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At a Glance

Supporting global manufacturing with engineering plastics

Polyplastics is Japan's first specialized manufacturer of engineering plastics. Engineering plastics are made from functional resins with such properties as superior mechanical strength and heat resistance. It is used in a variety of products, including aircraft, automobiles, home appliances, and food packaging, and is indispensable to modern manufacturing. Through its network of 32 bases spread across 13 countries and regions, the Polyplastics Group provides engineering plastics and technical support to customers worldwide.



DURACON[®] POM

Well-balanced mechanical properties and outstanding sliding properties

DURANEX® PBT

Superior electrical properties and reliability for electronic devices and components

DURAFIDE® PPS

A linear polymer that is extremely tough and shock

with thin-wall flowability that resistant challenges assumptions about engineering plastics

TOPAS® COC

"Super Engineering Plastics"

Superior transparency and safety suited to healthcare and food packaging applications

RENATUS® PET PLASTRON[®] LFT

High heat resistance and Combining rigidity and high superior electrical properties impact strength to expand the rivaling those of thermosetting scope of resinification

resins

DURAST[®] Powder

Enabling improved properties, streamlined manufacturing process, and reduced material

loss

01

Corporate Outline

Polyplastics Co., Ltd.
May 1964 (Founded: June 1962)
3 billion yen
Daicel Corporation
Takashi Miyamoto,
Representative Director and President
2,383
(Polyplastics Group, as of March 31,
2024)
Manufacturing and sales of various
types of engineering plastics and
polymers

Editorial Policy

This report contains information about the activities the Polyplastics Group conducted during the 2023 fiscal year. The term "employees" as used in this report refers to all those who work in the Polyplastics Group.

Applicable Period

April 1, 2023 to March 31, 2024

Organization Covered

The Polyplastics Group

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Polyetherketone

SARPEK® PEK

High strength and rigidity with higher heat resistance and durability to replace metals in harsh environments

Our CSR

Shaping a Sustainable Society with Engineering Plastics

Shaping an abundant future for society through our engineering plastics business, mentioned in our Corporate Philosophy, is our Corporate Social Responsibility (CSR). We focus on CSR both in terms of business activities and social contribution activities, while actively working to meet the expectations of the global community in SDGs, Carbon Neutrality and other areas.

Corporate Philosophy

MISSION

We contribute to building an abundant future society by innovation and developing talented and responsible people, through pursuing the unlimited potential of engineering plastics

VISION

The excellent solution provider for engineering plastics

We will continue to provide the excellent solutions for engineering plastics to our customers, in technology, quality, services, supply, and all other aspects

VALUE

- 1. The "Polyplastics-Way": We create value together with our customers
- We always stand closest to our customers.
- · We understand customers' needs by knowing our customers from the inside out. We continue to provide higher-than-expected value based on brilliant technology and services.
- Following the above, we build strong relationships of trust with our customers and grow and develop together with them.
- · We call these activities the "Polyplastics-Way," which is our most important basic value.

2. The "Polyplastics-Family": Our teamwork

- · We consider each other important. We respect individuality and diversity.
- · We emphasize teamwork based on mutual trust and cooperation among all employees.
- At the same time, as a team, we embrace the challenge of seeking to constantly evolve. · We call this team the "Polyplastics-Family," which is our most important basic value.

Developing Talented and Engaging Human Resources

Harmony with Environment

Engineering

Plastics Business

Contributing to the shaping of

an abundant society through

engineering plastics solutions

the development of Reducing environmental talented and engaging mpact and carrying out business human resources operations in harmony

Business Activities Contributing to Society through Our Business Activities

CSR Policy

Social Contribution Activities Social Contribution Activities With the aim of shaping a sustainable and abundant future for society, we pursue CSR in our business activities and social contribution activities.

Toward a Sustainable and Abundant Future for Society



Circular Economy

Carbon Neutrality

part of our efforts to facilitate and strengthen CSR activiti hin the Polyplastics Group, we use the perspectives of the as important indicators when putting our approach to CSR into action

Utilizing and contributing to

Compliance

Prioritizing compliance and carrying out business in a socially fair and appropriate manne

Contributing to Society

Contributing to local prosperity

· Cultivating the next generation

Supporting employee-led social

contribution activities

CEO Message

Average Global Surface Air Temperatures Reach Record Highs

In FY2023, the effects of the three-year-long COVID-19 pandemic finally settled down, the flow of people around the world returned, and economies have begun to move toward normality. On the other hand, parts manufacturers accumulated large inventories in preparation for the tight supply and demand caused by the logistical disruption due to COVID-19, and it took time to consume those inventories, making it a tough year for the engineering plastics market.

