

Business Overview

Since Toyoda Gosei's establishment in 1949, we have been providing products and services with high functionality and quality based on our rubber, plastics and their formulation technologies in cooperation with various stakeholders involved in development, design, procurement, production and sales.

Safety Systems

Since starting mass production of driver-side airbags in 1989, we have introduced various airbags to the market, achieving 360° full coverage that protects occupants from impacts at various directions. In addition to producing pedestrian protection devices, we are actively developing next-generation technologies such as preventive safety.

 For more details ▶ <https://www.toyoda-gosei.com/seihin/safety/>



Interior and Exteriors

We offer a wide range of interior parts, including instrument panels and console boxes that enhance interior comfort, as well as exterior parts like radiator grilles that contribute to vehicle design. Many of these products are highly visible, ensuring not only functionality but also high aesthetic quality.

 For more details ▶ <https://www.toyoda-gosei.com/seihin/naigaisou/>



Functional Components

Our fuel and brake-related components are essential for supporting the fundamental functions of "driving," "turning," and "stopping." Alongside exceptional quality, we pursue weight reduction and compact design, maintaining a world-class market share over many years.

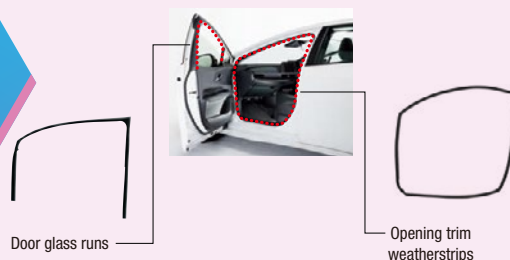
 For more details ▶ <https://www.toyoda-gosei.com/seihin/kinou/>



Weatherstrips

Products like door and window seals protect interiors from rain, wind, and noise, while also aiding smooth door operation and window movement. These products hold a top market share globally and are supplied from production bases both in Japan and internationally.

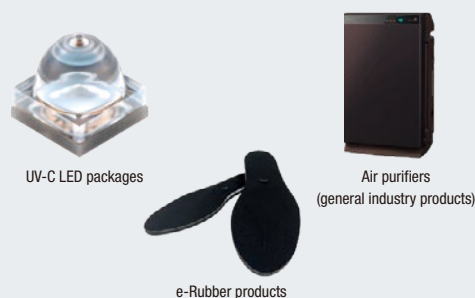
 For more details ▶ <https://www.toyoda-gosei.com/seihin/body/>



Life Solution

Leveraging the expertise and technological capabilities gained through automotive parts and blue LED development and production, we are developing and selling products in new fields.

 For more details ▶ <https://www.toyoda-gosei.com/seihin/lifesolution/>



Initiatives and Progress toward the 2030 Business Plan

Safety Systems

Strengths

- Product development utilizing world-class CAE technology*
- Development and production bases covering growing markets
- System proposal capability integrating surrounding components with airbags

* Computer-aided engineering (CAE) analysis technology in the mechanical design process

Issues

- Product development addressing diverse accident scenarios
- Development and production systems ready to meet global market expansion
- Product development adapting to the transformation of mobility

Priority Initiatives for FY2023

In addition to securing orders for existing products, recent developments, including high-performance steering wheels and far-side airbags, have been highly praised, leading to new business expansion with customers in Europe and the Americas.

Enhanced Global Production System

In India, a growth market, we have relocated and expanded our R&D base to enhance local development capabilities. To support the increase in automobile production, we have expanded the Neemrana Plant in the north and will establish a new plant in Halohalli in the south by 2026.

In Brazil, we are also expanding production capacity for safety systems to support increased sales, with production facilities for airbags and steering wheels scheduled to commence operation in July 2025.



