

COMPANY PROFILE

Tokuyama Corporation



Electronics
Life Science
Eco Business

For the People of Tomorrow

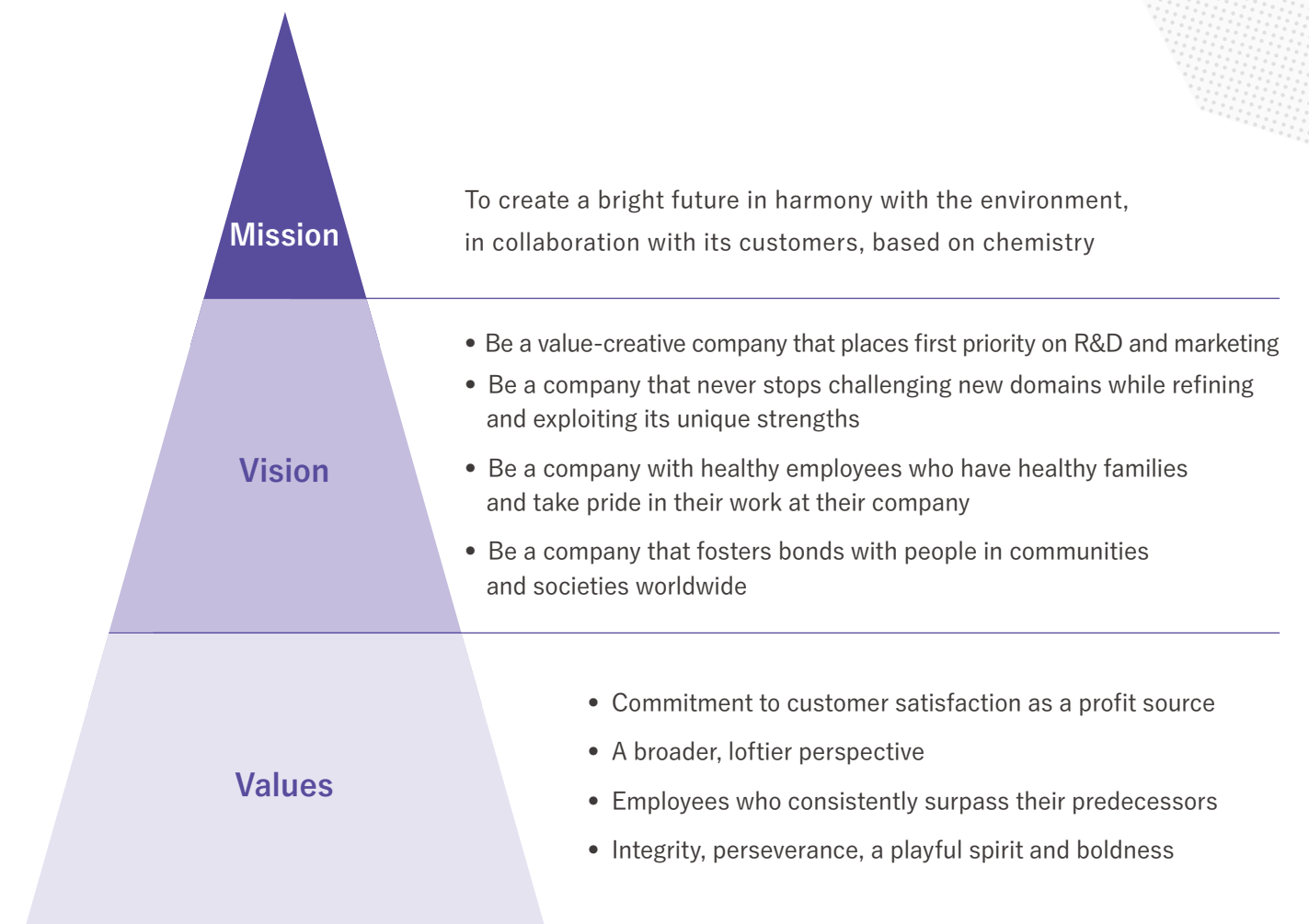
**Build the future with Tokuyama.
For the communities of tomorrow,
for the world of tomorrow.**

Tokuyama recognizes that times are changing.

In 2021, we redefined our Mission to reflect the growing global awareness to address environmental issues, and rapid advances in digital revolution. To guide us in working to fulfill this mission, we have formulated a our Vision of how we see ourselves in the future.

Each of us at Tokuyama is committed to drawing on our Values as we continue to work toward these goals.

[Tokuyama's Vision]



100 years of growing history together with Japan's chemical industry

Tokuyama was established as Nihon Soda Kogyo Co., Ltd. in 1918 with the aim of set up production of soda ash (sodium carbonate) in Japan. Over the course of more than a century, we have expanded into a variety of fields as we tackled changes in the environment and kept in tune with the times. Here, we introduce the journey of that growth, in key periods of our company's history.

