

AGC Sustainability Data Book 2023

AGC Sustainability Data Book 2023
For the Year Ended December 31, 2022



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Editorial Policy

Sustainability Data Book 2023 contains non-financial aspects (sustainability reporting) and complements the AGC Integrated Report 2023, in which the AGC Group publishes its broad range of business strategies and business activities. The information herein is based on the Core option of the GRI (Global Reporting Initiative) and GRI standards.

In 2019, the report's title changed from CSR Activity Report (Detailed) to Sustainability Data Book. In addition to non-financial data, individual policies, promotional structures, and business activity achievements are reported in regard to the Group's Corporate Social Responsibility (CSR) activities. Initiatives in the countries and regions AGC operates in are introduced on the AGC Group's sustainability website. The Sustainability Data Book should be viewed alongside the sustainability website to foster a deeper understanding of the social responsibility activities implemented by the AGC Group.

Scope of This Report

Reporting Period

2022 (Jan.–Dec. 2022)

Some information includes content from 2021 and/or 2023.

Organizations Covered in the Report

AGC and its 201 consolidated subsidiaries (Group companies worldwide)

Primary Notation and Report Subjects Used in the Report

- The AGC Group
Same as "Organizations Covered in the Report" mentioned above
- The AGC Group (Japan)
Group companies in Japan, including AGC
- AGC / the Company
AGC Inc. (on a non-consolidated basis)
- Group companies in Asia
Group companies in Asia, excluding the AGC Group (Japan)

Dates of Publication

Japanese version: August 2023 (Previous date of publication: August 2022)

English version: September 2023 (Previous date of publication: August 2022)

Future Assumptions, Forecasts, and Plans

Sustainability Data Book 2023 is based on the latest information available to the AGC Group at the time of editing this report. Nevertheless, please note that information regarding future forecasts may vary with fluctuations in the business environment that lead to unexpected results and/or phenomena.

Corporate Information (as of the end of December 2022)

Company name	AGC Inc.
Head office	1-5-1, Marunouchi, Chiyoda-ku, Tokyo 100-8405, Japan
Founded	September 8, 1907
Incorporated	June 1, 1950
Capital	¥90,873 million
Stock issued	227,441,381 shares
Employees	57,609 (consolidated) 7,412 (non-consolidated)
Number of consolidated subsidiaries	201 (including 164 overseas)

CEO Message



Yoshinori Hirai

Representative Director,
President & CEO

By promoting sustainability management and continuously creating economic and social value, the AGC Group will realize its long-term management strategy Vision 2030.

The AGC Group is moving forward with sustainability management—an approach that focuses on not only economic value but also social value. Our Vision 2030 sets out the following long-term management strategy: “By providing differentiated materials and solutions, AGC strives to help realize a sustainable society and become an excellent company that grows and evolves continuously.” With the aim of achieving these goals, the vision also establishes a Groupwide strategy, stating that, “With both Core and Strategic Businesses as drivers, AGC will optimize its business portfolio and create economic and social value continuously.”

Based on the long-term social issues identified as our material issues, we have clarified the social value that we want to create. One way in which we will create social value is by contributing to the realization of a sustainable global environment. In global initiatives to address social issues, the past few years have seen particular emphasis placed on climate change. In response to this trend, we have declared the achievement of net-zero carbon emissions by 2050 as another goal. As well as redoubling efforts to reduce our greenhouse gas (GHG) emissions, AGC has developed an array of environment-friendly products. Going forward, we will expand our lineups of such offerings even further.

One more major social trend is topics related to human resources. In order to contribute to sustainability in the world, the AGC Group itself must attain sustainability. Human

resources are a driving force behind this movement. Diversity, equity, and inclusion are fundamental to creating fair and safe workplaces, and innovation is also essential to this end, in our opinion.

Based on its founding spirit, the AGC Group has supported the leading industries of each era and helped address social issues by building unshakable relationships of trust with customers and providing unique materials and solutions.

Continuing this tradition of collaboration and innovation, we will work with customers and society to combine knowledge and advanced technologies, thereby helping make ever greater achievements possible and bringing bolder ideas to life. We will realize our long-term management strategy Vision 2030 through the cultivation of a shared commitment with all of our stakeholders in accordance with the Your Dreams, Our Challenge brand statement and through the tireless creation of economic and social value.

The AGC Group at a Glance

The AGC Group: Providing a Broad Range of Materials and Solutions Worldwide

Description of Businesses

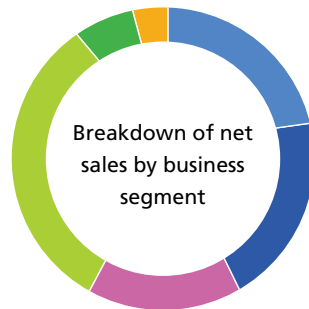
(2022)

AGC Group

Net sales: ¥**2,035.9** billion

Operating profit: ¥**183.9** billion

Group employees: Approx. **57,600**



Architectural Glass Business	23%	Chemicals Business	31%
Automotive Business	20%	Life Science Business	7%
Electronics Business	15%	Ceramics and Other Businesses	4%

