JSR Corporation

MATERIALS INNOVATION

CORPORATE PROFILE

JSR

Contributing to Society by Creating Materials for Tomorrow

Using the power of chemistry, JSR Group is continually exploring the possibilities of existing materials and potential applications for new materials. Our mission is to contribute to social good by supplying materials to serve future generations and providing new value today for our customers and society.

INITIAL PHASE | EXPLORATORY DIVERSIFICATION PHASE | ACCELERATED DIVERSIFICATION PHASE

1960s

Launching Synthetic Rubber Production in Japan

In 1957, JSR was established as a statutory company. In April 1960, JSR successfully launched styrene-butadiene rubber (SBR) production at its plant in Yokkaichi, Mie Prefecture. In the years that followed, the company introduced various other types of synthetic rubber and became the leading rubber manufacturer in Japan. In 1969, it became a private company.

1970s

Surviving a Deep Slump

Crude oil prices soared as a result of two oil crises. Demand fell as the export competitiveness of synthetic rubber was eroded by the rapidly rising value of the yen. JSR responded by improving energy efficiency in the company's plants and centralizing production. We also began to diversify the business portfolio.

1980s

Creating New Businesses

In 1981, JSR entered into the electronic materials field, which allowed us to expand with the rapidly growing IT sector by supplying new materials. This supported diversification away from a business structure that heavily depended on the petrochemical product business. Parallel to this, we aimed at enhancing the added value of our petrochemical products.

1990s

Building a Global Production Structure

Amidst the trend toward borderless markets and rising competition from Asian emerging countries, JSR invested more heavily in its electronic materials business. New photoresist plants in Europe and North America created a three-region production structure. We also established production capacity for display materials in Japan, South Korea and Taiwan.
In 1997, the company name was changed from "Japan Synthetic Rubber Corporation" to "JSR Corporation."

In 1957, Japan was finishing postwar reconstruction and starting a period of high economic growth. Petrochemical products were essential for industrial development. JSR Corporation (formerly Japan Synthetic Rubber Co., Ltd.) was established as a national policy concern to pioneer synthetic rubber production in Japan. We later applied our polymer technologies in the fine chemicals sector to produce semiconductor materials, display materials, and other products. JSR is currently taking up the challenge of materials innovation applicable in new fields, including the life sciences, environment and energy that make use of the acquired technologies in the fine chemicals sector. These are under development as future JSR core businesses.

Contents

BUSINESS ENHANCEMENT PHASE | **ACTIVATION TOWARD GROWTH** | **PROGRESS OF GLOBALIZATION** | **SUSTAINABLE GROWTH**

2000s

Expansion of Fine Chemicals Business

JSR significantly increased its presence in global markets through collaboration with leading manufacturers. The business structure was transformed by expanding the fine chemicals, mainly in materials for semiconductors and display panels.

2010s

Aiming for Sustainable Growth

We have embarked on a three-stage series of mid-term plans to realize our vision for 2020. The JSR20i3* three-year mid-term business plan, launched in 2011, aimed to extend earlier progress by differentiating the petrochemical products business and fine chemicals business while also nurturing and investing in the life sciences and environment and energy as strategic businesses.

2014

Leading to Results

The JSR20i6* three-year mid-term business plan launched in 2014, following up on the results achieved during JSR20i3*, where we progressed in the globalization of our solution polymerization styrene-butadiene rubber (elastomers business) for fuel-efficient tires and our semiconductorand display materials businesses. We also established our life sciences business as a new pillar alongside our petrochemical products business and our fine chemicals business. We also established our life sciences business as a new pillar alongside our petrochemical products business and our fine chemicals business.

2017

Strengthening our competitiveness for the future

We launched a new three-year mid-term business plan, JSR20i9*. We firmly established our SSBR, semiconductor materials and life sciences businesses as our three pillars to drive earnings and promote profit expansion. We also focused on improving productivity and competitiveness through digitalization and innovation.

*The "i" in "JSR20i3" (twenty-thirteen), "JSR20i6" (twenty-sixteen) and "JSR20i9"(twenty-nineteen) emphasizes the "Innovation" to realize Materials Innovation, which is the heart of our corporate mission.

Materials that Support Society

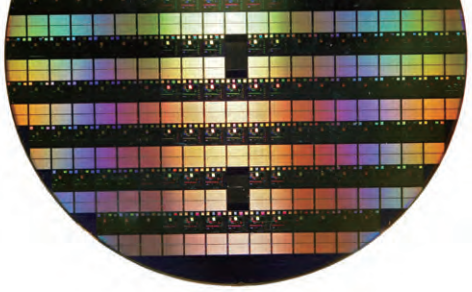
JSR Group products are used in a vast range of everyday products, materials and components including tires and other products for automobiles, LCD televisions, smartphones and tablet PCs.

ELASTOMERS BUSINESS

We supply high-quality products including the synthetic rubbers that were among the our first products, thermoplastic elastomers that have the characteristics of both rubber and plastic, and emulsions developed from technologies based on the polymerization of our synthetic rubbers and plastics. We also supply a wide range of functional materials, including industrial-use particles and battery materials.

PLASTICS BUSINESS

In this area, we focus primarily on ABS resins used for a wide range of purposes, including automobile parts, household appliances and building materials.



DIGITAL SOLUTIONS BUSINESS

Using technologies cultivated through the development of polymer materials, JSR develops and supplies many products with top shares at the global level, including lithography materials, chemical mechanical planarization (CMP) materials and packaging materials, which are essential to the production of semiconductor chips. We also supply LCD materials and next-generation display materials for use in the production of LCD and organic EL flat panel displays. We also supply UV-curable resins used in 3D printing.

LIFE SCIENCES BUSINESS

In this area, with the expanded range of global strategic partners from both inside and outside the JSR Group, we focus on materials targeting in-vitro diagnostics, research reagents and biopharmaceutical manufacturing.

OTHER BUSINESSES

Among other activities, we conduct next-generation research supply lithium-ion capacitors, electrical storage devices that enable effective use of energy.

Message from Top Executives

We pursue the challenge of innovation with thought for the society of tomorrow

Transforming our business structure with a pioneering approach to advanced technology

When JSR was established in 1957 as Japan Synthetic Rubber Co., Ltd., its mission was to launch synthetic rubber manufacturing in Japan. Since then our business domain has grown to include other areas, such as emulsions, synthetic resins, semiconductor materials, and display materials, using pioneering advanced technology. On the foundation of our original technologies, we are transforming our business structure while fulfilling social needs by combining cultivated technologies and people found throughout our petrochemical products and the fine chemicals businesses with our global group capabilities.

Through activities that support our corporate mission, we are helping to create a sustainable society

We are committed to pursuing the vast potential represented by innovative materials. This is how we create value and contribute to society, true to our Corporate Mission—"Materials Innovation—We create value through materials to enrich society, people and the environment."

JSR materials innovation continues to respond to changes in social needs

JSR Group's materials are used to produce a vast range of everyday products including materials for tires, home electronics, microchips and display panels. Today we are also involved strategically in new businesses that aim to respond to society's deeper needs in the life sciences, environment and energy fields. We continue to use Materials Innovation to address challenges in the global human community.

Representative Director, CEO

Eric Johnson

Representative Director, President, COO, and CTO

Nobuo Kawahashi

THE JSR VISION

We launched a new three-year mid-term business plan, JSR20i9. We firmly established our SSBR, semiconductor materials and life sciences businesses as our three pillars to drive earnings and promote profit expansion. We also focused on improving productivity and competitiveness through digitalization and innovation.

Targets of JSR20i9 by Business Area

Elastomers Business

- **Solution polymerization SBR (SSBR):** expand global sales

Plastics Business

- Expand sales in markets overseas through integration of ABS resin business with other companies

Digital Solutions Business

- **Semiconductors Materials:** maintain high market share in leading-edge lithography materials and expand sales of peripheral materials such as CMP materials, packaging materials and advanced cleans solutions
- **Display Materials:** expand sales in the Chinese market where continued high growth is expected

Life Sciences Business

- Expand business primarily in the biopharmaceutical field where market growth is expected

Measures for Digitalization

- Significantly improve productivity through measures such as the use of AI and robots to improve R&D efficiency, and ICT and IoT technologies to improve manufacturing efficiency.
- Improve operational efficiency for growth after 2020 and search for new businesses as we focus on fostering our human resources which are essential to our future.