Company outline

Company name

Tokuyama Corporation

Established

February 16, 1918

Capital

10 billion yen (as of April 1, 2024)

Major Products

Chemicals : Chlor-alkali, Vinyl chloride, Soda ash and Calcium chloride

Cement : Cement and Recycling

Electronic Materials : Silicon(High-purity polycrystalline silicon), IC chemicals(High-purity chemicals for electronics manufacturing)

Advanced Materials : Silica, Thermal management materials(High-purity aluminum nitride)

Life Science : Fine chemicals, Microporous film, Dental materials and Medical diagnostic systems

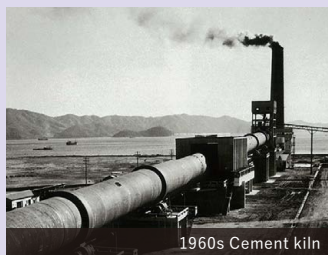
Eco Business : Environment (Recycling of waste) and Ion exchange membranes



Katsujiro Iwai, founder



Photo from time of establishment



1960s Cement kiln



The East Plant in 1968



High-purity polycrystalline silicon



Kashima Factory in 1985



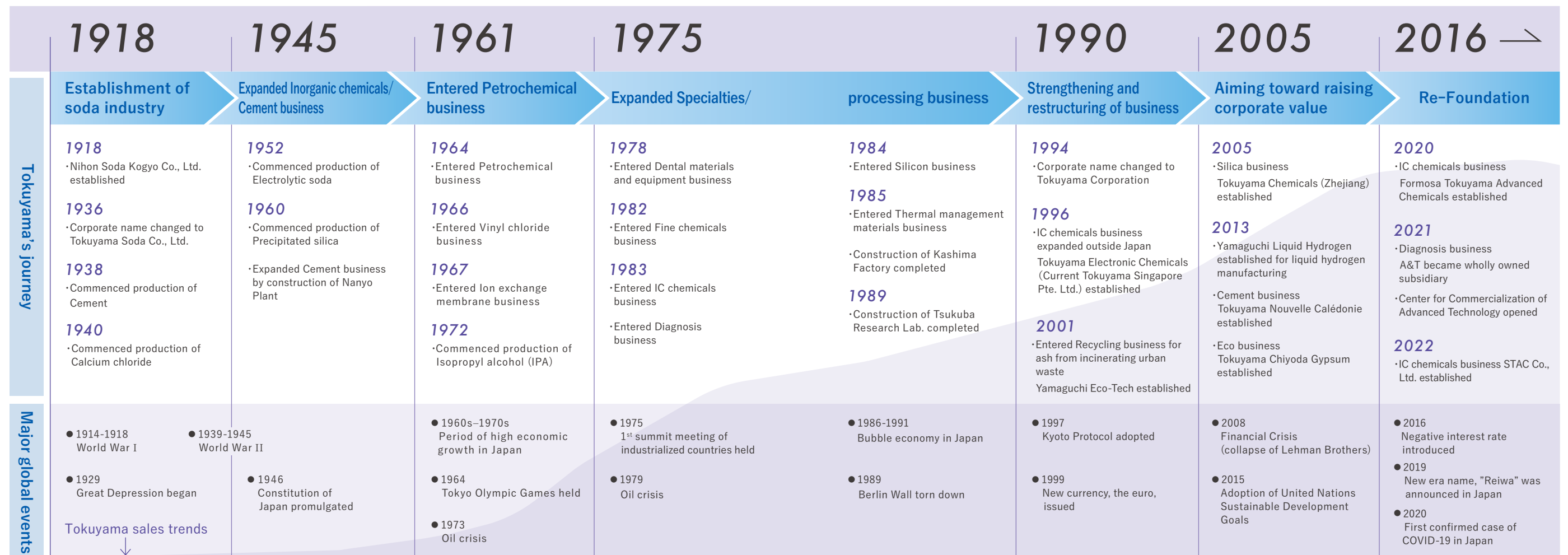
Tokuyama Electronic Chemicals (Current Tokuyama Singapore Pte. Ltd.)



Tokuyama Chiyoda Gypsum



Center for Commercialization of Advanced Technology opened



Tokuyama is existing close by your side as an integral part of daily life

Since our founding in 1918, we have created numerous products to make the lives of people better and happier. Though most of our products fly under radar, they firmly support the convenience and comfort of your day-to-day life.

Construction and engineering sites



Supporting you with strong, Eco-friendly materials

We create sturdy, environmentally friendly building materials that protect people's lives from disasters and underpin day-to-day living. Our offerings include cement, cement-type stabilizer, and reinforcing/repair materials for aging bridges and highways.

- Cement
- Cement-type stabilizer
- Ready-mixed concrete
- Polyvinyl chloride resin
- Products made from plaster sheets

Telecommunications

Supporting you with cutting-edge technologies



Semiconductors are used in smartphones and a variety of other digital tools. We support the manufacturing of semiconductors with the latest technologies, including by providing the raw material for semiconductor wafers (high-purity polycrystalline silicon) and other high purity chemicals for electronic manufacturing.

- High-purity polycrystalline silicon
- High-purity isopropyl alcohol (IPA) for electronics manufacturing
- High-purity aluminum nitride
- Photoresist developer TMAH
- High-purity fused spherical silica
- Microspherical silica

Medical and caregiving sites



Supporting you with unique technologies

We support people's health and medical/caregiving settings using unique technologies, such as composite resin for dental, photochromic dye materials for regular eyeglasses as well as sunglasses, and diaper back sheets that repel water but let moisture pass through.

