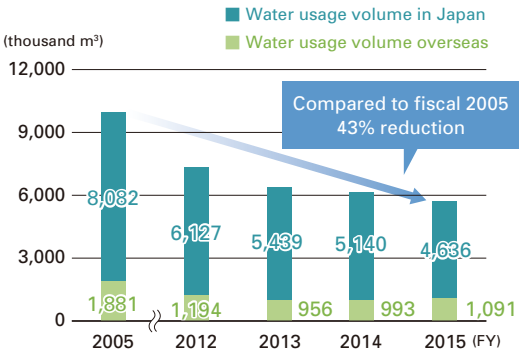
Assessment of Water-Related Risk

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)			1,270	3,353		4,623
China (and Taiwan)	Number of bases			5	2		7
	Water consumption (thousand m³)			352	85		437
Southeast Asia	Number of bases		4		1		5
	Water consumption (thousand m³)		53		126		179
North America	Number of bases		1	3	5		9
	Water consumption (thousand m³)		1	88	261		350
Europe	Number of bases			3			3
	Water consumption (thousand m³)			114			114

Comparison of Water Sources Used in Fiscal 2015



Water Usage Volume



Note: Data covering 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 2015.

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 Law 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

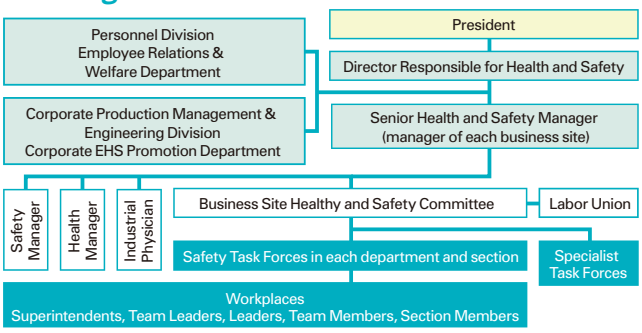
Creating safer working environments with the aim of eliminating accidents and occupational injuries

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.

In 2015 the Kobe Facility Office received accreditation, and a total of 23 business sites have now received accreditation, with 5 business sites and 3 subsidiaries/affiliates in Japan, and 15 subsidiaries/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 Refer to the glossary on page79.

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 preceding year. In fiscal 2015 no complaints relating to environmental impact were received.

An environment and safety audit being conducted at Indopherin Jaya

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

Receiving the Tochigi Labor Bureau Director-General Encouragement Prize

The Utsunomiya Plant was awarded the Tochigi Labor Bureau Director-General Encouragement Prize in recognition of health and safety activities carried out at the plant including achieving 4 million continuous .hours of operation with zero accidents

Akita Sumitomo Bakelite receiving a Zero Accident Award

President Hayashi of Sumitomo Bakelite Co. Ltd. presented Akita Sumitomo Bakelite with an award for attaining a total of 1 million hours in operation from February 2012 without accidents.

Video-based safety education

A video was created showing the tasks carried out by Group employees that are particularly fraught with danger. The video, which has been prepared in three languages (Japanese, English, and Chinese), is used to educate employees about safety.

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 worldwide. In Japan, the number of accidents resulting in lost workdays decreased in 2015, making it the second consecutive year in which the frequency rate*1 decreased.

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

Notes: Data cover each calendar year.
Data covering all the business sites listed on page 3.

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

Number of employees injured as a result of occupational accidents

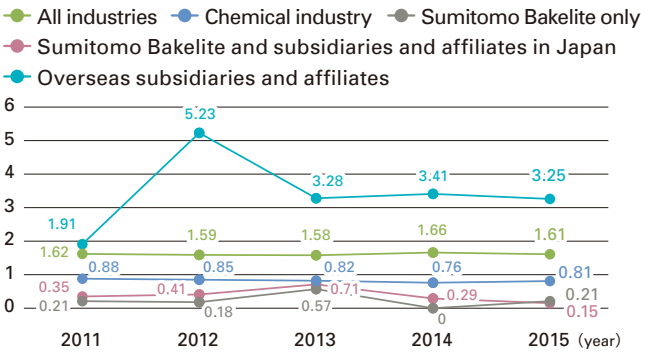
The graph on the right shows the number of employees injured as a result of occupational accidents at Sumitomo Bakelite as well as subsidiaries and affiliates in Japan. The number of employees injured as a result of occupational accidents (including both those resulting in lost workdays and those not resulting in lost workdays) decreased in 2015 to the lowest level since 1971, the earliest year for which statistical records are still available. In addition, Amagasaki Plant, Kanuma Plant, and Akita Sumitomo Bakelite achieved one million hours of operation without accidents.

Occupational Accidents by Type

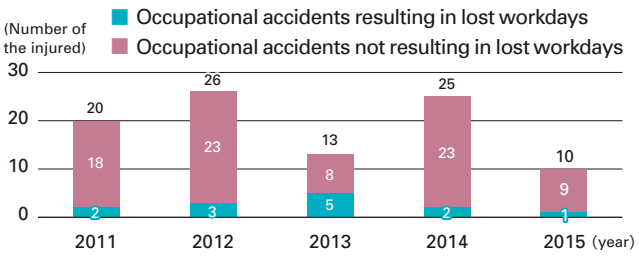
Occupational accidents categorized by type are shown on the graph on the right.

Incidents involving pinching/entanglement and falls and slips accounted for 60% of occupational accidents in 2015. Since the majority of these were due to human error, we are working to enhance employees' awareness of possible dangers through education using safety videos and experience-based safety training machines. Over the last five years 64% of occupational accidents have been the result of the following four causes: pinching/entanglement, falls and slips, cuts and abrasions, and flying/falling objects. Preventative measures targeting technical and human factors are being implemented to reduce the number of occupational accidents.

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

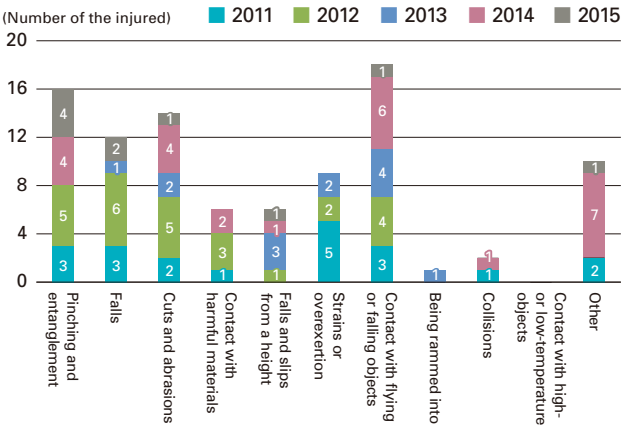


Number of Employees Injured as a Result of Occupational Accidents (in Japan)



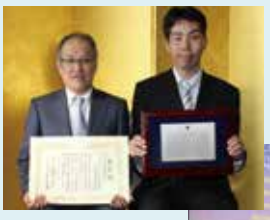
Notes: Data cover each calendar year.
Data covering all the business sites in Japan listed on page 3.

Occupational Accidents by Type (in Japan)



Topic Utsunomiya Plant Awarded an Excellence in Safety Prize at the Japan Chemical Industry Association's Safety Awards

Every year, the Japan Chemical Industry Association (JCIA) awards model companies in the chemical industry for exemplary safety-related activities. In recognition of the fact that Utsunomiya Plant had met the JCIA's safety award standard (five years) and that plant employees had united together to promote safety-related activities, the plant was awarded an Excellence in Safety Prize at the 40th JCIA Safety Awards. Staff from Utsunomiya Plant also made a presentation giving examples of their activities at the JCIA Safety Symposium and participated in a panel discussion.



Receiving the Excellence in Safety Prize

The Safety Symposium

Trends in Occupational Accidents at Overseas Subsidiaries and Affiliates

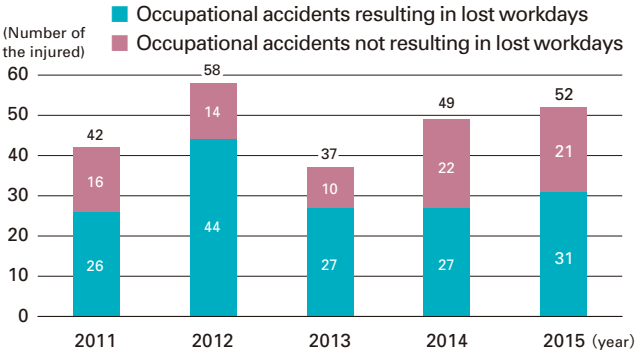
The Number of Employees Injured as a Result of Occupational Accidents

The graph below shows the number of employees injured as a result of occupational accidents at overseas subsidiaries and affiliates.

Although the number of employees injured as a result of occupational accidents with and without lost workdays was higher in 2015 than in 2014 because of the acquisition of Vaupell Holdings, Inc., the frequency rate improved. Note, however, that if one excludes the number of employees injured as a result of occupational accidents at Vaupell Holdings, Inc. from the Group's total, the number was the lowest since 2005, the earliest year for which statistical records are available.

SNC Industrial Laminates and Sumitomo Bakelite (Dongguan) have also achieved 1 million hours of operation without accidents.

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



Notes: Data cover each calendar year.
Data covering all the business sites listed on page 3.

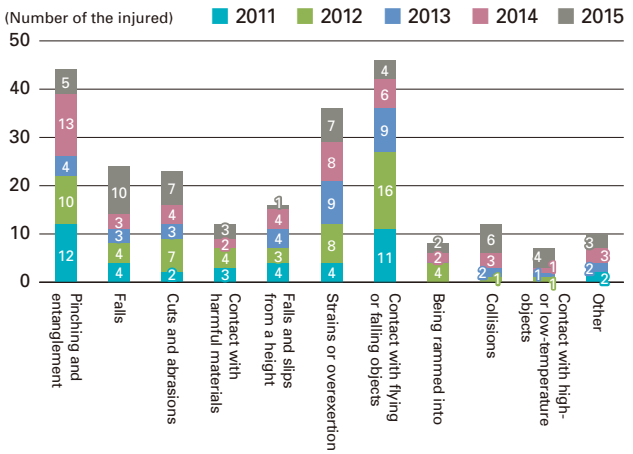
Occupational Accidents by Type

The graph below shows occupational accidents categorized by type.

Although there were no pronounced characteristics discernable in 2015, more than 80% of occupational accidents occurred as a result of human error, as was the case with accidents occurred in Japan. In order to decrease the occurrence of human error, we have employees view English- and Chinese-language safety videos, and are continuing to promote the introduction of hazard prediction training and "pointing and calling."

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.

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.

A nighttime evacuation drill performed at Sumitomo Bakelite Macau

Fire prevention training performed at SNC Industrial Laminates

A fire drill performed at SBP Indonesia

Chemical Substance Management

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

Chemical Substance Management throughout Product Life Cycles

Today, businesses around the world are required to ensure a comprehensive management of chemical substances throughout product lifecycles from development through manufacturing, usage, and disposal.
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 minimize environmental impact throughout product life cycles.

Provision of Chemical Substance Data

We are focused on promoting the use of SDSs*1 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*2 in response to the GHS.*3 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 2016, we revised the content of SDSs and labeling for Vietnam to ensure compliance with GHS.

*1, 2, & 3 Refer to the glossary on page 79.

Countries in which we have introduced SDSs

Region		No. of Countries	Status of GHS implementation
Americas		4	Compliant with the revised HCS*4 in the United States
Europe	Non-EU	5	Compliant with CLP*5
	EU	19	
Asia/Oceania		10	Implemented in 8 countries, including Vietnam
Japan			Compliant with JIS Z 7253*6

*4 HCS: Hazard Communication Standard

*5 CLP: The EU's regulation on Classification, Labelling and Packaging of substances and mixtures

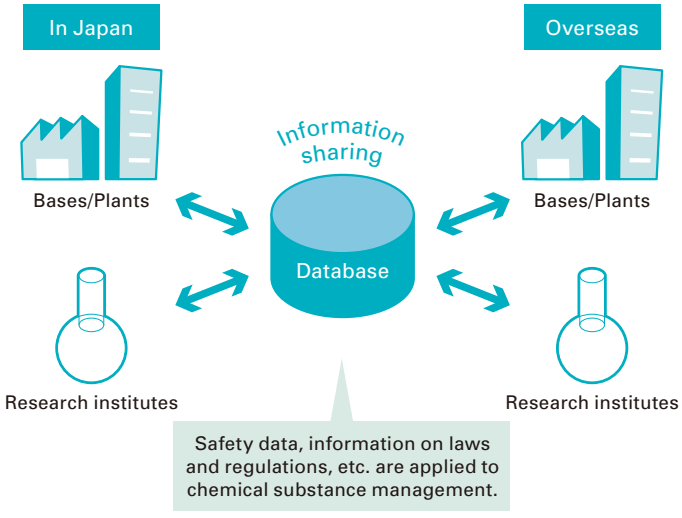
*6 JIS Z 7253: Japanese Industrial Standards (JIS) Z 7253. "Hazard Communication of Chemicals based on GHS-Labeling and Safety Data Sheets (SDS)"

Chemical Substance Management System

Creation of a comprehensive chemical substance management system is underway 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 investigation (into 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*7 and expanding application of volume tracking management to products for Taiwan and South Korea.
We will continue to enhance our system for managing chemical substances in order to ensure even more meticulous management of chemical substances.

