

BUSINESS STRATEGY

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Medical / Healthcare

Business Overview

The Life Sciences business includes the manufacture and sale of chiral (optical isomer) columns^{*1} (in which we have a large share of the global market) and separation services, which are used to analyze and acquire optical isomers in the development and manufacturing processes of pharmaceuticals. We are also working to expand our business domain into the biotechnology field. In the Healthcare business (Cosmetics and Health Foods), we aim to contribute to improving people's QOL^{*2}, and are developing high-quality cosmetic ingredients, marine-biodegradable spherical cellulose acetate particles (BELLOCEA®), and unique functional food ingredients produced from natural ingredients through extraction and bioconversion technologies.

^{*1} Chromatographic columns for separation of optical isomers (used for separation of active pharmaceutical components, etc.) ^{*2} QOL: Stands for Quality of Life and refers to not only physical wealth but also mental quality of life

Main Businesses	Main Products
Life Sciences	Chromatographic columns/stationary phases (chiral columns and achiral columns), chiral reagents, seperation services/purification services, analytical services, reagents for genetic analysis research, phamaceutical additives, new drug delivery devices
Healthcare	Cosmetic ingredients (polyglycerols, spherical cellulose acetate particles (BELLOCEA®), etc.), functional food ingredients (equol, konjac ceramide, urolithin, and lactobionic acid, etc.)

Daicel Group's Strengths

【Life Sciences】 A leading company in optical isomer separation technologies	Separation technology developed over many years since the commercialization of chiral columns in 1982, and a global network of pharmaceutical companies and researchers
【Life Sciences】 Special Medical Materials business	We promote business synergies through collaboration between medical businesses within the Group, such as Polyplastics' POM and COC (have superior functionality and are used as medical materials) and the Life Sciences SBU's Actranza® Lab (a new needle-free drug delivery device)
【Healthcare】 Unique manufacturing technology	In Cosmetics, it is possible to produce colorless, transparent polyglycerin with few byproducts and high water solubility. In Health Foods, we utilize our proprietary anaerobic fermentation technology* to manufacture with biotechnology intestinal metabolites that some people cannot produce in their body * Fermentation technology in the absence of oxygen

Our Business Environment

Opportunities	Risks
■ Increased activity in the development of new gene medicines and vaccines, triggered by vaccines for the novel coronavirus ■ Growth of the cosmetics market in Asia and recovery in domestic demand of inbound tourism. ■ Increasing demand for biomass and biodegradable raw materials in the cosmetics industry ■ Growth of the functional health foods market due to increasing health consciousness	■ Uncertainty over the Chinese economy ■ Technological innovation in the pharmaceutical and medical equipment fields as well as individualized market needs due to the decentralization of bases for research/clinical development and production ■ Replacement with new ingredients in healthcare products

Performance Targets, Capital Expenditures, Depreciation and Amortization

FY2024/3 Results				FY2025/3 Plans			
Net sales	Operating income	Capital expenditures	Depreciation and amortization	Net sales	Operating income	Capital expenditures	Depreciation and amortization
13.9 billion yen	0.8 billion yen	1.9 billion yen	1.1 billion yen	15.0 billion yen	0.8 billion yen	1.0 billion yen	1.0 billion yen

Growth Strategies

Full-fledged launch of efforts to obtain approval of medical equipment for new drug delivery devices



Actranza® Lab for experimental animal studies

The Group is accelerating its efforts to obtain approval of medical equipment for new drug delivery devices. Daicel established Daicel Medical Ltd. (hereinafter "Daicel Medical") in October 2023 and formed a strategic capital alliance with PharmaJet, a global leader in needle-free injection systems. In addition, Daicel Medical obtained a second-class marketing license for medical devices from the Tokyo Metropolitan Government in April 2024, which allows the company to manufacture and sell medical equipment in the second class or below in Japan. We are steadily establishing a structure toward applying for pharmaceutical approval for new drug delivery devices in Japan by FY2025/3 and subsequent FDA approval in the U.S.

The new drug delivery devices are drug delivery systems (hereinafter "DDSs") that utilize the One Time Energy® control technology we accumulated in the Safety Business. A precise depth control that is difficult to obtain with conventional injection systems enables us to effectively deliver pharmaceutical solutions into the skin where there are many immune cells. At the same time, the delivery of said solutions into cells is expected to allow for effective gene expression. With the future aim of using them in the fields of messenger RNA

vaccines and DNA vaccines where we can utilize these characteristics, we are proceeding with efforts toward their practical application with pharmaceutical companies and research institutions engaged in the development of new drugs. These needle-free DDSs are also garnering attention in terms of preventing medical accidents and reducing disposal costs, and we seek to obtain approval of medical equipment for subcutaneous DDSs, which have already gained a large market size in recent years.

With PharmaJet, we will jointly develop and deliberate on syringes that use materials owned by the Group and conduct joint marketing in Japan, the U.S., and Europe, leveraging PharmaJet's track record of commercializing needle-free injection systems in the U.S. and European markets as well as its partnership with pharmaceutical companies, and thereby collaborate on the launch of a global needle-free injection system market. At the same time, we will speed up efforts to expand our business centered on the Group's medical equipment.