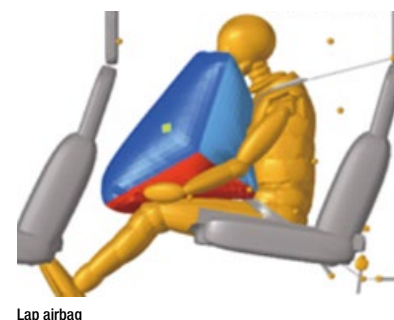
Toyoda Gosei Technical Center India



Neemrana Plant in India (Operational in '24)

Development of New Products

To prepare for stricter future assessments and the expansion of autonomous driving, we are advancing the development of high-function seat belts and airbags optimized for diverse accident scenarios and occupant physiques, creating occupant protection systems with optimal combinations. We will also conduct development of new concept occupant protection products, such as lap airbags, that improve the degree of freedom in cabin interior design and accommodate diverse riding postures, particularly during autonomous driving.



Lap airbag

A bag integrated into the seat belt inflates to protect the occupant

Enhancing Relationships with Partner Manufacturers

In addition to our existing efforts, we are enhancing our partnerships by collaborating on various activities with specialized manufacturers to grow as a comprehensive safety systems supplier and remain competitive.

Integrated Airbag and Seat Belt Development

In November 2023, we increased our investment in Ashimori Industry Co., Ltd., a seat belt manufacturer, to enhance our capital and business partnership. Specifically, by complementing each other's technologies and expertise, we are now proposing airbag and seat belt sets to customers, highlighting the potential for system development, which has led to greater participation in advanced development and expanded orders. Furthermore, we are introducing Toyoda Gosei's TPS principles to Ashimori Industry Co., Ltd., promoting efficient manufacturing by improving productivity and streamlining processes to save space. Production outsourcing for certain airbags is planned to begin around the summer of 2025.

Through such efforts, the two companies will maximize synergies across development, design, sales, procurement, and production.



Integrated development of airbag and seat belt

Enhancing Competitiveness in Inflators

For inflators, a key component of airbags, we are sharing our growth and sales strategies with specialized manufacturers Daicel Corporation and Nippon Kayaku Co., Ltd., working together to enhance product competitiveness through localization and unified manufacturing in target regions like India and ASEAN.

With Daicel Corporation, we launched the "TGD Project" (TG = Toyoda Gosei, D = Daicel) to establish a new inflator production line at Daicel's Harima Plant. By leveraging both companies' manufacturing strengths, we achieved approximately 50% reduction in capital investment costs, reduced labor requirements, and shortened production speeds, resulting in both cost savings and high-quality production. Additionally, with our Executive Vice President, COO, CMO Hiroshi Yasuda's appointment as an advisor to Daicel Corporation, we are enhancing collaboration across a broader range of areas, including new business opportunities, to promote mutual growth.

Moving forward, we will continue to contribute to a safer and more comfortable mobility society globally through the dissemination of safety components.



TGD line inspection by our management team

Interior and Exteriors

Strengths

- Capabilities to develop, design, and produce high-quality decorative variations, electromagnetic wave-transparent products, and mechanical products
- Factories equipped with the latest production technologies for major manufacturing processes (molding, painting, etc.)
- Realization of new decorative technologies, such as hot stamping and in-mold painting

Issues

- Development of products and production technology that anticipates design, functionality, and end-user needs, as well as customer trends
- Cost reduction and productivity improvement through state-of-the-art manufacturing (automation and production technology development)
- Development of recycled materials and expansion of material production equipment to support carbon neutrality