Architectural Glass Business	Net sales ¥ 483.7 billion Operating profit ¥ 32.7 billion	Asia Net sales ¥ 146.9 billion
		Europe & Americas Net sales ¥ 335.8 billion
Automotive Business	Net sales ¥ 417.8 billion Operating loss ¥ 9.8 billion	
Electronics Business	Net sales ¥ 307.2 billion Operating profit ¥ 14.7 billion	Display Net sales ¥ 155.4 billion
		Electronic Materials Net sales ¥ 149.5 billion
Chemicals Business	Net sales ¥ 660.4 billion Operating profit ¥ 126.1 billion	Essential Chemicals Net sales ¥ 489.8 billion
		Performance Chemicals Net sales ¥ 165.2 billion
Life Science Business	Net sales ¥ 141.8 billion Operating profit ¥ 16.9 billion	
Ceramics and Other Businesses	Net sales ¥ 86.6 billion Operating profit ¥ 3.7 billion	

Notes

1. Results for 2022 are displayed using the revised segments.
2. Sub-business net sales are based on net sales to external customers.
3. As net sales and operating profit by business are shown before the deduction of eliminations, the sum of net sales by business does not equal Companywide net sales, and the sum of operating profit by segment does not equal Companywide operating profit.

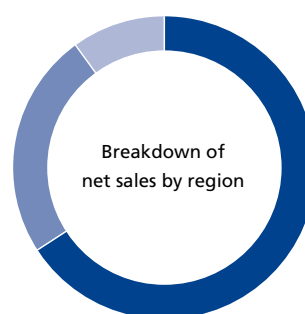
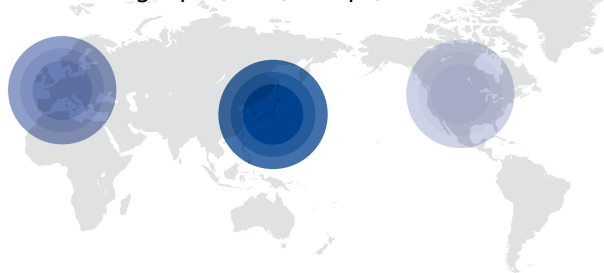
The AGC Group has established global business foundations spanning Japan, Asia, Europe, and the Americas. The Group's Architectural Glass, Automotive, Electronics, Chemicals, Life Science, and Ceramics businesses*, as well as other businesses, create new value by leveraging a diverse range of world-class materials, technologies, advanced production technologies, and a broad customer base. These strengths have been cultivated over a history that stretches back more than 110 years.

* In 2023, the Company changed its business segmentation based on the businesses stated above.

Global Expansion

(2022)

Operating businesses in more than 30 countries and regions, including Japan, Asia, Europe, and the Americas



Japan / Asia	64%
Europe	26%
The Americas	10%

Japan / Asia

Europe

The Americas

Net sales ¥1,302.7 billion ¥525.4 billion ¥207.8 billion

Operating profit ¥187.1 billion ¥31.4 billion ¥7.2 billion

Group employees Approx. 35,700 Approx. 17,200 Approx. 4,700

Number of manufacturing sites 51 36 (including Africa) 9

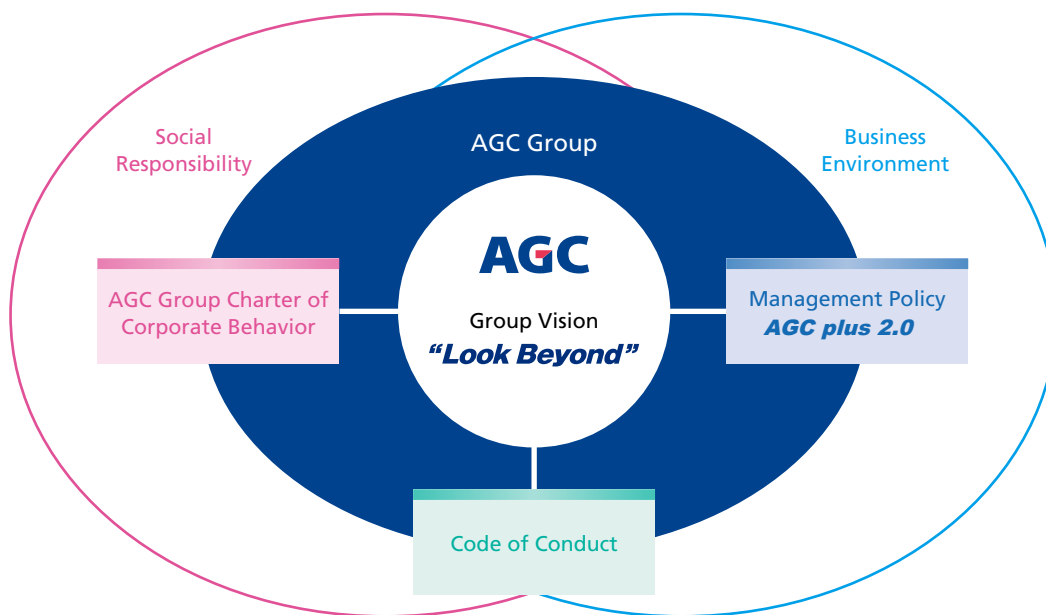
	Japan / Asia	Europe	The Americas
Architectural Glass	7	11	1
Automotive	12	7	4
Electronics	23	1	2
Chemicals	2	13	1
Life Science	2	4	1
Ceramics	5	0	0

Note: As net sales and operating profit (loss) by region are before the deduction of eliminations and common regional expenses, the sum of net sales by region does not equal Companywide net sales, and the sum of operating profit (loss) by region does not equal Companywide operating profit (loss).