Focus on the field of mid-molecular drugs with the application of technologies cultivated through chiral columns



Achiral column (in front)

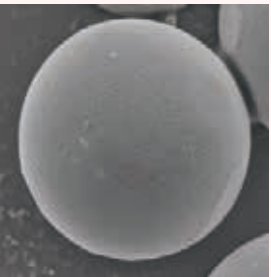
The Group operates its Optical Isomer Separation business, focused on chiral columns, around the world, centering around bases in Japan, the U.S., France, China, and India. Chiral columns are used for the analysis and acquisition of optical isomers, especially in the field of low-molecular drugs. In India and China, whose generic drug markets are experiencing significant growth, we are working not only on selling columns, but also expanding separation services as well as analysis and synthesis services.

The Group's chiral columns use high-polymer polysaccharide derivatives for silica gel carriers. These special columns enable efficient separation of compounds that cannot be separated with common chromatographic columns (i.e., optical isomers), and the Group boasts being a world market leader in this regard. The Group is developing and selling a new type of chromatographic column (achiral column) with high-polymer technologies developed through chiral columns for analysis and purification applications in the growing field of mid-molecular drugs (expected growth rate^{*1}: 9.6% for peptide drugs through 2027 and 3.7% for nucleic acid drugs through 2029). These

columns have separation properties different from common achiral columns that use low-molecular ODS groups^{*2} for silica gel carriers, and we seek to expand sales taking advantage of this strength.

^{*1} According to our research ^{*2} ODS groups: octadecyl silyl groups

Launch of BELLOCEA® BS7 spherical cellulose acetate particles in FY2025/3



BELLOCEA® BS7 particles

Amid concerns over environmental pollution arising from microplastic beads (hereinafter "microbeads") contained in cosmetics, expectations are growing for naturally derived and biodegradable substitute raw materials. In response to these needs, the Company is providing BELLOCEA® S7 spherical cellulose acetate particles as agents for improving the tactile feel of cosmetics. We have developed BELLOCEA® BS7 (hereinafter "BS7"), a product with higher biodegradability, by making full use of Daicel's cellulose technologies, and plan to launch it in FY2025/3.

Europe announced that it would impose a total ban on the sale of cosmetics using microbeads in 2035, and global cosmetics manufacturers in particular are taking the lead in replacing microbeads with substitute raw materials. However, it is considered difficult to develop materials with both a tactile feel as soft as microbeads and biodegradability for tactile feel-improving agents used in foundations and other cosmetics. The Company's BS7 boasts high biodegradability and a delicate tactile feel comparable to microbeads thanks to its properties, namely its smooth surface and spherical shape. Going forward, we will aim to expand sales in the market for substitute particles for microbeads

used in cosmetics, which has seen growth starting in Europe (with an expected average annual growth rate in sales volume from 2023 to 2027 of 11.2%*), while cutting manufacturing costs at the same time.

^{*} Source: Fuji Chimera Research Institute, Inc. "Current Situation of the Fine Powder Market and Future Prospects 2023"

Smart

Business Overview

Our Smart Business provides materials and solutions mainly for the electronics market. The Functional Products business handles cycloaliphatic epoxies for which we use a globally unique manufacturing method and caprolactone derivatives. Based on our organic synthesis technology cultivated over many years, these products enjoy wide adoption in EV motor insulators and next-generation displays, and they are also used for semiconductor substrates. The Advanced Technology business manufactures high-performance polymers for photoresists and solvents for electronic materials used in the semiconductor manufacturing process as well as functional films with the anti-glare characteristics and strength required for various displays ranging from smartphones and tablets to in-vehicle displays.

Main Businesses	Main Products
Functional Products	Cycloaliphatic epoxies, caprolactone derivatives, optical lenses
Advanced Technology	Polymers for photoresists, solvents for electronic materials, organic semiconductors, high-performance films

Daicel Group's Strengths

Provision of market-oriented solutions that meet customer and market needs	Provides the electronics market with a variety of solutions and value from materials to components by leveraging material design such as synthesis and compounding as well as processing technologies including coating, printing, and resin molding
Achievement of the world's largest market share for cycloaliphatic epoxies through our unique manufacturing methods	Produces high-quality cycloaliphatic epoxies using the world's only distinctive manufacturing method. Cycloaliphatic epoxies are high quality and high performance, with a manufacturing method that does not contain chlorine, which corrodes and cracks metals, and is applicable to electronic materials and mobility materials for EV motor insulators, etc.
Continuation of stable supply and response to increasingly sophisticated demands	Possesses the technical capabilities and stable supply capacity to continuously meet the high level of quality requirements of the semiconductor industry. Based on the relationship of trust built through this track record, we can develop products in close contact with our customers and respond to new, increasingly sophisticated, requirements