*7 "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, 2016). 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.

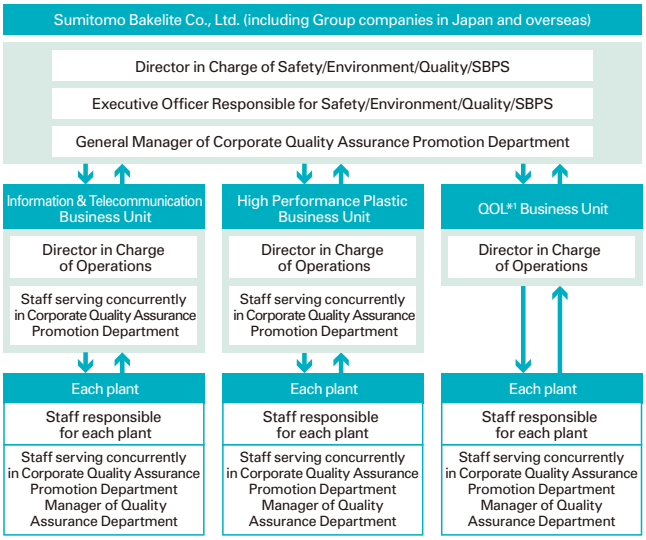
Basic Quality Management Policy for Fiscal 2016

In mind with the "Customer First" and the "Quality First", all Sumitomo Bakelite (SB) Group employees shall contribute to increasing the company's revenue by creating efficient workflow for ensuring quality.

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 Internal Quality Audit and Daily Inspection/Review
4. Skill Enhancement for Preventing Risks in Design & Development Process and Each Operational Process

*1 Refer to the glossary on page 79

Quality Management System

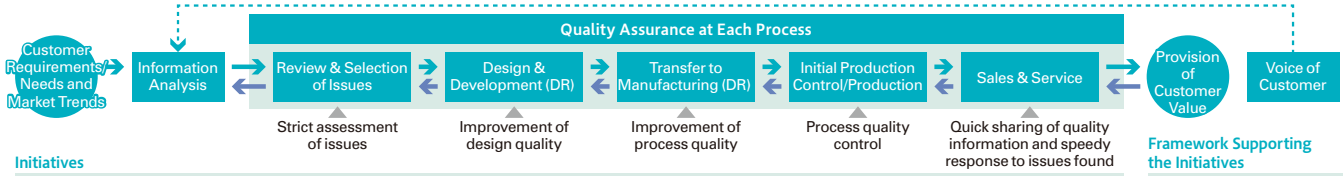


*1 Refer to the glossary on page 79

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
AS9100C	Aircraft components

Overall picture of how the development/commercialization process for new products ought to be



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*2
- 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

*2 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. Cross-functional responses are made to rapidly solve not only serious but also minor complaints. In fiscal 2015, in addition to these activities, we promoted initiatives to eliminate complaints that had not been resolved for a long time, to reduce the number of complaints, and to greatly reduce quality failure costs. 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 has happened, causes, countermeasures, etc. concerning the issues. This information is organized as knowledge that can be shared and used at any time by relevant divisions.

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.

❶Shortening 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.

❷Proactive 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*: when there is a change or difference from the previous time; *Hisashiburi*: when something reoccurs for the first time after a long interval).

Training session on quality (basic statistics) provided at Kanuma Plant in March 2016

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.

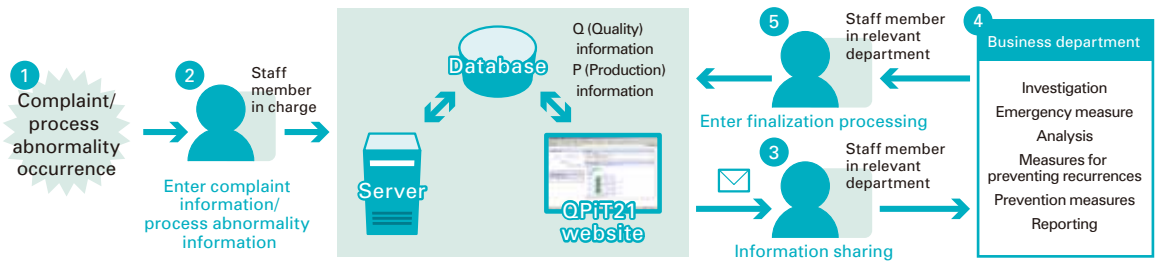
Internal Quality Auditing and Daily Inspection/Review

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 were conducted at eight sites in Japan and overseas in fiscal 2015.

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.

Quality Management System



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.

Enhancing Customer Satisfaction (CS)

Initiatives aimed at enhancing customer trust and satisfaction

CS Promotion System

At Sumitomo Bakelite the CS*1 Promotion Committee comprising the President and other executives determines the basic company-wide policy on promoting customer satisfaction. In accordance with this basic policy, divisions and Group companies work together to share the voice (needs) of the customer and improve business processes based on this.

We invite customers to an annual conference where we brief them on our business and seek to identify their needs through questionnaires and other means in order to deepen mutual understanding and trust.

To enhance awareness of CS throughout the Group and to share best practices we hold CS discussion meetings. We have each division of the Group, including the head office, business departments and plants, issue its own CS Declaration composed of five principles to suit the nature of its business and environment, and, based on the Declarations, every employee is striving to improve CS.

We positioned 2015 as a year of collaboration by proactively utilizing internal and external resources to enhance CS and promoted activities accordingly. Collaborating in a way that transcends the barriers between different divisions and Group companies makes it possible to grasp customer needs in a multifaceted manner and to develop new products with higher CS levels through product development efforts joined by various teams and projects using new materials. We will also vigorously implement measures to improve CS from the perspective of customers, including revamping the display corners at each of our business sites.

We positioned 2016 as a year of creation and are aiming to create new policies and measures to promote CS.

*1 See the glossary on page 79.

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 in-house 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 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.

Digital signage displayed at an external exposition

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

Recruiting and Employment

Recruiting personnel able to perform and demonstrate their capabilities

Number of Group Employees

Number of Employees in Japan and Overseas (as of March 31, 2016)

	Directors	Executive officers	Employees	Temporary employees*1	Total
Sumitomo Bakelite	9	10	1,971	252	2,242
Subsidiaries and affiliates in Japan	25	–	779	190	994
Overseas subsidiaries and affiliates	24	–	3,559	136	3,719
Total	58	10	6,309	578	6,955

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

* The number of directors of subsidiaries and affiliates in Japan and overseas includes Sumitomo Bakelite employees who serve as directors of subsidiaries and affiliates.

1 Part-time and casual workers

Employees by Region/Proportion of male and female employees (as of March 31, 2016)

		Japan	Europe	North America	East Asia	Southeast Asia	Total
Employees	Male	2,416	294	605	829	511	4,655
	Female	334	46	468	697	109	1,654
Subtotal		2,750	340	1,073	1,526	620	6,309

*The total for Japan includes domestic subsidiaries and affiliates

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

	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016 (planned)
Number of people employed	40	37	34	50	38	29
Male	33	34	28	42	31	–
Female	7	3	6	8	7	–

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

*Since employee recruitment is gender-neutral, the gender composition of the planned intake of new employees for fiscal 2016 is unknown.

Retention of Newly Graduated Recruits (Number of employees who left within three years)

	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016
Number of newly graduated recruits	32	36	30	41	34	24
Number of employees who left (within three years)	2	2	3	0	0	0

Employees beyond Retirement Age

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.

Employees beyond Retirement Age

	Fiscal 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015
Number of retirement-age employees	51	59	37	34	43
Number of post-retirement rehires	41	50	23	27	31
Rehiring ratio	80%	85%	62%	79%	72%

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

Regarding Retirement Benefit Obligations

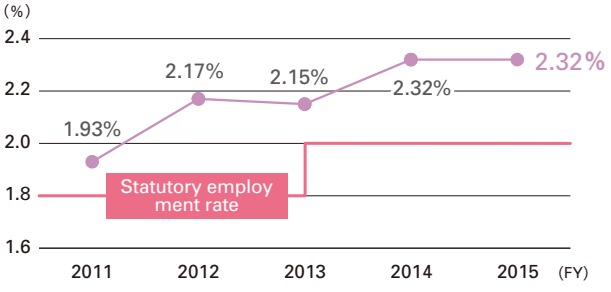
Regarding retirement benefit systems, the Company employs a defined-benefit system in Japan. Overseas, some consolidated subsidiaries concurrently use defined-contribution and defined-benefit systems. The consolidated retirement benefit obligations for fiscal 2015 totaled ¥32.7 billion, ¥28.6 billion of which was for pension funds.

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

Employment of People with Disabilities

Sumitomo Bakelite 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.

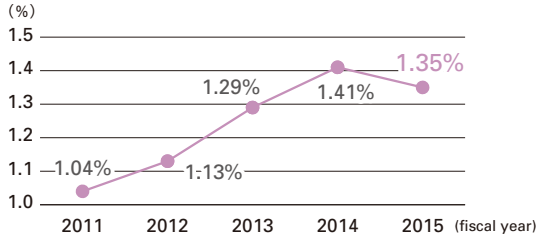
Employment Rate of People with Disabilities over the Past Five Years (As of March 31, 2016)



Initiatives to Promote the Advancement of Women

Sumitomo Bakelite 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 2015 we drafted an action plan aimed at creating an environment in which female employees can actively participate as management staff. 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 as of the end of March 2014. In order to meet this target we will promote such initiatives as increasing staff awareness of the continued employment support system for women, reforming the workplace culture, nurturing the career consciousness of female staff, 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 ☑



Note: Here, "management staff" refers to Sumitomo Bakelite Co. Ltd. employees at or above the level of superintendents and engineers, excluding executive officers. 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

Sumitomo Bakelite promotes the creation of workplaces conducive to successful work-life balance of employees.
In 2008, Sumitomo Bakelite 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, Sumitomo Bakelite 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 2011	Fiscal 2012	Fiscal 2013	Fiscal 2014	Fiscal 2015
Average number of overtime hours (per annum)	142.7	112.7	139.9	140.4	124.5
Average number of days of paid leave used	13.6	12.8	13.3	13.1	13.3

Note: "Regular employees" means Sumitomo Bakelite 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 2015 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.

Understanding the needs of male employees who wish to participate in childrearing

I have a one-year-old daughter who has started going to a daycare center, and from April 2016 I have been using the reduced work-hour option to engage in childcare. I used to feel guilty about forcing the burden of childcare entirely on to my wife, who also works. So I made the decision to discuss the issue with my superior and, in consideration of my work tasks and role, I begun using the reduced work-hour option.
Now that I have to go to the daycare center to pick up my daughter early in the evening, I have had to streamline my working style even more and be more conscious of time management and staying focused on my job.
Thanks to the understanding and cooperation of everyone at my workplace I am able to use my time effectively at work and at home. My wife and I are very thankful that I work at a company that really understands the needs of fathers to participate in childrearing.

Ryutaro Sekine
Employee Relations & Welfare Department

Human Resources Development

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

The type of personnel we look for

Sumitomo Bakelite 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.