Looking at the global environment, the average global surface air temperature in 2023 was 1.4°C higher than before the Industrial Revolution, a record high (according to the World Meteorological Organization (WMO)). In response to steadily advancing climate change, various countries have announced a flurry of strengthened environmental policies and regulations. In addition to our efforts to reduce total greenhouse gas (GHG) emissions by 50% by 2030 (compared to 2018: Daicel Group), we will promote the creation of comprehensive environmental solutions with a greater sense of urgency than ever before.

Establishing a Recycling-oriented Scheme for All Engineering Plastics

To create comprehensive environmental solutions, we first began shifting to the use of renewable raw materials. In FY2021, we began production of POM derived from biomass raw material (bG-POM), and in FY2023, we proceeded toward obtaining sustainability certification for our entire Group in order to strengthen our sales infrastructure for this product. By switching the raw materials of engineering plastics to renewable ones while utilizing the mass balance method, we will strengthen our sales to the electronics parts and medical fields, where the need for environmentally-friendly materials is increasing rapidly. Next, we started our Re-compounding business and entered the recycling business. We plan to promote the development of PCR materials to meet the European End-of-Life Vehicles (ELV) Directive (to use 25% recycled materials in FY2030), utilizing the expertise we have accumulated in this area. In the future, the Daicel Group will make our raw materials biomass-derived and establish a recycling-oriented scheme for all engineering plastics, by combining mechanical recycling, chemical recycling, energy recovery, and conversion of carbon into raw materials.

In Order to Continue Being the Most Trusted Leading Engineering Plastics Company

To remain a leading engineering plastics company in the future, we must strengthen the foundations of sustainable management in terms of safety, quality, and compliance, and at the same time be a company that contributes to achievement of a carbon-neutral, recycling-oriented society. We face a mountain of challenges in quality, cost, procurement, and new technical development, but we will overcome them step by step with innovative and sustainable solutions through co-creation: the power of business collaboration with other companies in the industry and supply chain integration (cross value chain) beyond the Daicel Group's corporate framework. Our Corporate Philosophy is "We contribute to building an abundant future society by innovation and developing talented and responsible people, through pursuing the unlimited potential of engineering plastics." We promise to put this Corporate Philosophy into practice in partnership with all of our stakeholders.

Engineering plastics are essential materials for the development of next-generation technologies that will support a sustainable future society, such as high-speed, high-capacity communication networks, CASE, and advanced robotics fields. That is why we will overcome the daunting challenges the future demands of us, and continue to evolve as a leading engineering plastics company.

Takashi Miyamoto

Representative Director and President

Co-creating Innovative and Sustainable Solutions with Engineering Plastics

Highlights 2023



DURACON® POM Accelerates Next-Generation Initiatives

As manufacturing has evolved rapidly in recent years, there is an increasing need for human resources who can generate innovation and support future manufacturing growth strategies.

In Japan, however, there are concerns about a shortage of human resources for future manufacturing, due to the declining birthrate and aging population, and due to many young people losing interest in science. As an engineering plastic manufacturer, Polyplastics was also faced with the important task of fostering the next generation who have manufacturing mindset.

Lighter, Faster Machines Improved with DURACON® POM

In 2011, we first met the Nagoya University Formula Team "FEM". FEM is a strong team that has won the overall championship in the Student Formula Competition. The purpose of the Student Formula Competition is to foster future engineers. Teams organized by students spend a year designing and building a formula-type racing machine. In this competition, they compete not only in driving time, but also in comprehensive skills such as planning, technical skills, and safety.

FEM was one of the first teams in Japan to shift to EVs (Electric Vehicles), and has taken on the challenge of advanced initiatives such as the use of "4-wheel in-wheel motors," in which each wheel is controlled by an independent motor.

Our product DURACON® POM, an engineering plastic that is lighter than metal and easier to cut, was selected as a way to further reduce the weight of the car body.



Supporting Overall Championship Victories with EVs

DURACON is used in several places in FEM machines, one of which is stabilizer bearing parts. Because EVs tend to go faster when cornering, the body and tires tend to tilt, making it difficult to stabilize the vehicle's driving. That makes the performance of stabilizers, which keep the vehicle body level, vitally important. Using DURACON, which has a low coefficient of friction and is very slippery, for the bearing portion of the stabilizer, FEM was able to suppress the tilting of the vehicle body and achieve stable driving.