Our Business Environment

Opportunities	Risks
- Semiconductor market expansion due to the full-fledged arrival of the IoT, AI, and 5G era - Expansion of the display market with the spread of new technologies such as high resolution, high durability, bendability and foldability, and curved surface structures - Popularization of EVs - Switch to fluorine- and silicon-free materials due to PFAS regulations	- Uncertainty over the Chinese economy - In the semiconductor materials market, lower prices due to the emergence of overseas products, and restrictions on available markets due to intensifying trade friction between the U.S. and China - Production contraction due to disruptions in the semiconductor supply chain caused by conflicts and other geopolitical factors - Shrinking domestic market due to customers' overseas relocation of development and production sites - The European Chemicals Agency's moves to tighten regulations on epoxy compounds

Performance Targets, Capital Expenditures, Depreciation and Amortization

FY2024/3 Results*				FY2025/3 Plans			
Net sales	Operating income	Capital expenditures	Depreciation and amortization	Net sales	Operating income	Capital expenditures	Depreciation and amortization
33.8 billion yen	-0.9 billion yen	3.0 billion yen	3.1 billion yen	35.5 billion yen	-0.5 billion yen	3.0 billion yen	3.0 billion yen

* Net sales and operating income by segment for FY2024/3 is the figure after segment changing in the TAC, Cycloaliphatic epoxies and Caprolactone Derivatives.

Growth Strategies

Expansion of the cycloaliphatic epoxies and caprolactone derivatives business

Thanks to its unique manufacturing method, Daicel's cycloaliphatic epoxies have few impurities and does not contain chlorine, which causes failures in electronic devices. Our chlorine-free products are widely used for electrical materials where quality reliability and durability are required, with the largest market share in the world.

With regard to our cycloaliphatic epoxies, we have stepped up our efforts to make a shift from general-purpose applications such as UV coating and coil-insulating varnish to high added-value applications in the electronic materials market and the mobility market, such as for electrification components for EVs, leveraging the strength of our quality. In particular, we are promoting the expansion of sales for next-generation displays, which have grown in demand. Moreover, in response to the European Chemicals Agency's moves to tighten regulations on epoxy compounds, we are working on the development and launch of new epoxy monomers by leveraging the molecular design and analysis technologies we have accumulated over many years. The epoxy compounds are also used as protective materials for growth-area components such as EV motor insulators and power modules with integrated power semiconductors. As the functionality of these components improves, higher heat resistance is required from the epoxy compounds destined to become future protective materials. We are making efforts to expand sales by leveraging the strength of our products, which have higher heat resistance than competing materials, with lower viscosity and better ease of use. In addition to existing sales of raw materials, we will also launch pre-mix materials (compounds of epoxy and other materials) with higher functionality and expand a market-oriented business model while monitoring development trends from a position closer to end customers.

Examples of applications that leverage the abrasion resistance, low viscosity, and other features of caprolactone derivatives include their adoption in the mobility field for automobile paint and exteriors, heat-dissipating adhesives for batteries, and cushioning materials. Among them, we will focus our marketing efforts on growth markets, such as paint protection films for automobiles and polyurethane pads.

In order to strengthen marketing in North America, where the development of new applications for both cycloaliphatic epoxies and caprolactone derivatives is booming, we started the operation of a technical service site in the U.S. in FY2024/3, in addition to sites in Japan and China. We will enhance our provision of solutions closely related to markets and customers through the integrated operation of new material creation, functional analysis, and technical services.



EV motor

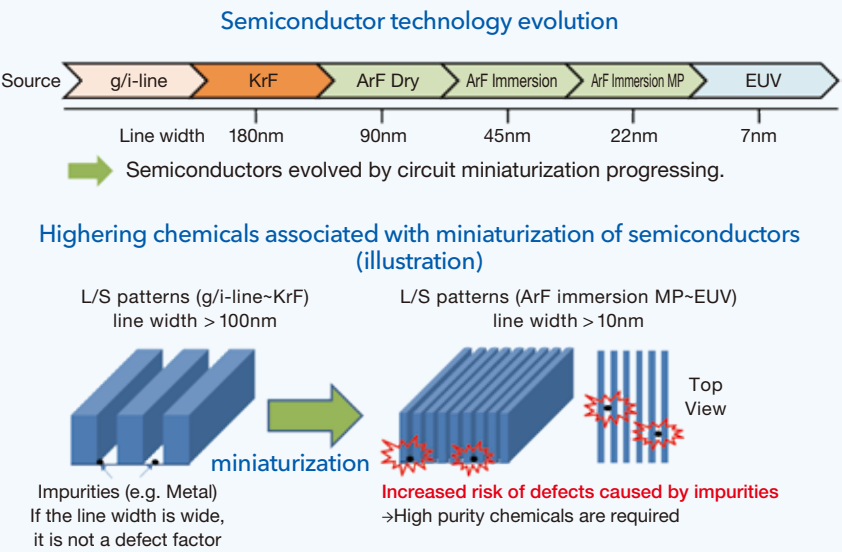


Paint protection film for automobiles

Enhancement of the Semiconductor business in line with cutting-edge needs

The Company manufactures high boiling point solvents used for resist solvents and thinners, which are essential in the photolithography process of semiconductor manufacturing. Our PGMEA (MMPGAC) is among the best in the domestic semiconductor photoresist industry in terms of market share.

