## **SEKISUI**

# There's another good reason for choosing SEKISUI products.





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# SEKISUI products contribute to solving environmental and societal issues, not only during manufacturing but also during customer use.

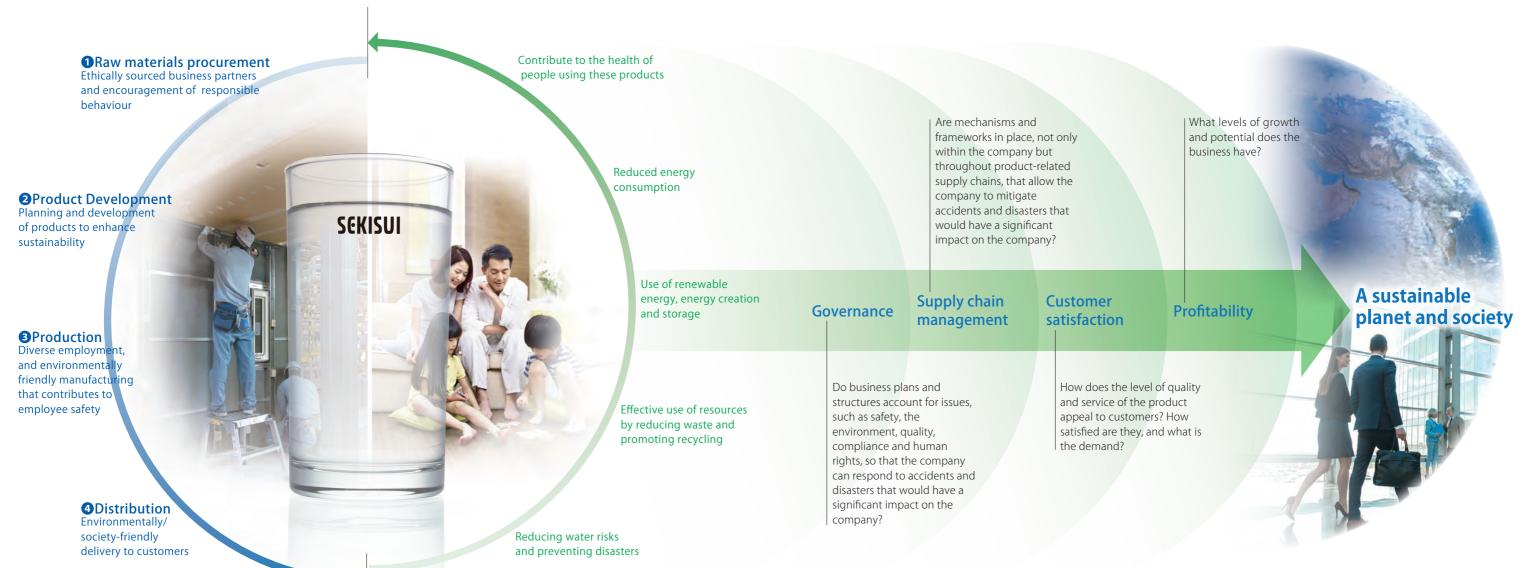
Our goal is to achieve a sustainable society by 2030.

In order to achieve this, the SEKISUI CHEMICAL Group focuses on creating products that contribute to solving environmental and societal issues, not only through in-house initiatives but also throughout the supply chain and after purchase by our customers.

Our hope is to be a sustainable society—one that supports the foundations of life and builds peace of mind for the future.

# Aiming for unlimited contributions to the planet and society, SEKISUI pursues sustainability in all areas—in-company, across the supply chain and with customers.

In order to maintain activities that contribute to a more sustainable planet and society, a company must also maintain its own sustainability and the sustainability of its product creation process. Beginning in fiscal 2020, SEKISUI began developing activities to contribute to the sustainability of the planet and society by adding items such as governance, supply chain management, client satisfaction and profitability to the frameworks by which we evaluate products and services.



#### What SEKISUI can contribute

As a manufacturer of products, we consider it our responsibility to be friendly to the environment and society within our company. From raw material procurement to product development and plant manufacturing, we reduce our environmental impact at each stage of production and conform to ethical quidelines and standards.