Principle of stabilizers (when turning left)



FEM aims to become the first team in history to win the overall championship with an EV. They believe that the key to victory is to reduce the weight of the machine body and to improve the stability of the machine's operation, which is currently a major issue. They will be working on progress in manufacturing and machine design aspects, including the use of engineering plastics.

Polyplastic

Developing the manufacturing mindset in the next generation is an important social issue, not only in Japan but around the world as well. In addition to our ongoing support for FEM, we will continue to promote the appeal of engineering plastics to the world and actively work to foster the next generation interested in manufacturing.



We will continue to support the initiatives of FEM, which embraces the manufacturing mindset and the spirit of taking on challenges, by providing further engineering plastics solutions.

Nagoya University Formula Team "FEM"

AZAR

Highlights 2023



LAPEROS[®] LCP Powerfully Supports Next-Generation Communication Technology

It is said that the advance of IoT technology will usher in a "connected society" in which not only smartphones and PCs, but also automobiles, medical devices, and all things will be connected to the Internet.

That connected society will lead to a sustainable society. However, next-generation communication technologies that support a connected society are prone to radio wave loss, and material properties for communication equipment are important.

Challenges of Next-Generation Communication Technology

Next-generation communication technologies such as 5G and 6G, which support the attainment of a connected society, will achieve ultra high-speed communications by using high frequencies that are wider than the conventional frequency ranges (band widths). However, the higher the frequency of radio waves, the more they are absorbed into other energy types, such as heat, causing transmission losses. Attenuation of radio waves due to transmission losses leads to communication delays, so it is important to suppress these losses in order to attain a connected society. Therefore, materials with low dielectric tangent and relative dielectric constant are required as materials in telecommunication equipment.



Development of LAPEROS® LCP S125P

We have developed the new LAPEROS® LCP S125P grade as a material that meets these requirements.

This S125P grade has a lower dielectric constant of approximately 1.0 or more compared to common grades, resulting in lower transmission loss.

Another major feature of this grade is that it combines LCP's inherent properties of liquidity with low dielectric constant and low dielectric tangent. In the past, using additives to lower the relative dielectric constant and dielectric tangent resulted in lower liquidity. However, through repeated analysis in the development stage and optimization of additive conditions, we succeeded in combining low permittivity and dielectric tangent with high liquidity. This allows for low dielectricity and low dielectric tangent, while also making it easy to mold small parts such as connectors, as is the case with ordinary LCP.

The S125P grade is expected to play an active role in more and more devices as high-speed communications become increasingly widespread, and is seen as a plastic that will support the attainment of a connected society.

A Sustainable Society Attained Through Connecting

The construction of a connected society through high-speed communication technology is expected to open the way to a more convenient, safe, secure, and sustainable society. For example, it is expected to eliminate regional medical disparities through remote surgery, achieve a safe society through advanced automated driving technologies, develop safe cities that are

Through the newly developed LAPEROS S125P grade with low dielectric constant and low dielectric tangent, we will help to solve issues in next-generation communication technology and attain a connected and sustainable society.

Eliminating Regional Healthcare Disparities Remote surgery

Reducing GHG Emissions Logistical optimization and travel reduction

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LAPEROS LAPEROS is also used in data centers to support a connected society



resistant to disasters and crime through real-time video analysis using drones and sensors, and reduce GHG emissions by reducing the need for travel and optimizing logistics.



Engineering Plastics Business

Contributing to shaping of an abundant society through the provision of engineering plastics solutions



LCP Utilizing Key Monomers Derived from Biomass



In recent years, there has been an ever-increasing need to convert products to biomass. In FY2021, we began manufacturing bG-POM utilizing biomass-derived materials, and this year we are introducing LCP as our second product utilizing biomass-derived materials.

Biomass-derived Material for One of Key Monomers

LCP is widely used in ultra-compact precision connectors for the latest IT devices, such as tablets and smartphones, which are becoming smaller and smaller. We can now switch one of the key monomers used as raw material for LCP to a biomass-derived material.

This is because the Group company that manufactures it has acquired sustainability certification for recyclable raw materials. In the future, we plan to sell LCP made from sustainable raw materials, including biomass-derived raw materials.