The performance of semiconductors improves as circuit miniaturization progresses. With the evolution of light sources used in lithography, the line width of semiconductor circuits has become narrower. As such, even a small amount of impurities, such as metals, can cause defects. We are the only company that produces PGMEA and PGME from start to finish in Japan, and our strength lies in our high-purity quality control and stable supply as well as our quality assurance suitable for semiconductors and provision of logistics. In addition, we developed low-metal grade solvents in FY2019/3, for which we further enhanced metal control, in order to swiftly meet customer needs. We will strengthen the provision of solutions to our domestic customers while developing overseas customer bases, so as to ensure that we can tap into the growth of the semiconductor market, which is expected to achieve a CAGR of 10% through 2030.



Safety

Business Overview

The main products of the Safety Business are automobile airbag inflators (gas generation devices), which protect the lives of occupants and pedestrians by inflating airbags within milliseconds after a collision. Our automobile airbag inflators are highly regarded as the key component of airbag systems. The instantly activated driving force/propulsive force developed for inflators is named One Time Energy®, and is being used in applications other than airbags. Pyro-Fuse, which can safely and instantaneously interrupt high voltage and large currents in an emergency, is one example, and is expected to be deployed in various industries where automation is advancing due to the spread of electric vehicles (hereinafter “EVs”) and AI.

Main Businesses	Main Products
Mobility	Automobile airbag inflators
Industry	Pyro-Fuse, gas generators for seat belt pretensioners (PGG)

Daicel Group’s Strengths

Inflator technology accumulated over the years	After launching automobile airbag inflators in 1988, we commenced fully integrated production beginning with gas generant and have won people’s trust and contributed to their safety ever since
Toyota Production System meets DAICEL Production Innovation	For excellent quality and productivity, we applied the Toyota Production System to our production system, which is based on the DAICEL Production Innovation methodology
Image Analysis System	We use an image analysis system developed together with Hitachi, Ltd. to realize product quality assurance by “all point management,” instead of “representative management.” Through adept quality control, we build strong trust-based relationships with customers

Our Business Environment

Opportunities	Risks
■ Growth of automobile production in emerging countries ■ Growing need for enhanced automotive safety performance ■ Rise of Chinese EV manufacturers ■ Advancement and popularization of technologies such as EVs and renewable energy aimed at achieving carbon neutrality	■ Uncertainty over the Chinese economy ■ Changing function and performance needs as self-driving and other active safety technologies evolve ■ Changes in the industrial structure due to the popularization of EVs

Performance Targets, Capital Expenditures, Depreciation and Amortization

FY2024/3 Results				FY2025/3 Plans			
Net sales	Operating income	Capital expenditures	Depreciation and amortization	Net sales	Operating income	Capital expenditures	Depreciation and amortization
95.6 billion yen	3.0 billion yen	9.4 billion yen	7.1 billion yen	108.0 billion yen	7.7 billion yen	14.0 billion yen	7.5 billion yen

Growth Strategies

Enhanced expansion of sales in the inflator business in India and China

We currently operate our business in automobile airbag inflators, our Group’s flagship products, around the globe, with production sites in Japan, China, Thailand, India, the U.S., and Poland. In particular, we are focusing on the Indian and Chinese markets, which will see increases in the number of automobiles produced and in the number of vehicles equipped with airbags. While the number of automobiles produced globally is expected to grow by approximately 8% by 2030 (compared to 2023)^{*1}, high growth is expected in the Indian and Chinese markets, with prospected growth of nearly 40% in the former^{*1} and a little over 10% in the latter^{*1}. Furthermore, due to enhanced automobile safety assessments in both markets, the number of vehicles equipped with airbags for side collisions in addition to those for frontal collisions is expected to continue increasing. To tap into this demand, the Group established a new production site in India in October 2023 to start mass-producing airbag inflators for frontal collisions and plans to establish a production line for airbag inflators for side collisions in FY2025/3. In the Chinese market as well, we are planning to establish additional production lines for inflators for side collisions in order to ensure that we can tap into increasing demand from Chinese automakers, along with their Japanese, European, and U.S. counterparts. With regard to the Japanese, European, and U.S. markets, we will further deepen our cooperation with module manufacturers^{*2} and jointly work on sales expansion, with the aim of increasing our market share even more. By doing so, the Daicel Group will further increase its global presence.

We have also consolidated production bases since 2020 and are promoting the type integration (cataloging) of inflators globally, which differed by vehicle type. We are thus seeking to streamline our production lines through cooperation with module manufacturers. We are aiming to win a global market share of 25% in FY2026/3 (with an estimated share in FY2024/3 of 20%) by expanding our capacity to meet the demand for airbags, which is expected to rise going forward. At the same time, we are seeking to expand profits by enhancing our cost competitiveness.