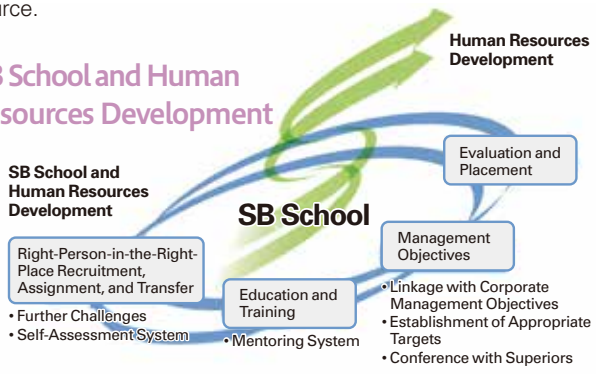
Key characteristics of the autonomously motivated personnel Sumitomo Bakelite seeks

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 the Sumitomo Bakelite 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 2015 through March 2016, the cumulative participation in SB School courses was about 18,000 employees, and the number of hours of education provided was approximately 29,000. 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 xx	- Writing emails in English - Logical thinking - Presentations - Strategic scenario know-how/do-how - Meeting management - English-language presentation skills - Marketing	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 line managers (advanced)

Education for new employees

SB School Course Participation (fiscal 2015)

Unit: Persons

Type of course	Number of participants
Education for line managers (advanced)	19
Education for newly appointed section chiefs	55
Education for newly appointed management staff	36
Education for mid-career staff	20
Education for employees in their third year in the company	34
Follow-up education for new employees	33
Education for new employees	33
Total	230

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 Sumitomo Bakelite 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 advanced plant managers"
This is a training course for management staff aimed at fostering advanced plant managers (plant managers, 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 business perspective. As an initial experiment, in fiscal 2015 the course was carried out at a Chinese affiliate for Japanese staff stationed there and for local staff.

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* 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.

*See 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.

A Message from Earthwatch Japan

We would particularly like companies involved in the chemical industry to be deeply and continuously interested in issues such as the prevention of global warming and reduction of biodiversity. Your further efforts to reduce environmental impacts are indispensable. I would like to ask all of your employees, through participating in the volunteer activities of Earthwatch to help researchers with field surveys, to recognize how time passes in the natural world and the way things are connected and circulated in ecosystems. Anyone can volunteer, and I hope that you deepen your understanding of biodiversity and environmental sustainability through working as a volunteer, and use that understanding to assess your businesses and to exercise the kind of leadership that can influence your stakeholders as well.

Executive Director Tomoko Nunoi
NPO Earthwatch Institute

R&D Tech Day Held

On November 7, 2015 we held the "2015 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 8 different themes, a poster session was held with 9 categories and 53 different themes, as well as mini presentations, and free discussion. The case studies that were introduced were streamed online to over 150 employees at eight business sites in Japan.
We also hold "CS Discussion Meetings" with the aim of enhancing customer satisfaction levels.

Awarding of the Grand Prize at 2015 SB R&D and Tech Day

Health and Safety Education

In parallel with measures to reduce the risks posed by machinery and chemical substances, we 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 safety at their own workplaces, and these are used to enhance employees' safety consciousness and hazard prediction skills.
We conduct occupational health and safety education at every level, including the holding of safety meetings in which all plant managers participate to share policies on safety activities, education for new employees including simulation of hazards, and e-learning on the fundamentals of safety for mid-level employees.

Staff undergoing safety action training at a "Safety Gym" (Utsunomiya Plant)

Hazard simulation training for new employees

A safety conference for plant managers
These are held twice a year and are attended by plant managers from Japan and overseas

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 are recruited in an effort to raise awareness of human rights issues.

We consider and implement the kind of human right education that we ought to provide as a company, and urge each employee to gain a proper understanding of discrimination and harassment in society as a whole. We aim to create pleasant and cheerful workplaces in which employees respect each other's human rights.

Health Management

Enabling employees to continue working with healthy bodies and minds

Sumitomo Bakelite 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.

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, which are 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

Sumitomo Bakelite 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, 2016, 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.

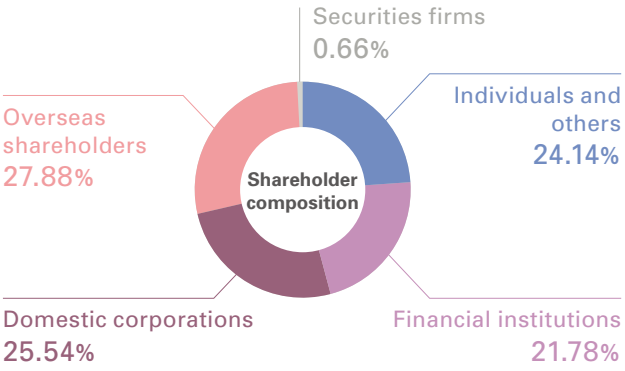
Business Report

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.

Stock Information and Shareholder Composition ☑ (as of 31 March 2016)

Total number of shares issued : 262,952,394
Total number of shareholders: 15,100



Relations with Local Communities

Contributing to the Development of a Local Community as its Member

Environment-Related Initiatives

Biodiversity Conservation Initiatives

The environmental impact of the Group's drainage water etc. has an effect on organisms, and some of our factories provide habitats for endangered species within their grounds. We therefore believe that we can contribute to the protection of biodiversity through enhancing the environments at our business sites.

In addition, as a promotion partner of "The Declaration of Biodiversity by Nippon Keidanren," we are implementing measures to ensure that our operations fully accord with the letter and spirit of that declaration.

Sumitomo Bakelite Co. Ltd. possesses land in Fujieda City, Shizuoka Prefecture which serves as the site for the Shizuoka Plant, a factory that produces phenolic resin, etc. Although the land is not an officially designated conservation area, an ecological study in fiscal 2011 showed that, an IA-rated endangered type of killifish was breeding on the site. As a result of this, it was determined that biological diversity found in the land had a high conservation value and a five-year plan was drafted to develop a biotope on the site from 2012. The biotope now takes up approximately 5% of the area of the site.

Biotope

Some of the killifish (oryzias latipes) that breed on the Shizuoka Plant site are provided to other companies in the area to help them conduct their own environmental projects.

Topic **Development of the Shizuoka Plant Biotope Project**

Based on the results of a biodiversity assessment conducted in fiscal 2011, we started developing a biotope at the Shizuoka Plant in fiscal 2012 according to a five-year plan. The biotope is being developed in line with the natural environment of the Shida Plains on which the Shizuoka Plant is situated and with consideration given to the area's ecosystem and its current state.

Our aim is to create a wetland environment to provide a habitat for visiting dragonflies and kingfishers to congregate and breed. Killifish, an IA-rated endangered species, have been confirmed to be breeding in the biotope and we have cooperated with the environmental activities of other companies by providing them with some of the killifish. The Donguri Woods and Tamamushi Grove will be now inhabited by jewel beetles, butterflies, stag beetles, wild birds, and so on.

In fiscal 2015 we created a floating island and a path leading through the biotope. During the biotope observation event in October employees and their families as well as former employees living nearby were invited to make "nature handicraft"*1 with professor Tatsumi Yamada of Tokoha University, who oversees the biotope project, and students from the university. "Nature handicraft" is one way we are making use of the biotope.

In addition to the observation for employees, we have also opened the biotope for observation by guests from the Fujieda City Office and the Belgian Embassy. We are hoping to proactively utilize the biotope as a place for us to communicate with people from outside the company through such efforts as holding events in conjunction with the local community.

In fiscal 2016 we decided on giving the biotope the nickname "Ikoi no Mori" (Calming Woods).

We intend to create a "biotope club" made up of our employees, to work independently on environmental improvement and observing organisms.

*1 Using natural materials such as acorns, nuts, and fallen leaves to create animals and accessories and so on

An observation event attended by Shizuoka Plant employees and their families

Guests from Fujieda City Office participating in an observation event

An observation event attended by Shizuoka Plant employees and their families

Guests from Fujieda City Office participating in an observation event

Company biotopes can contribute greatly to the biodiversity of the surrounding environment. Factories have until now been seen as facilities that destroy the local environment and scenery, and I think it is wonderful that they can now serve their communities by providing important bases for networks of organisms to form. Sumitomo Bakelite's biotope provides a habitat for a large number of indigenous killifish with DNA that is unique to the region, and I hope it will prove useful in educating local residents and children about the environment.

Professor Tatsumi Yamada
Socio-Environmental Studies Department
Tokoha University

Initiative to Protect Forest Ecosystems

Sumitomo Bakelite contributes to conservation of biodiversity by protecting forest environments through supporting forest thinning projects (see p.67 for details) and forestation activities.
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. The mangrove planting not only helps conserve the environment but also improves the living conditions of local residents and prevents erosion of beaches and coastlines. Sumitomo Bakelite works together with several other companies on a forestation project and in fiscal 2015 we planted approximately 60 trees. We will continue to work on biodiversity conservation projects that suit the needs of the environments in which our business sites are located.

Planting mangrove trees

Utilizing Disused Plant Land for Solar Electricity Generation

We are leasing unused land adjacent to Akita Plant (approximately 10 hectares) to a solar power generation business. The lease contract is for 20 years from September 2015, and allows IP Akita Solar Power Generation Co., Ltd. to install solar power panels on the land.

Akita City is a major center of renewable energy, and the solar power generation project on the unused production plant land we have provided is one of the largest renewable energy projects in the city.

Outline of the Akita Solar Power Generation Facility

Location	Akita City, Akita Prefecture
Estimated annual generating capacity	5.01MV (module based)
Power purchaser	Tohoku Electric Power
Completion of construction/commencement of operations	September 2015
Power generation company	IP Akita Solar Power Generation Co., Ltd.
Electricity generation capacity	18,592 solar panels (these generate the equivalent of the electricity consumed annually by 1,660 average households)

Aerial photograph of the facility

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.

Kobe Plant

Plant employees participated in a day to clean up the industrial park in which the plant is situated

Amagasaki Plant

Plant employees were asked by the city office to participate in the city's project to splash water on the ground (as a heat reduction measure)

Shizuoka Plant

Plant employees participated in a riverbank cleanup organized by a municipal environmental conservation association

Initiatives Relating to Fostering the Next Generation

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.

The Ota Market's fruit and vegetable evaluation CS center

Students from Tokyo University of Agriculture's Post Harvest Studies Research Laboratory visited the center to learn about anti-condensation film and the use of P-Plus to maintain the freshness of produce.

Akita Sumitomo Bakelite

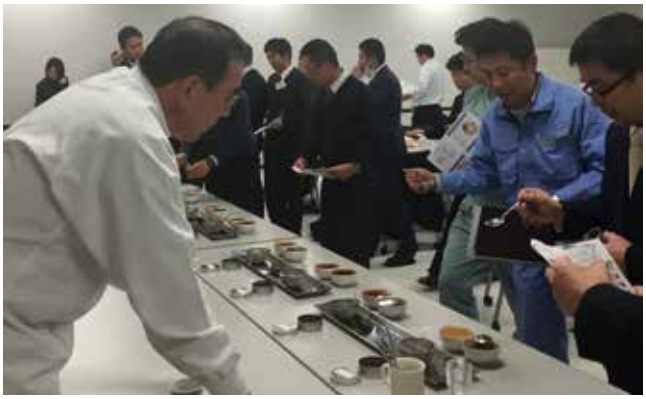
Students and teaching staff from Akita University's Department of Mechanical Engineering visited the plant.

Sumitomo Bakelite Europe (Barcelona)

Students majoring in chemistry visited the plant to receive training.

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.
The Fujieda City Science Education Support Project, which, being a long-term project, is uncommon in Japan, was held for a seventh year in fiscal 2015. The aim of the project is to communicate to junior high school science teachers about how science-based technology is used in familiar industries so that they can use the knowledge to stimulate students' interest in science through classes and school counselling.
In a survey of participating science teachers at a networking event, 90% of teachers were able to obtain useful information for their classes.



Participants of the seventh science teacher networking event tasting different types of tea (at Mitsui Norin Co., Ltd.)

Social Initiatives

Contributing to the Society

We make donations through reputable organizations that benefit worthwhile causes in such areas as schools and education, social welfare, science and technology, culture and the arts.
In May 2015 six Durez Canada employees and members of their families participated as "Team SBHPP" in the Wings for Life Run,*1 a charity running event supported by Red Bull that raises money for research into spinal cord injury treatment.

*1 This event was held simultaneously in 35 places in 33 countries and all of the proceeds were donated to the NPO "Wings for Life," which supports research into spinal cord injury treatment.

Charity running event participants (Durez Canada)

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.

An EV bus tour for local residents (Akita Sumitomo Bakelite)

Local children invited to dinner after Ramadan (SBP Indonesia)

Employees participating in a volunteer tulip bulb planting activity (Kyushu Bakelite)

Site Report

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

Japan

Kobe Facility Office

Address	1-1-5 Murotani, Nishi-ku, Kobe-shi, Hyogo		
Number of employees	65		
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		

Our office is wholeheartedly engaged in reducing waste, recycling, cleanups, 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	685		
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		

We are pursuing initiatives to reduce the environmental burden of all our processes from product development through to manufacture of finished products. The target of the 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 2016. By promoting early achievement of the energy conservation themes and the reduction of waste and airborne emissions of solvents, the Kobe Facility Office is aspiring to be an eco-friendly plant.