JSR20i3

Phase I

Results of JSR20i3

- Clarification of the strategy toward growth
- Decision of resource investment

JSR20i6

Phase II

Results of JSR20i6

- Progress of globalization
- Restructuring of the strategic business and focusing on the life sciences business

We will achieve sustainable growth to fulfill our responsibility to all our stakeholders

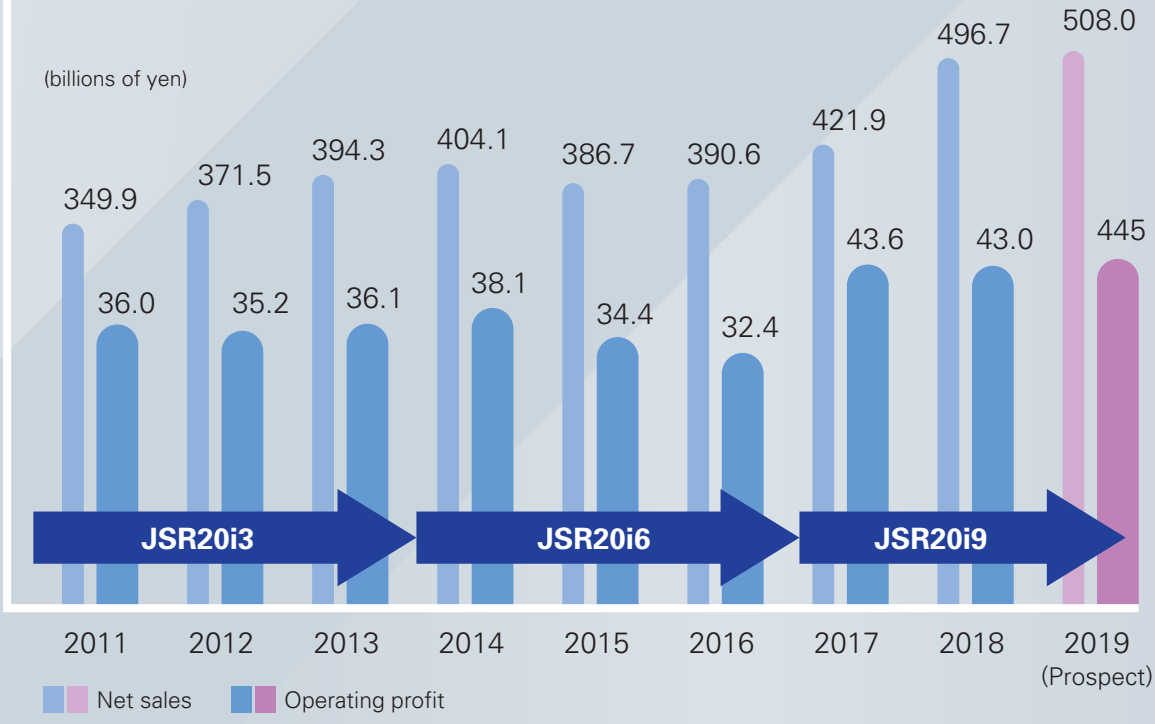
JSR20i9

Phase III

Strengthening Competitiveness for the Future

Mission of JSR20i9

- Solid earnings growth by SSBR, semiconductors materials and the life sciences business



Nore: From FY ended March 2018, IFRS (International Accounting Standard) has been applied.

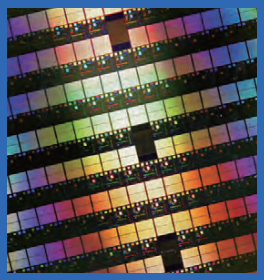
Product Outline

JSR Group Materials

JSR Group materials are used for producing a wide variety of products. We will focus our accumulated resources, including our technology, our people and our global group capabilities, on the creation of materials that can produce new value while contributing to society's needs.

ELASTOMERS BUSINESS

PLASTICS BUSINESS

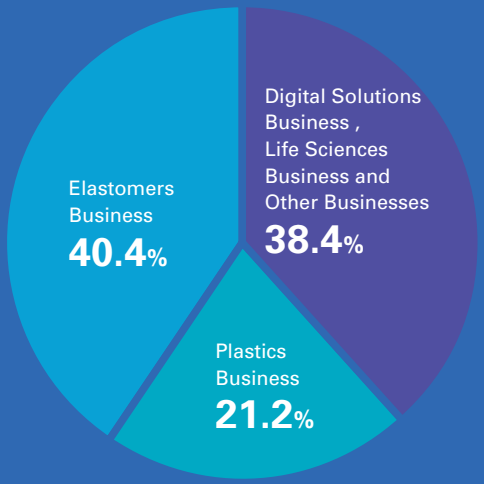


DIGITAL SOLUTIONS BUSINESS

LIFE SCIENCES BUSINESS

OTHER BUSINESSES

Revenue Breakdown by Business Segment
(FY2018)



ELASTOMERS BUSINESS

As an integrated manufacturer of synthetic rubber, we offer a line-up of global standard products

Since creating the first Japanese-made synthetic rubber in 1960, JSR has supplied an extensive range of products to serve the expansion of society and industry. As a synthetic rubber manufacturer, we provide rubber and plastic products ranging from tire rubber to thermoplastic elastomers to enhance the quality of daily living. We also aim to become a world-leading company in solution polymerization styrene-butadiene rubber (SSBR) for fuel-efficient tires.

*The Elastomers business operates as a coalition of Group companies such as ELASTOMIX CO., LTD. and JSR Trading Co., Ltd.

General-purpose Synthetic Rubber

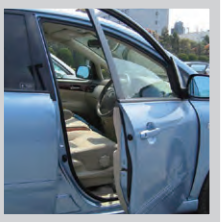
SSBR's special molecular structure imparts good workability and dynamic performance for fuel-efficient and high-performance tires. ESBR has excellent tensile strength and abrasion resistance. It is used for the tread portion of car tires and other applications. Polybutadiene rubber (BR) has good low-temperature properties and high repulsion elasticity and is used as the feedstock for heavy-vehicle tires and for golf balls. JSR also supplies products for medical applications.

Special-purpose Synthetic Rubber

Nitrile rubber (NBR) is highly resistant to heat, oil, and abrasion in applications such as automobile fuel hoses, seals, and rubber rollers, among others. Ethylene propylene rubber (EPM/EPDM) is used for automobile seal and hoses, electrical wires, thermal belts, sealing, modifying of synthetic rubber, and other applications. Butyl rubber (IIR) has outstanding gas impermeability and is used for inner tires, liners and medical applications.

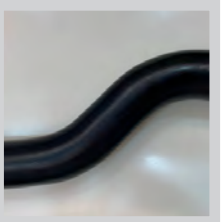
Thermoplastic Elastomers (Butadiene Type/Styrene Type)

JSR RB is syndiotactic 1, 2-polybutadiene, developed with unique technology. It is used world wide for various applications such as shoe soles, medical tubes and films. JSR TR/SIS is styrenic thermoplastic elastomers. It is used as a resin modifier for asphalt, adhesives and flexible printing plates. JSR DYNARON is a hydrogenated polymer with a unique molecular structure. It is used as a protective film because of its superior compatibility and adhesion with polyolefin.