Approach to Sustainability

Based on its **AGC plus 2.0** Management Policy, the AGC Group will aim to earn the trust and meet the expectations of society in accordance with its Mission, Shared Values, and Spirit set forth in AGC's Group Vision "**Look Beyond**", with the intention of balancing the AGC Group's sustained growth with contributions for the realization of a sustainable society.

In addition, we fulfill our social responsibilities and have created the AGC Group Charter of Corporate Behavior and the AGC Group Code of Conduct.



► Management Policy **AGC plus 2.0**

The Management Policy sets the course of action for all the Group's business activities providing social and business aspirations, guidelines, and directives. It is revised as necessary to reflect changes in the business environment and circumstances of the Group.

Based on its **AGC plus 2.0** Management Policy, the AGC Group will realize sustainable growth by providing additional value to all stakeholders.

- Providing safety, security, and comfort to society,
- Creating new value and functions for customers and business partners and building trust with them,
- Enhancing job satisfaction among employees,
- Increasing the Group's corporate value for investors, and
- Building a better future for the coming generations.

▶ Code of Conduct

The Code of Conduct sets forth standards to be observed by all Group members from the perspective of “integrity” in Our Shared Values under the AGC Group Vision **“Look Beyond”**

 [AGC Group Code of Conduct](#)

▶ AGC Group Charter of Corporate Behavior

The Group Charter sets forth and declares the perspectives that form the basis of our behavior to ensure that the AGC Group will remain a good corporate citizen.

AGC Group Charter of Corporate Behavior (Established on June 1, 2007 and revised on March 9, 2016)

Under the tenet of “Our Mission” in the Group vision, **“Look Beyond”** the AGC Group strives to be a company trusted by all of its stakeholders, a company that meets the expectations of the world business community to grow and develop responsibly, and a company that significantly contributes to a healthier global society. To this end, the Group has established the AGC Group Charter of Corporate Behavior and acts in line with the following principles.

Integrity: Sincere Behavior

1. The AGC Group will develop and provide useful goods and services of superior quality, giving due consideration to safety and the environment, and will strive for customer satisfaction and loyalty.
2. The AGC Group will understand and comply with applicable laws and regulations of the countries and regions in which it does business and will respect international norms of behavior.
3. The AGC Group will promote fair trade and conduct its operations in accordance with the principle of fair competition and all applicable laws and regulations.
4. The AGC Group will maintain sound relationships with government agencies and other responsible organizations. The Group will not support any person or group that threatens the order and security of society.
5. The AGC Group will properly manage and safeguard its own proprietary information, intellectual property, and other assets and will respect the property rights and interests of others including customers and business partners.

Environment and Safety: With Due Consideration

6. The AGC Group regards environmental conservation as an essential responsibility of global citizens and will proactively contribute to the development of a sustainable society.
7. The AGC Group will pursue technological innovations and new product developments that reflect due consideration for the environment and will participate in activities to preserve the environment and safety and security at work.
8. The AGC Group will maintain its workplaces with a proper regard to occupational health and safety for the people related to its business activities.

Diversity: Respect for People

9. The AGC Group will respect human rights and will operate its business with due regard for the cultures and customs of each country and region in the world.
10. The AGC Group will respect people’s diverse capabilities and personal dignity and will create fair and open environments at its workplaces without discrimination based on race, ethnicity, religion, nationality, gender, disability, or any other legally protected group.
11. The AGC Group will not engage in forced labor or child labor and will not tolerate infringements of human rights.

Harmony with Society: From “Responsibility” to “Reliability”

12. The AGC Group will strive to be a trusted corporate citizen, fulfilling its responsibilities to the communities in which it does business.
13. The AGC Group will build productive and proper relationships with business partners and encourage them to adhere to business principles consistent with its own.
14. The AGC Group will communicate responsibly with customers, local citizens, shareholders, employees, and other members of society by gathering their opinions and disclosing information in a fair and appropriate manner.

The managements of all AGC Group companies, recognizing that it is their responsibility to realize the spirit of this Charter, will take the initiative to achieve an understanding of the Charter within all Group companies, and at the same time, will seek its business partners’ cooperation. The managements will also promote the development and implementation of systems that the principles stipulated in this Charter can be duly incorporated into the Group’s decision making and implementation.

In the case of any behavior contrary to the principles of this Charter, we will work to identify the cause and prevent a recurrence, making it clear to those inside and outside Group companies that the situation is being addressed diligently. We will take appropriate corrective and disciplinary actions when necessary.

AGC Group Vision

“Look Beyond”

“**Look Beyond**” is the AGC Group’s corporate philosophy on which all the activities of the Group are founded.

Structure and elements of “**Look Beyond**”



Our Mission

AGC, an Everyday Essential Part of Our World

–AGC’s unique materials and solutions make people’s lives better around the world every day–

- We, the AGC Group, aim to continue being the “first choice” solution provider for our customers by building long-term trusted relationships with them through unique materials and solutions developed using our wide-ranging material and production technologies. We will continue offering products and solutions that customers and society need, thereby making people’s lives better around the world every day.

Our Shared Values

Innovation & Operational Excellence

- We will seek innovations in technology, products, and services beyond conventional concepts and frameworks.
- We will create value directed at our current and potential customer needs, accounting for changes in the business environment and social and market evolution.
- We will continuously improve all aspects of our operations, striving to achieve benchmark performance.

Our Mission

“Our Mission” expresses the value that the Group should offer to the world, and represents the reason why the AGC Group exists.

Our Shared Values

“Our Shared Values” expresses the key ideas that all AGC Group members must share as the basis for every action we take.