Contribution to a Recycling-oriented Society

The use of biomass-derived materials effectively reduces the increase of CO₂ emissions in the atmosphere, because the CO₂ absorbed from the atmosphere by plants and the CO₂ emitted when the products are disposed of cancel out. The active use of biomass-derived materials contributes greatly to the attainment of a recycling-oriented society.

We also plan to introduce equipment that will further contribute to energy conservation in the LCP manufacturing process, aiming to make LCP more environmentally friendly in terms of carbon footprint.

As a leading engineering plastics company, we will make not only LCP but also all of our engineering plastics environmentally friendly (in terms of GHG reduction during manufacturing, biomass conversion, recyclability, etc.), and provide comprehensive environmental solutions that promote the attainment of a sustainable society.



Producing LCP utilizing biomass-derived raw materials



Elastomer-less PPS

PPS has excellent heat and chemical resistance, and is used for applications such as around automobile engines, electrical components of PHEV/EVs, and smartphones. In recent years, the method of integrally molding plastic and metal has become the mainstream in order to meet the demand for downsizing and weight reduction of parts. In this molding process, the plastic may crack when temperature changes, due to the difference in linear expansion coefficient between the metal and plastic portions. Therefore, plastics are required to have high heat shock resistance (referred to as "HS resistance") to prevent that. Conventionally, elastomers have been added to PPS as additives to provide HS resistance. However, the gas generated by elastomers during plastic molding causes various defects such as poor filling, molded product burning, and mold deposits*. To solve these problems, our new PPS grade (1140HS6) has

succeeded in achieving HS resistance without the use of elastomers. This reduces the generation of elastomer-derived gases during molding, reducing mold deposits and molding *Deposits adhering to mold surfaces, gaps, parting lines, etc. during injection molding.



Smart Molding Technology

Until now, when our Technical Solution Center (TSC) provided molding support to customers, highly-skilled molding technicians relied on sensory information obtained from the molding machine, such as sound, vibration, and odor, in addition to simple numerical information, to determine if there are abnormalities. However, since such high skills are cultivated through years of experience, there are only a limited number of personnel available for molding support projects that require advanced technology, and there have been issues in terms of efficiently providing high-quality molding support.

To solve these issues, our TSC has decided to introduce AI-based smart molding technology. This technology uses 15 different types

Before

Experienced molding technicians make judgments based on their experience, from sensory information such as sound, vibration, and odor. Molding defects are caused by delayed responses due to labor shortages.



The smart molding technology enables less experienced workers to achieve stable molding, which leads to the reduction of off-spec products.

In order to sell products with sustainability certification, sales companies must also be certified.





defects. Also, there is no risk of outgassing during remolding, making it easier to recycle within the customer's process. The development of elastomer-less resins is a revolutionary engineering-plastics solution to meet the ever-increasing recycling needs of our customers.

We will continue to develop high value-added plastics that combine functionality and environment-friendliness.





of sensors to determine abnormalities from sounds, vibrations, and odors emitted by molding machines, by applying an AI that is trained on the sensory information output by the molding machine and instantly applies corrections to the molding conditions. This technology enables even young, inexperienced molding technicians to mold more consistently, providing customers with high-quality, efficient molding support and reducing defective products by quickly responding to molding defects.

In the future, TSC plans to provide not only molding support within TSC, but also to deploy the technology in customers' molding processes, aiming to provide even higher quality engineering plastics solutions.

Harmony with Environment

Reducing environmental impact and carrying out business operations in harmony with environment



Environmental **Promotion System**

2030 GHG Reduction Target

Daicel Group

Total GHG emissions (Scope 1, 2)

50% reduction (vs. 2018)

Polyplastics Group

PCF-focused GHG emissions intensity (including CO₂ derived from raw materials)



CSR Promotion System

We have established an Environmental Strategy Promotion Subcommittee under the CSR Committee, with the Carbon Neutral Business Strategy Office as an administrative office.

Based on the growing environmental needs of our customers, we will provide comprehensive environmental solutions, including market development with an understanding of the circular economy as a business opportunity, activities to meet GHG reduction needs, and the supply of green products.



Polyplastics Group Environmental Basic Policy

Based on our Corporate Philosophy, the Daicel Group Guidelines for Conduct and Code of Ethics, and our CSR policy, the Polyplastics Group is committed to reducing the environmental impact of all business activities in the development, production, and sale of our products. In doing so we aim to contribute to achievement of a sustainable society in which economic development is attainable together with global environmental conservation.