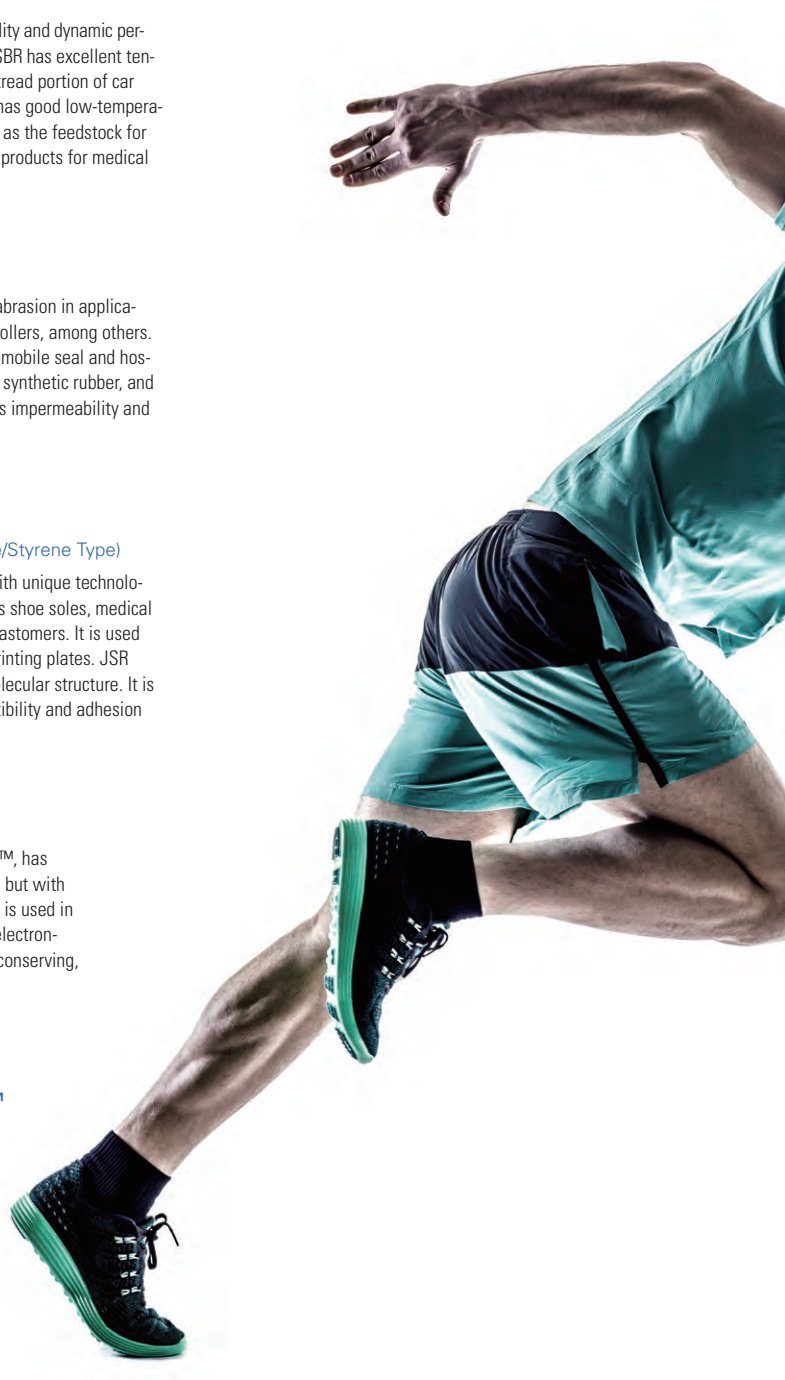
Thermoplastic Elastomers (Olefin Type)

The olefin-type thermoplastic elastomer, JSR EXCELINK™, has strength and elasticity comparable to vulcanized rubber, but with the same excellent workability of thermoplastic resin. It is used in place of vulcanized rubber in automobiles, appliances, electronics, and other products. This is an energy and resource-conserving, environment-friendly material that can be recycled.



Biofuel compatible material FUELOCK™

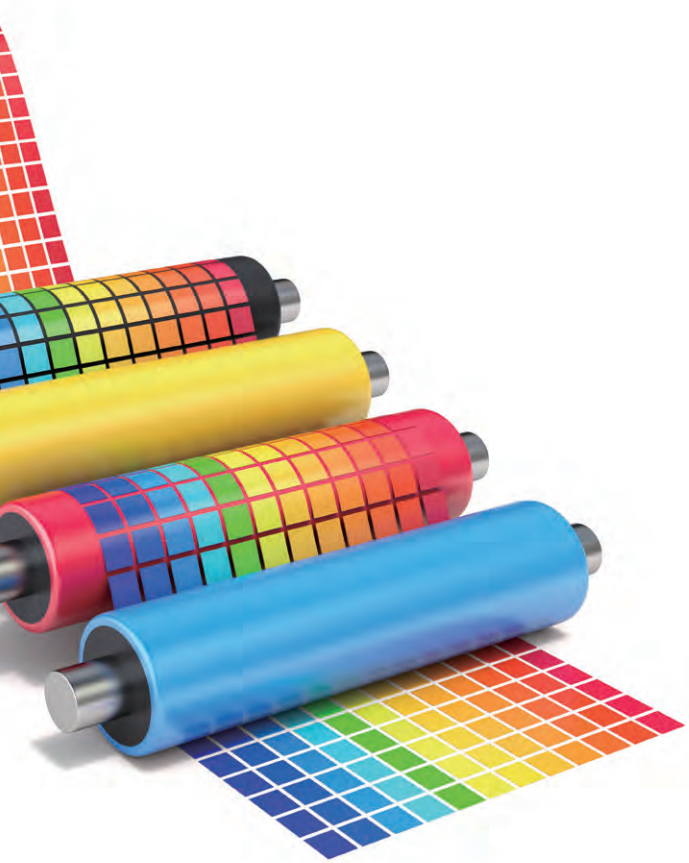
FUELOCK™ is a high performance polymer alloy suitable for automotive fuel hoses. It also has material properties suitable for bioethanol-containing gasoline, demand of which has increased in recent years due to rising environmental awareness. It can meet teh strictest concentration ratio E20 (gasoline:ethanol=80:20). It also contributes to the reduction of environmental impact including manufacturing aspects, such as excellent process ability and weight reduction.



Our high-performance chemical materials are based on advanced technology and experience

JSR Group supplies a wide-range of special functional products such as styrene butadiene (SB) latex and acrylic emulsions based on our production technology for synthetic rubber. In addition, we are making use of our technology and experience in the fine chemicals fields to provide materials to enhance comfort in a variety of living spaces.

*The emulsions business operates as a coalition of Group companies such as Emulsion Technology, Co., Ltd. and JSR Trading Co., Ltd.



EMULSIONS

PCL

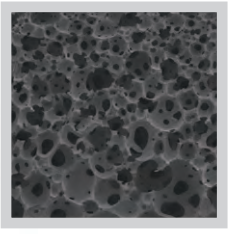
A leading product in the emulsions business is paper coating latex (PCL). Its strong adhesion and excellent printability meet the needs of a wide range of applications, including paper coating and paint for magazines, catalogs, wrapping paper, and other types of coated paper.

SB Latex

Styrene-butadiene (SB) latex comes in a wide lineup of grades with different properties. Some latexes are used to make foam rubber for such applications as bedding, midsoles, and cosmetic puffs. In addition, these latexes excel in adhesive strength and flexibility and can be used in such wide-ranging uses as asphalt modifiers and a variety of adhesives.

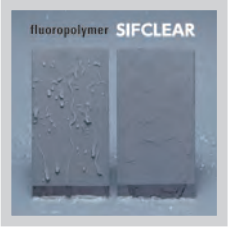
Binders for Batteries

JSR has developed a binder for secondary batteries with advanced emulsion synthesis technologies. JSR binder is an indispensable material for manufacturing the electrode of lithium ion batteries and nickel hydrogen batteries which are used in today's smartphones, PCs, electric vehicles and more. With good binding properties, excellent battery performance and high reliability, JSR binder is highly preferred in the market. Furthermore, unlike conventional solvent-based binders (PVDF), it is a water based binder that is environmentally friendly and cost-effective.



High-Performance Acrylic Emulsions

High-performance acrylic emulsion (AE) products originated from the fusion of our synthetic and compounding technology of water-based polymers which are cultivated in the fields of adhesives and floor-polishes, AE-foam products feature extraordinary softness compared to conventional foam materials and have been used in many applications: sound-absorbing materials for vehicles, back-coating on self-adhesive tile carpets and other adsorption uses for flooring. Other applications are under examination such as, cushioning sheets for mobile electronic equipment and vibration absorbing materials for musical instruments. Showing excellent water resistance, the new adhesive series AQUATRAN(tm) is expected to apply to various fields such as a paste for olefin base materials and for plastic tape in outdoor use.



SIFCLEAR™ Water-based emulsion with excellent durability and stain resistance

A modified aqueous emulsion obtained by alloying a vinylidene-fluoride polymer with an acrylic polymer on a molecular level, SIFCLEAR™ series, has been used as a binder resin for waterborne construction paint for building materials, such as exterior walls and roofing, owing to its excellent durability and stain resistance to outdoor exposure. In thermal insulation paints, SIFCLEAR™ series contributes to the long-term retention of the thermal barrier effects as its outstanding stain resistance prevents various outdoor stains from damaging the heat reflecting effect. The applications of SIFCLEAR™ continue to expand in the growing markets of water-based paint systems used in construction and thick anticorrosion coating materials (plants, bridge piers, and port facilities). Various applications of anti-staining film and resin-coating are also expected.