Priority Initiatives for FY2023

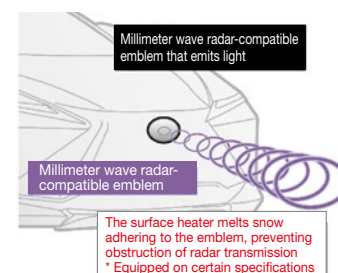
We have developed LED shadow illumination that enhances the diversity of interior design options and creates a unique interior space suitable for BEVs. Additionally, we developed the world's first emblem that combines millimeter-wave radar transparency and luminescence functions, which fuses advanced functionality and design, leading to new orders. In the Americas, a key region for our company, we are enhancing production capacity at our subsidiaries TG Missouri Corporation and TG Kentucky, LLC. This includes large painted products such as radiator grilles and back door garnishes, to offer a wide variety of high-function, design-responsive products that meet the evolving demands of HEVs, BEVs, and other diverse vehicle types. We plan to further expand our development and production framework across the Americas. In Japan, we are expanding our Seto Plant, enhancing production capacity while working to reduce CO₂ emissions by making the new building all-electric for implementing manufacturing that is also environmentally friendly.



LED shadow illumination



Millimeter wave radar-compatible emblem that emits light



Functional Components

Strengths

- Development of environmentally-friendly products by leveraging our expertise in the rubber and plastic fields
- Technology and manufacturing for high-quality production of critical safety parts
- Global supply system

Issues

- Development of low-CO₂ emission products for BEVs (natural-derived materials, use of material recycling, more lightweight designs, etc.)
- Development of products for BEVs, development of fuel system products (including CN fuels, e-fuels, etc.), and securing production resources

Priority Initiatives for FY2023

To support OEMs' multi-pathway strategy, we are promoting an all-encompassing approach. For gasoline, HEV, and PHEV vehicles, we are expanding sales of fuel system products that meet enhanced fuel evaporative gas (EVAP) regulations in regions where these standards are becoming stricter. For BEVs, we are allocating resources toward product and component technology development related to thermal control for batteries and other components to expand our business in line with BEV adoption. For FCEVs, high-pressure hydrogen tanks equipped with storage efficiency technology have been adopted in the Crown Sedan. In addition, these high-pressure hydrogen tanks are being used in ships and portable hydrogen cartridges, supporting hydrogen utilization across various forms of mobility and fields in everyday life. Through this, we continue contributing to the realization of a hydrogen-based society.

<Portable hydrogen cartridge (provided by Toyota Motor Corporation)>



For domestic use

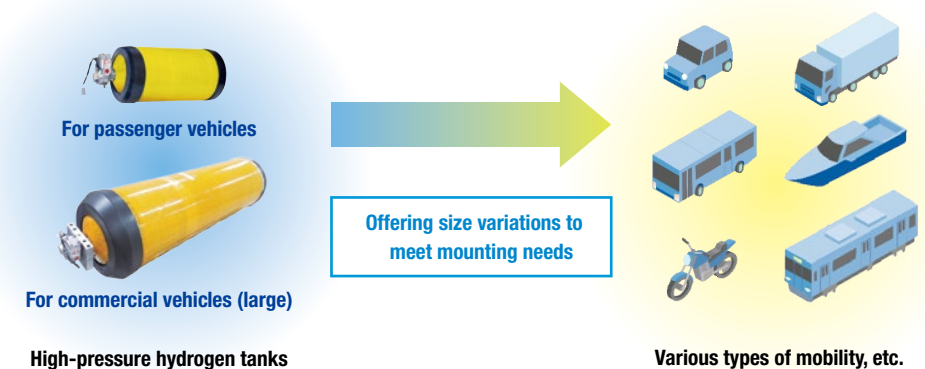
For Europe

Passenger ship equipped with hydrogen tank "HANARIA"



(Photo sourced from MOTENA-Sea website)

<Reference: Image for expanding hydrogen tank applications to realize a hydrogen society>



Weatherstrips

Strengths

- Rubber desulfurization and recycling technology
- Product development and evaluation technologies that contribute to more quiet cabin by leveraging knowledge in the rubber and plastics fields

Issues

- Establishment of a sustainable sealing product business despite the use of rubber materials that are difficult to recycle due to their high CO₂ emissions
- To meet the growing need for quietness due to the shift to electrification while reducing product costs

Priority Initiatives for FY2023

Initiatives Leveraging Our Strengths

In line with its goal of pursuing environmentally conscious and sustainable business practices as an automotive parts manufacturer, Toyoda Gosei is actively engaging in rubber recycling by leveraging rubber desulfurization and regeneration technology within its WS business.