Deputy Plant Manager
Toshihide Kanazawa

Kanuma Plant

Address	7-1 Satsuki-cho, Kanuma-shi, Tochigi		
Number of employees	355		
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		

The Kanuma Plant focuses on reducing power consumption as part of its energy conservation activities, and in 2015 we achieved a reduction of 434,000 kWh. In fiscal 2016, we will continue to bolster these energy conservation activities and plan to reduce power consumption by 2% year on year (446,000 kWh).We commenced full-scale use of effluent treatment equipment in 2015, which treated approximately 1,400 tons of effluent. The year 2016 represents the final year of our plan to reduce material flow cost by 50% within 3 years. Our efforts require teamwork involving all employees.

Plant Manager
Haruhisa Toda

Utsunomiya Plant

Address	Address: 20-7, Kiyohara Kogyo Danchi, Utsunomiya-shi, Tochigi		
Number of employees	324		
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		

The plant has developed a culture that stops anomalies and 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	471		
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)
Principal R&D themes	Multilayered films for food packaging, PTP materials for pharmaceuticals, tapes for mounting electronic components		

Everyone at the plant takes part in the "ecoE~NE~2020" 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 implement risk assessments on the environment and safety, make an effort to eliminate injuries and accidents before they happen through risk evaluations and risk measures.

Plant Manager
Hidehiro Morita

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	62		
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		

This plant produces waterproofing sheets made with synthetic resin 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 and evolution of our production processes. Our goal is to be a plant that is trusted by the community for seriously addressing environmental issues and ensuring that all employees abide by relevant laws, regulations and rules.

Plant Manager
Masamori Miura

Kyushu Sumitomo Bakelite Co., Ltd.

Address	40-1 Oaza-Kamizakai Aza-Mizumachi, Nogata-shi, Fukuoka		
Number of employees	270		
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		

The plant produces environmentally conscious epoxy molding compounds and wafer coating resins. In fiscal 2016, we will step up our initiatives to halve material flow costs, to improve energy efficiency, and carry out activities to reduce environmental impacts, in an effort to achieve continual improvement. Furthermore, we will research life cycle assessment activities and pursue joint efforts with other plants so that we can become a company that is trusted by customers and the local community.

President and Representative Director
Keisuke Kurachi

Yamaroku Kasei Industry Co., Ltd.

Address	19-10 Katayama-cho, Kashiwara-shi, Osaka		
Number of employees	45		
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		

Our Company is committed to the realization of our Medium Term Plan for Environmental Impact Reduction through continued efforts in promoting energy saving activities as well as environmental impact reduction based on MFCA as our management index. In addition, we intend to further implement pollution countermeasures in response to an increasingly critical need for environmental preservation, and take a proactive role in our local community through participation in community events (such as Yamato River Cleanup campaign, etc.)

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	31
Commencement of operations	1964
Total site area	13,000 ㎡
Principal R&D themes	Plastic sheets, plastic chopping boards

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

Address	560-1, Saotome, Sakura-shi, Tochigi
Number of employees	13
Commencement of operations	2002
Total site area	3,638 ㎡
Principal R&D themes	Safety helmets, injection molding products

We were able to achieve our fiscal 2015 target of a 50% reduction in negative costs by MFCA one full year ahead of schedule. In fiscal 2016, we plan on making steady progress with energy conservation proposals made based on an assessment carried out by The Energy Conservation Center, Japan.

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	195		
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		

The plant manufactures medical products, laboratory wares, phenolic resins, and negative electrode materials. In fiscal 2016, we proactively implemented energy-saving measures under a revised organizational structure, along with enhancing waste reduction through a plant-wide MFCA in order to minimize environmental impact. We organize community cleanup events as well as factory tours to contribute to the local community.

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		

We produce and sell polyethylene pipes and films. In addition to our existing efforts in waste reduction and switching over to LED lighting, since last year we began to recycle factory scrap materials and make them into garbage bags made available to residents of Hokkaido. 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	192		
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		

We consume a large amount of energy in order to maintain low temperatures, and so we are pursuing energy conservation activities on an ongoing basis. Thus, we are implementing measures to achieve greater energy saving by expanding the introduction of high efficiency cooling systems with freezers and shifting to more energy efficient compressors. Striving to be a company trusted by the local community, we engage in exchanges with local people and eagerly participate in local civic activities.

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	130		
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)		

We produce molded mechanical and structural parts made of phenolic resins for use in automobiles. We are working actively to reduce waste by improving yields and cutting CO2 emissions through energy saving. While ensuring compliance with laws and ordinances, all our employees will make a sincere and wholehearted effort to make sure the company earns the trust of customers and the local community.

President
Yasuhiro Takemura

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	245		
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		

We are working to quickly identify and respond to changes in legislation and details of government instructions in China because rigorous management is required to lower emissions of environmental load substances and to improve safety, while there has been an increase in instances where controls that exceed international standards are now required. In 2015, we set up our own website where we release information about CSR activities and focus on public relations actions externally.

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	666		
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 2003
	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		

We manufacture medical products, precision molded products and molded products for automobiles. We obtained OHSAS certification in 2013 and recorded 2 million hours and one full year without an occupational injury in August 2015. This year we are focusing on safety training for all employees. Our goal is to achieve workplace safety and environmental conservation while also reducing energy consumption through efforts to conserve energy.

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	156		
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		

We are the principal plant in Macau 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, highly functional home appliances, and energy efficient air conditioners, contributing to energy savings. Ensuring compliance with the laws of Macau, we are making a concerted effort to reduce energy consumption and material flow cost across the organization.

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	110		
Commencement of operations	1998		
Total site area	24,271 ㎡		
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		

Our company researches, manufactures and sells epoxy molding compounds for encapsulation of semiconductor devices. In fiscal 2015, we reduced energy usage by 10% compared with the previous year. Although we plan to increase production volume in fiscal 2016, our aim remains to achieve a reduction of 3% or more this year. We will also focus more than ever 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		

In 2015, we achieved a robust sales growth rate of 28% compared to 2014. The ratio of product qualification exceeded 99.5%. Also, a survey of customer satisfaction revealed that more than 80% of customers are satisfied with our products and services. There were no occupational accidents or injuries in 2015.

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	136		
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		

We mainly manufacture and sell phenolic resin copper-clad laminates. Our manufacturing processes tend to be energy intensive. In fiscal 2016, following a review of our operations by a team from Japan in fiscal 2015, we will implement the reduction plan of the project to reduce energy consumption to achieve even greater results than before.

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		

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	52		
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		

We manufacture and sell phenolic molding compounds. As most of the products we handle are powder, we pay close attention to preventing the release of dust into the air and release of effluent into the water. We are also focusing on material flow cost reduction activities through energy conservation activities and waste reduction. By continuing with these activities, 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		

There is rising interest in Indonesia about the environment and as part of this movement we are working to mitigate our impacts on the environment. We have introduced high efficiency waste incinerators for both legal compliance and energy savings. We are also raising employee awareness about safety and the environment through training. At the same time, as a member of the community we are actively taking part in efforts to protect mangrove trees and other unique activities locally.

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	148		
Commencement of operations	1996		
Total site area	30,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	December 2010
	Quality	ISO 9001	2003
Principal R&D themes	Polycarbonate extruded resin sheets (for signage and construction applications)		

We manufacture and sell polycarbonate sheets, which are used as skylights on factory roofs and walls, contributing to energy savings. In fiscal 2016, will plan on further reducing energy usage and CO_2 emissions by introducing energy efficient compressors and reusing wooden pallets. Our goal is to be a safe, trusted and environmentally friendly company.

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	58		
Commencement of operations	1920		
Total site area	14,000 ㎡		
Month/year of management system certification	Environmental	ISO 14001	November 2014
	Quality	ISO 9001	2003
Principal R&D themes	Thermoset composites		

The plant is examining new ways to reduce waste, energy consumption and emissions, given people's rising awareness and concern about the environment. While emphasizing that these reduction efforts receive top priority, everyone at the plant is also working to make sure we fulfill the demands of our business operations.

Plant Manager
Robert Hunt

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		

As a member of the local community, and as a member of a global organization, we are striving to be a manufacturing facility that fulfills its responsibilities in terms of safety and the environment. The plant has not had an environmental accident since 2015 and our ultimate goal is to eliminate all occupational accidents and injuries. We have introduced a new phenol recovery system that has reduced the impacts we have on the environment.

Operations Manager
Scott Franks

Durez Corporation (Niagara Falls Plant)

Address	5000 Packard Road, Niagara Falls, NY 14304, USA		
Number of employees	60		
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		

In 2016, we will aim to continue with the positive trend of reducing hazardous waste emissions. The plant has adopted a systematic approach to analyzing the flow of waste, and by utilizing new technologies, we are working to lower hazardous waste emissions to less than 12 tons per 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	Quality	ISO 9001	2003
Principal R&D themes	Phenolic resin molding compounds		

In 2015, the plant implemented several projects with the goal of reducing the amount of waste we produce. The plant also continues to emphasize energy savings, and we have achieved solid results in cutting back energy usage compared to 2012. One future challenge the plant will face is satisfying air emissions standards that are expected to be levied by the government.

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		

We are working to prevent occupational injuries and illnesses by increasing the number of reports of close calls. In addition to incorporating non-routine work to reduce injury risk, we share information on accident reviews within the company and updated SDS and labels. We have increased the use of recycled flow during monomer production in order to reduce energy usage and hazardous substances in the pilot plant area.

Senior Manager
Larry Rhodes

Vaupell Northwest (VNW)

Address	1144 N.W. 53rd Seattle, Washington, 98107, USA		
Number of employees	352		
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		

We provide contract manufacturing solutions for aerospace applications ordered by the SBNA HPP Group. Based in Seattle, we provide complex injection molding, assembly, painting and coating technologies for interior and exterior components to customers in the aerospace industry. Our Seattle Plant employs a workforce of 350 direct and indirect employees, including sales reps, general workers and managers.

Director of
Aerospace Operations
Matthew Barnett

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.		

The plant focuses on manufacturing and assembling medical device components using injection molding. The plant operates a wide variety of injection mold machines, from 30 tons up to 787 tons. As part of our efforts to win more defense contracts, we launched a new program to produce parts for rockets and rocket carriers. Through continual improvements, we strive to improve safety, quality, delivery times, and profitability.

General Manager
David Pellegrino

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		

We offer simple assembly and contract manufacturing of medical instruments. We offer onsite engineering, casting design, and fabrication, and operate 39 injection mold machines, ranging in size from 17 tons to 600 tons. Currently, we employ a workforce of 200, which makes us the largest company in Constantine, Michigan. With pride in our history and track record, we are now turning our attention to the future of the company.

Plant Manager
Jeremy Howard

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		

We focus on providing solutions throughout the product life cycle. We offer holistically connected solutions, from sales, program management, global supply chain, and logistics, through our ability to support the needs of product sales in various ways. Customers have been highly impressed with the direct dialogue they have with staff and customer representatives.

General Manager
Stratton Smith

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		

We highly value the concept of good neighbor to the community and good corporate citizen. This concept validates our proactive involvement in environmental impact management. As a single organization, we are fully aware of our obligation to manage processes in a way to avoid damages or negative consequences for surrounding communities.We highly value the concept of good neighbor to the community and good corporate citizen. This concept validates our proactive involvement in environmental impact management. As a single organization, we are fully aware of our obligation to manage processes in a way to avoid damages or negative consequences for surrounding communities.

General Manager
Joseph Kamin

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		

Both management and employees recognize there is no shortcut to safety. We have made changes to our failure calendar, daily safety patrols, and four basic safety procedures ("lock-tag-try procedures," "heat work," "line breaks" and "closed space entry"). In addition, we will achieve the new standards for obtaining ISO 50001 certification by December 2016.

Plant Manager
Peter Arits

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

Address	Gran Vial, 4 Montornes del Valles (Barcelona) 08170, Spain		
Number of employees	87		
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		

In 2015, we conducted a large part of Sumitomo Bakelite Europe's production activities in this plant. In particular, we are responding precisely to growing customer needs using new pulverization equipment for the production of powder resins. To improve efficiency, we conducted testing of a wastewater treatment system using solvent-based phenol extraction. This system will help us to reduce wastewater and energy consumption.