Our Spirit

This founding spirit is precisely ‘the AGC spirit’ that has been handed down from generation to generation and shared by all Group members.

Diversity

- We will respect the diversity of individuals with varied capabilities and personalities.
- We will respect cultural diversity in terms of race, ethnicity, religion, language, and nationality.
- We will respect different perspectives and opinions at all times.

Environment

- We will contribute to the creation of a sustainable society in harmony with nature as a successful and responsible global citizen.
- We will strive to ensure and further improve occupational health and safety in our working environment.

Integrity

- We will build open and fair relationships with all of our stakeholders based on the highest ethical standards.
- We will comply with all applicable laws and regulations.
- We will fulfill our contractual and legal responsibilities to achieve customer satisfaction and trust.

Our Spirit

“Never take the easy way out, but confront difficulties”

- The founding spirit of Toshiya Iwasaki, who established Asahi Glass Company in 1907.

Materiality at the AGC Group (Long-Term Social Issues)

In light of long-term trends in social issues, the AGC Group has identified major opportunities and risks (materiality) associated with simultaneously moving toward a sustainable society and the sustainable growth of the Group.

Based on these major opportunities and risks, the AGC Group has established long-term strategies, strategies for each of its businesses, and sustainability (non-financial) targets while engaging in business activities with the aim of creating social and economic value.

Moreover, we have established the Sustainability Committee, which is chaired by the CEO, as a body to deliberate on and determine basic policies and measures regarding such initiatives. The Sustainability Committee's meetings are attended by CEO, CFO, CTO, auditors and all the heads of business divisions and corporate divisions, and are held four times a year, the details of which are reported to the Board of Directors twice a year.

How Long-Term Social Issues (Materiality) Relate to AGC's Business Activities

Key Opportunities

- **Addressing climate change**

Since the Paris Agreement was reached in 2015, a shift toward decarbonization has been gathering momentum. Stricter energy-related policies and statutory regulations are expected. Also, socially calls are growing for companies to achieve net-zero GHG emissions.

- **Effective use of resources**

There are concerns that stricter regulations on the use of depletable resources, such as rare earths, and higher demand for water resources accompanying further urbanization could seriously impact the production activities of companies. In addition, as the recycling-based economy accelerates, society increasingly expects companies to reduce waste and promote recycling.

- **Developing social infrastructure**

While the economic growth of emerging countries necessitates the development of such social infrastructure as housing, roads, railroads, and public services, developed countries must deal with the aging of their social infrastructure. Moreover, there is a growing need to develop resilient infrastructure that can withstand the intensified disasters being caused by climate change.

- **Achieving safe, comfortable mobility**

The spread of automobiles in emerging countries is causing concern over rising traffic accident deaths. Meanwhile, addressing the mobility needs of the elderly, those living in less-populated areas, and other vulnerable groups in society is becoming increasingly important. Further, as autonomous driving becomes more widespread, expectations are increasing with respect to the establishment of safety technologies, such as sensors and cameras, and the enhancement of in-car entertainment.

- **Addressing food crises**

The problems of hunger and malnutrition in the world's poorest regions have yet to be resolved, and there are concerns that the situation will worsen due to disasters and droughts caused by climate change in recent years. Also, to cope with a growing world population, food productivity must improve.

- **Building an info-oriented, internet of things (IoT) society**

With the spread of information and communication technologies in emerging countries, reliable, inexpensive access to information needs to be provided. In developed countries, the early dissemination of next-generation high-speed communication technologies, such as 5G, promises to improve the quality of remote medical care and information transmission.

- **Facilitating better health and longevity**

Given that the number of young people losing their lives due to non-communicable diseases remains high worldwide, there is a need to reduce such deaths by providing stable supplies of pharmaceuticals for prevention and treatment. In addition, a trend toward increased division and specialization in the pharmaceutical industry, which is aimed at improving the productivity of the industry as a whole and diversifying its risks, is becoming more pronounced.

Key Risks

- **Creating socially and environmentally conscious supply chains**

As supply chains become more globalized and complex, the risk of issues arising in relation to illegal employment, such as forced labor and child labor, at suppliers and subcontractors is increasing. Further, tighter environmental regulations are leading to concerns over potential regulatory violations at operating bases.

- **Ensuring fair and equal employment and workplace safety**

There is a growing need for compliance in employment and respect for workers' rights as well as for safety measures at manufacturing sites due to the increasing number of unskilled and elderly workers.

- **Considering relationships with local communities and the environment**

Due to population growth and urbanization in various parts of the world, interest in expanding living areas and maintaining biodiversity in surrounding areas is growing. Also, in emerging countries there is an increasing focus on improving the quality of life as living standards improve. Efforts to build good relationships with local residents and governments in the vicinity of operating bases are also becoming more important.