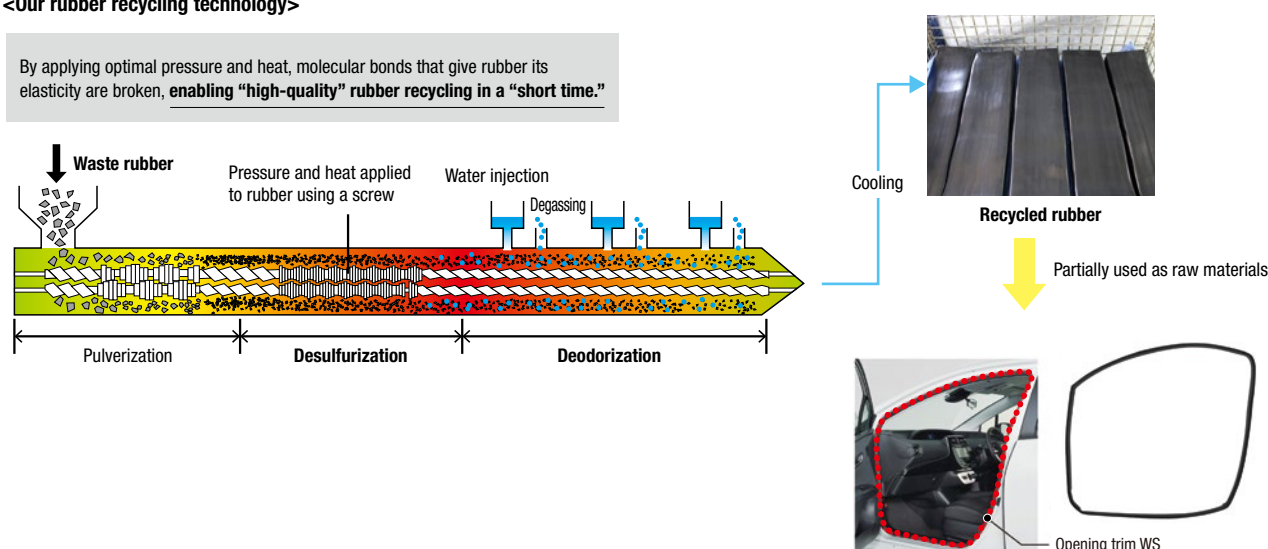
Already, recycled rubber is being used in in-house products such as weatherstrips and hoses. This year, Toyoda Gosei completed technological and product developments aimed at increasing the proportion of recycled materials used. Recognized for these efforts, the opening trim WS received the Mobility Component Award (Super Manufacturing Parts Grand Prize) in the FY2023.

Moving forward, Toyoda Gosei aims to develop and manufacture even higher-quality recycled rubber and to broaden its applications. Additionally, the WS business is contributing to quietness improvement by leveraging knowledge in the rubber and plastics fields. By improving sealing products around doors and windows, the company is helping to block external noise and enhance cabin quietness. In FY2023, Toyoda Gosei also advanced technology development that enables lightweight components while maintaining quietness performance, balancing improved fuel efficiency and driving performance.

With these advancements in quietness and lightweighting, Toyoda Gosei contributes to creating a more comfortable mobility environment.

<Our rubber recycling technology>

By applying optimal pressure and heat, molecular bonds that give rubber its elasticity are broken, enabling "high-quality" rubber recycling in a "short time."