Site Manager
José Miralles

Vyncolit N.V.

Address	Wiedauwkaai 6, B-9000 Gent, Belgium		
Number of employees	123		
Commencement of operations	1992		
Total site area	20,506 ㎡		
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		

Our company manufactures molding compounds used in the automotive industry. Major challenges facing us in fiscal 2016 include the opening of a demonstration center for molding large components made from thermosetting resins, and relocating the LF line from Switzerland to Belgium. Currently, we are increasing our workforce in response. Also, we plan on further reducing the level of CO_2 emissions by installing a new warming unit.

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 (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	84,717	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	45,895	—
Material loss	Waste generated	Landfill	ton	605	232	143	148	82	33	29	18	13	16	53	44	13
		External intermediate processing	ton	342	53	83	52	11	6	6	5	5	7	45	7	4
		Internal intermediate processing	ton	0.5	2.2	1.2	0.9	1.0	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	6,856	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	6,906	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	7,495	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	14,351	13,330
Chemical substance emissions			ton	512	423	340	210	222	273	249※	230※	268※	202※	171	146	102
Emissions of substances subject to the PRTR Law			ton	81	39	16	15	19	17	16	12	15	15	13	12	—

Overseas Business Sites

Item			Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016 (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	154,123	14,419
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	72,982	—
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	2,577	—
		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	2,501	—
		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	3,248	—
		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	2,030	—
	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	154	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	4,217	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	14,572	17,473
Chemical substance emissions			ton	—	—	—	—	—	278	191	245	204	164	147	147	144

Notes: Data covering all the business sites listed on page 3.
Following a re-examination of the calculations, the data back to FY 2011 has been revised (2014: 237t → 202t).

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

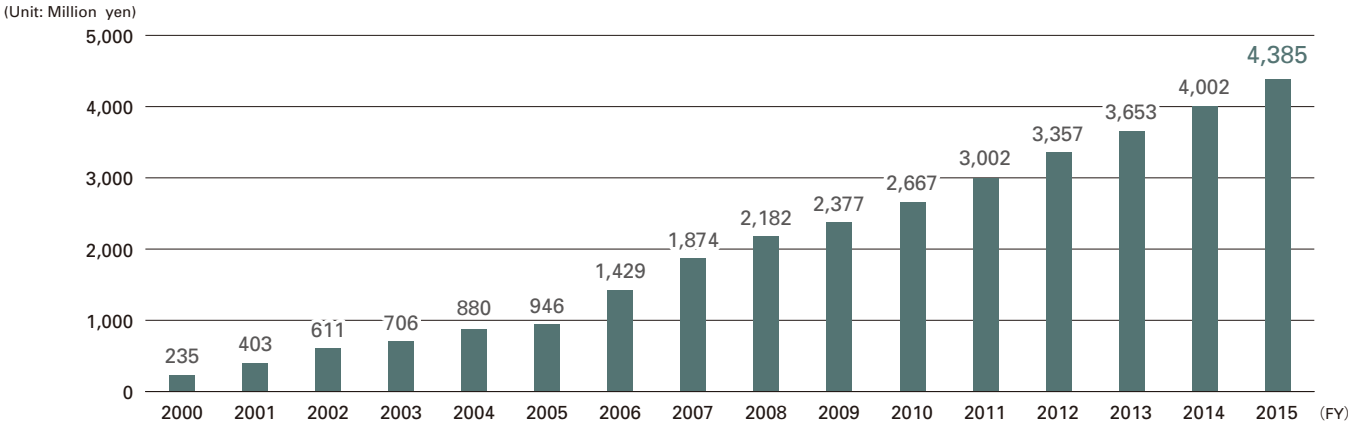
Distribution-Related Energy Conservation Measures

		Unit	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
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
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
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
	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

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
Fiscal year	Millions of yen	235	168	208	95	174	66	483	445	308	195	290	335	355	296	350	383
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

Accumulated Investments for Environmental Protection



Usage of Paper Products that Contribute to Forest Thinning Efforts

Sumitomo Bakelite 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). Since fiscal 2008 we have expanded the use of this paper to the Environmental & Social Report, Corporate Brochure, company newsletter, and other internal publications. The cumulative amount of this paper used is approximately 45 tons, which corresponds to the thinning of 2.70 hectares.

森の町内会
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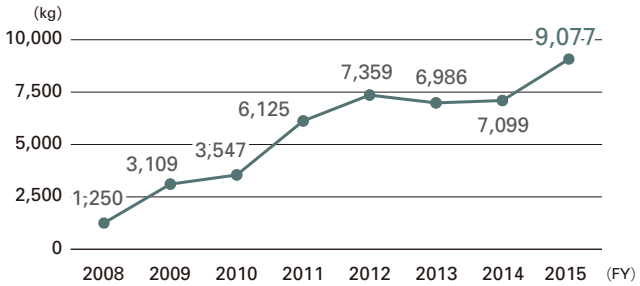
Amount of Paper Products that Contribute to Wood Thinning Efforts Used by Sumitomo Bakelite



Data on Environmental Impacts by Site

1. The regulatory limits shown for business sites in Japan are the figures quoted from the most stringent regulations of all those imposed by ordinances, regional agreements, administrative guidance, and other requirements issued by governmental authorities.
2. In the case of overseas business sites, the applicable standards are shown, but, because laws may differ from one country to another, these figures include national and regional regulatory limits, agreement standards, autonomous control standards, reference standards, and other types of standards. In addition, at some business sites, data have been compiled for the 2015 calender year.
3. The measured data are, in principle, the maximum level recorded in fiscal 2015, unless otherwise indicated in the notes. Please note that, in the case of pH figures, the minimum and maximum levels are shown. In addition, when actual measurements are below the quantifiable limits, the amounts are shown as "Less than (the quantifiable limit)." When the substance in question was less than the lower detection limit, the amount is shown as "not detected". Unmeasured values are shown with "-" (a dash).
4. Where "-" (a dash) is shown for the regulatory limit, the figures obtained by voluntary measurement are shown for reference.

* Refer to the glossary on page 79 for more information about BOD, COD, NOx, and SOx

Japan

Kobe Facility Office ☑

Air No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5-9	6.9-7.8
BOD	mg/L	2,000	7
n-hexane extract (mineral oil)	mg/L	5	Less than 1
Suspended solids	mg/L	2,000	3

Shizuoka Plant ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Cogeneration boiler	NOx	ppm	100	81
	Soot and dust	g/m^{3}N	0.05	Less than 0.013

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.8~8.6	7.2~7.9
BOD	mg/L	15	4.9
COD	mg/L	160	2.9
n-hexane extract (mineral oil)	mg/L	3	Less than 0.5
Suspended solids	mg/L	30	6.6
Phenols	mg/L	1	Less than 0.05
Formaldehyde	mg/L	5	Less than 0.1

Kanuma Plant ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Diesel generator	SOx	K-value	8	0.06
	NOx	ppm	950	860
	Soot and dust	g/m^{3}N	0.1	0.018

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.8-8.6	6.5-7.5
BOD	mg/L	20	8.6
COD	mg/L	20	8.2
n-hexane extract (mineral oil)	mg/L	5	Less than 1
Suspended solids	mg/L	40	5.2
Boron	mg/L	10	Less than 0.1 *

* To respond to the revision (2011) of the Water Pollution Control Act, items subject to measurement were added and checked with the government.

Utsunomiya Plant ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Drying furnace	SOx*	K-value	6	Not operated *
	NOx	ppm	–	
	Soot and dust	g/m^{3}N	0.2	

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.8-8.6	7.5-7.8
BOD	mg/L	25	1.2
COD	mg/L	25	4.2
n-hexane extract (mineral oil)	mg/L	5	Less than 1
Suspended solids	mg/L	50	Less than 1
Coliform bacteri	Count/mL	3,000	0
Copper	mg/L	3	Less than 0.05
Soluble iron	mg/L	3	0.09
Soluble manganese	mg/L	3	0.18

* Facilities not in operation due to the end of production of adhesive tape for semiconductor assembly.

Amagasaki Plant ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Boiler	NOx	ppm	150	52.1
	Soot and dust	g/m^{3}N	0.05	Less than 0.002

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.8-8.6	7.1-8.3
BOD	mg/L	160	1.0
COD	mg/L	160	3.7
n-hexane extract (mineral oil)	mg/L	5	3.7
SS	mg/L	200	5.0

Water (released into sewers)

Item	Unit	Regulatory limit	Measured value
pH	–	5.7-8.7	6.7-7.8
BOD	mg/L	300	140
n-hexane extract (mineral oil)	mg/L	30	4.8
Suspended solids	mg/L	300	160

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

Air

Facility	Item	Unit	Regulatory limit	Measured value
Boiler	SOx	K-value	17.5	0.49
	NOx	ppm	180	81
	Soot and dust	g/m^{3}N	0.3	0.02

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.6~8.4	7.5~8.4
BOD	mg/L	50	3
COD	mg/L	50	5
n-hexane extract (mineral oil)	mg/L	2.5	Less than 1
Suspended solids	mg/L	20	3

Kyushu Sumitomo Bakelite Co., Ltd. ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Boiler	SOx	K-value	17.5	6.7
	NOx	ppm	180	53
	Soot and dust	g/m^{3}N	0.3	0.0069

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.6-8.6	7.2-7.6
BOD	mg/L	160	17
COD	mg/L	80	20
n-hexane extract (mineral oil)	mg/L	2.5	Less than 1
Suspended solids	mg/L	100	6

Yamaroku Kasei Industry Co., Ltd. ☑

Air
No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.8~8.6	6.8~7.4
BOD	mg/L	25	3
COD	mg/L	25	4
n-hexane extract (mineral oil)	mg/L	4	Less than 1
Suspended solids	mg/L	90	4
Phenols	mg/L	5	Less than 0.01

*In January 2016, the cooling water discharged by Yamaroku Kasei was found to contain levels of 1,4-Dioxane, which exceeded the regulatory limit, and the results of a water sample indicated that the groundwater source contained around the same concentration level of this pollutant. Yamaroku Kasei has never used 1,4-Dioxane before, but in order to avoid this pollutant from spreading to public waters, the company decided to stop the use and discharge of its well water and switch over to city water after consulting with government authorities.

S.B. Techno Plastics Co., Ltd. Head Office Plant ☑

Air
No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5-9	7.9
BOD	mg/L	600	2.4
n-hexane extract (mineral oil)	mg/L	5	Less than 2.5
Suspended solids	mg/L	600	Less than 5.0

*Wastewater is released into sewers.

S.B. Techno Plastics Co., Ltd. Kitsuregawa Plant ☑

Air
No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.8~8.6	7.0
BOD	mg/L	25	Less than 1
n-hexane extract (mineral oil)	mg/L	5	Less than 0.5
Suspended solids	mg/L	50	Less than 1

Akita Sumitomo Bakelite Co., Ltd. ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Boiler	SOx	K-value	3	0.33
	NOx	ppm	110	52
	Soot and dust	g/m^{3}N	0.09	Less than 0.01
Primary calcination furnace for anode materials	SOx	K-value	1	0.27 *1
	NOx	ppm	110	Less than 29 *1
	Soot and dust	g/m^{3}N	0.04	0.008 *1
Secondary calcinations furnace for anode materials	SOx	K-value	1	Less than 0.07 *1
	NOx	ppm	110	31 *1
	Soot and dust	g/m^{3}N	0.04	Less than 0.005 *1

Water

Item	Unit	Regulatory limit	Measured value
pH	–	6.0-8.5	7.4-7.7
BOD	mg/L	30	2.2
COD	mg/L	30	9.2
Suspended solids	mg/L	40	5.0
Phenols	mg/L	0.5	Less than 0.01
Copper	mg/L	1	Less than 0.01 *2
Cyanide	mg/L	0.1	Less than 0.01 *2
Lead and its compounds	mg/L	0.1	Less than 0.01 *2
Soluble manganese	mg/L	5	Less than 0.03 *2

*1 Calcination furnace for anode materials: Added to the agreement value with the government by reporting the specific facility for airborne soot and dust.

*2 Removed from the agreement value with the government by decommissioning the specific facility for water quality.