Automobile airbag inflators

^{*1} Growth rate in the number of automobiles produced according to S&P
^{*2} Please refer to Feature 1: Stories of Co-Creation with Our Customers—TGD Project: Increasing the Competitiveness of the Safety Business on page 34.

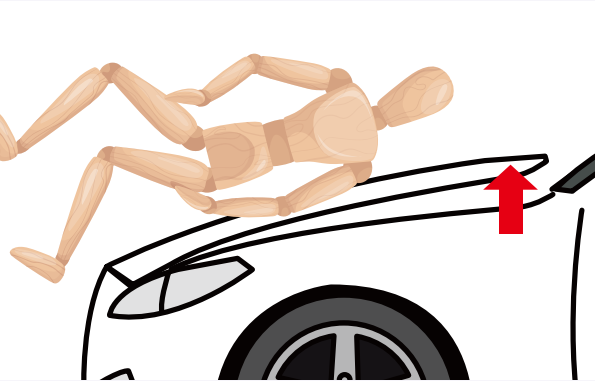
Promotion of businesses in China that use One Time Energy® to provide value toward safety and security

The Company is engaged in the creation of new businesses that use One Time Energy®, a technology developed in the course of producing inflators for many years, which produces power instantaneously, reliably, and safely. In FY2025/3, we plan to commence the mass production of Pyro-Fuses for EVs as a new business and expand global sales. In particular, China is an important market for the Group.

Generally, making Pyro-Fuses for EVs smaller and lighter poses a challenge; nevertheless, we have realized smaller Pyro-Fuses with the technologies and knowledge accumulated in the course of producing airbag inflators for many years. With the aim of further reducing their weight, we will conduct R&D toward the use of engineering plastic materials provided by Polyplastics through collaboration within the Daicel Group, and going forward, we will continue to demonstrate our Group synergies and contribute to the safety and security of automobiles.

In addition, current interruption is attracting attention in the green energy field as well. In recent years, China has been forging ahead with its action plan for carbon dioxide peaking before 2030 and is accelerating development plans for green energy, such as wind power generation. Accordingly, off-grid* fires due to overcurrent and other factors have become an issue, and there is a growing need for Pyro-Fuses as countermeasures. Going forward, we will develop Pyro-Fuses that can accommodate high voltages for green energy applications.

Moreover, China followed Europe in adding an evaluation item for pedestrian protection to automobile safety assessments from 2024 onward, leading to a growing need for hood lifters, a safety device for pedestrian protection, throughout the world. Hood lifters use the power of combustion gas to lift up automobile hoods upon collision with pedestrians to secure space within the engine bay, preventing pedestrians from hitting their head on the hard part under the hood (e.g., the engine, battery, etc.) and reducing the risk of head injuries. Up to now, the Group has provided passenger protection devices such as airbag inflators and gas generators for seat belt pretensioners. By newly launching pedestrian protection products, we will further expand our provision of value to society in terms of safety and security.



Hood lifter activates upon collision with a pedestrian



Hood lifter

* Off-grid: the state of not being connected to the grid of an electric company, or being self-sufficient in terms of power without relying on an electric company

Materials

Business Overview

The Materials Business provides a wide variety of materials to a wide range of industries. We are the only manufacturer in Japan of acetic acid, which has a wide variety of applications, and have built an acetyl chain centered on acetic acid that consists of chemicals made from acetic acid, cellulose acetate, which is made from wood and cotton fiber-derived cellulose and acetic anhydride, and acetate tow, which is spun from this. We have the highest share of triacetyl cellulose (TAC), which is used for LCD optical films, in the world and a high share of acetate tow in global terms. Besides these products, we manufacture and sell various chemical products based on our organic synthesis technology developed over many years. Our distinct odorless grade of 1,3-butylene glycol (1,3-BG), an ingredient for cosmetics, is highly regarded.

Main Businesses	Main Products
Acetyl	Acetic acid, acetic anhydride, acetate tow
Chemical	Cellulose acetate for LCD optical films (TAC), cellulose acetate, 1,3-butylene glycol (1,3-BG), ethyl acetate and other organic solvents, ketene derivatives, ethylamine

Daicel Group's Strengths

Optimized plant operation through DAICEL Production Innovation	Achieved energy and resource savings, high quality, and stable supply in the manufacturing process through optimized plant operation that greatly reduced wastage and loss DAICEL Production Innovation https://www.daicel.com/en/daicel-production-innovation/
Acetic acid recycling system that supports the acetyl chain	As a system that supports the acetyl chain, in addition to manufacturing acetic acid which sits at the core of this chain, established a recycling system whereby we recover, refine, and reuse acetic acid byproducts from customers and our Group plants
Technical support that leverages our technological capabilities	Offers global technical support in response to customer needs regarding cellulose acetate and acetate tow, leveraging our accumulated property control for cellulose, a natural material, and processing technologies

Our Business Environment

Opportunities	Risks
- Expectations for biomass materials and marine biodegradable materials - Recovery in demand for various products due to economic growth - Increased demand for heated tobacco products	- Uncertainty over the Chinese economy - Fluctuations in raw material and fuel prices - Rise of competing manufacturers, especially in emerging countries - Intensifying competition with competing materials