- Eyeglass lens materials
- Dental materials and equipment
- Microporous film
- Pharmaceutical ingredients & intermediates
- Medical diagnostic systems
- Isopropyl alcohol (IPA) for industrial use

Daily life

Supporting you with basic materials

We help sustain day-to-day life with basic materials such as soda ash used as a raw material for glass, caustic soda used in manufacturing paper, calcium chloride that can also be a dehumidifying agent, and sodium hypochlorite used for sterilizing tap water.

- Caustic Soda
- Soda Ash
- Sodium Bicarbonate
- Sodium Hypochlorite
- Calcium Chloride
- Propylene Oxide



Contribution a recycling-oriented society



Supporting you with recycling technologies

We actively tackle the recycling of waste materials. In addition to recovering valuable materials from effluent, we recycle gypsum board generated when tearing down houses by using our own technology to produce brand new gypsum dihydrate.

- Ion exchange membranes
- Recycling waste gypsum boards
- Use of waste plastic as a thermal energy alternative
- Recycling ash from incinerating urban waste

For the next generation



Supporting your future

In addition to promoting the utilization of hydrogen, which has claimed the spotlight as an one of the next-generation energy sources, we are focusing on developing other products for the future, as well, including the thermal management materials that environmentally friendly vehicles need.

- Alkaline water electrolyzer
- Liquified hydrogen
- Aluminum nitride filler

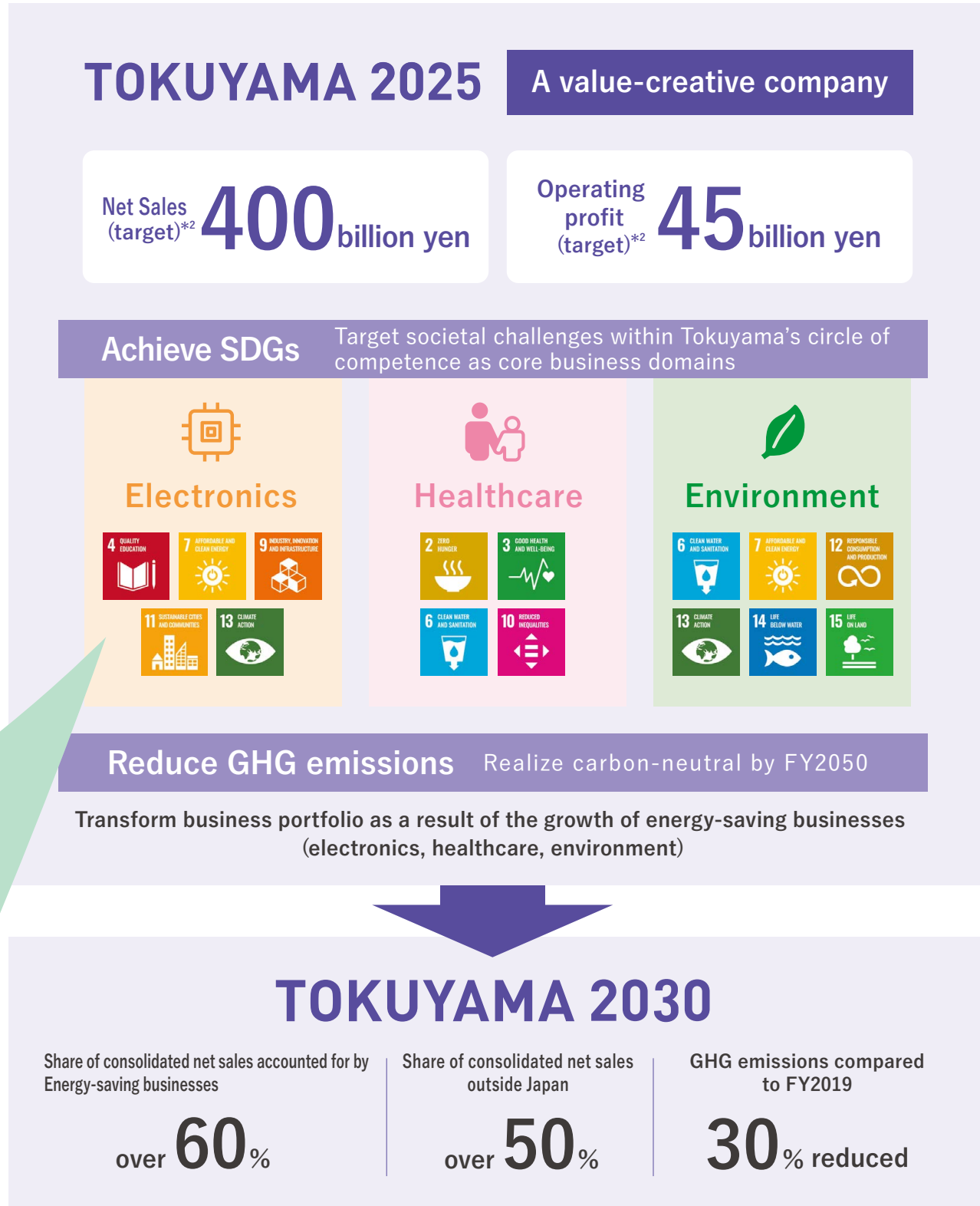
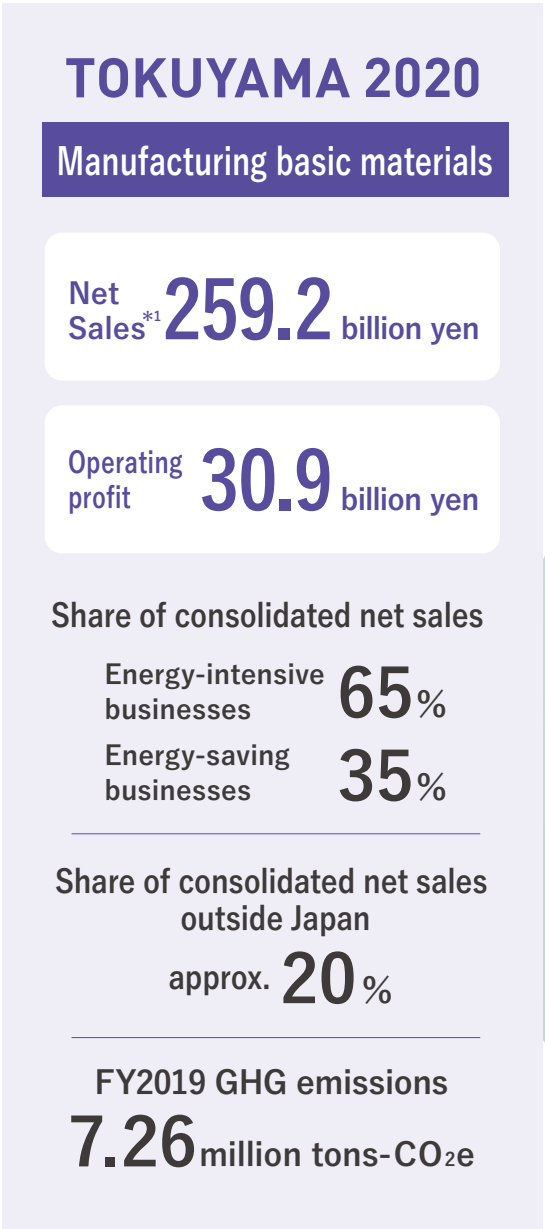
CHANGE CREATES CHANCES