Five Types of Social Value the AGC Group Wants to Create

Addressing social issues and creating five types of social value through business activities



Products and Technologies to Create Social Value

Material opportunities	The AGC Group's materials and solutions	Social value	Related SDGs
Addressing climate change	Architectural glass, green refrigerants, automotive infrared cut glass, refractories for biomass boiler, etc.	Contributing to the realization of a sustainable global environment	7 AFFORDABLE AND CLEAN ENERGY, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION
Effective use of resources	Fuel-cell materials, products for recycled raw materials (glass, refractories, etc.)		
Developing social infrastructure	Architectural glass, caustic soda, sodium hypochlorite, sodium bicarbonate, PVC, etc.	Contributing to the realization of a safe and comfortable urban infrastructure	3 GOOD HEALTH AND WELL-BEING, 6 CLEAN WATER AND SANITATION, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 11 SUSTAINABLE CITIES AND COMMUNITIES, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
Achieving safe, comfortable mobility	Automotive glass antennae, components for automotive sensing radars, HUD components, etc.		
Building an info-oriented, IoT society	Antennae for building windows, materials for semiconductor production, display glass, high-speed communication parts, etc.	Contributing to the realization of safe and healthy lifestyles	2 ZERO HUNGER, 3 GOOD HEALTH AND WELL-BEING, 6 CLEAN WATER AND SANITATION
Addressing food crises	Agrochemical active ingredients / intermediates, film for agricultural greenhouses		
Facilitating better health and longevity	Pharmaceuticals active ingredients / intermediates, high-speed communication parts, high-performance membranes for water treatment		

Create Social Value through Healthy Corporate Activities

Material risks	The AGC Group's corporate activities	Social value	Related SDGs
Addressing climate change	Continuous energy-saving, development of production technology / facilities to reduce GHG emissions, etc.	Contributing to the realization of a sustainable global environment	7 AFFORDABLE AND CLEAN ENERGY, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION
Effective use of resources	Use of recycled raw materials / materials, reduction of land, etc.		
Creating socially and environmentally conscious supply chains	Supplier selection based on respect for human rights / environmental protection	Contributing to the realization of a healthy and secure society	5 GENDER EQUALITY, 10 DECENT WORK AND ECONOMIC GROWTH, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS, 17 PARTNERSHIPS FOR THE GOALS
Ensuring fair and equal employment and workplace safety	Increase in employee engagement, prevention of serious disaster / accidents requiring leave, etc.		
Considering relationships with local communities and the environment	Reduce water usage, protect biodiversity, prevent environmental accidents, generate support, etc.	Contributing to the realization of fair and safe workplaces	3 GOOD HEALTH AND WELL-BEING, 8 DECENT WORK AND ECONOMIC GROWTH

Stakeholders

Fundamental Approach

The corporate behavior of the AGC Group is based on its relations with not only customers but also all stakeholders, including shareholders, investors, business partners, governments, NPOs / NGOs, local communities, and employees and their families. Accordingly, the AGC Group Charter of Corporate Behavior states that the Group will seek to communicate with all its stakeholders, including customers, local communities, shareholders, and employees. The Group listens to their opinions and discloses corporate information promptly and fairly.

Management Structure

The AGC Group has established a support department for each stakeholder group and cooperates with relevant departments to proactively disclose corporate information in a prompt and proper manner. The Group also creates opportunities to act on the opinions of its stakeholders for business management, promoting two-way communication between stakeholders and the AGC Group.

AGC Group Communication with Stakeholders

Shareholders and Investors

- Regular stockholders' meetings
- Financial settlement briefings
- Information sessions for investors
- Facility tours
- Publishing *AGC Financial Review*, etc.



Earnings presentation (Japan)

Customers

- Information dissemination with press releases
- Publication of advertorials in online media



Exhibition booth

Local Communities

- Plant tours, job training
- Employee participation in local events
- Social contribution activities, etc.



Social welfare activities (China)

Employees and Their Families

- The Group's in-house magazine, *We are AGC!*
- Information over the intranet
- Opportunities to exchange views directly with the CEO
- Employee engagement surveys
- Helplines
- Labor-management talks, etc.



The Group's in-house magazine, *We are AGC!*

Business Partners

- Satisfaction surveys
- Social gatherings
- Dialogue through the AGC Suppliers' Association, etc.



Meeting with business partners (Japan)



NPOs / NGOs

- Periodic opinion exchanges
- Cooperation on individual projects, etc.



Donation to a foundation for the visually impaired (Thailand)

Governments

- Dialogue through economic organizations and industry associations
- Dialogue and cooperation with local governments
- Social contribution activities, etc.



CSR-DIW Continuous Award 2021

Groupwide Initiatives

■ Formulation of Group Communication Guidelines

The AGC Group has established Group Communication Guidelines to accurately disseminate Group information. Adhering to guidelines of the public relations divisions of Group companies in Japan, the rest of Asia, Europe, and the Americas, the Group follows rules regarding the dissemination and receipt of information within and outside the Group.

Concerning the timely disclosure of Company information, supervisors nominated from each department and major Group companies obtain and release information through the Corporate Communications and IR offices. In addition, negative information is also appropriately disclosed on the Group website and via the media.