Performance Targets, Capital Expenditures, Depreciation and Amortization

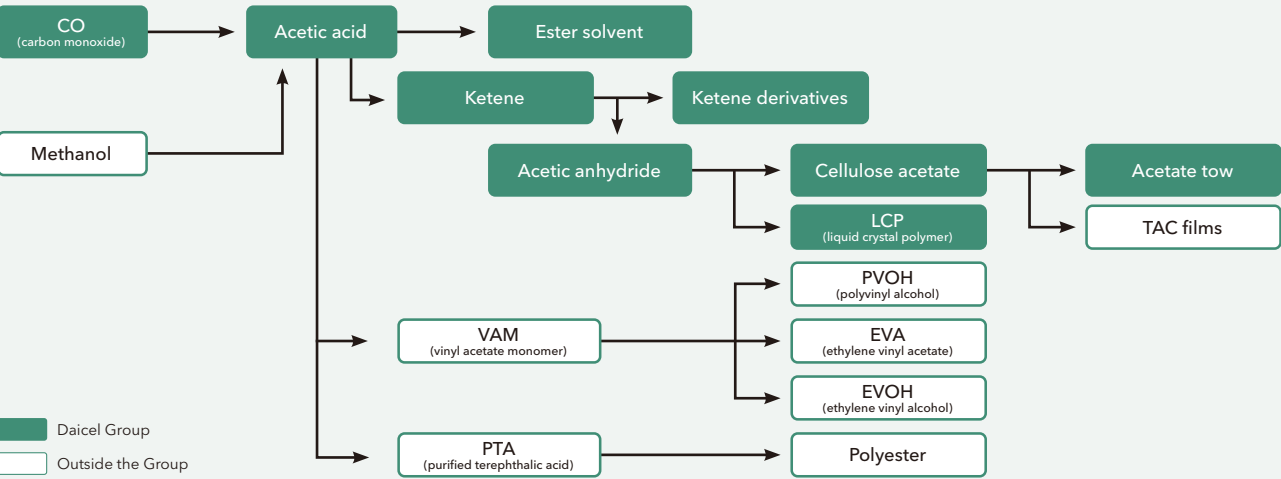
FY2024/3 Results*				FY2025/3 Plans			
Net sales	Operating income	Capital expenditures	Depreciation and amortization	Net sales	Operating income	Capital expenditures	Depreciation and amortization
182.2 billion yen	40.8 billion yen	16.9 billion yen	12.9 billion yen	186.0 billion yen	32.5 billion yen	6.0 billion yen	19.0 billion yen

* Net sales and operating income by segment for FY2024/3 is the figure after segment changing in the TAC, Epoxy Compounds and Caprolactone Derivatives.

Growth Strategies

Enhancement of the acetyl chain

The Materials Business offers a wide variety of products and contributes to many industries ranging from daily necessities to high-performance electronic devices. The core among this group of products is acetic acid, which we are the only manufacturer of in Japan. We have built a globally unique acetyl chain, by consuming approximately half of the acetic acid we manufactured from methanol and using it to develop various acetic acid derivatives. In FY2024/3, we upgraded a plant for carbon monoxide, a raw material of acetic acid, due to equipment deterioration. At the same time, we switched the raw material of carbon monoxide to a less expensive and easier to procure alternative thereby further strengthening the acetyl chain.



Enhancement through the Autonomous Production System

DAICEL Production Innovation, one of our strong points, is also the source of the acetyl chain's strength, and our optimized plant operation achieves not only cost competitiveness but also high quality and stable supply, allowing us to earn a high degree of trust from our customers, even for general-purpose applications. We are currently introducing the Autonomous Production System, which is a further evolved version of DAICEL Production Innovation using AI, to each plant in the acetyl chain. The planned implementation of the system at cellulose acetate and acetate tow plants by FY2024/3 is complete, and we are planning to implement it at carbon monoxide plants in FY2025/3. We have also embarked on efforts to expand the scope of this implementation to the acetyl chain across corporate boundaries, and we will strive to strengthen our competitiveness across the value chain.

Page 38: Autonomous Production System

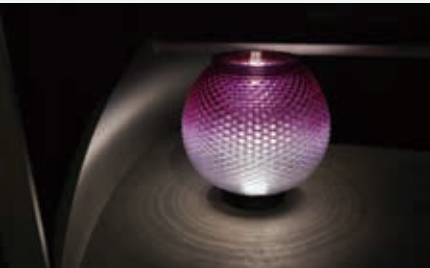
Enhancement through changes in manufacturing methods

The Company offers acetic anhydride, cellulose acetate made from naturally derived pulp, and acetate tow, which is spun from this, as its flagship products. triacetyl cellulose (TAC) for LCD optical films is used as raw materials in protection films and retardation films for LCDs, and we have a high share of the product. We have a high share of acetate tow, which is made from cellulose acetate, namely diacetyl cellulose (DAC), for its main applications in tobacco filters. Amid trends toward a tight supply-demand situation, we have stepped up our efforts to improve productivity through means such as debottlenecking and thus increase our production capacity, thereby ensuring profits by meeting the demand.