Medium-Term Management

Plan 2025

Striving to create value for the future in the focus areas of electronics, healthcare, and environment

As the world moves toward decarbonization and the building of more sustainable societies, Tokuyama is transitioning its business portfolio with a focus on electronics, healthcare, and environment. We will contribute to technological innovations by improving the performance of state-of-the-art electronic equipment and energy conservation.



*¹ Values that consider the degree of financial impact from the revenue recognition standard, etc.

*² Tokuyama revised the plan's final year targets, on April 28, 2023, and April 26, 2024

Earning top share in the market for the thermal management materials and high-purity materials that support the miniaturization of semiconductors

Supporting advancements in the electronics and semiconductor industries, our products include high-purity polycrystalline silicon used for raw materials on semiconductor wafers, and high-purity aluminum nitride for thermal management materials in electronic devices. Notably, we have one of the highest-purity isopropyl alcohol (IPA) for electronics manufacturing IPA SE. Going forward, we will continue to meet global needs with products that drive progress.

Thermal Management Materials

Improving the heat dissipation of electronic devices installed in vehicles

ACTIVITY HIGHLIGHTS

» Pursue aggressive expansion in overseas markets

» Develop new applications, expand product portfolio

Silicon Business

High-purity polycrystalline silicon sustains the high performance of semiconductors with the world's highest, "eleven nine" purity (99.99999999%).

Major Products:

- High-purity polycrystalline silicon

Silica Business

Accommodating a wide range of applications that require superior purity, dispersivity, and specific surface area from reinforcing fillers to wafer polishing.

Major Products:

- Fumed Silica
- High-purity fused spherical silica

IC Chemicals Business

Supporting semiconductor manufacturing with high-purity chemicals crucial to the process of manufacturing increasingly miniaturized semiconductor products.

Major Products:

- High-purity isopropyl alcohol (IPA) for electronics manufacturing
- Photoresist developer TMAH

Thermal Management Materials Business

Having focused early on heat dissipation issues in electronic devices and provided the solution by the thermal management materials made on own nitride reduction process; contributing to the stability of miniaturized devices.

Major Products:

- High-purity aluminum nitride powder and granules
- Aluminum nitride filler

High-purity polycrystalline silicon

Providing high quality product with minimal impurities to support high-speed processing and communications

High-purity isopropyl alcohol (IPA) for electronics manufacturing

Supplying high-purity isopropyl alcohol (IPA) for electronics manufacturing that are suited for precision cleaning and drying of electronic devices and semiconductor wafers

SPOTLIGHT

Masashi Shinagawa

IC Chemicals Manufacturing Dept.

Accelerating global expansion in locations that best meet needs and demand outside Japan

We manufacture high-purity isopropyl alcohol (IPA) for electronics manufacturing (IPA SE) suitable for cleaning and drying semiconductors, glass substrates, and other electronic devices. With the introduction of 5G telecommunications and the improved performance of digital equipment, the quality of chemicals our customers require is constantly rising. Many of our clients outside Japan are on the cutting edge of the industry, which requires exacting standards and a quick response. Product quality itself is of course critical, as is optimal performance in container technology for international shipping. New analytical perspectives are always needed, examining, for example, wh-

ether products are reaching their destinations around the world with the high-purity IPA quality intact. These and other issues present ongoing challenges that we are always ready to embrace.