PLASTICS BUSINESS

Plastics with unique features created by a flexible product design technology

JSR Group ABS resins are created using technologies that respond to diverse needs and have unique features that combine multiple characteristics. We are also working to develop plastics and parts designs, including the development of materials that provide superior appearance without the need for painting, and products with high secondary workability. We provide these highly stable, high-quality, value-added products to customers around the world.

*The plastics business operates as a coalition of Group companies such as Techno-UMG Co., Ltd.

General, Special and Weather-resistant Grade (ABS, AES, ASA)

A wide range of grades including high-impact resistant, high fluidity, heat resistant, high rigidity and weather-resistant types are available. Heat resistant grade ABS also has outstanding impact resistance and workability. It is widely used for auto parts and electrical appliances. Weather-resistant grade (including DIALAC™ series) has a high level of weather resistance and workability, and are used extensively for auto parts and building materials.

HUSHLLOY™ : Anti-Squeak Material

Friction at joints between plastic parts is a major design issue because it is the cause of unpleasant squeaking noises. HUSHLLOY™ styrene thermoplastic has revolutionary properties that prevent squeaking. In addition to reducing the cost of anti-squeak measures, HUSHLLOY™ also retains its anti-squeak properties permanently.

PLATZON™ : Plating Material

Harnessing our proprietary polymer technology honed over many years of global development, we developed PC/ABS and heat-resistant ABS materials capable of standing up to a wide range of production conditions (molding conditions and etching temperature/duration conditions) for an extremely wide range of finished products. These materials maximize productivity during the production process and also help reduce environmental impacts because of improved plating yields.

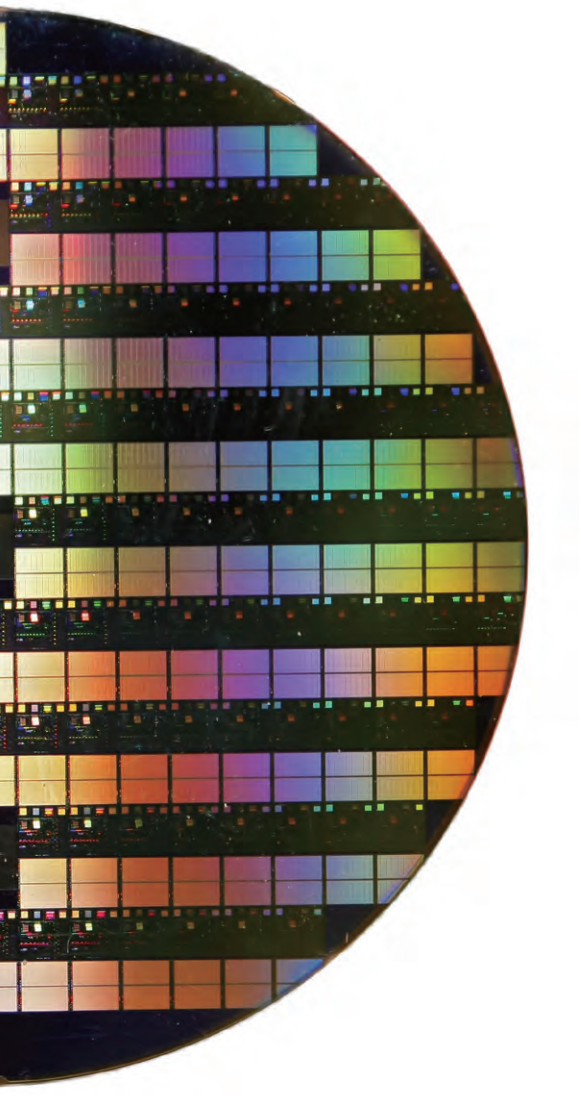
VIVILLOY™ : Highly Colorable Material

Leveraging our proprietary polymer technology and supply of Weather-resistant material (DIALAC™ series) and alloy grade, we developed a highly colorable material for paintless applications. Despite having no paint, this product reproduces depth and vividness closely resembling paint for intricate applications and shapes. The elimination of the painting process contributes to lower costs overall and helps reduce environmental impact.

DIGITAL SOLUTIONS BUSINESS

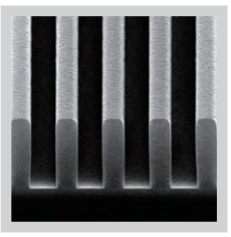
We aim to become a leader in the global market by supporting process shrink and high-density integration

Semiconductor manufacturing requires a variety of high-performance materials for use in the formation of integrated circuits and high-density packaging. JSR Group offers a comprehensive range of these materials and meets the needs of global, leading-edge semiconductor manufacturers.



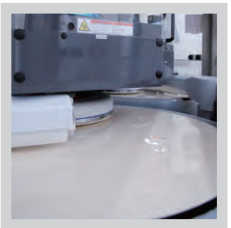
SEMICONDUCTOR MATERIALS

* The semiconductor materials business operates as a coalition of Group companies such as JSR Micro, Inc., JSR Micro N.V. and JSR Micro Kyushu Co., Ltd.



Lithography Materials

In the rapidly advancing world of integrated circuits, there is a constant demand for high-quality materials for large-scale integration (LSI). JSR offers a wide range of cutting edge products catering to such demand, including high-resolution photoresists for KrF(248nm), ArF(193nm), EUV(13.5nm), and top-coat materials for immersion lithography, and spin-on hardmask materials.



CMP Materials and Process Materials

Chemical mechanical planarization (CMP), which polishes surfaces of thin films for wiring and insulation layers on wafers, is indispensable to the formation of multilayer interconnections in LSIs. JSR supplies slurries that support the polishing of various thin-films having high planarity and low scratch characteristics. We also supply post-CMP cleaning solutions to remove impurities such as metals, organic and slurry residues from planarized wafer surfaces. In addition, JSR supplies process materials that can support next-generation semiconductor production.

Device Integration Materials

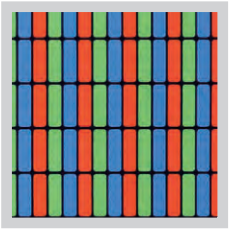
JSR responds to the high performance and high reliability requirements of packaging systems for high density and 3D electronic devices. JSR provides photoresists which have high chemical resistance to form thick bumps and fine redistribution layers, insulation materials with high reliability, and low transmission loss materials for high speed 5G communication.

To meet needs in a diverse range of fields, we provide materials for the evolving mobile market and devices

JSR Group supplies a variety of materials, from those used in LCD televisions, PCs and smartphones, to those corresponding to technical innovations including ICT, AI and advanced mobile devices. We will continue to respond with materials to meet market needs created by trends toward higher image resolution, reduced weight and lower power consumption.

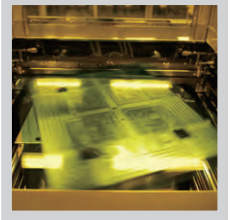
DISPLAY MATERIALS

* The display materials business operates as a coalition of Group companies such as JSR Micro Korea Co., Ltd., JSR (Shanghai) Co., Ltd. and JSR Micro Taiwan Co., Ltd.



LCD Materials

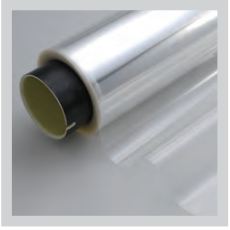
LCD panels are composed of numerous layers made of high-performance materials, and JSR Group is involved in the manufacture of many of these materials. These include OPTMER™ AL, an alignment film that orders the arrays of liquid crystal, OPTMER™ CR, a colored resist material that is used to display color, OPTMER™ SS, a protective film, and OPTMER™ NN/PC, a photosensitive transparent organic film.



OLED Materials

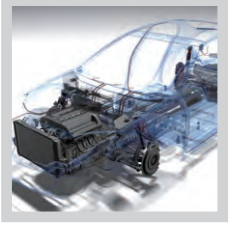
JSR is providing insulating and planarization materials for organic electroluminescence displays (OLED). Pigment-dispersed photoresists and insulating materials have been adopted for color filters of W-OLED. Additionally, JSR is supplying new materials which correspond to future customer needs, such as insulation materials for low-temperature processing of on-cell touch sensors and related materials for circularly polarizing plates.

EDGE COMPUTING RELATED ITEMS



Heat Resistant Transparent ARTON™

ARTON™ is a transparent resin (cyclic olefin resin), which has superior optical properties, dimensional stability and breakthrough heat resistance. It is a high-performance resin for optical applications such as retardation film, light guide plates, and lenses. Although ARTON™ is a cyclic olefin resin, it has a polar group in its molecular chain and has good adhesion, adherence and miscibility.