#### What Customers can contribute

Through customer use of our products we contribute to the planet and society in a variety of ways, including reduced greenhouse gases through use of renewable energy, effective use of resources, and longer healthy life expectancies.

## How we ensure SEKISUI corporate activities are sustainable

Even if corporate activities contribute to the planet and society, those activities cannot contribute to the future unless they are sustainable. SEKISUI contributes to global sustainability through its own growth as a corporation.

## How we maintain our customer and business partner relationships

To maintain corporate activities, sustainability among customers and business partners is as important as company sustainability. SEKISUI aims to achieve a more sustainable world in collaboration with all stakeholders.

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Contributions to the planet and society through customer business activities

Use/Maintenance

From product design to production, sales, disposal and recycling. SEKISUI CHEMICAL Group's products to enhance sustainability contribute to the planet and society in a variety of arenas, whenever customers use our products in their businesses.

Product names with secontribute to the natural environment, and those with contribute to the social environment.



Use/Maintenance



## Energy Self-Sufficient House "SMART HEIM"

Equipped with solar generators and batteries Homes that not only reduce CO<sub>2</sub> through better energy saving, creation and storage, but also protect families in the event of infrastructural blackouts due to natural disasters or other events.

Recycling/Use and application

#### "Smart HEIM Denki" surplus solar power purchasing service 🔮

Purchasing and sales of surplus solar energy after closing of feed-in tariff (FIT) purchasing schemes.

#### Maintenance

surplus solar power

purchasing service 👙

Construction • Designing

Fire-resistant material

fireproof material that

when a fire occurs.

expands due to heat and

A new type of fire resistant /

forms a heat insulating layer

"Fi-Block"



#### Infrastructure renovation business "Infrastructure quard" series 🛊

Used for preventive maintenance, repair of concrete structures and steel structures, longevity of infrastructure facilities such as railways and roads.

#### ■Usage ●Shipping/Sales



#### Synthetic wood "Éslon Neo Lumber

Lightweight corrosion-resistant structural material made of resin that has sufficient strength as a structural material, making it light weight like wood, with water resistance and durability.

Construction

Installation renovation 🍪

High performance

polyethylene pipe

Resin made tatami

"Migusa" 🔮

Lithium ion

battery 🛞

High weatherproof gutter 🔮

for air conditioning piping

"Kuu Chow Hyper CH" 👙

Large capacity film type

Energy Self-Sufficient House "SMART HEIM" 🖠

Solar power generation, storage battery, HEMS



#### Pipeline rehabilitation method "SPR Method"🍪

Construction method which can renew the old sewer pipe without excavating the road by applying it inside the existing pipe.

#### Designing



Infrastructure renovation business

High impact PVP "Tough Vilon"

Polyethylene pipes and fittings

for gas distribution system |

"infrastructure guard" series 🛊

(Used for tunnel drain)

and fittings for sewage

Polyethylene pipes

Material Procurement

Fire-resistant

material

· Fire-resistant material "Fi-Block" 🖠 · Heat screen material "Heat cooling net" ≬

Infrastructure

Construction

Maintenance

Heat screen door kit "Smart cooling window"

"Fi-Block"

#### Communication Cable Box "CC-BOX"

Collective piping method to house power and communication cables in the space under the road. Reduce cable damage and damage to the surrounding environment in the event of a disaster

#### Designing



#### Automobile heat dissipation grease 🍪

Very low thermal resistance realized by thinning the layer. Easy to handle, easy to dispense and apply to substrates

#### Collection/Recycling



#### ABS recycling system "ALLEN" grade 🍪

A system that makes a contract to buy back the end material from customers who purchased the product and recycles the end materials

#### Usage •Shipping/Sales



#### Tank maintenance renewal/FDNS method

Due to the dual tank system renewal work can be performed for each tank, without the stoppage of water as replacement work for the receiving tank is being performed.