Hokkai Taiyo Plastic Co., Ltd. ☑

Air
No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.7-8.7	7.4
BOD	mg/L	300	2.2
n-hexane extract (mineral oil)	mg/L	Mineral oil:5 Animal/vegetable oil: 30	Mineral oil: Less than 1 Animal/vegetable oil: Less than 1
Suspended solids	mg/L	300	1

Overseas: China, Macau and Taiwan

Sumitomo Bakelite (Suzhou) Co., Ltd. ☑

Air No relevant facilities

Water

Item		Unit	Regulatory limit	Measured value
Outlet on the south side	pH	–	6.0-9.0	7.23
	COD	mg/L	500	310
	BOD	mg/L	300	114
	Suspended solids	mg/L	400	69
	Animal/vegetable oil	mg/L	100	3.84
	Petroleum	mg/L	20	0.06
	Ammonium nitrogen	mg/L	45	27.5
	Total phosphorus	mg/L	8	2.4
	Dissolved oxygen	mg/L	–	0.46

Note: There are no drainage-related regulatory limits for the industrial complex, but Sumitomo Bakelite (Suzhou) performs voluntary measurement for daily monitoring and management.

Sumitomo Bakelite (Shanghai) Co., Ltd. ☑

Air No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	6-9	7.94-7.95
COD	mg/L	500	126
BOD	mg/L	300	36
Suspended solids	mg/L	400	22
Animal/vegetable oil	mg/L	100	1.09
Ammonium nitrogen	mg/L	40	1.74

Note: There are no regulations imposed on water quality by the national or local governments, nor agreements with the regions, nor other such circumstances. However, when Sumitomo Bakelite (Shanghai) obtained ISO certification, it received guidance that the level of water emissions would be considered appropriately managed if the levels of the six items measured were kept within the required standards. Therefore, Sumitomo Bakelite (Shanghai) measures levels of the six items.

Sumitomo Bakelite (Nantong) Co., Ltd. ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
PR deodorizer	Phenols emission concentration	mg/m^{3}N	100	0.18
	Phenols emission speed	kg/h	0.1	0.004
PR deodorizer	Methanol emission concentration	mg/m^{3}N	190	Less than 2
	Methanol emission speed	kg/h	5.1	0.22
PR deodorizer	Formaldehyde emission concentration	mg/m^{3}N	25	0.16
	Formaldehyde emission speed	kg/h	0.26	0.003
PR deodorizer	Butanol emission speed	kg/h	0.61	0.004
PR deodorizer	MEK emission speed	kg/h	2.43	0.043
PR bug filter DC504	Particulates emission concentration	mg/m^{3}N	120	0.549
	Particulates emission speed	kg/h	3.5	0.002
PR bug filter DC503	Particulates emission concentration	mg/m^{3}N	120	0.45
	Particulates emission speed	kg/h	3.5	0.002
PR boiler	Soot and dust emission concentration	mg/m^{3}N	60	12.1
	SO_2 emission concentration	mg/m^{3}N	300	15.9
	NOx emission concentration	mg/m^{3}N	400	89.5
	Smoke blackness	–	1	Less than 1
P3 bug filter	Particulates emission concentration	mg/m^{3}N	120	17.1
	Particulates emission speed	kg/h	3.5	0.015
PM deodorizer	Phenols emission concentration	mg/m^{3}N	100	0.57
	Phenols emission speed	kg/h	0.1	0.006
PM deodorizer	Formaldehyde emission concentration	mg/m^{3}N	25	0.52
	Formaldehyde emission speed	kg/h	0.26	0.005
PM deodorizer	IPA emission speed	kg/h	10.32	0.001
	IPA emission concentration	mg/m^{3}N	–	Less than 0.3
PM deodorizer	Ammonia emission speed	kg/h	4.9	0.009
	Ammonia emission concentration	mg/m^{3}N	–	0.92
PM1 bug filter	Particulates emission concentration	mg/m^{3}N	120	0.535
	Particulates emission speed	kg/h	19.58	0.005
PM2 bug filter	Particulates emission concentration	mg/m^{3}N	120	0.92
	Particulates emission speed	kg/h	21.29	0.001
PM3 bug filter	Particulates emission concentration	mg/m^{3}N	120	0.481
	Particulates emission speed	kg/h	19.58	0.002
PM4 bug filter	Particulates emission concentration	mg/m^{3}N	120	0.731
	Particulates emission speed	kg/h	19.58	0.009
PM5 bug filter	Particulates emission concentration	mg/m^{3}N	120	0.631
	Particulates emission speed	kg/h	21.29	0.005
PM6 bug filter	Particulates emission concentration	mg/m^{3}N	120	1.303
	Particulates emission speed	kg/h	19.58	0.006
PM7 bug filter	Particulates emission concentration	mg/m^{3}N	120	3.176
	Particulates emission speed	kg/h	9.32	0.039
PM8 bug filter	Particulates emission concentration	mg/m^{3}N	120	1.753
	Particulates emission speed	kg/h	9.32	0.019
CEL purification furnace	Soot and dust emission concentration	mg/m^{3}N	200	9.5 *1
	SO_2 emission concentration	mg/m^{3}N	550	19.4 *1
	NOx emission concentration	mg/m^{3}N	240	38.9 *1
	Non-methane hydrocarbon emission concentration	mg/m^{3}N	120	1.05 *1
	Styrene emission speed	kg/h	6.5	4.2×10-7 *1
CEL oil absorber and separator	Particulates emission concentration	mg/m^{3}N	120	2.98 *1
	Particulates emission speed	kg/h	3.5	0.054 *1
	Non-methane hydrocarbon emission concentration	mg/m^{3}N	120	1.61 *1
	Non-methane hydrocarbon emission speed	kg/h	10	0.029 *1
	Styrene emission speed	kg/h	6.5	1.4×10-5 *1
ECR bug filter	Particulates emission concentration	mg/m^{3}N	120	1.001 *1
	Particulates emission speed	kg/h	3.5	0.005 *1
	Non-methane hydrocarbon emission concentration	mg/m^{3}N	120	1.23 *1
	Non-methane hydrocarbon emission speed	kg/h	10	0.007 *1
EC water jet tower	CET emission concentration	mg/m^{3}N	–	2.47 *1
	CET emission speed	kg/h	4.08	0.021 *1

Water

Item	Unit	Regulatory limit	Measured value
pH	–	6-9	7.32-7.38
COD	mg/L	500	31
BOD	mg/L	300	2.42
Ammonium nitrogen	mg/L	–	7.934
Phenols (volatization)	mg/L	2	0.017
Formaldehyde	mg/L	5	0.5
Phosphorus	mg/L	–	3.53
Methanol	mg/L	–	Less than 2
Suspended solids	mg/L	400	32
Petroleum	mg/L	20	– *2
LAS (anion surface active agent)	mg/L	20	– *2

* There are no standards for IPA emission concentration or ammonia emission concentration and CET emission concentration in the air, but they are measured for reference. There are no standard values for ammonium nitrogen, phosphorus, or methanol, but they are measured for reference by the Nantong City Environmental Monitoring Center.

*1 Deodorization/particulates of ECR, and CEL deodorization-related environmental values have been added starting from fiscal 2015.

*2 Since there were no application proposals in fiscal 2015 for new equipment introduction for petroleum or LAS, the monitoring center decided to regard the year as a normal inspection year and therefore performed no measurements.

Sumitomo Bakelite (Dongguan) Co., Ltd. ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value	
Electric power generator	SO_2	mg/m^3N	550	31.3	
		kg/h	1.3	0.15	*1
	Soot and dust	mg/m^3N	120	27.6	
		kg/h	1.75	0.13	*1
	Smoke blackness	level	1	0.5	
Boiler (Light oil fired boiler)	SO_2	mg/m^3N	300	68	
	NOx	mg/m^3N	300	229	
	Soot and dust	mg/m^3N	50	22.1	
	Smoke blackness	level	1	0.5	
Boiler (Natural gas fired boiler)	SO_2	mg/m^3N	50	37	*2
	NOx	mg/m^3N	200	169	*2
	Soot and dust	mg/m^3N	30	9.3	*2
	Smoke blackness	level	1	Level 0.5	*2
Cafeteria	Oily smoke	mg/m^3	2	Less than 0.1	*3
Milling	NMHC	mg/m^3N	120	3.55	
		kg/h	4.2	0.05	*1
Molding site	Benzene	mg/m^3N	1	Less than 1.5×10-3	
		kg/h	0.04	–	*4
	Toluene	mg/m^3N	Total concentration of toluene and xylene: 20 Toluene and xylene emission speed:0.11	0.221	
		kg/h		–	*4
	Xylene	mg/m^3N		6.89×10-2	
		kg/h		–	*4
	Total VOC	mg/m^3N	30	0.965	
		kg/h	0.32	1.27×10-3	
Sterilization plant	NMHC	mg/m^3N	4	0.58	
Factory exhaust	Soot and dust	mg/m^3N	1.0	3.1	*5

Water

Facility	Item	Unit	Regulatory limit	Measured value	
Rainwater reservoir	pH	–	6-9	6.93	*6
	Fluoride	mg/L	10	0.06	*6
Sewage treatment facility discharge	pH	–	6~9	6.34	*6
	Chromaticity	Times	40	Less than 2	*6
	Suspended solids	mg/L	60	Less than 4	*6
	CODcr	mg/L	90	10	*6
	BOD5	mg/L	20	4.9	*6
	Petroleum	mg/L	5	Less than 0.05	*6
Domestic wastewater	pH	–	6-9	6.26	
	Suspended solids	mg/L	60	Less than 4	*1
	COD	mg/L	90	13	*1
	BOD	mg/L	20	2.9	*1
	Ammonium nitrogen	mg/L	10	0.09	*3
	Phosphate	mg/L	0.5	Less than 0.01	*3
	Animal/vegetable oil	mg/L	10	Less than 0.05	*1

*1 Regulatory limits have become more stringent.

*2 As the regulatory limits for natural gas and light oil boilers are different, the figures are measured separately.

*3 Restored item for measurement

*4 As the concentration measurements are below the regulatory limit, rate measurement is not carried out

*5 The concerned facility has been kept far away from the residential site as the measured value exceeded the regulatory limit.

*6 Regulatory items to comply with have been added, on the occasion of the change of notification.

Sumitomo Bakelite Macau Co., Ltd. ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value	
Boiler / RTO (Exhaust gas combustion unit)	CO	mg/m^3	1,000	Less than 14/1	
	CO_2	%	–	13/11	
	NOx	mg/m^3	400/120	49/87	
	SOx	mg/m^3	500	Less than 590/5	*1
	Soot and dust	mg/m^3	100/120	73/11.5	
RTO	Non-Methane TVOC	mgC/Nm^3	50	16	

Water regular wastewater (factory disposal)

Item	Unit	Regulatory limit	Measured value	
pH	–	6~9	6.9~7.4	
Suspended solids	mg/L	60	7.5	
Color	TCU	–	20	
COD	mg/L	150	Less than 50	
BOD	mg/L	40	6.0	
Aluminum	mg/L	10	0.11	
Cadmium	mg/L	0.2	0.0012	
Lead	mg/L	1	Less than 0.008	
Copper	mg/L	1	Less than 0.015	
Chromium	mg/L	2	0.0052	
Iron	mg/L	2	0.73	
Manganese	mg/L	2	0.093	
Nickel	mg/L	2	Less than 0.01	
Zinc	mg/L	5	0.1	
Arsenic	mg/L	1	Less than 0.025	
Selenium	mg/L	0.5	Less than 0.05	
Mercury	mg/L	0.05	Less than 0.03	
Hexavalent chromium	mg/L	0.1	Less than 0.03	
Residual chlorine	mg/L	0.5	0.12	
Total residual chlorine	mg/L	1	0.34	
Phenols	mg/L	0.5	Less than 0.1	
Total cyanide	mg/L	0.5	Less than 0.05	
Sulfide	mg/L	1	Less than 0.1	
Sulfate	mg/L	2,000	6.5	
Phosphorus	mg/L	10	0.42	
Ammonia	mg/L	10	0.3	
Total nitrogen	mg/L	15	1.3	
Nitrate	mg/L	50	1.7	
Detergent	mg/L	2	Less than 2	
Oil and grease	mg/L	15	Less than 5	
Sulfite	mg/L	1	Less than 1	
α -Benzene	ug/L	2,000 (total for three substances at left = HCH)	Less than 0.5	
$\beta\gamma$ -Benzene	ug/L		Less than 1	
Δ- Benzene	ug/L		Less than 0.5	
Dichlorodiphenyltrichloroethane (DDT)	mg/L	0.2	Less than 0.1	
Aldrin	ug/L	2	Less than 0.5	
Endrin	ug/L	2	Less than 0.5	
Dieldrin	ug/L	2	Less than 0.5	
Pentachlorophenol (PCP)	mg/L	1	Less than 0.1	
Hexachlorobutadiene (HCBD)	mg/L	1.5	Less than 0.1	
HCB	mg/L	1	Less than 0.1	
Carbon tetrachloride (CBNTET)	mg/L	1.5	Less than 0.1	
Tetrachloroethylene	mg/L	1.5	Less than 0.1	
Chloroform	mg/L	1	Less than 1	
Total petroleum hydrocarbons	mg/L	1	Less than 1	
Acetaldehyde	mg/L	1	Less than 0.1	
Isodrin	ug/L	2	Not measured	*2