In one joint venture with local company, we constructed a new IPA plant for semiconductor manufacturing in Taiwan, utilizing knowledge developed at the Tokuyama Factory, to establish local integrated production systems where demand is growing.

We will continue to define what quality IPA really means and identify ways to deliver this substance to our customers in optimal condition, bringing our entire manufacturing dept. together to tackle these issues.



For more information, see videos (in Japanese)



Tokuyama encourages employees to take on new challenges from the start of their careers. While this may bring some pressure, our employees enjoy a challenge and find fulfillment in a sense of accomplishment. Serving customers worldwide means we have developed a rapid and agile approach to tackling these challenges.



Capturing the top niche in optical, dental, and diagnostic fields with specialized technologies that drive differentiation

We offer an array of life science products, including photochromic and other eyeglass lens materials, dental materials and equipment, and medical products such as pharmaceutical ingredients and intermediates. Our products, which all help to maintain human health, are developed by the Tsukuba Research Lab and then produced at the Kashima Factory using a process of strict quality management.

Dental materials

Omnichroma® is a composite resin for dental fill-up that was created from a groundbreaking concept



Eyeglass lens materials

Including hard coating solutions for eyeglass lenses that improve their durability

ACTIVITY HIGHLIGHTS

- » Expand product portfolio including biotin and other products for health/pharmaceutical applications
- » Develop new applications for unique biaxially-oriented microporous film; expand Shanghai site
- » Accelerate overseas expansion of cosmetics materials, supplements and other healthcare
- » Accelerate the development of diagnostic reagents through chemical integration, establish new alliances, and expand testing areas

Fine Chemicals Business

Focusing on photochromic materials used in eyeglass lenses and pharmaceutical ingredients and intermediates for drugs.

Major Products:

- Eyeglass lens materials
- Pharmaceutical ingredients and intermediates

Dental Materials and Equipment Business

Contributing to the advancement of dentistry by developing, manufacturing and marketing dental materials and equipment.

Major Products:

- Composite resins

Microporous Film Business

Meeting demand in developing countries by manufacturing permeable film that allows air and moisture, but not water, to pass through in Japan and China.

Major Products:

- Microporous film (Porum®)
- Microporous film (NF Sheet)

Diagnosis Business

Tackling the challenges involved in the new business area of disease prevention, including medical diagnostic systems that contribute to health and longevity.

Major Products:

- Laboratory information system
- Diagnostic reagents

Medical products such as pharmaceutical ingredients and intermediates

Maintaining high quality and product safety by practicing comprehensive GMP management in a way that makes the most of our strengths in process development

SPOTLIGHT

Tsukuba Research Laboratory

Integrating chemistry expertise to create market-leading products

In our research and development of new materials and technologies and forays into new business, we focus on developing diagnostic agents for measuring components in the blood and other reagents and materials for use in clinical settings, as well as bulk pharmaceuticals and intermediates for generic drugs. Our company policy embodies our dedication as a chemical manufacturer to the field of life science. Employees with different fields of expertise in such fields as organic chemistry, inorganic chemistry, analytical chemistry and materials/polymer/biochemistry come together to collaborate and share ideas, a process that nurtures the future strengths of Tokuyama.

For more information, see videos (in Japanese)



Natsumi Hanazawa

Shigetoshi Kikuchi



SPOTLIGHT

TS Manufacturing Section, Kashima Factory

Delivering a stable supply of high value-added products with comprehensive collaboration

The Kashima Factory manufactures distinctive high value-added products. This includes photochromic materials created advanced organic synthesis technology. Our products have been widely used as light controlling materials for eyeglass lenses, which protect our eyes from UV-rays with quick color changing.

The manufacturing section collaborates with other sections, including the manufacturing technology section and environmental & safety section, to meet different requirements for new products. We are able to directly view the products, which makes us highly motivated.

For more information, see videos (in Japanese)



Takashi Ogasahara

Shizuka Hosoda



Promoting utilization and application of wastes and byproducts to establish new business drivers for the future

This business was launched in April 2021 with the integration of environment-related businesses from throughout the Tokuyama Group. Convinced that today's rapidly advancing environmental regulations and concerns present business opportunities around the globe for the better future, we are helping to build a sustainable world by developing water treatment technologies using ion exchange membranes and promoting waste gypsum board recycling.

Waste gypsum board recycling

Enabling total recycling using unique technology to recrystallize gypsum powder from waste gypsum boards



ACTIVITY HIGHLIGHTS

- » Respond to expanded demand for water treatment membranes due to strengthened environmental regulations
- » Expand Environment business in waste gypsum board, photovoltaic modules and others
- » Commercialize developed next-generation energy technologies

Environment Business

Facilitating the acceptance of wastes by various recycling equipment and pursuing the commercialization of next-generation energy technologies.