Naturally derived pulp, the raw material for these cellulose acetates (TAC and DAC), does not easily undergo chemical reactions, resulting in the issue of easy formation of impurities in the product. The Company will change manufacturing methods to improve the reactivity of the pulp and reduce impurities, thereby improving productivity. At the same time, we will use pulp with less chemical processing and a lower environmental impact during production while enabling the production of products equivalent in quality to existing ones, thereby leading to the enhanced competitiveness of our cellulose acetates (TAC and DAC) and acetate tow.

Cultivation of new businesses

We have refined our cellulose acetate manufacturing technologies for many years since its commercialization in 1938, and our cellulose acetates are garnering considerable attention as bioplastics in recent years due to being biodegradable biomass materials. As bioplastics are expected to achieve high market growth, the Company has developed CAFBLO® resin in response to environmental needs and strengthened its marketing efforts. While it has several issues such as costs, compared to petroleum-derived plastics, we will take advantage of the technologies we have cultivated for many years and launch the product in Europe, where people are highly environmentally conscious, as a first step, and thereby contribute to the solution of global environmental problems.



Molded product made of CAFBLO® (lampshade)

Engineering Plastics

Business Overview

Polyplastics, our Group company, accounts for a large portion of sales in this business. Polyplastics is a leading manufacturer of engineering plastics with special features such as mechanical strength, heat resistance, and chemical resistance, contributing to making automobiles lighter and more electrified, and to the higher performance of electronic devices. Daicel Miraizu Ltd. (hereinafter “Daicel Miraizu”) offers a diverse range of commercial products to various industries, including AS resins, which have a wide range of applications from daily necessities to automobiles, as well as water-soluble polymers noted for use in lithium-ion batteries for EVs, which have rapidly gained popularity in recent years.

Main Businesses	Main Products
Polyplastics	Polyacetal (POM), polybutylene terephthalate (PBT), polyphenylene sulfide (PPS), liquid crystal polymer (LCP), cyclic olefin copolymer (COC)
Daicel Miraizu	AS resin, water-soluble polymers (CMC), barrier films for packaging

Daicel Group’s Strengths

Ability to develop new applications and group synergies	As a group of engineering plastics experts, we work with customers to develop applications that meet the needs of key industries (e.g., electrical and automotive industries) and society as they change with the times. In addition, we provide optimal solutions across the group by combining the extensive product lineups of Polyplastics, Daicel Miraizu, and Polyplastics-Evonik
Expansion of technical solutions system in major regions	Polyplastics’ Technical Solutions Centers in the major regions of Japan, China, Taiwan, Thailand, the U.S. and Germany are linked together. This makes them able to provide uniform solutions worldwide for everything from material formulation and design to support for molding and processing
Sophisticated manufacturing technologies and quick delivery with uniform quality	Promotes the further sophistication of production by combining manufacturing technologies for engineering plastics that we have accumulated for over 50 years with DAICEL Production Innovation. Polyplastics leverages a network of 32 sites in 11 countries and globally provide these technologies with uniform quality and quick delivery

Our Business Environment

Opportunities	Risks
■ Recovery and growth of global automobile production ■ Proliferation of electric vehicles and autonomous driving technology ■ Changes in infrastructure, devices, and services due to next-generation communications ■ Higher expectations for biomass materials and growing interest in the circular economy ■ Switch to fluorine- and silicon-free materials due to PFAS regulations	■ Uncertainty over the global economy ■ Soaring raw material prices and procurement concerns due to greenflation ■ Rise of competing manufacturers, especially in emerging countries ■ Various tighter regulations in Europe, including environmental ones ■ Changing supply-demand balance due to rapid economic fluctuations

Performance Targets, Capital Expenditures, Depreciation and Amortization

FY2024/3 Results				FY2025/3 Plans			
Net sales	Operating income	Capital expenditures	Depreciation and amortization	Net sales	Operating income	Capital expenditures	Depreciation and amortization
226.8 billion yen	18.3 billion yen	45.7 billion yen	8.2 billion yen	260.0 billion yen	23.7 billion yen	38.0 billion yen	11.0 billion yen

Growth Strategies

Enhancement of sales capabilities by expanding our development structure and developing new polymers

As Japan’s first specialized manufacturer of engineering plastics, Polyplastics has supported worldwide manufacturing for more than half a century. New POM facilities with an annual production capacity of 90,000 tonnes in China and LCP facilities with an annual production capacity of 5,000 tonnes in Taiwan will begin operation in the second half of FY2025/3. We will improve the top line by enhancing our development and sales capabilities, while increasing productivity by introducing DAICEL Production Innovation to our Group plants, thereby enhancing our profit structure.