Water-Resistant Material and Anticorrosive Material for Automobiles

A UV-curable resin with a variety of physical properties required for use in automobiles such as durability and adherence to different materials. In addition to good coating properties, the resin enables robust and rapid formation of water-resistant and anticorrosive parts for automobile harnesses and connectors which significantly improves productivity and contributes to automobile weight reduction.

Stereolithography Systems

3D printing system for industry. Three-dimensional objects are prepared as slices in CAD, and the corresponding patterns are then used to build layers of UV-curable resin with a UV laser beam. A stereolithography system repeats these steps to quickly produce an extremely precise, three-dimensional object made of resin with excellent transparency, heat resistance, and mechanical properties.

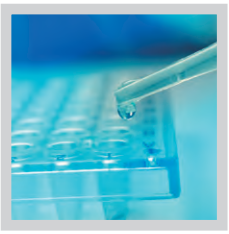
* Stereolithography systems is managed by D-MEC LTD., a member of JSR Group.

LIFE SCIENCES BUSINESS

We introduce innovation to healthcare by exploring the potential of materials

Global demand for healthcare and medical services continues to expand. JSR Group creates advanced materials and services for the life sciences and healthcare fields.

*Life Sciences business operates as a coalition of Group companies, including Crown Bioscience International, JSR Life Sciences Corporation, KBI Biopharma, Inc., MEDICAL & BIOLOGICAL LABORATORIES CO., LTD. and Selexis SA



Drug Discovery Support Services

JSR Group provides drug discovery support services globally, offering the entire process of new drug development from discovery to production for antibody drugs and other biopharmaceuticals, which are expected to see significant growth in the near future. Through synergy among these Life Science related group companies, JSR Group will help clients achieve shorter timelines and improve the probability of drug candidate success.

Bioprocess Field

JSR Group combines precision polymer synthesis and surface modification technology to develop materials for use in biopharmaceutical manufacturing processes. We supply protein A affinity chromatography resin, which is used to refine antibody drugs. In collaboration with Japanese and overseas partners, we also provide products and services, relating to key refining processes used in antibody drug manufacturing.

Diagnostic Reagents Field

Pretreatment diagnosis and detecting diseases is extremely important because of its role in the selection of corresponding therapies and drugs. Magnetic particles, latex particles and other JSR Group products are widely used as materials for in vitro diagnostic reagents. JSR Group has been working with partner companies to extend its product range for use in various advanced diagnostics such as personalized medicine.

Research Reagents Field

Biotechnology research is essential to the evolution of advanced diagnostics. JSR group supplies a variety of research reagents to isolate and purify target biological materials such as proteins, nucleic acids and cells. One representative example is ExoCap™ kit which isolates cell-derived exosomes by magnetic particles coated with functional ligands binding to certain receptors on exosome surfaces.

OTHER BUSINESSES

We are helping to create a sustainable society by developing materials for the environment and energy fields

The high-performance lithium ion capacitor, ULTIMO™, is a superior electric storage device with high power density, high energy density, and high operating voltage. It enables efficient energy use through energy regeneration and peak assist, enabling its use in a wide range of applications and fields.

LITHIUM ION CAPACITORS

*The Lithium ion capacitors business is managed by JM Energy Corporation, a member of JSR Group.

Laminated Cells

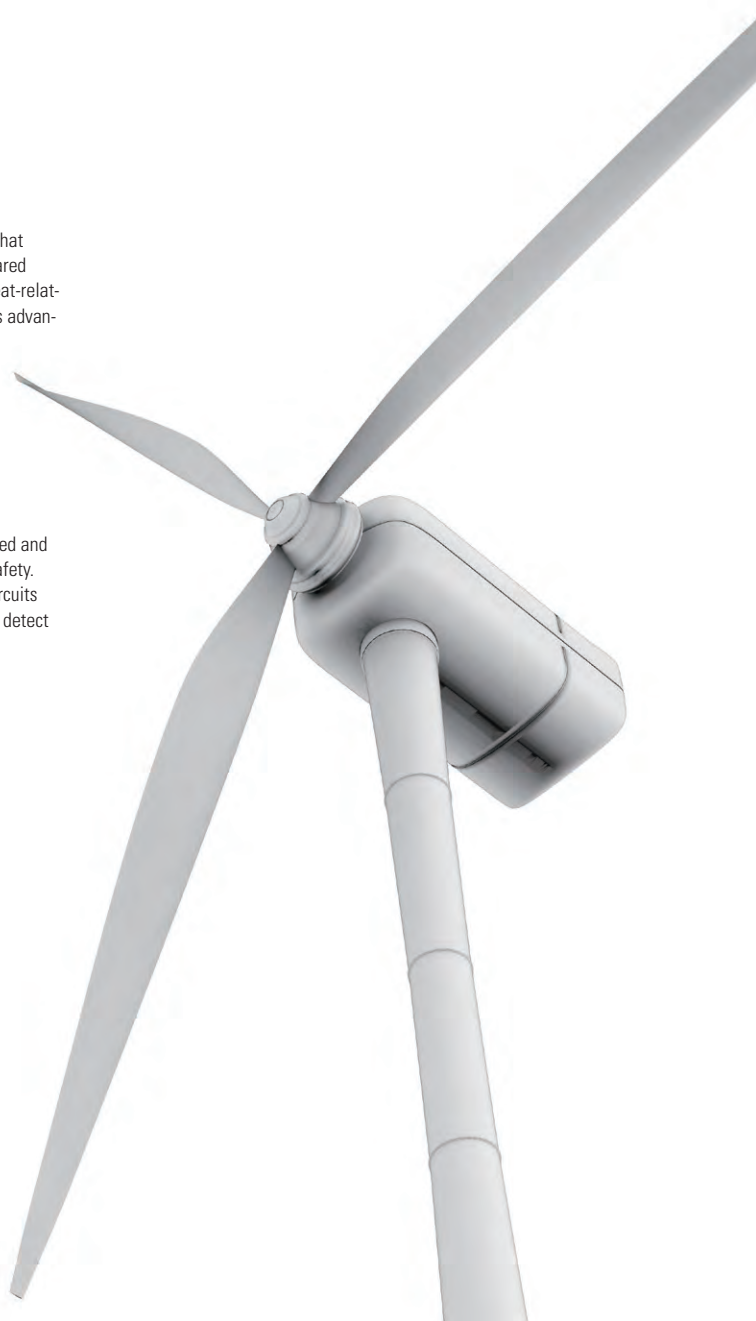
Ultimo™ laminated cells combine excellent heat dissipation properties with a thin, compact, and lightweight design. They are ideal for a wide range of applications, including backup for power outages, load leveling, and peak assist.

Prismatic Cells

Ultimo™ prismatic cells have a flat prismatic can structure that enhances heat dissipation and facilitates installation compared with ordinary cylindrical products. These features reduce heat-related deterioration during charging and discharging. It also has advantages for implementation in limited spaces.

Modules

Ultimo™ modules maximize the advantages of both laminated and prismatic cells and are designed for optimal usability and safety. These products with high level of safety products feature circuits to balance cell voltages during low power consumption and detect and prevent over-charging.



R&D Policy and Organization

Creating materials for the future through materials innovation

With deep expertise in its core polymer and precision manufacturing technologies, the JSR Group has widened the scope of its technological domains by integrating technologies from disparate fields such as photochemistry, inorganic chemistry, precision processing, and biotechnologies. In this way, the Group has advanced R&D activities and its accumulated efforts have enabled it to develop unique strengths relative to chemical companies worldwide, which is our driving force to expand superior materials and technologies globally.

The JSR Group's main R&D centers are located at Yokkaichi City in Mie Prefecture and Tsukuba City in Ibaraki Prefecture. There we carry out R&D activities aimed at tracking swiftly evolving societal needs such as the changes that are emanating from the digital revolution.

Our R&D mission can be broadly divided in two categories: "business support research" for business domains we are developing, and "next-generation technology research," such as novel and applied research for peripheral fields. In promoting research, we emphasize close linkages in the Group's value chain, ranging from market development to process development and manufacturing technology development, and extending to manufacturing, sales, and distribution. We also promote integration within the system, with researchers themselves making direct contact with customers to uncover their needs. Moreover, we are enhancing technical services in various countries and building a system capable of providing global and timely support for customers' business activities.