■ Communication Tools for Each Type of Stakeholder

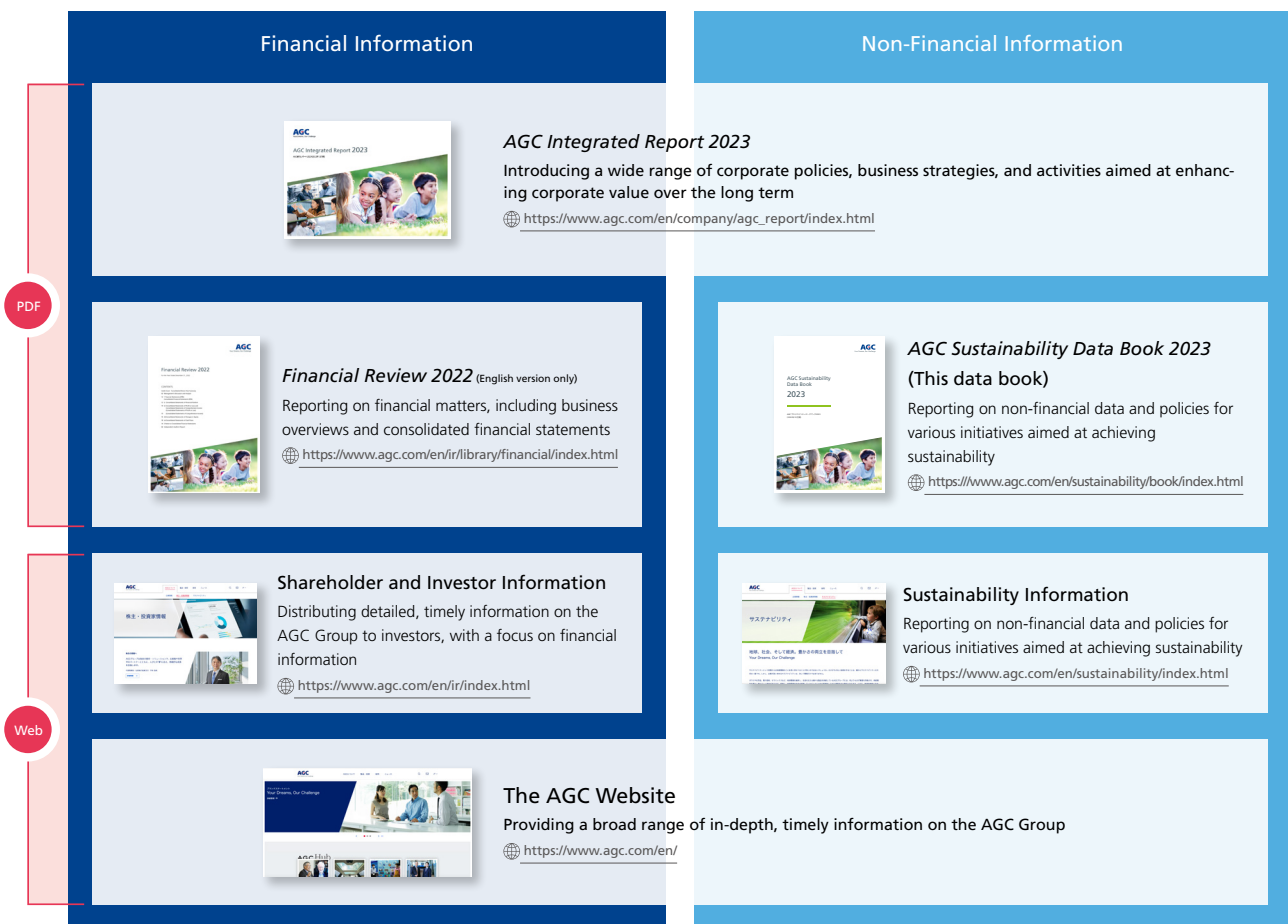
The AGC Group employs a variety of communication tools to satisfy stakeholders' requests, such as pamphlets that introduce the Group management and initiatives (*AGC Integrated Report, Financial Review*) and an official website. Since 2013, the Group has been sharing information through social media including Facebook and Instagram.

■ Feedback from Stakeholders via the Website

The AGC Group regularly asks for opinions and comments regarding the AGC Integrated Report and the homepage via its website.

We take these responses into account to further improve our CSR activities and use them in the creation of various reports and our website.

● Main Communication Tools of the AGC Group



Corporate Governance

Fundamental Approach

AGC is constantly working to strengthen and improve its corporate governance with a view to raising the Group's corporate value over the medium and long term and ensure its continuous growth. Accordingly, the AGC Group has established the AGC Group Corporate Governance Basic Policy, a basic approach to its corporate governance system.

Basic Approach to the Corporate Governance Structure

- Clearly separate the management oversight and business execution functions
- Clearly define corporate and business execution functions in the context of management execution