POM is used for a wide range of applications, mainly in the automobile field. The development of the CASE* market is accelerating in the automobile field, the largest market where we supply engineering plastics, with significant growth expected especially in China. In order to ensure that we can tap into such growth, we will strengthen our marketing and technical support structures at our Chinese sites and develop businesses that provide products adapted to customer specifications, which is Polyplastics’ forte, for the OEM market in China, thereby expanding sales. We will build a structure that will allow us to integrate more closely with markets and customers by utilizing local distributors and by hiring and fostering local staff, while constructing a swift technical solutions system that can keep up with the development speed of EV-related components by Chinese automakers. Through collaboration with Safety SBU, which has fostered relationships with Chinese automakers and Tier 1 suppliers in the inflator business, we will leverage each other’s respective marketing and sales channels to widely promote commercial products with the aim of increasing our presence in the Chinese market.

In the electronics field, low dielectric constants are required for component materials to prevent transmission loss in high-speed communications such as 5G and 6G. In the electronic device field, LCP is widely used as its high fluidity and dimensional stability make the material excellent for precision molding. Amid the increasing miniaturization of electronic components, we are developing new polymers with ultra-high fluidities that enable the formation of components by securing sufficient fluidity even at thicknesses of less than 0.1 mm, as well as polymers with low dielectric loss that conventional LCPs cannot achieve, by controlling molecular structures. Leveraging our lineup that allows us to make proposals according to the performance required by customers, including in terms of costs, we will provide solutions with higher added value as a company specializing in engineering plastics.



Connectors using LAPEROS® LCP

* CASE is an acronym for Connected, Autonomous, Shared, and Electric, and represents the big reforms occurring in the automobile industry.

Creation of an environmental business as a driver of future growth

In addition to a growing interest in the circular economy, countries are pushing ahead with the formulation of environmental regulations, such as the ELV Directive*. Against such a background, Polyplastics is working on the creation of an environmental business as a driver of future growth. Along with the reduction of GHG emissions across the entire Daicel Group, Polyplastics has set a target of a 30% reduction compared to FY2019/3 in its product carbon footprint (hereinafter “PCF”) during the manufacturing process from the procurement of raw materials to product shipment by FY2031/3, and is making developments centered on the following three measures.

(1) Conversion of raw materials into biomass: In addition to manufacturing and selling POM utilizing biomethanol (DURACON® bG-POM), we are working on manufacturing new engineering plastics that are 100% biomass-derived, by combining Polyplastics’ knowledge in engineering plastics and Daicel’s organic synthesis technology to utilize lignin extracted from wood as LCP monomers.

(2) Horizontal recycling of unused/used engineering plastics: We established a mechanism for the horizontal recycling of unused engineering plastics (Post-Industrial Recycling: PIR), the first of its kind in the engineering plastics industry, by recovering and refining molding scraps generated in our customers’ manufacturing processes, which had been discarded, and by reorganizing formula design. We ensure the properties of products

through the quality control of molding scraps in cooperation with our customers and through thorough process control and rigorous inspections. Furthermore, we launched a project in FY2025/3, with the aim of establishing a Post-Consumer-Recycling (PCR) technology, in which we conduct horizontal recycling by recovering used engineering plastics, including those made by other manufacturers,

from the market, analyzing them, and reorganizing their formula design. The development of recycling options similar to those for general-purpose plastics is a necessary measure to ensure that we can continue to provide engineering plastics for continued use by our customers with the formulation of environmental regulations in the background.

(3) Reduction and recycling of emitted CO₂: Daicel’s Ultra Solar-reduction with Nanodiamonds technology enables us to semi-permanently and efficiently reduce CO₂ into CO and O₂ using only sunlight. By reducing CO₂ emitted during the manufacturing process into CO and reacting it with H₂, methanol, a raw material of POM, can be manufactured. This reduces our PCF and contributes to climate change countermeasures, while recycling CO₂.

Page 45: Achievement of Carbon Negativity through the Use of Nanodiamonds

We will carry out these measures to flexibly respond to changing customer needs in various countries and markets and develop options conducive to carbon neutrality for every type of resin by FY2031/3.

* ELV Directive: a directive designed to reduce the impact of end-of-life vehicles on the environment in the EU

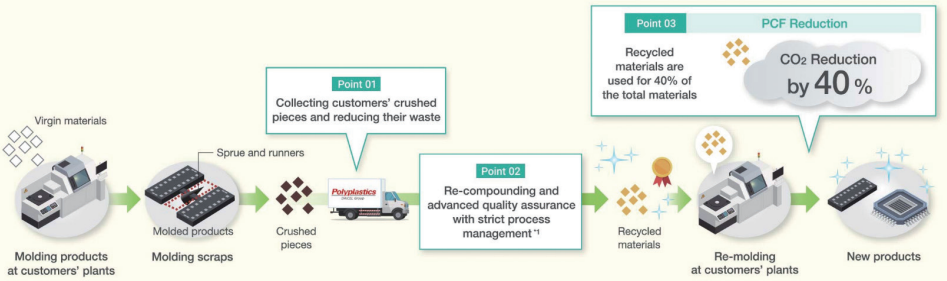


Illustration of Polyplastics’ re-compounding service (PIR)