For next-generation technology and seed research, it is necessary for R&D to anticipate latent market needs. Particularly in the case of new R&D fields, we promote open innovation such as joint research with universities and research institutions in Japan and overseas. We have established the JSR-Keio University Medical and Chemical Innovation Center (JKiC), a joint research facility on Keio University's Shinanomachi campus, which opened in October 2017. We will create innovation through investigating the wholly novel concept of fusing medicine and chemistry, which will lead to practical technologies that contribute to global society with people living long and healthy lives.

We are now planning to open a new innovation center in the field of life sciences and materials informatics in Tonomachi area in Kawasaki city, Kanagawa prefecture to acceralate R&D activities through collaboration with universities and start-ups.

JSR Integrated Production Process

JSR is dedicated to the continuing creation of excellent products

Proprietary polymer technology and precision manufacturing technology are key to the development and production of new products at JSR production sites. Besides technological strengths, we also work to improve reliability and ensure that only high quality products are supplied to customers by maintaining high quality control standards at every production site and at all stages, from R&D to production.

Production Technologies/ Process Development

Essential high-level technologies for all of our business domains

Once our researchers have developed new materials, our production technology group takes over the commercial manufacturing process, taking it from the research laboratory to the manufacturing facility. The key requirements at that stage are not only to produce capability and quality, but also to ensure low manufacturing cost through safe and simple processes. Our laboratories generate materials with amazing properties, but those materials will never be accepted by the market unless they can also be produced reliably and economically. Something that may be no problem in a laboratory may fail to work properly at the commercial production stage.

Our approach to competitiveness, is not only to enhance our advantage in terms of technology and performance, but also to balance reliable product performance and profitability. We capture the business opportunities of newly developed materials by combining optimal processes,facilities, and R&D results.

Production

We ensure high-quality materials in safe, environment-friendly plants

As a supplier of materials, we have a responsibility to stably supply newly developed materials. JSR Group's major plants in Japan are the Yokkaichi Plant (Yokkaichi City in Mie Prefecture), the Chiba Plant (Ichihara City in Chiba Prefecture), and the Kashima Plant (Kamisu City in Ibaraki Prefecture). Also, there are production operations in other cities of Japan and various countries of the world to support market and customers' requirements.

Safety, environmental conservation and high-quality products are priorities in our production. With these as a constant focus, we develop our processes to maintain consistent, reliable operations. Also, JSR proactively promotes Responsible Care activities and consistently implements and improves measures related to safety, health and the environment.

The Manufacturing Technology Center aims to improve manufacturing technology by detecting and solving overt problems during the production process daily.

Also, all JSR plants are certified under ISO 9001 and ISO 14001 standards for quality and environmental management systems, and we are committed to the stable supply of products.

CSR Initiatives

As management and CSR become one, we contribute to the sustainability of the earth's environment and society by producing returns to society and to JSR Group.

Corporate Mission

MATERIALS INNOVATION

We create value through materials to enrich society, people and the environment

Management Policies

Our efforts to realize the corporate mission of JSR Group are guided by a management policy consisting of two core components. The first is a set of universal and unchanging "fundamental pillars of management" through which we work to achieve continuing growth. The second is our "responsibilities to stakeholders," which are an expression of our responsibilities as a good corporate citizen.

Fundamental Pillars of Management	Responsibility to Our Stakeholders
• Continuous Creation of Businesses • Enhancement of Corporate Culture • Increase Corporate Value	• Responsibility to Our Customers/ Business Partners • Responsibility to Our Employees • Responsibility to Society • Responsibility to Shareholders

CSR Advancement Structure

Board of Directors

Representative Director and CEO
Representative Director,President and COO

CSR Committee

Works to improve CSR activities by overseeing and guiding the following four committees:

Corporate Ethics Committee

- Advances corporate ethics for JSR Group
- Confirms and follows up on matters of legal compliance
- Advances respect and safeguards for human rights

RC Committee

- Establishes, reviews and promotes JSR Group policies on safety, environment, quality, product safety, and managing chemical products

Risk Management Committee

- Strives to formulate and continually improve response policies for risks involving JSR Group

Social Contribution Committee

- Examination and advancement of activities in which JSR Group ought to engage

Our Responsibilities to Customers and Business Partners

We believe that JSR Group's most important role is to offer innovative materials and excellent products that meet customer needs and contribute to a better society. We devote effort to initiatives to ensure the quality and safety of our products so that our customers can use them in relief. These efforts have been recognized, and we have received top-rank supplier awards from global customers.
Through communication with our business partners, we are simultaneously improving the business activities of the JSR Group.

Our Responsibilities to Employees

JSR Group develops mechanisms and fosters a corporate culture that enables all employees to accurately recognize and solve issues and maintains and enhances organizational capabilities.
Moreover, we encourage whole new ways of working and are directing our energies into initiatives to improve productivity. On a different front, we have put a JSR Group global personnel system into place and are pursuing personnel and management development at the global level. Throughout JSR Group, synergies are generated through the contributions of a diverse workforce.

Our Responsibilities to Society

Through Responsible Care (RC) activities, JSR Group strives to ensure safety and high environmental standards through autonomous initiatives at all stages from the development of chemical substances through to manufacturing, distribution, utilization, final consumption, and disposal, with particular emphasis on production facilities. We are also committed to dialog and communication with society, and we publish the results of our efforts to achieve improvements in safety, health, and the environment. JSR Group contributes to the establishment of a sustainable society by identifying how our business activities depend on and impact biodiversity and natural capital and by endeavoring to reduce our footprint on the global environment. As part of this, we strive to generate value from an "active" approach (e.g., the development of eco-friendly products) and a "passive" approach (which is focused on reducing our plants' CO_2 emissions) as responses to two components of this effort: the creation of new business opportunities and reduction of environmental risk. These approaches are based on our E2 Initiative™, which is named by taking the first letters of "Eco-Innovation" and "Energy Management." Moreover, we are proceeding with focus on eco-friendly procurement of raw materials and equipment and the development of green areas at our business establishments, while at the same time emphasizing staff engagement and cooperation with local communities.

Our Responsibilities to Shareholders

Through our IR activities, we work hard to ensure that shareholders and investors are promptly informed about our business situation and corporate policies. To facilitate the exercise of shareholders' voting rights, we convene ordinary general meetings of shareholders early so as to avoid the heaviest-scheduled dates, and send out convocation notices well in advance of meeting dates. We have also introduced a system that allows shareholders to vote via the Internet. Our wide-ranging communication activities also include quarterly briefings on our financial results and seminars for institutional investors and analysts (including technical seminars).

Participant in the United Nations Global Compact

On April 14, 2009, JSR Group became a participant in the United Nations Global Compact. Amid growing calls for corporate social responsibility, the Global Compact enables companies that operate on a worldwide level to declare their commitment to observing the Compact's ten principles. The principles include human rights, labor, the environment, and anti-corruption. Having declared its participation in the Global Compact and its commitment to act responsibly as a member of the international community, JSR Group will work even harder to actively fulfill its social responsibilities.