1. Compliance with environment-related regulations

2. Contribution to environment through our products

We improve the convenience of society through our products and contribute to the development of a recycling-oriented economy by reducing the size, weight and life of our customers' products. In addition, we continue to actively address to solve social issues such as environmental problems through the development and provision of products and solutions that contribute to global environmental conservation.

3. Reducing the environmental burden in all business activities

In all business activities such as product development, production and sales, we actively work on protecting the global environment, including the following initiatives.

- Regular and quantitative grasping of environmental load
- Reduction of CO2 emissions to mitigate climate change
- · Promotion of energy saving activities
- Reduction / Reuse / Recycling of waste
- Reduction of emissions of chemical substances and waste to air, water and soil
- Utilization of renewable energy
- Effective use of water resources

4. Fostering an environmental mindset



FY2023 Performance Medium-Term Targets

CO2 Emissions Reduction

The introduction of advanced control technology to the TOX process at the Fuji Plant in FY2023 has substantially reduced CO₂ emissions. On the other hand, production at lower rates due to problems at the Kaohsiung and Kuantan plants resulted in worse efficiency of energy use, and we only achieved a slight improvement in CO₂ emission intensity

We plan to make large investments for growth toward 2030, and although CO₂ emissions are expected to increase as a result, we aim to reduce emissions to the same level as in 2018, the base vear. We will do it with thorough energy conservation through production and technological innovation, energy conversion away from fossil fuels, and other measures, as well as significantly reducing emission intensity



Recycling rate

(k tons)

5.000

Industrial Waste Reduction

From 2023 onward, the Daicel Group is using recycling rate as a management indicator. Polymer dust from our Kuantan Plant, which we previously disposed of as landfill, is being recycled starting from this fiscal year for use as alternative fuel for cement plants. Also, our efforts to reduce the amount of landfill waste disposal by reviewing the sorting of plant and general waste achieved a recycling rate of 98.6%, an improvement of 3.8 points from the previous year.

We are striving to further improve our recycling rate.



Reducing Emissions of Chemical Substances (PRTR*1 Substances)

In accordance with the Law for PRTR and Promotion of Chemical Management (PRTR Law), we survey and monitor our annual emissions of the chemical substances covered by the law, and report the results to the government.

In FY2023, we were able to reduce emissions of PRTR substances by 40.2% from the previous year, by increasing the treatment capacity of our scrubbers (exhaust treatment equipment). However, we were unable to achieve our 2023 target of a 50% reduction from the 2019 level because we did not install combustion equipment*2 to control emissions of PRTR substances due to difficulties in installation locations. We will work to reduce emissions of PRTR substances through significant improvements with our current equipment.



*1 Pollutant Release and Transfer Register *2 Capable of reducing PRTR substance emissions by up to 95%

13

Daicel Group total CO₂ emissions (Scope 1, 2)



Medium-Term Target

By 2030 **Daicel Group Total GHG emissions** (Scope 1, 2)





Medium-Term Target

By 2025 Group recycling rate At least 97%

PRTR substance emissions(Fuji Plant)



Medium-Term Target





New Environmentally-friendly LCP Polymer Plant

LCP is an essential material for the development of next-generation high-speed communication technology. In 2024, we are building a new LCP polymer plant with an annual production capacity of 5,000 tons at our Kaohsiung Plant, our first overseas LCP polymer plant. This plant not only supports the sales expansion of LCP, but is also environmentally-friendly.



The synthesis process for LCP uses a lot of nitrogen. In the past, we used a nitrogen gas generator, but it required a large amount of energy. The new plant will therefore introduce new nitrogen circulation equipment to recycle nitrogen that has once been used. This reduces the amount of nitrogen used to one-tenth of the conventional amount and greatly reduces the energy required to produce nitrogen. As a result, the entire LCP plant is expected to attain energy savings of approximately 30% and significantly reduce CO₂ emissions. The entire LCP plant at our Kaohsiung Plant is expected to reduce its annual CO₂ emissions by approximately 9,000 tons.



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The new plant will also include exhaust gas combustion equipment to reduce VOC emissions. Combusting exhaust gases generated in the manufacturing process treats organic compounds contained in the gases, to reduce VOCs (volatile organic compounds). This allows almost 100% reduction of VOC emissions, and enables compliance with strict local VOC emission control standards.