Major Technologies:

- Waste gypsum board recycling
- Photovoltaic module recycling

Ion Exchange Membranes Business

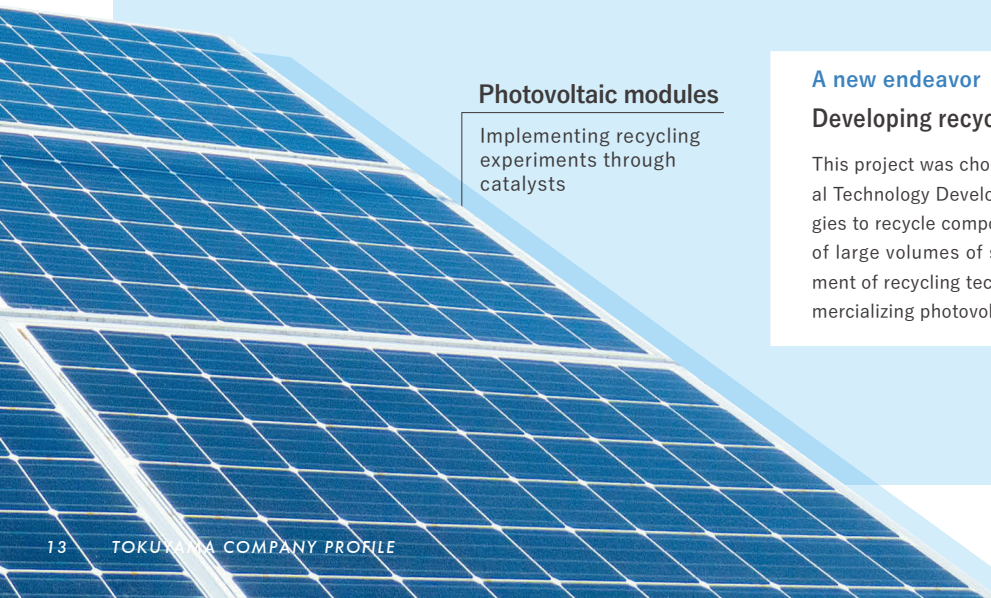
Planning global development of water treatments that utilize world-class hydrocarbon-based ion exchange membrane technologies.

Major Products:

- Ion exchange membranes
- Electrodialyzers

Photovoltaic modules

Implementing recycling experiments through catalysts



A new endeavor

Developing recycling technologies for Photovoltaic modules

This project was chosen in an open call from the New Energy and Industrial Technology Development Organization (NEDO) for developing technologies to recycle components from solar cell materials. Prepare for disposing of large volumes of solar panels, we have been working on the development of recycling technologies at Hokkaido in Japan, with the goal of commercializing photovoltaic recycling.

Ion exchange membranes

Utilized for producing drinking water, recovering valuable materials, treating liquid waste, and other applications

SPOTLIGHT

Takaaki Okamura **Astom Corporation**

Creating products helpful to society that continue to serve a wide range of applications

Astom is engaged in the development, manufacturing, and sales of ion exchange membranes, electrodialyzers and associated systems. I work on developing ion exchange membranes, or film, used in the core component of electrodialyzers. Ion exchange membrane technology has been used for over 50 years, and its applications have expanded over time. Developing products to suit the times is a major focus of our research. For example, the needs for a technology that was initially created to produce salt are now more diverse and have come to include recovery of valuable materials in the energy field,

food processing, and water and effluent treatment.

The topic of my own research is development of ion exchange membranes for use with wastewater. Recently, we have requests for product development not only from Japan, but also from the rest of Asia, particularly China, as well as Europe. These requests vary and involve everything from improving durability to reducing waste. The path to development isn't easy, but knowing I'm involved in developing products that help solve environmental issues and contribute to society boosts my motivation and keeps me inspired.



For more information, see videos (in Japanese)



The great thing about Tokuyama is being given discretionary authority. Although instructions do come from higher up, our corporate culture allows us some freedom to try out our own ideas, as well.



Long-established business known for advanced technologies and high quality

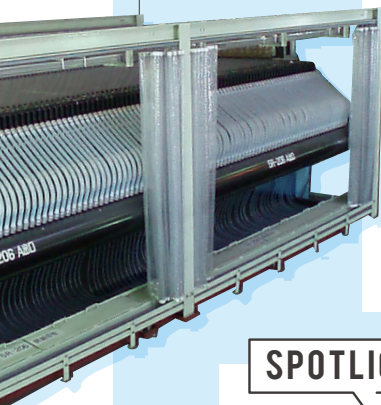
We manufacture basic chemicals essential for daily life, including caustic soda, soda ash, and calcium chloride. We value our track record of stable supply and take pride in our work.

ACTIVITY HIGHLIGHTS

- » Engage in innovative, sustainable and environmentally-friendly manufacturing processes
- » Improve electrolyzer cell energy efficiency to world-class levels, reduce CO₂ emissions through energy saving
- » Improve manufacturing processes and supply chains through promoting digital transformation

Caustic soda

Using electrolysis of salt water to produce caustic soda; employing comprehensive energy-saving technologies and ensuring high quality



Chlor-Alkali/Vinyl Chloride Business

Offering a diverse product portfolio that leverages our strong technical capabilities, from chlorine derivatives such as caustic soda, chlorine, and hydrochloric acid to raw materials for polyvinyl chloride resin.

Major Products:

- Caustic Soda •Polyvinyl chloride resin
- Vinyl Chloride Monomer •Propylene Oxide
- Sodium Hypochlorite

Soda Ash and Calcium Chloride Business

Sole manufacturer of soda ash and granulated calcium chloride in Japan; maintaining a high level of quality control and safe management of the equipment, and producing a grade of sodium bicarbonate suitable for high-quality bulk pharmaceuticals for drugs; consistently delivering stable supplies using proven technologies.