WE SUPPORT
UN GLOBAL COMPACT

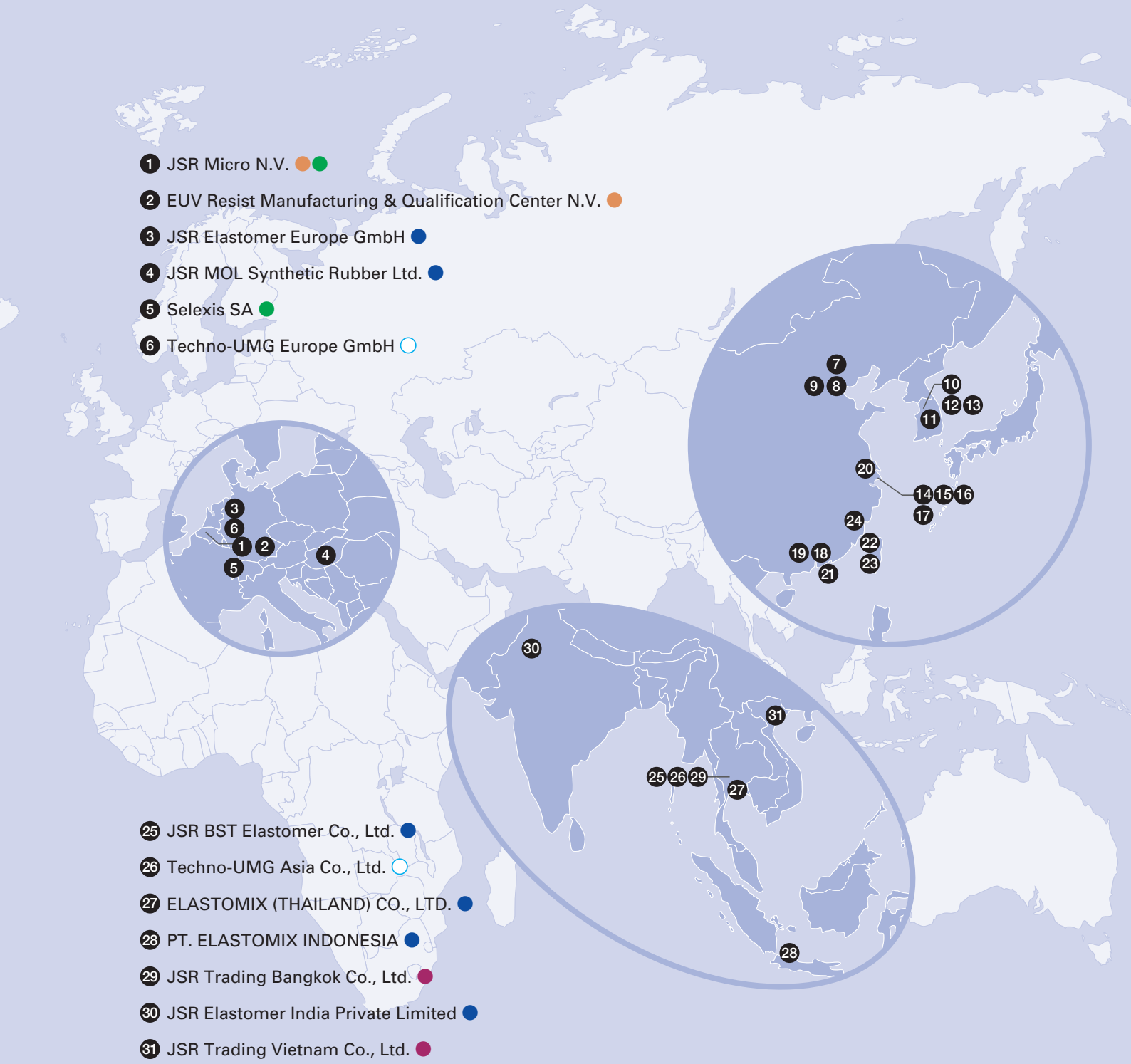
The 10 Principles

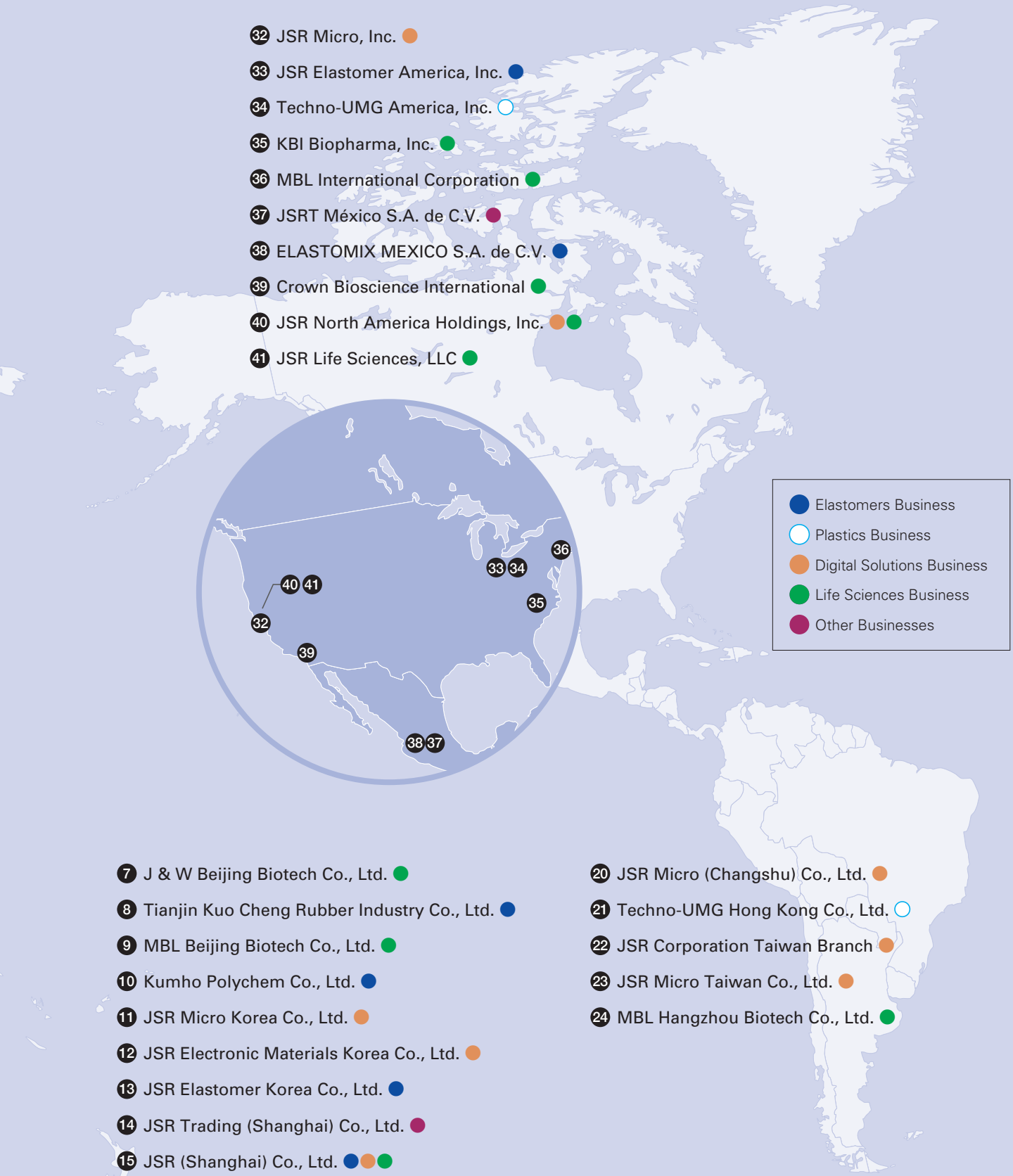
1. Businesses should support and respect the protection of internationally proclaimed human rights; and
2. make sure that they are not complicit in human rights abuses.
3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
4. the elimination of all forms of forced and compulsory labour;
5. the effective abolition of child labour; and
6. the elimination of discrimination in respect of employment and occupation.
7. Businesses should support a precautionary approach to environmental challenges;
8. undertake initiatives to promote greater environmental responsibility; and
9. encourage the development and diffusion of environmentally friendly technologies.
10. Businesses should work against corruption in all its forms, including extortion and bribery.

Details about our CSR activities can be found on the JSR CSR website.
URL: http://www.jsr.co.jp/jsr_e/csr/

JSR's Network in the World (As of July 31, 2019)

JSR Group is building its business activities on a global scale through its 41 overseas business sites.