We will continue to support the accelerating development of a DX society with engineering plastics, as well as promoting the construction and operation of environmentally sustainable plants.

Nitrogen circulation equipment

Once used, nitrogen contains byproducts that affect quality, so it is important to remove these byproducts within the process, in order to reuse the nitrogen. Since the plant's continuous operation could be disrupted if the byproducts were not properly removed, we conducted a thorough investigation of the types, properties, and amounts of byproducts generated in advance of this project. After further study, including numerous proving trials, we finally reached a point where we could introduce the equipment that could be expected to operate continuously.



Heat Pinch Analysis at Kuantan Plant

As one of our energy conservation efforts, we have been using a waste heat recovery method called "dual utility," by which heat is reused between multiple distillation columns at each plant. Currently, in order to achieve the GHG reduction target for 2030, we have begun full-scale efforts to further optimize the use of such heat, which will lead to further energy conservation throughout the Group.

As the first step, in FY2023, we conducted a "heat pinch analysis" to study technologies to optimize heat utilization, using our Kuantan Plant in Malaysia as a model plant.

This analysis identifies areas where waste heat is generated and areas where additional heat is required in the manufacturing process, and also numerically visualizes the amount of heat required, making it possible to identify efficient heat exchange combinations.

Based on the results of this analysis, we have now also finished compiling our items to improve for energy conservation. One of the improvement items includes vapor recompression (VRC) technology, which makes it possible to reuse low-temperature





Carbon Neutral Business Strategy Office

In FY2023, we established the Carbon Neutral Business Strategy Office to plan and promote new business with carbon neutrality as a growth driver. Given the importance of carbon neutrality to our company, this office has newly formulated an Environmental Business Strategy Policy as part of our management strategy, in addition to the business strategy policy for each product. This policy includes the sustainable use of all plastics, the PCF Reduction Action Plan, which incorporates our goal of a 30% reduction of our product carbon footprint (PCF) in FY2030 into a specific action plan, and actions to establish recycling business with a view to post-consumer recycling.



steam, which cannot be recovered by conventional dual utility, by compressing it to a higher temperature. If we can optimize the use of heat throughout the plant while also introducing these new technologies, we see the potential to reduce CO_2 emissions by up to 68,200 tons/year (40%).



- We will continue to study specific measures to fully realize the potential for such reduction.
- In the future, we plan to use the same heat pinch analysis to optimize heat utilization at plants other than the Kuantan plant, which served as the model plant in this example, and develop Group-wide initiatives to achieve our GHG reduction target for 2030.

- In addition, we are working on activities to spread awareness of environmental issues and environmental projects from the bottom up including basic environmental education for all employees, so that they can understand what to do specifically.
- We will create and promote new business with the aim of becoming a solution provider for our customers in the field of carbon neutrality, and continue to provide engineering plastics that will be needed in the society of the future.

Developing Talented and Engaging Human Resources

Utilizing and contributing to development of talented and engaging human resources



Toward Achieving "Sustainable People" **Throughout the Daicel Group**



With the recent trend toward globalization, it has become essential for companies to secure diverse human resources, and initiatives for diversity, equity, and inclusion ("DE&I") have become even more important. The Daicel Group has positioned DE&I as one of its key management issues, and is creating a system that enables each of its diverse employees to maximize their unique abilities and individuality.

In FY2016, Daicel promoted the use of childcare leave for female employees and established paid leave incentive days. Since then, Daicel has introduced working from home and satellite work to create a workplace environment where not only women but diverse employees of all kinds can play active roles.

In addition, Daicel and Polyplastics began cooperative efforts in FY2021 in order to further accelerate the promotion of diversity throughout the Daicel Group. Specifically, we started by holding exchange meetings for female employees in FY2021, began co-hosting LGBTQ seminars, and introduced a same-sex partnership system at both companies in FY2023. These efforts have raised the percentage of female managers at Daicel which increased from 1.6% in FY2016 to 5.6% in January 2024, and brought the percentage of male employees taking

Daicel Group Personnel Policy

Sustainable People

We promote "People-centered Management" that enables all our diverse employees to grow while establishing their own presence and achieving fulfillment.