Water Sewage Drainage (dishwater)

Item	Unit	Regulatory limit	Measured value
pH	–	6.0-10.0	7
Temperature	℃	45	20.5
Color	TCU	80	60
Solid size	cm	5	Less than 1
Suspended solids	mg/L	1,000	68
Sulphate as SO4	mg/L	100	Less than 0.1
BOD	mg/L	1,000	35
COD	mg/L	2,000	120
Total surfactants	mg/L	75	Less than 2
Arsenic	mg/L	1	Less than 0.025
Cadmium	mg/L	0.2	Less than 0.001
Lead	mg/L	2.5	Less than 0.008
Copper	mg/L	5	0.023
Hexavalent Chromium	mg/L	0.1	Less than 0.03
Chromium	mg/L	2	Less than 0.002
Nickel	mg/L	4	Less than 0.01
Mercury	mg/L	0.05	Less than 0.03
Total cyanide	mg/L	1	Less than 0.05
Phenols	mg/L	10	Less than 0.1
Total petroleum hydrocarbons	mg/L	15	5
Chlorine-Total residual	mg/L	1	0.15
Oil and grease	mg/L	100	6.7

*1 Regulatory limits were exceeded due to a malfunctioning combustion gas burner, and adjusting the burner improved performance.

*2 According to the company that performs the measurements, if the three items (aldrin, endrin, and dieldrin) do not exceed the regulatory limit, the content of isodrin is virtually zero and, therefore, it is not measured.

Sumitomo Bakelite (Taiwan) Co., Ltd. ☑

Air No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5-9	7.3-8.3
COD	mg/L	480	280
SS	mg/L	240	143

Note: The standards are the regulatory limits of the industrial complex.

Vaupell China Molding & Tooling ☑

Air No relevant facilities

Water No relevant facilities

Overseas: Southeast Asia

SNC Industrial Laminates Sdn. Bhd. ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Exhaust gas combustion unit	SOx	g/m^{3}N	0.05	Less than 0.01
	NOx	g/m^{3}N	0.2	Less than 0.001
	Soot and dust	g/m^{3}N	0.1	0.018

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5.5-9.0	5.6-8.8
Temperature	℃	40	28
BOD	mg/L	50	22
COD	mg/L	200	185
Suspended solids	mg/L	100	24
Phenols	mg/L	1	Less than 0.1
Mercury	mg/L	0.05	Less than 0.001
Cadmium	mg/L	0.02	Less than 0.01
Hexavalent chromium	mg/L	0.05	Less than 0.01
Arsenic	mg/L	0.1	Less than 0.001
Cyanide	mg/L	0.1	Less than 0.01
Lead	mg/L	0.5	Less than 0.1
Trivalent chromium compounds	mg/L	1	Less than 0.01
Copper	mg/L	1	0.05
Soluble manganese	mg/L	1	0.04
Nickel	mg/L	1	0.14
Tin	mg/L	1	Less than 0.001
Zinc	mg/L	2	0.44
Boron	mg/L	4	Less than 0.1
Soluble iron	mg/L	5	0.48
Chloride	mg/L	2	Less than 1
Sulfur	mg/L	0.5	Less than 0.1
Oil and grease	mg/L	10	Less than 1
Formaldehyde	mg/L	2	Less than 0.1
Selenium	mg/L	0.5	Less than 0.001
Aluminum	mg/L	15	Less than 1
Silver	mg/L	1	Less than 0.05
Barium	mg/L	2	Less than 1
Fluorides	mg/L	5	4
Ammonium nitrogen	mg/L	20	Less than 1
Color tone	ADMI	200	22

Sumitomo Bakelite Singapore Pte. Ltd. ☑

Air

No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	6-9	7.4
Temperature	℃	45	27
BOD	mg/L	400	110
COD	mg/L	600	180
Suspended solids	mg/L	400	33
Total dissolved solids	mg/L	3,000	160
Phenols	mg/L	0.5	0.031
Chlorine	mg/L	1,000	46
Sulfate	mg/L	1,000	18
Sulfur	mg/L	1	0.01
Cyanide	mg/L	2	Less than 0.01
Linear alkyl sulfonate	mg/L	30	Less than 1
Oil and grease (hydrocarbon-based)	mg/L	60	1.2
Oil and grease (non-hydrocarbon-based)	mg/L	100	3.5
Caustic alkalinity	mg/L	2,000	Less than 1
Fluorides	mg/L	15	0.58
Arsenic and its compounds	mg/L	5	Less than 0.05
Barium	mg/L	10	Less than 0.05
Tin	mg/L	10	Less than 0.05
Soluble iron	mg/L	50	0.66
Beryllium	mg/L	5	Less than 0.05
Boron	mg/L	5	Less than 0.05
Soluble manganese	mg/L	10	Less than 0.05
Cadmium	mg/L	1	Less than 0.01
Chromium	mg/L	5	Less than 0.05
Copper	mg/L	5	Less than 0.05
Lead	mg/L	5	Less than 0.05
Mercury	mg/L	0.5	Less than 0.0005
Nickel	mg/L	10	Less than 0.05
Selenium	mg/L	10	Less than 0.05
Silver	mg/L	5	Less than 0.05
Zinc	mg/L	10	0.06
Total metals (toxic)	mg/L	10	Less than 0.1
Dichloromethane	mg/L	0.01	Not detected
Trichloroethylene	mg/L	0.01	Not detected
1,1,1-Trichloroethane	mg/L	0.01	Not detected
Carbon tetrachloride	mg/L	0.01	Not detected
1,1,2-Trichloroethane	mg/L	0.01	Not detected
Toluene	mg/L	0.01	Not detected
Styrene	mg/L	0.01	Not detected
Methyltert-butylether	mg/L	0.01	Not detected
Nonane	mg/L	0.01	Not detected
Decane	mg/L	0.01	Not detected
Tetrachloroethylene	mg/L	0.01	Not detected
Ethylbenzene	mg/L	0.01	Not detected
Xylene(o,m,p)	mg/L	0.01	Not detected
Hexane	mg/L	0.01	Not detected
Heptane	mg/L	0.01	Not detected
Octane	mg/L	0.01	Not detected
1,2,4-Trimethylbenzene	mg/L	0.01	Not detected
Furan	mg/L	0.01	Not detected
THF(Tetrahydrofuran)	mg/L	0.05	Not detected
DMF(N,N-Dimethylformamide)	mg/L	0.05	Not detected
Benzene	mg/L	0.01	Not detected
Turpentine	mg/L	0.01	Not detected
Polybrominateddiphenylether	mg/L	0.1	Not detected
Isobutyl alcohol	mg/L	0.05	Not detected
Methylethylketone	mg/L	0.01	Not detected
Methylisobutylketone	mg/L	0.01	Not detected
Isopropylether	mg/L	0.01	Not detected
Diethylether	mg/L	0.01	Not detected
Dimethylsulphide	mg/L	0.01	Not detected
Dimethylsulphoxide	mg/L	0.2	Not detected

SumiDurez Singapore Pte. Ltd. ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Bag filter	Soot and dust	mg/Nm^3	100	44

Water

Item	Unit	Regulatory limit	Measured value
Temperature	℃	45	21.5
pH	–	6-9	7.3
Colour,Lovibond units	–	7	0.2 *1
BOD	mg/L	50	5.4
COD	mg/L	100	9
TSS	mg/L	50	6
Sulfur	mg/L	0.2	Less than 0.2
Cyanide	mg/L	0.1	Less than 0.02
Linear alkyl sulfonate	mg/L	15	Less than 0.1
Oil and grease (hydrocarbon-based)	mg/L	10	Less than 10.0
Oil and grease (non-hydrocarbon-based)	mg/L	10	Less than 10.0
Arsenic and its compounds	mg/L	0.1	Less than 0.05
Barium	mg/L	2	0.01
Soluble iron	mg/L	10	0.1
Boron	mg/L	5	0.2
Soluble manganese	mg/L	5	Less than 0.05
Phoenols	mg/L	0.2	0.02
Cadmium	mg/L	0.1	Less than 0.01
Chromium	mg/L	1	Less than 0.05
Copper	mg/L	0.1	Less than 0.01
Lead	mg/L	0.1	Less than 0.05
Mercury	mg/L	0.05	Less than 0.05
Nickel	mg/L	1	Less than 0.01
Selenium	mg/L	0.5	Less than 0.05
Silver	mg/L	0.1	Less than 0.01
Zinc	mg/L	1	0.7
Total metals (toxic)	mg/L	1	0.7
Free chlorine	mg/L	1	Less than 0.1
Phosphate (PO4)	mg/L	5	Less than 0.1

*These substances were added in fiscal 2015.

P.T. Indopherin Jaya ☑

Air

Item	Unit	Regulatory limit	Measured value
Carbon monoxide (CO)	mg/Nm^3	100	1,046 *1
Nitrogen dioxide (NO_2)	mg/Nm^3	300	29.1
Sulfur dioxide (SO_2)	mg/Nm^3	250	20.7
Total particles	mg/Nm^3	50	36.4
Lead (Pb)	mg/Nm^3	5	0.1471
Hydrogen fluoride (HF)	mg/Nm^3	10	13.69 *1
Hydrogen chloride (HCL)	mg/Nm^3	70	20.65
Mercury (Hg)	mg/Nm^3	0.2	Less than 0.0007
Cadmium (Cd)	mg/Nm^3	0.2	0.0125
Arsenic (As)	mg/Nm^3	1	0.00126
Chromium (Cr)	mg/Nm^3	1	0.5848
Thallium (Tl)	mg/Nm^3	0.2	0.00447
Total hydrocarbon (HC)	mg/Nm^3	35	Less than 0.0035
Opacity	%	10	0

Water

Item	Unit	Regulatory limit	Measured value
pH	—	6-9	6.3-8.4
BOD	mg/L	100	15.43
COD	mg/L	300	37.27
Suspended solids	mg/L	100	32.2
Total nitrogen	mg/L	30	11.56
Phenols	mg/L	1	0.2

*1 Regulatory limits were exceeded due to a malfunctioning combustion gas burner, and adjusting the burner improved performance.

Item	Unit	Regulatory limit	Measured value
Iron	mg/L	10	0.1669
Manganese	mg/L	4	Less than 0.003
Barium	mg/L	4	0.1889
Copper	mg/L	4	0.0275
Zinc	mg/L	10	0.0978
Chromium compounds	mg/L	1	0.0379
Cadmium	mg/L	0.1	Less than 0.0012
Mercury	mg/L	0.004	Less than 0.0001
Lead	mg/L	0.2	0.0811
Tin	mg/L	4	Less than 0.25
Arsenic	mg/L	0.2	Less than 0.15
Selenium	mg/L	0.1	Less than 0.06
Nickel	mg/L	0.4	0.0853
Cobalt	mg/L	0.8	0.0211
Cyanogen	mg/L	0.1	0.01
Hydrogen sulfide	mg/L	0.1	0.011
Fluorine	mg/L	4	0.51
Ammonium nitrogen	mg/L	2	Less than 0.02
Nitrate-nitrogen	mg/L	40	0.01
Nitrite-nitrogen	mg/L	2	0.009

P.T. SBP Indonesia ☑

Air
No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	—	5.5-9.5	8.15
Temperature	℃	40	31.9
BOD	mg/L	200	3.96
COD	mg/L	400	10
Suspended solids	mg/L	400	4
Dissolved solids	mg/L	4,000	288

Overseas: North America

Sumitomo Bakelite North America, Inc. (Manchester Plant) ☑

Air

Facility	Item	Unit	Regulatory limit	Measured value
Long fiber process (Drying process)	Acetone emissions	tons/year	40	14.1
Condor process (Drying process)	SOx	tons/year	0.002	0.001
	NOx	tons/year	0.38	0.14
	CO	tons/year	0.32	0.12
	VOC emissions	tons/year	15	3.57
	Soot and dust	tons/year	1.23	0.11
Site total	VOC emissions	tons/year	45	15.54
	HAPs	tons/year	25	0.072

Water

Facility	Item	Unit	Regulatory limit	Measured value
NCCW discharge (noncontact cooling water)	Chlorine	μg/L	6.5	Not detected
	Copper	μg/L	4.9	Not detected
	Flow	MM gal/day	0.45	0.223
	Lead	μg/L	0.79	Not detected
	Oil and grease	mg/L	5	Not detected
	pH	—	6.0~9.0	7.85~8.48
	Temperature	F	85	64.8
	Suspended solids	mg/L	20	Not detected
	Aquatic toxicity - 48 hours	%	>90	98
Storm water discharge	Zinc	mg/L	0.16	0.097
	Oil and grease	mg/L	5	Less than 1.4
	Nitrogen	mg/L	2.3	0.71
	Phosphorus	mg/L	0.4	0.18
	Suspended solids	mg/L	90	32

* Standards are recommended target values. Even if measured values exceed the standards, no action is required.
* COD from the storm water discharge is excluded from the items subject to measurement.