#### **Manufacturing** at Factories





Designing

Automotive

heat dissipation grease LCD materials: 3800 Series double-faced tape for fixing of LCD components

Material Procurement

Production

Shipping/Sales

#### Hot melt adhesive "Zero-Pack" 🍪

AP/E atmospheric

- pressure plasma etching machine \$
- Medical PP sheet, medical PE sheet
- Protective tape for diffusion films 🌗

#### Use/Maintenance

#### · Medical liquid transport container "Steritainer" 🍪

"Rontainer" for inspection reagents •

Communication

Cable Box

"CC-BOX"



Shipping/Sales

"SPR Method"

"Cross-Wave" 💸

Synthetic wood

Pipeline rehabilitation method

Rainwater storage material

Hard polyvinyl chloride pipe

"Eslon pipe+ (Plus)"

Soundproof rail cover

"Eslon Neo Lumber FFU" 🍪

#### ABS recycling system "ALLEN" grade 👙

Construction/Disposal

Soundproof rail cover

Slanted sewage plates †

Storable emergency toilet systems †

• 3-layer containers made from recycled materials "Green Label"

Synthetic wood "Eslon Neo Lumber FFU" 🔮

Reflector built-in sound absorbing panel

- · Plastic winding core (ABS) 🦠 Plastic winding core (PP)
- · Container for waste/recycling sorting "Clear Eco Duster"
- Rain water storage material "Cross-Wave"
- Artificial lumber "ASHERA Wood"
- Recycling containers

#### Tank maintenance renewal /FDNS method

- Pipe/duct insulation "THERMOBREAK"
- For outdoor fire hydrant installation High performance polyethylene pipe "Eslon Hyper AW fire 🛊 extinguishing pipes and fittings'
- Polyethylene pipe for industrial water /chemical liquid pipe "Eslon plant hyper BK"
- Heat exchange coating "Sekisui Protect Court (SP)" 💖

#### Shipping/Sales



#### Medical liquid transport container "Steritainer"

High-quality, transparent, flexible container capable of γ -ray sterilization treatment, Maintaining aseptic condition, ideal for pharmaceuticals and food

#### Production



#### Hot melt adhesive "Zero-Pack"

Hot melt adhesive packaged in a non-adhesive film used for sanitary materials such as paper diapers. Packaging bags can be put into tanks not disposed as waste.

## Contributions to the planet and society through daily lifestyles

In towns, factories, infrastructure, transportation systems. SEKISUI CHEMICAL Group's products to enhance sustainability contribute to the planet and society in various arenas of daily life, often in ways that people cannot see.

Product names with 

contribute to the natural environment, and those with contribute to the social environment.

#### **Aviation**

• Thermoforming sheet for aircraft interior "KYDEX aircraft grade"



Recyclable molded parts which satisfy strict safety standards and design properties of the aircraft industry, such as lame retardancy and impact resistance. It s used for seat sheets, tray tables, and such., which contributes to fuel reduction through reduced weight.

#### Medical / Nursing care

Diagnostics Business



Business development for various clinical examination drugs such as diabetes and infectious diseases, vacuum blood collection tubes made of resin, analyzer and others. Early detection of illness contributes to a longer healthy life through prevention of severity and expansion of infection.

- Nursing care / Independence support facility "wells" \( \big| \)
- Disaster-prevention type of elderly housing "Harvestment"
- Automatic coagulation analyzer Coapresta series "CP 3000"
- "Steritainer" for Medical liquid transport container

#### Construction

• Fractal sunshade materials "Airyshade" 🦠

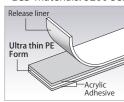


The goal to create a new sunscreen by combining units of a three-dimensional shape conforming to the structure of trees composed of many leaves. Temperature increase is small, providing shade like trees

• Rain water storage material "Cross-Wave" 🖇

#### **Electronics field**

• LCD materials: 5200 Series functional foam tape 🖇



Thin foam double-sided tape with high impact absorption performance. Adopted as a liquid crystal display for mobile phones, prevents damage due to dropping, contributing to improvement of water

- LCD materials: gap-control microparticles "MICROPEARL SP, GS" 👙
- Ceramic binder for MLCC (multilayer ceramic capacitor)

#### **Automobile**

Sound and solar interlayer film "S-LEC"