Life Solution

Strengths

- Knowledge of LED field and materials
- Industry-academia-government collaboration

Issues

- Acceleration of establishment of technologies for quick business development in new fields

Priority Initiatives for FY2023

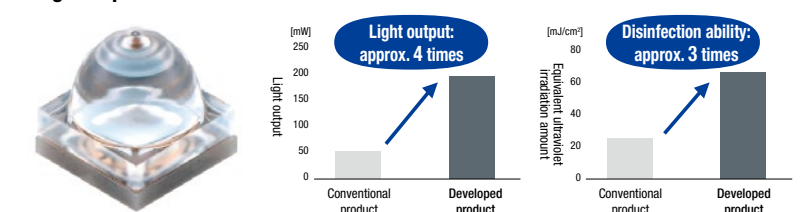
UV-C LED Business

UV-C light disrupts the genetic information of viruses and bacteria, inhibiting their reproduction, making it effective for various sterilization applications. Compared to traditional mercury lamps for sterilization, UV-C LEDs are mercury-free, environmentally friendly, compact, and long-lasting. These features led to the widespread use of UV-C LEDs during the COVID-19 pandemic in devices for air and surface sterilization. However, mercury lamps are still used in facilities like water treatment plants that require high sterilization power due to the lower output of UV-C LEDs.

By applying its expertise in blue LED crystallization and design, the company developed a UV-C LED achieving a world-leading optical output of approximately 200 milliwatts per chip (operated at 350 mA). By enhancing the LED's element structure, the extractable light output was increased by approximately four times, and sterilization capacity was boosted by about three times.

The expanded use of UV-C LEDs, including as a potential mercury lamp replacement, is expected to contribute to a more hygienic, thus safer and more comfortable, living environment.

High-output UV-C LED



Healthcare Business

With Japan approaching a super-aging society, there is a need to develop digital healthcare technologies for pre-disease, prevention, and prognosis in order to extend people's healthy life spans. In particular, early detection of frailty, a precursor to long-term care needs, is especially significant for the elderly.

The company is developing a system to detect pre-disease states using an insole with built-in pressure sensors (e-Rubber) to measure balance data of elderly when they walk and then process it through AI. In this development, we are participating in the Moonshot R&D project of the Cabinet Office in Japan, and are implementing efforts to improve the accuracy of data collection and analysis through medical-engineering collaboration with the university medical school, which is a partner in the project. We are also conducting demonstration tests with the general public in tie-ups with large-scale commercial facilities and local governments to accelerate activities for social implementation.



Right: Demonstration test at a commercial facility



“Re-S” Ethical Brand



As part of its efforts toward a sustainable society and SDGs management, Toyoda Gosei is reducing environmental impact across its entire production cycle, from material procurement to disposal. One of the key initiatives is the upcycling of materials that were previously difficult to recycle, such as airbag fabrics, into products for its ethical brand “Re-S.” Launched in September 2020, “Re-S” was born from the company’s internal *Mottainai* Activities, which began in 2018. This brand repurposes discarded automotive materials, creating upcycled products and promoting the reduction of waste. The name “Re-S” combines elements of “Re-use,” “Re-born,” and “Sustainability” to reflect its focus on enhancing environmental

sustainability.

“Re-S” uses discarded automotive parts to produce and sell upcycled products, such as durable tote bags made from airbag fabrics, thus contributing to environmental preservation and efficient resource utilization.

The brand also actively collaborates with various partners, including apparel brands, disability facilities, universities, and even entertainment industry figures (such as comedians). These collaborations support regional industry revitalization through product planning, sales, and events with professional baseball teams.

Additionally, the entire process from material procurement to product planning and sales is carried out by employees, helping the company build new knowledge and experience.

After four years of operations, “Re-S” continues to evolve its sustainability-focused project into one that also values people and the community. The brand has opened a store in the Endoji honmachi shopping district in Nagoya, where it engages with customers to raise awareness and enhance its brand recognition.

Moving forward, “Re-S” aims to further enhance both social and economic value, continuing to improve its corporate value.

● For more information about the “Re-S” ethical brand:

Instagram



X



LINE



Online
Shop



(Japanese only)