Durez Corporation (Kenton Plant) ☑

Air

Item	Unit	Regulatory limit	Measured value
Total emissions of particulate matter	tons/year	50	34.324

* Particulate matter includes particles, volatile organic compounds, SO2, NOx, and CO.

Water

Item	Unit	Regulatory limit	Measured value
Phenols	μg/L	20	Less than 10
pH	—	6.5-9.0	7.0~8.4
Ammonia-N	mg/L	Less than 12 (winter) Less than 2.25 (summer)	1.08(winter) 1.34 (summer)
CBOD	mg/L	Less than 38 (winter) Less than 15 (summer)	6.3 (winter) Less than 3.0 (summer)
Oil and grease	mg/L	10	6.8
Total phosphorus	mg/L	—	0.9
Dissolved solids	mg/L	—	1,240
Suspended solids	mg/L	45	14
Strontium	μg/L	30,000	5920

Durez Corporation (Niagara Falls Plant) ☑

Air
No relevant facilities

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5-10	6-8 *1
Phenols	lbs./day	30	18.480
Flow	MM gaL/day	0.1	0.054
Suspended solids	lbs./day	75	11.95
Soluble organic carbon	lbs./day	800	340.35
Phosphorous	lbs/day	17	0.11

*1 The pH of the drainage water is controlled by neutralizing the pH using caustic soda and controlled between 6 and 8.

Durez Canada Co., Ltd. ☑

Air

Item	Unit	Regulatory limit	Measured value
Phenol	kg/year	21,319	4,502
Formaldehyde	kg/year	504	59
NOx	kg/year	93,830	2,674
Ammonia	kg/year	36,881	26,066
Ethanol	kg/year	672,451	40,028

Water

Item	Unit	Regulatory limit	Measured value
Chloride	mg/L	3,000	119
pH	–	6~11	8.97
Total phosphorus	mg/L	10	4.58
Sulfate	mg/L	1,500	109
BOD	mg/L	300	189
Kjeldahl nitrogen	mg/L	100	29.8
Suspended solids	mg/L	350	233
Phenols	mg/L	1	0.645

Promerus LLC ☑

Air

Item	Unit	Regulatory limit	Measured value
VOC emissions	t/year	1	0.057

Water
No relevant facilities

Overseas: Europe

Sumitomo Bakelite Europe N.V. ☑

Air

Item	Item	Unit	Regulatory limit	Measured value
Boiler	NOx	mg/m^3N	150	111
	CO	mg/m^3N	100	Less than 5

Water

Item	Unit	Regulatory limit	Measured value
pH	–	6~9.5	6.8~8.5
COD	mg/L	125	11
SS	mg/L	1,000	2.1
TOC	mg/L	50	Less than 2
Phenols	μg/L	3	Less than 0.5
Total nitrogen	mg/L	10	Less than 2
Total phosphorus	mg/L	2	Less than 0.15
Adsorbable organic halogen (AOX)	μg/L	200	Less than 20
2,3,5trimethylphenol	μg/L	0.1	Less than 0.04
2,4Dimethylphenol	μg/L	0.1	Less than 0.02
2 Methylphenol	μg/L	0.1	Less than 0.3
3 Methylphenol	μg/L	0.1	Less than 0.3
4 Methylphenol	μg/L	0.3	Less than 0.2
Nonylphenol	μg/L	1.5	Less than 1.0
Octylphenol	μg/L	0.3	Less than 0.1
BisphenolA	μg/L	3	Less than 0.05
Arsenic	μg/L	50	Less than 15
Chromium	μg/L	100	Less than 10
Nickel	μg/L	60	Less than 10
Chloride	mg/L	500	220

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

Air

Item	Item	Unit	Regulatory limit	Measured value
Boiler	SOx	mg/m^3N	4,300	Not detected
	NOx	mg/m^3N	450	186
	CO	mg/m^3N	100	122

Water

Item	Unit	Regulatory limit	Measured value
pH	–	5,5-11	7.2-8.9
COD	mg/L	2,500	1,220
Suspended solids	mg/L	1,500	440
Phenols	mg/L	2	Less than 0.5
Conductivity	μs/cm	13,000	4,500
Total chlorine	mg/L	3,500	663
Total sulfides	mg/L	1,000	998
Total phosphorus	mg/L	75	4

Vyncolit N.V. ☑

Air

Item	Unit	Regulatory limit	Measured value
Phenols	mg/m³N	20	41 *
Ammonia	mg/m³N	35	38 *
Formaldehyde	mg/m³N	20	1.46
Total dust	mg/m³N	150	1.12

Water

Item	Unit	Regulatory limit	Measured value
Zinc	mg/L	1.4	0.489
Copper	mg/L	0.2	Less than 0.020
Phenol	mg/L	0.4	0.14
Molybdenum	mg/L	5	0.02
Total phosphorus	mg/L	14	Less than 0.15

* D-line: The pre filter is installed. Unfortunatelly it is not enough. TheD-line is a production line with a considerable capacity. We have to change the filter bags of the dust filter more frequently. We have changed our method. Instead of waiting for the results from the measurements, we will change the filter bags when we have reached a certain production volume (for D-line: 2500T)

Vaupell Northwest Molding & Tooling ☑

Air No relevant facilities

Water No relevant facilities

Vaupell Northeast Molding & Tooling ☑

Air No relevant facilities

Water No relevant facilities

Vaupell Midwest Molding & Tooling ☑

Air No relevant facilities

Water No relevant facilities

Vaupell Rapid Solutions ☑

Air No relevant facilities

Water No relevant facilities

Russell Plastics Technology Co., Inc. ☑

Air No relevant facilities

Water No relevant facilities

Transfer and Release of Substances Subject to the PRTR Law (Fiscal 2015 Performance) ☑

The amounts of the 39 substances subject to the PRTR Law (PRTR system*) 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)	15.9					
18	Aniline	215.2				0.4	
31	Antimony and its compounds	55.2				2.0	
37	Bisphenol A	214.9				0.1	
51	2-ethylhexanoic acid	3.2					
53	Ethyl benzene	25.8				7.2	
56	Ethylene oxide	0.9					
57	Ethylene glycol monoethyl ether	11.9					
71	Ferric chloride	4.1				4.1	
78	2,4-xylenol	18.1					
79	2,6-xylenol	7.6					
80	Xylene	37.4				9.7	
82	Silver and its water-soluble compounds	17.3					
86	Cresol	1,383.8				0.8	
136	Salicylaldehyde	2.0					
207	2,6-di-tert-butyl-4-cresol	3.7					
218	Dimethylamine	2.0					
232	N, N-dimethyl formamide	358.1	1.7			12.5	
239	Organic tin compounds	26.2				1.9	
258	Hexamethylenetetramine	1,053.3				22.8	
265	Tetrahydromethylphthalic anhydride	274.2				0.2	
277	Triethylamine	7.9					
296	1,2,4-trimethylbenzene	1.4					
300	Toluene	73.0	7.7			5.4	
302	Naphthalene	2.0					
309	Nickel compounds	0.8					
320	Nonylphenol	6.4					
330	Bis (1-methyl-1-phenylethyl) = peroxide	4.9					
349	Phenol	21,277.5	2.4			32.0	
352	Diallyl phthalate	5.2					
355	Bis (2-ethylhexyl) phthalate	4.1					
375	2-butenal	1.1					
392	n-hexane	2.5	0.4			0.3	
401	1,2,4-benzene tricarboxylic acid 1,2-anhydride	14.0				1.1	
405	Boron and its compounds	13.1				1.4	
411	Formaldehyde	8,457.0	0.5			5.9	
		(10,104)	0.4				
413	Phthalic anhydride	1.3				0.1	
438	Methylnaphthalene	21.9	0.1				
448	Methylenebis (4, 1-phenylene) = diisocyanate	12.1					

☐ Specific Class 1 designated chemical substances * See the glossary on page 79.

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	Participates in the polyvinyl chloride sheet subcommittee, corrugated sheet subcommittee, PC sheet 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 Law 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)

Glossary for the CSR Report 2016

■ BOD (pages 68 to 76)

BOD is the acronym for Biochemical Oxygen Demand, which is a measure used in water quality analysis. This measure indicates the required oxygen level for microorganisms to oxidize and decompose organic matters in water in a given amount of time.

■ COD (pages 36, 39, and 68 to 76)

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 45-47)

Acronym for customer satisfaction.

■ EICC Code of Conduct (pages 25 an 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.

■ GHS (page 44)

Acronym for the Globally Harmonized System of Classification and Labeling of Chemicals.

■ GRI (pages 2 and 80 to 81)

Acronym for Global Reporting Initiative, an international NGO. The organization publishes the GRI Sustainability Reporting Guideline.

■ 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.

■ MFCA (page 37)

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.

■ NOx (pages 36, 39 and 68 to 76)

Nitrogen Oxide

■ Pollutant Release and Transfer Register (PRTR) system (page 77)

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 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.

■ SDS (pages 41 and 44)

Acronym for Safety Data Sheet. This sheet contains the safety information regarding chemical materials, and is attached with products on their delivery to other businesses.

■ SOx (pages 36, 39, and 68 to 76)

Sulfur Oxide

■ 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.

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.

■ Stakeholders (page 6, 8 and 28 to 29)

Persons and organizations concerned. People who have an interest in any decisions made or activities conducted by an organization.

■ 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.

■ 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)

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.

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.	53
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	77
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.	3,82
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.	81
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	81-82
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	81-82
G4-22	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	37,66
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.	9,14-16,18-24
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.	3,80-83
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.	83
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 79.

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
G4-EN4	Energy consumption outside the organization	67
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	40
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)	36,38,66
G4-EN16	Indirect greenhouse gas (GHG) emissions (Scope 2)	36,38,66
G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	38,67
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	22
Compliance	[Boundary] ● Our group	
G4-DMA		31,35
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	38,67
Environment-Overall	[Boundary] ● Our group	
G4-DMA		35,38
G4-EN31	Total environmental protection expenditures and investments by type	36

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
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
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	53
Training and Education	[Boundary] ● Our group	
G4-DMA		50
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	48,50-52
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
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

Consolidated subsidiaries (39)

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.
Thanxs Trading Co., Lt.
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.
- Sumitomo Bakelite Europe (Barcelona), S.L.U.

Non-consolidated companies (10) *1

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.

Affiliated companies accounted for by the equity method (1) *2

P.T. Pamolite Adhesive Industry

Affiliated companies not accounted for by the equity method (5) *3

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	12	0	3	3	18
Overseas	27	1	7	2	37
Total	39	1	10	5	55

*1Sano Plastics Co., Ltd. was liquidated on June 14, 2016.
*2 Nippon Denkai, Ltd. sold all of its shares on July 29, excluding it from the scope of the company as an equity-method affiliate.
*3 Akita EV Bus LLP was established on April 1, 2016.

Independent Assurance Report

To the President and CEO 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, 2015 to March 31, 2016 (the "Indicators") included in its CSR Report 2016 (full online version) (the "Report") for the fiscal year ended March 31, 2016, 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 requirements.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
October 19, 2016

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 of an overseas business site in progress (Sumitomo Bakelite [Nantong] Co., Ltd.)

Audit of a domestic business site in progress (Akita Sumitomo Bakelite)

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

"I decided to portray lively children playing together using Sumitomo Bakelite's corporate color of pea green as the main color tone. This illustration conveys the company's commitment to preserving nature and providing a better tomorrow to future generations."

UD FONT

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

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