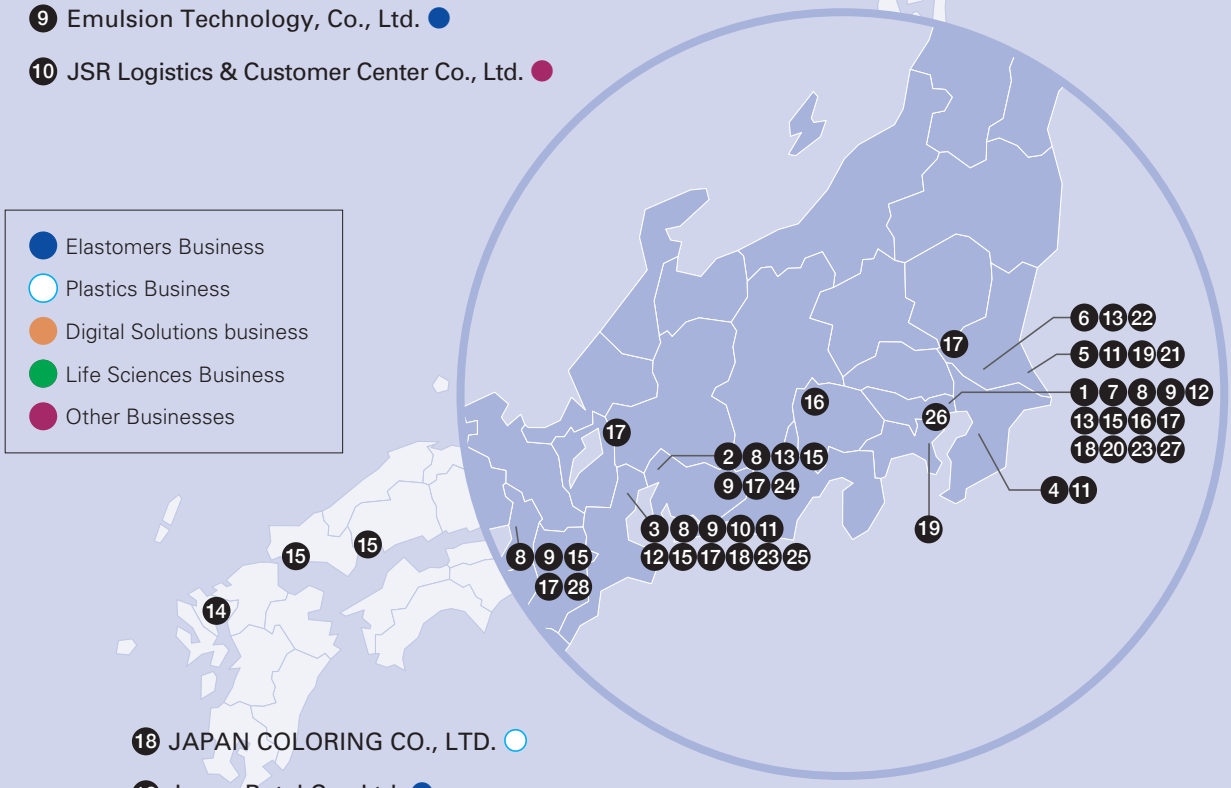


7 J & W Beijing Biotech Co., Ltd.
8 Tianjin Kuo Cheng Rubber Industry Co., Ltd.
9 MBL Beijing Biotech Co., Ltd.
10 Kumho Polychem Co., Ltd.
11 JSR Micro Korea Co., Ltd.
12 JSR Electronic Materials Korea Co., Ltd.
13 JSR Elastomer Korea Co., Ltd.
14 JSR Trading (Shanghai) Co., Ltd.
15 JSR (Shanghai) Co., Ltd.
16 Techno-UMG Shanghai Technical Center Co., Ltd.
17 Techno-UMG Shanghai Co., Ltd.
18 Techno-UMG Guangzhou Co., Ltd.
19 ELASTOMIX (FOSHAN) CO., LTD.
20 JSR Micro (Changshu) Co., Ltd.
21 Techno-UMG Hong Kong Co., Ltd.
22 JSR Corporation Taiwan Branch
23 JSR Micro Taiwan Co., Ltd.
24 MBL Hangzhou Biotech Co., Ltd.

JSR's Network in Japan (As of July 31, 2019)

The JSR network in Japan consists of the parent company, together with key manufacturing sites, research facilities and 21 JSR Group companies.

1. JSR Corporation Head Office
2. JSR Corporation Nagoya Branch
3. JSR Corporation Yokkaichi Plant and Research Laboratories
4. JSR Corporation Chiba Plant
5. JSR Corporation Kashima Plant
6. JSR Corporation Tsukuba Research Laboratories
7. JSR-Keio University Medical and Chemical Innovation Center
8. JSR Trading Co., Ltd.
9. Emulsion Technology, Co., Ltd.
10. JSR Logistics & Customer Center Co., Ltd.
11. JSR ENGINEERING CO., LTD.
12. JSR Business Services Co., Ltd.
13. D-MEC LTD.
14. JSR Micro Kyushu Co., Ltd.
15. Techno-UMG Co., Ltd.
16. JM Energy Corporation
17. ELASTOMIX CO., LTD.



18. JAPAN COLORING CO., LTD.
19. Japan Butyl Co., Ltd.
20. JAPAN FINE COATINGS Co., Ltd.
21. KRATON JSR ELASTOMERS K. K.
22. JSR Life Sciences Corporation
23. JN System Partners Co., Ltd.
24. MEDICAL & BIOLOGICAL LABORATORIES CO., LTD.
25. JEY-TRANS CO., LTD.
26. CMIC JSR Biologics Co., Ltd.
27. LEXI Co., Ltd.
28. Goko Trading Co., Ltd.

JSR Corporation

Date of Establishment December 10, 1957

Capital ¥23,370 million

Total Number of Group Employees 8,748 (As of March 31, 2019)

Directors and Officers

Representative Director, CEO
Eric Johnson

Representative Director, President, COO, and CTO
Nobuo Kawahashi

Representative Director, Chairman of the Board
Mitsunobu Koshiba

Director
Koichi Kawasaki
Hideki Miyazaki

Outside Director
Yuzuru Matsuda
Shiro Sugata
Tadayuki Seki

Standing Audit & Supervisory Board Member
Atsushi Kumano

Outside Audit & Supervisory Board Member
Hisako Kato
Sumio Moriwaki

Executive Managing Officer
Koichi Kawasaki*

Managing Officer
Hayato Hirano
Katsuya Inoue
Hideki Miyazaki*
Tadahiro Suhara

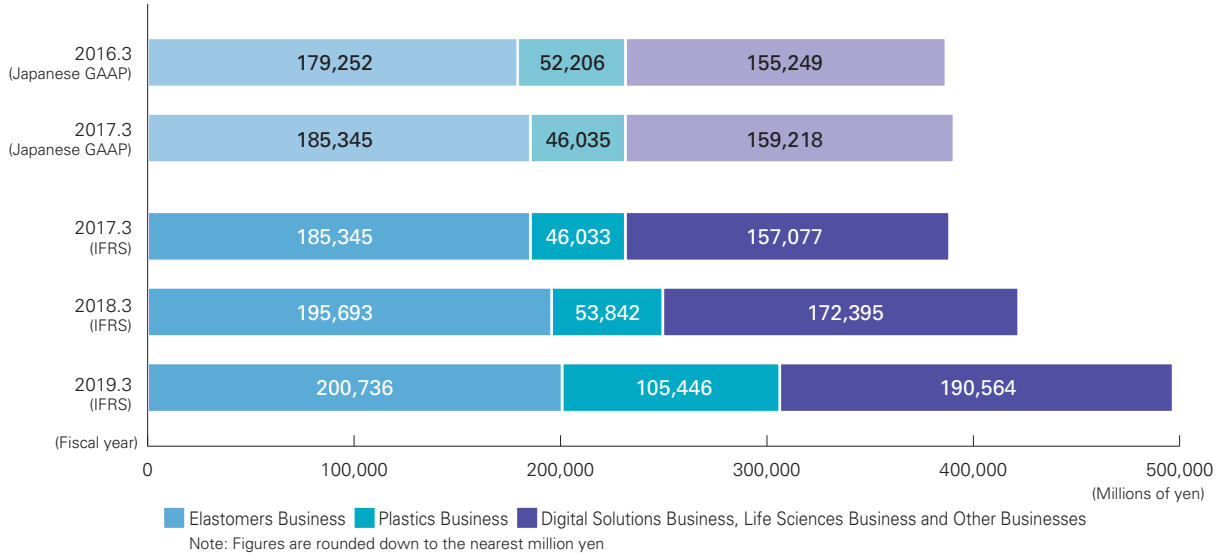
Senior Officer
Takao Shimizu
Tsuyoshi Watanabe
Kazumasa Yamawaki
Makoto Doi
Yoshikazu Yamaguchi
Kazushi Abe

Officer
Eiichi Kobayashi
Yoichi Mizuno
Mika Nakayama
Koichi Saeki
Seiji Takahashi
Yasufumi Fujii
Mikio Yamachika
Tim Lowery
Koichi Hara
Junichi Takahashi
Keisuke Wakiyama
Ichiko Tachibana
Toru Kimura

*Concurrently serving as director

Revenue by Business Segments

Note: The JSR Group prepared its consolidated financial statement for FY ended March 2018 in accordance with the International Financial Reporting Standards ("IFRS") pursuant to the provisions of Article 120-1 of the Ordinance of Companies Accounting. The Company also prepared its financial statements for FY ended March 2017 in accordance with IFRS for reference.



Note: Figures are rounded down to the nearest million yen

JSR Corporation

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FAX. 81-59-345-8111

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FAX. 81-436-62-1946

Kashima Plant

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FAX. 886-3-657-6642

http://www.jsr.co.jp/jsr_e

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