I will hone my skills and mind, achieve self-actualization by taking advantage of the opportunities at the company, and increase my happiness. I will work creatively together with my teammates and increase our happiness. I will also create and provide value, contribute to a more prosperous society, and increase the happiness of all.

childcare leave into the 90% range. We will continue to create a comfortable work environment that facilitates independent career development for employees regardless of gender. Daicel plans to set a 30% diversity rate target in its recruitment efforts, in order to further ensure the diversity of the Daicel Group. We will also introduce an executive mentor system and continue to hold roundtable discussions between executive officers and female managers, with the aim of developing female executive officers within Daicel

Based on equity, in the sense that everyone has a fair opportunity to take on challenges, we released our Diversity, Equity & Inclusion Declaration (DE&I Declaration) and expand the circle of value co-creation at a higher level throughout the Daicel Group.



Ms. Yoshino, DE&I Promotion Office, Human Resources Group, Daicel Corporation; Ms. Kodama, DE&I Promotion Office, Human Resources Department



Support System for Employees with Disabilities

Our Job Support Team consists of eight employees with intellectual disabilities and three employees as advisors who assist them in their activities, performing a variety of 50 different tasks. In order to ensure that employees perform their work safely, advisors provide support such as assigning work based on their aptitudes, giving advice on learning the work, and discussing any problems that may arise. They communicate according to each employee's personality and characteristics, so that the team can work smoothly.

They are also considering new work for the future, and we will continue to provide a wide range of services for employees with disabilities.



Aiming for Open and Easy-to-Understand Communication

At our Leuna Plant (Germany), all employees ranging from the production to the administrative department were trained to improve their communication skills in practically useful ways. This training program aimed to improve skills in interactive communication and self-reflection, including "active listening" and how to give appropriate feedback.

This training has helped employees reaffirm the importance of teamwork, and has helped to create workplace environments where diverse employees can play active roles.

Creating a workplace where diverse employees can play active roles

"Kurumin Certification" (four consecutive times)

We were granted "Kurumin Certification" by the Tokyo Labor Bureau of the Ministry of Health, Labour and Welfare, as a company that supports child raising. We earned certification for the fourth consecutive time, after 2017, 2019 and 2021.

~23年認知

Childcare Leave Usage Rate













Training (work on placing the ruler on the floor so it doesn't leave anyone's fingers)

Rate of Employees with Disabilities

Our rate of employees with disabilities in FY2023 was 2.51%, exceeding the statutory employment rate of 2.3%. We will continue to exchange information not only with local special-needs schools but also with organizations that support people with disabilities, to expand our recruitment activities more widely and to actively recruit people with physical disabilities (upper limbs and lower limbs), in addition to people with intellectual disabilities.



Social Contribution Activities

Providing opportunities to make society better as a corporate citizen

Contributing to Local Prosperity Contributing to the prosperity of the local area, which is the foundation of the business activities

Kuantan

Eco-rafting event

In Kuantan (Malaysia), eight employees participated in an eco-rafting event organized by a local organization to preserve the environment of rivers, which are an important means of transportation. On the day of the event, participants were divided into



15 UFE ON LAND

teams and planted a total of 100 mangrove saplings while rafting.



Bangkok and Kaohsiung

Charity marathons

In Bangkok (Thailand) and Kaohsiung, employees participated in charity marathons to improve their health and strengthen ties with their local communities. Event participation fees were donated through the organizers to the Breast Cancer Foundation of the Thai Red Cross Society and welfare organizations.





Farmington Hills

Participation in NGO activities

In Farmington Hills (USA), employees participated in reforestation activities and nature-education activities organized by an NGO. 32 employees participated in reforestation activities, cutting weeds to encourage tree growth in a local park.

In educational activities, 30 employees participated in a "Nature Study Hiking Tour" to learn about the importance of protecting organism habitats.



Querétaro

Tree-planting activities

In Querétaro (Mexico), employees participated in a tree planting activity which is one of the reforestation programs organized by an NPO to preserve the local natural environment. 10 people participated, including employees and their families, planting one sapling each.



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Cultivating the Next Generation

Kaohsiung



Fuji Plant and TSC Tour for Taiwanese high school students

A total of 35 teachers and students from a local high school in Kaohsiung visited our Fuji Plant and TSC in Japan. This activity was part of the school's Chemical Industry Program, which aims to provide career education related to the chemical industry. Students toured the plant's control room, and the showroom and molding room in the TSC. Students made many appreciative comments after the tour.