 AGC's Corporate Governance



Attendance of Directors at Board of Directors' Meetings

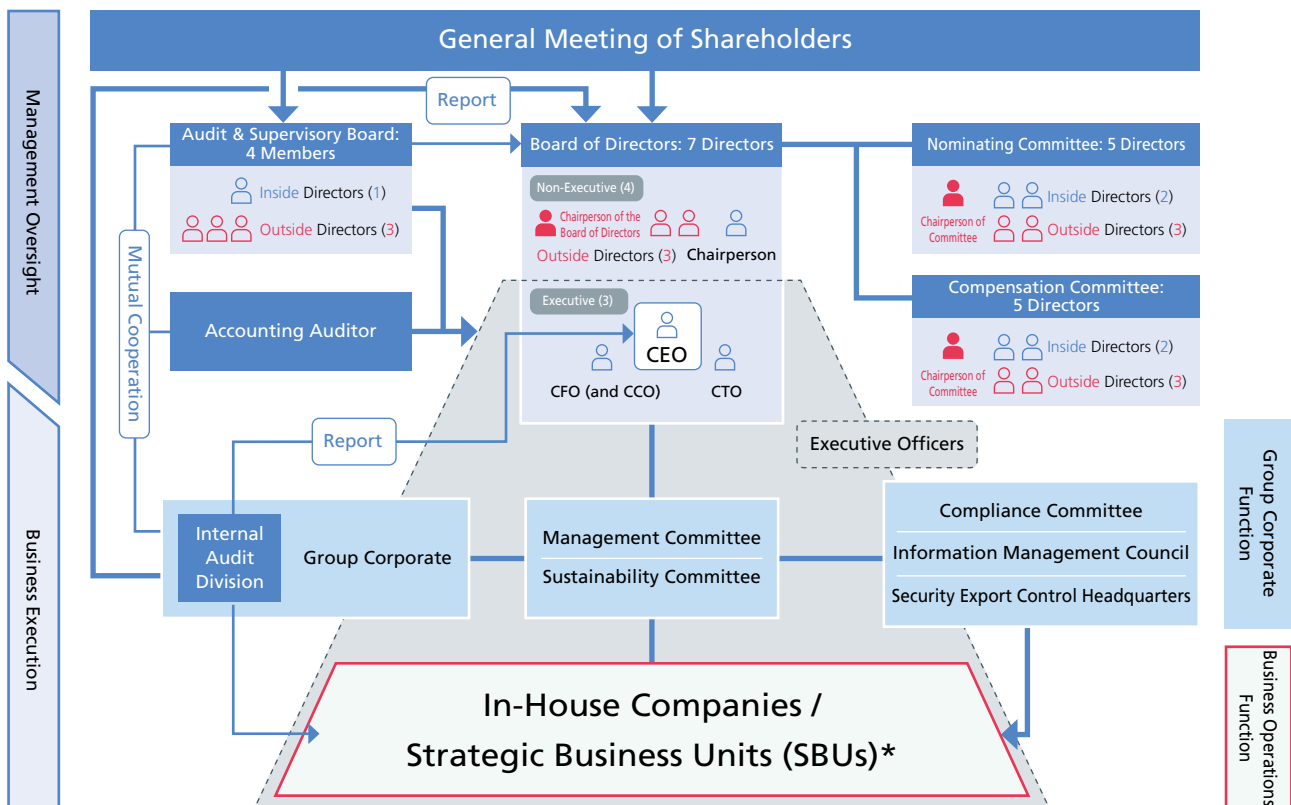
FY	Attendance
2020	100%
2021	99%
2022	100%

Attendance of Audit & Supervisory Board Members at Board of Directors' Meetings

FY	Attendance
2020	100%
2021	100%
2022	100%

The AGC Group's Corporate Governance System (as of March 31, 2023)

 Internal directors or Internal Audit & Supervisory Board members  Outside directors or outside Audit & Supervisory Board members who satisfy AGC's criteria for independence of outside officers



* An in-house company is defined as a business unit that has net sales exceeding ¥200.0 billion and which conducts its business globally. As a result of the establishment of the Life Science Company on January 1, 2023, there are six In-House Companies: the Architectural Glass Asia Pacific Company, the Architectural Glass Europe & Americas Company, the Automotive Company, the Electronics Company, the Chemicals Company, and the Life Science Company, as of March 30, 2023. Business units of a smaller size than this are defined as SBUs (strategic business units), and currently there is AGC Ceramics Co., Ltd.

Management Structure

Internal Controls

In response to the enforcement of the Companies Act, the establishment of AGC's Corporate Policy on Internal Control was approved by a resolution of the Board of Directors at a meeting held in May 2006. The aim was to review and ensure the appropriateness of the Company's business operation systems, including the compliance system.

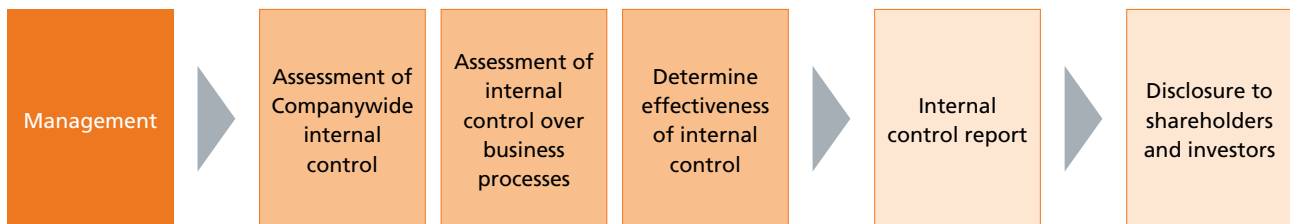
Basic Items for Corporate Policy over Internal Control

1. Compliance program
2. Information retention and management system with respect to business operations
3. Risk management system
4. System to ensure efficient and effective business execution
5. System for reporting by Group companies to AGC
6. Audit & Supervisory Board members' audit system

After introducing a system for preparing internal control reports in compliance with the Financial Instruments and Exchange Act, the AGC Group Internal Control over Financial Reporting Implementation Regulations were established. Based on these regulations, the Group establishes, operates, and evaluates internal controls for financial reporting.

Internal controls regarding financial reporting were evaluated as being effective in 2022, and an external auditor confirmed the appropriateness of the system in its evaluation.

Processes Based on Internal Control Implementation Regulations Related to the AGC Group's Financial Reporting



Risk Management

Management Structure

In respect to short- and medium-term risks, the Group has established the AGC Group Enterprise Risk Management Basic Policies based on its Corporate Policy over Internal Control, the establishment of which was approved by a resolution of the Board of Directors. Under this policy, the AGC Group identifies risks that could significantly hinder the achievement of its management targets and carries out risk management by taking steps to mitigate the materialization of risks and by furnishing responses when such risks have manifested.