Major Products:

- Soda Ash •Sodium Bicarbonate
- Sodium silicate cullet •Calcium Chloride

SPOTLIGHT

Tatsuya Oyama
Chemicals Manufacturing Dept. 1

Improving our technical skills to increase competitiveness



For more information, see videos (in Japanese)



Soda ash may not be a common product, but as a raw material it is indispensable to glass. That's why we believe that fulfilling our responsibility to provide unwavering quality and a stable supply is so important. With soda ash produced outside Japan recently becoming more prevalent, the competition is heating up, but we're proud to be the only company producing this material in Japan. We will maintain our competitive edge by boosting technical capacity and leveraging the brand strength of our made-in-Japan products.

Cement

Building the optimum manufacturing, sales and distribution system to nimbly respond to the changing business environment

Supporting social infrastructure with cement products

The cement business began with the goal of effectively utilizing byproducts at the Tokuyama Factory. The cement products are used to build the social infrastructure that supports people's day-to-day lives.

ACTIVITY HIGHLIGHTS

- » Introduce energy-saving equipment to reduce CO₂ emissions
- » Reduce use of coal by increasing combustion amount of waste plastic

Cement Business

Offering a wide range of cement products to provide solutions tailored to usage and utilization conditions, from general construction work to high-rise construction.

Major Products:

- Cement
- Cement-type stabilizer
- Ready-mixed concrete
- Concrete repair materials

Recycling Business

Practicing resource recycling by effectively utilizing waste materials and byproducts by using the cement manufacturing process, thereby helping to build a recycling-oriented society that makes effective use of precious resources.

Major Technoligise:

- Use of waste plastic as a thermal energy alternative
- Recycling ash from incinerating urban waste

SPOTLIGHT

Kohei Omura
Cement Development Dept.

Developing cement-based environmental technologies

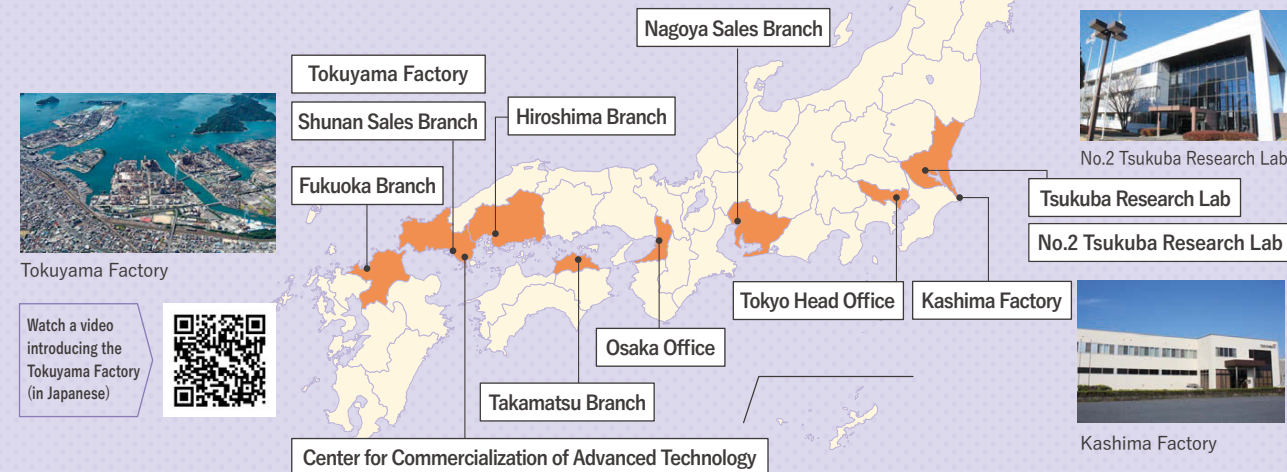
Tokuyama was one of the first in the industry to tackle recycling waste materials. The Cement Manufacturing Dept. recycles coal ash, a byproduct of generating electricity, at its power plant. Meanwhile, we're also conducting research and experimenting with additional recycling methods to help the world by resolving key social issues.

For more information, see videos (in Japanese)



Business Locations [as of June 2024]

From our establishment in current Shunan-shi, Yamaguchi Prefecture, Japan, our globally growing business has spread to major world cities in and outside Japan, with a concentration in Asia.



[Tokuyama Factory:Registered Address]
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[Hiroshima Branch]
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Naka-ku, Hiroshima-shi, Hiroshima 730-0017, Japan
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[Takamatsu Branch]
New Annex, Takamatsu Dai-ichi Seimei
Building 1-1 2-chome, Kotobuki-cho,
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TEL+81-87-822-0063 FAX+81-87-822-3627

[Fukuoka Branch]
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[Nagoya Sales Branch]
Sky Oasis Sakae building, 2-9 Shinsakaemachi,
Naka-ku, Nagoya-shi, Aichi 460-0004, Japan
TEL+81-52-253-9411 FAX+81-52-253-9412