Interlayer film used for automotive and architectural glass. Improve sound /heat insulation, reduce weight of material by thinning glass, improve efficiency of air

- Foam for automobile flooring materials "Alveosoft" 🔮
- Automobile heat dissipation grease 🍪

#### Housing

· Resin made tatami "Migusa" 🦠



Tatami mats made of durable polypropylene and natural inorganic materials Maintaining a natural texture, it lasts longer than tatami using natural rush grass and contributes to effective utilization of

- SMART HEIM City, SMART HEIM Town 🍪
- Heat shield screen material "Heat shield cool net"
- Heat screen door kit "smart window cool"
- Highly insulated floor/bathtub

#### Infrastructure

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AR SE SE SE

Reinforced plastic composite pipe "RCP"



Multilayered reinforced plastic tube made of glass fiber, unsaturated polyester resin and silica sand. It exerts excellent hydrity, durability, light weight and contributes to reduction of total cost.

- Pipeline rehabilitation method "SPR Method"
- Polyethylene pipes and fittings for gas distribution system
- Polyethylene pipes and fittings for sewage |

#### Railway

Soundproof rail cover



Soundproof rail cover that smooths the uneven surface of railway tracks and suppresses noise during operations. Contribute to saving resources by reducing the weight of our own vibration damping technology and structure.

- Synthetic wood "Eslon Neo Lumber FFU"
- Thermoforming sheet for railway interior "KYDEX Railway Grade" 🔰

HIIII MANIET

Street,

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# Measuring and evaluating the financial impact of our sustainable activities

Corporate activities rely on the use of natural and social capital. Therefore we adopted our own evaluation method named SEKISUI Environmental Sustainability Index\* in order to assess environmental impacts caused by activities through the use of natural and social capitals.

We are confirming our committment to "Earth with Maintained Biodiversity (sustainable earth)" aiming to realize this goal in 2050, as demonstrated by empirical data.

\*Based on the "LIME2" method es tablished by professor Itsubo and team of Tokyo City University, which shows the percentage of burden on the environment that is replenished if the burden on the environment is set at 100.

## **Plan**

## Maintaining a 100% or greater natural /social capital return rate!

How can we improve sustainability for the planet and society? The plan begins with drawing a clear plan. We at SEKISUI CHEMICAL Group have embarked on activities that aim for 100% or greater return of natural and social capital by 2050.

# Keeping the natural & social capital balanced through: Expand & create products to enhance sustainability Our workforce is aware of the natural and social environment, and contributes and

stakeholders\*

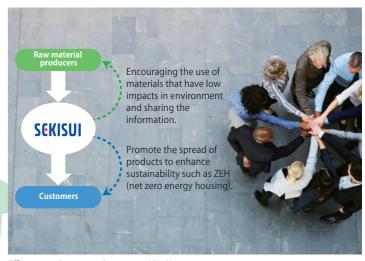
SEKISUI CHEMICAL Group's long-term environmental vision

\*Stakeholders: "Customers", "Shareholders", "Employees", "Business partners", "Local Communities and the Environment"

## **Action**

## Develop activities involving even business partners.

Analysis shows that the company's contribution through products is the largest. Furthermore, it is crucial to mention the importance of activities to reduce environmental impact in collaboration with customers and business partners. Our focus on products to enhance sustainability are based on these findings.



Efforts to reduce greenhouse gas (GHG)

#### Do

#### Focusing on three activities, Sekisui Chemical Group is currently promoting:

Currently, the SEKISUI CHEMICAL Group develops company-wide activities focused on three main areas, involving departments ranging from R&D to sales: expanding and creating products to enhance sustainability, reducing environmental impacts, and conserving the environment.

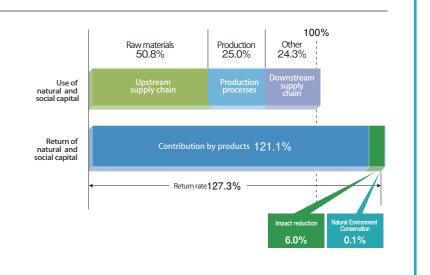


Inspection of heat leak condition of equipment at production site

## Check

## Evaluate "visualization" of the return rate of natural and social capital

We developed the "SEKISUI Environmental Sustainable Index" to analyze the return rate of natural/social capital. We calculated the environmental impact over the life cycle of the product as an impact on greenhouse gas climate change, resource depletion, ecosystem degradation, social assets, etc.