Bangkok

Lecture on engineering plastics

In Bangkok (Thailand), we gave a lecture to 80 university students enrolled in a local engineering college, introducing the company, its products, and the development of industrial parts made of engineering plastics. In the future, we will continue our activities with a view to conducting joint research with the university







Offering a forum for nurturing the next generation for securing human resources that would sustain the future society

Singapore

Christmas gifts for children in need



In Singapore, 14 employees participated in a "Secret Santa" event held throughout the office building. In this event, children in need prepared wish cards, and based on the cards, participants sent Christmas gifts to them through a support organization. Our employees gave supplies such as colored pencils, pencil cases, and school backpacks as a gift.



Kaohsiung, Bangkok, and Nantong



Painting contest

Kaohsiung, Bangkok (Thailand), and Nantong (China) held painting contests for local elementary school students on the themes of "Global Environment," "Environmental Conservation," and "My Parents and My Hometown," respectively. These contests are designed not only to raise children's environmental awareness, but also to help develop their talents. Employees voted to select the most outstanding paintings from among those submitted by the children, and each was awarded a scholarship, a certificate of recognition, and a gift.



Supporting Employee-led Social Contribution Activities



13 CLIMATE

13 CLIMATE ACTION

Supporting social contribution activities by leveraging the voluntary mindset of individuals

All locations

CO2 Reduction Challenge

In FY2023, we established a common theme for CSR across our entire Group, including overseas group companies, and implemented the CO₂ Reduction Challenge as the first initiative. Each company in the Group implemented unique activities, such as each household saving electricity for three months, to encourage employees to reduce CO₂ emissions in their daily lives. Through these efforts, the entire Group has been able to reduce annual CO2 emissions by approximately 36 tons.

Hong Kong

"Green Monday"

In Hong Kong, a "Green Monday" event was held every Monday in July for eating meatless lunches. Among food products, meat is said to have the highest carbon footprint. The event was organized with the goal of reducing employees' carbon footprints by reducing their consumption of meat. A total of 13 employees participated in the four events, switching 41 meals to vegetarian meals.



Daicel Group

"Mottainai* Initiatives" for the sixth consecutive year

For the sixth consecutive year, we conducted "Mottainai Initiatives," a program to collect items that people are no longer using at home and donate them to an NPO. In FY2023, the event was further scaled up with the addition of four new Daicel sites, and a total of 3,590 donated items were collected, exceeding the number donated the previous year. *Mottainai means "What a waste!" in Japanese





In Kuantan (Malaysia), an energy-saving program was organized and an award to the employee who saved the most electricity was presented

Germany

Shanghai

Gardening at the plant



Our Leuna Plant (Germany) has started a greening program to create a flower garden on the plant premises, to conserve biodiversity. Planting flowers with a long blooming season is an ingenious way to contribute to the conservation of insects and other ecosystems. This initiative is expected to absorb approximately 200 grams of CO2 per square meter of flowerbed.



Charity meal boxes for people in need

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In Shanghai (China), volunteers distributed charity meal boxes to the elderly who are living alone, the needy, and those living on the streets. Eight employees participated in the event, and were divided into two groups: those who distributed the lunches at designated locations and those who walked around distributing the lunches on the street, distributing a total of 80 boxes.



Compliance

Prioritizing compliance and carry out business in a socially fair and appropriate manner



Our Commitment Revised

The Daicel Group has abolished the previous Group Conduct Policy, replacing it with the Daicel Group Code of Conduct, for each and every employee to be constantly aware of and practice in every action, and Daicel Group Ethical Standards, as a universally applicable code for all areas of corporate activities. New elements added to the new Ethical Standards include strict compliance with the terms of contracts with customers to ensure that inappropriate quality-affecting behavior does not occur, consideration for human rights and the environment, which are increasingly demanded by society, and adherence to the Ethical Standards throughout the supply chain.

We have also completely revised Our Commitment as a practical



Campaign to Eliminate Harassment

In FY2023, our Campaign to Eliminate Harassment in the Workplace was implemented to deepen employees' understanding of harassment and further raise their awareness of the need to eliminate it. In addition to the messages from the executive officer in charge of compliance and risk management, we provided leadership training for department managers, e-learning education for all employees, and group discussions within departments using specific examples, to reiterate the need to prevent harassment in the workplace.

We will continue to respect the diversity, personality, and individuality of all employees working for the Group, and actively



guide to ensure that our Code of Conduct / Ethical Standards are put into practice. We aim to be a corporate group that contributes to society as a good corporate citizen, while conducting business operations that earn trust and high expectations from society.



work to create a comfortable workplace environment for every employee, free from discrimination and harassment.