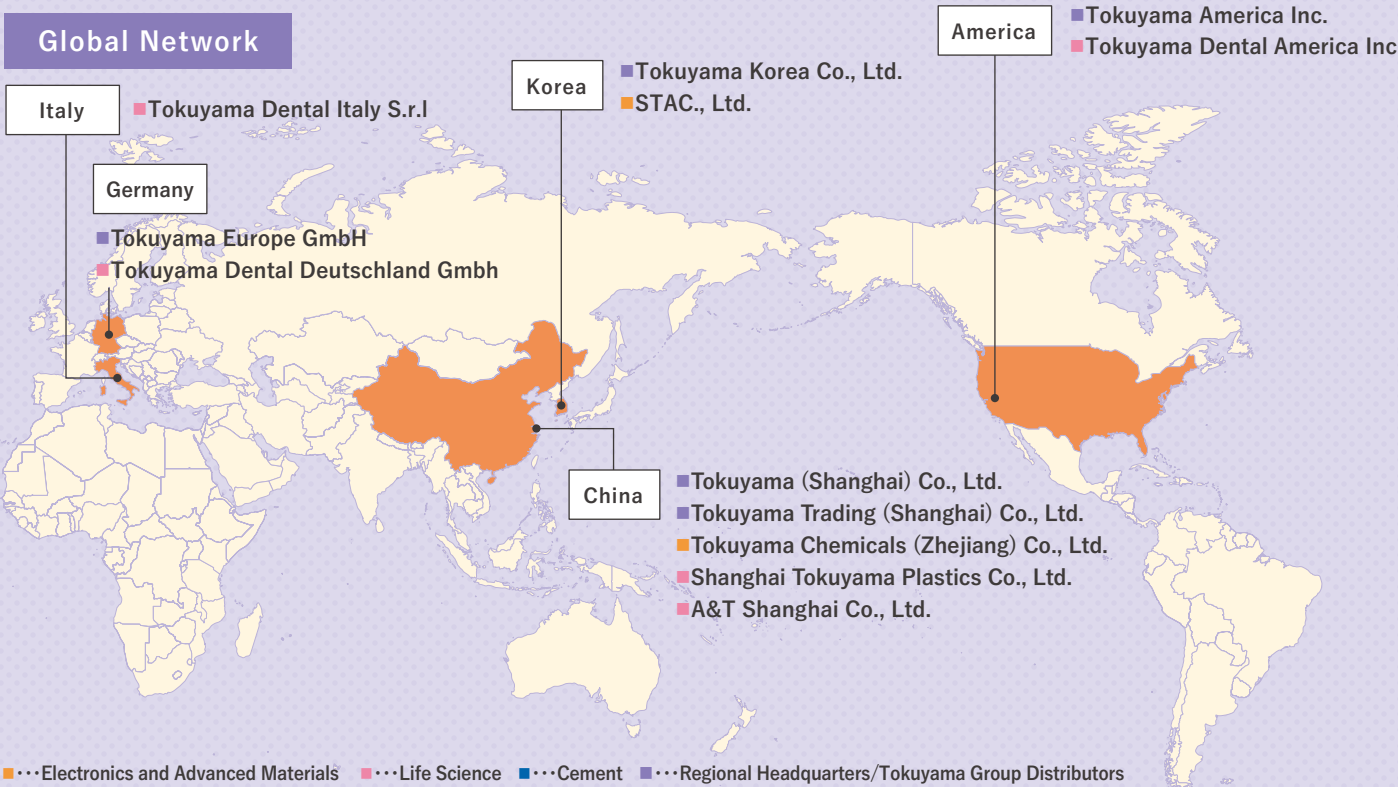
[Shunan Sales Branch]
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[Center for Commercialization of Advanced Technology]
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Yamaguchi 742-0023, Japan
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Manufacturing sites for High-purity isopropyl alcohol (IPA) for electronics manufacturing in Taiwan



Manufacturing sites for electronic and advanced materials such as Fumed silica in China



Tokuyama Nouvelle Calédonie S.A.

Group Companies In Japan

Advanced Materials

Tokuyama-DOWA Power Materials Co., Ltd.

Life Science

Tokuyama Dental Corporation
A&T Corporation
ASM Inc.

Eco Business

ASTOM Corporation
Tokuyama Chiyoda Gypsum Co., Ltd.
FL Tokuyama Corporation

Chemicals

Tokuyama Soda Trading Co., Ltd.
SUN ARROW KASEI CO., LTD.

Cement

Tokuyama Tsusho Trading Co., Ltd.
Kagawa Tokuyama Co., Ltd.
Tokyo Tokuyama Concrete Co., Ltd.
Kawasaki Tokuyama Ready Mixed Concrete Co., Ltd.
Sanyo Tokuyama Ready Mixed Concrete Co., Ltd.
Chugoku Ready Mixed Concrete Co., Ltd.
Hiroshima Tokuyama Ready Mixed Concrete Co., Ltd.
Seibu Tokuyama Ready Mixed Concrete Co., Ltd.

Shirokawa co., Ltd.
Kyushu Tokuyama Ready Mixed Concrete Co., Ltd.
Toyomi Co., Ltd.
Notsuharu Co., Ltd.
Tokuyama Mtech Corporation
Yamaguchi Eco-tech Corporation

Others

TOKUYAMA KAIRIKU UNSO K.K.
Shunan System Sangyo Co., Ltd.
Shunan Swimming Club Co., Ltd.
Shunan Bulk Terminal Co., Ltd.
Tokuyama Polypropylene Co., Ltd.
Tomitec Co., Ltd.
Oita Mining Co., Ltd.

Visit for more contact information



Videos about Tokuyama

Watch a video introducing Tokuyama Corporation



For the People of Tomorrow



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