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Safe, sound, environmentally friendly and sustainable towns. This concept guides the SEKISUI CHEMICAL Group's efforts to create the towns of the future.

#### **SEKISUI CHEMICAL Group's city planning project:** The SEKISUI Safe & Sound Project

The Safe & Sound Project—which is built around a concept of safe, sound, environmentally friendly and sustainable towns—relies on a wide range of SEKISUI CHEMICAL Group products and services. SEKISUI infrastructural technologies support the city, safeguarding lifelines such as electricity and drinking water, and ensuring resilient homes where people can shelter in times of emergency. The project was first implemented as Asaka Leadtown, in Saitama Prefecture's Asaka City, and is now in the process of being expanded throughout Japan.























Examples of products to enhance sustainability used in city-planning

#### TOPIC

#### With the focus of the world, SEKISUI CHEMICAL's Innovative Resource Recycling System now produces chemical products from garbage!

The majority of waste produced in Japan is incinerated.

The SEKISUI CHEMICAL Group developed the world's first technology to recycle this waste as raw material. This technology converts collected waste into a uniform synthetic gas, from which ethanol is then produced using the power of microbes.

With world's attention as the ultimate resource recycling system, it turns any burnable garbage into reusable raw material, not relying on fossil resources. As part of demonstrating BR ethanol technology—which is the last step in practical implementation and industrialization—SEKISUI has built a demonstration plant in Kuji, Iwate, at

1/10th of scale, with operation and demonstration projects scheduled to begin by the end of fiscal 2021. The SEKISUI Chemical Group has also been cooperating with Sumitomo Chemical since 2020. Aiming for public adoption of technologies to manufacture polyolefin from waste, Sumitomo Chemical will begin experimental production of polyolefin in fiscal 2022, using the ethanol created at our demonstration plant.



Fermentation liquid and refined products created from the ethanol production process



Demonstration plant completed in April 2022 in Kuji City, Iwate Prefecture

#### **Contribution to SDGs**

## **SDGs proposed by the United Nations** for the sustainable development of the world. The SEKISUI CHEMICAL Group shares these goals to create a better world.

The corporate activities that we are engaged in contribute to the nature and society are solutions for SDGs advocated by the United Nations as the 17 tasks to be achieved for the sustainable development of the world. SEKISUI CHEMICAL Group will continue to actively promote activities as a responsible corporate citizen.





#### In 2015, the SDGs were created to highlight global issues that need to be solved.

While protecting our lives and the earth, we also work to solve the various problems and create a rich and wonderful future. SDGs, proposed by the United Nations for this purpose in 2015, clarified the issues that the world should unite to address, including climate change, resource depletion, ecological deterioration, and such. Contributions that SEKISUI CHEMICAL Group products and services make to the planet and society are in full alignment with the goals of the SDGs.



New York UN headquarters displaying SDGS icor

## responsibilities is vital to solve the problems.

**Expanding corporate engagement** 

In addition to environmental consciousness as well as cooperation society, we must respond to the needs of our society, giving greater consideration to everything in the product life cycle and encourages suppliers of raw materials to reduce greenhouse gas emissions, and also start to make an effort in involving the supply chain as well. We will continue to work with our business partners and other stakeholders to resolve issues related to the SDGs, through corporate activities centered on our products to enhance sustainability.

- 2. Zero Hunger
- 3. Good Health and Well-Being
- 4. Quality Education
- 5. Gender Equality
- 6 Clean Water and Sanitation
- 7. Affordable and Clean Energy
- 8. Decent Work and Economic
- 9. Industry, Innovation, and

- 10. Reduced Inequalities
- 11. Sustainable Cities and Communities
- 12. Responsible Consumption and Production
- 13. Climate Action
- 14. Life Below Water 15. Life on Land
- 16. Peace, Justice and Strong
- 17. Partnerships for the Goals