For longer-term risks, we have identified major opportunities and major risks that could impact the long-term direction of our management or corporate value as the AGC Group's material issues, taking into account global social issues, future risk trends, and the social issues our customers are working to solve. Based on this process, we have established sustainability targets aimed at leveraging opportunities and dealing with risks. As a decision-making body on initiatives related to sustainability, we have established the Sustainability Committee, which is chaired by the president & CEO and membered by the CTO, CFO, and the general managers of each division. Under the supervision of the Board of Directors, the committee also determines policies for dealing with major risks and deliberates future measures based on the level of progress of targets.

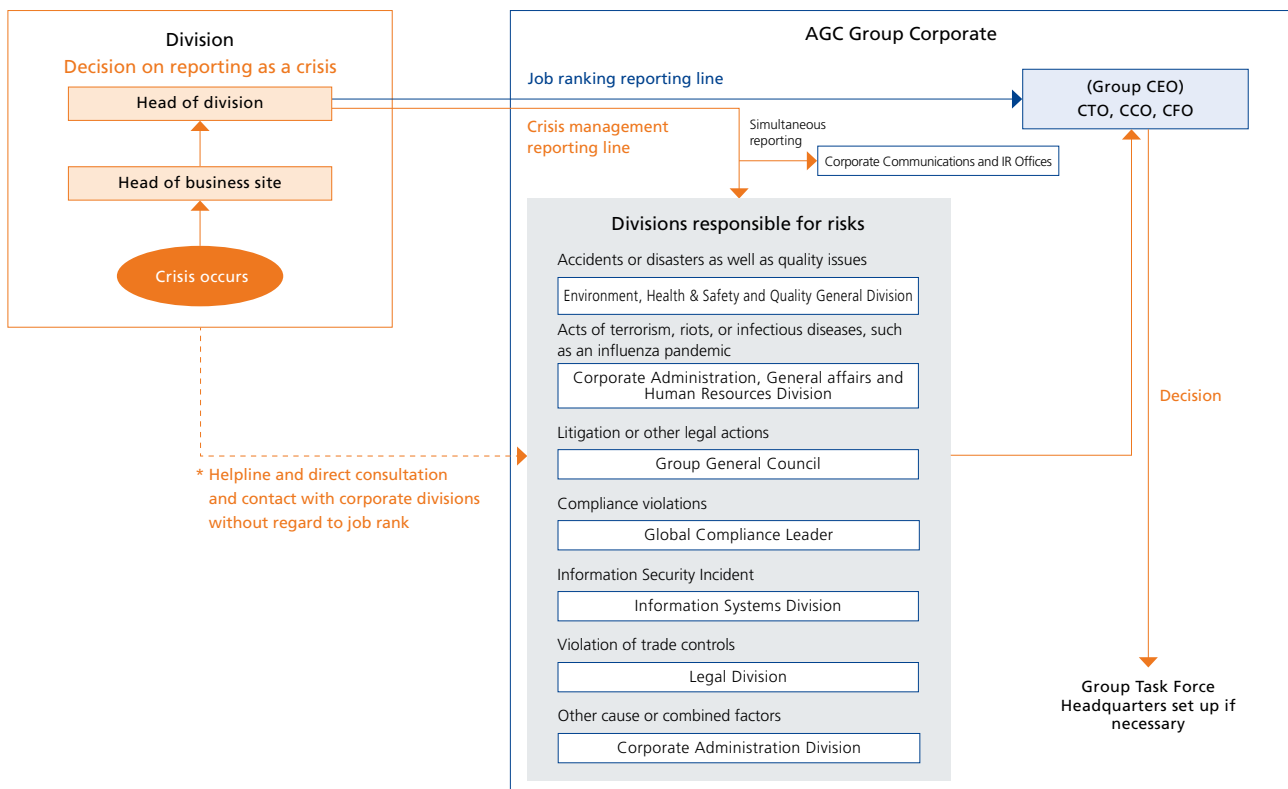
Crisis Management and Business Continuity Management

The AGC Group has a structure in place for minimizing the impact of risks that may have a significant effect on business activities, and sets forth procedures for reporting and responding to such risks in the AGC Group Rules for Crisis Management and Business Continuity Management. In order to respond in the event of accidents or natural disasters, the AGC Group has created a Business Continuity Plan (BCP) in order to ensure the continuation of operations, and each base takes initiatives in industrial safety and disaster prevention, with the intention of continuously improving its level of responsiveness to rapidly repair and restore operations in such an event.

Examples of risks managed by the AGC Group as a whole include those related to the following:

- Natural disasters, such as earthquakes
- Procurement of resources
- Overseas business development
- Serious legal violations
- Environmental regulations
- Market conditions with regard to product demand
- Occupational accidents
- Product liability

Reporting Line During a Crisis Situation



BCP Creation and Improvement

The AGC Group, under the AGC Group Risk Management and Business Continuity Management Rules, has established four basic policies for responding to risks that significantly impact the Group's business activities. These policies are: "human life and safety first," "prevention of secondary disasters," "contribution to and co-existence with society," and "business continuity." Each business division and base develops its own BCP.

In line with these policies, we have evaluated risks relating to earthquakes, high winds, floods, etc., across our major Group sites around the world (approximately 200 locations). We have created hazard maps, which categorize the severity of hazard risks through color-coding. At bases in high-risk areas, we are advancing efforts to develop BCPs.

For earthquakes in particular, we have created BCPs for our main high-risk bases in Japan and Asia. Additionally, every year at our headquarters, we conduct tabletop exercises involving the Group CEO, division heads, and key stakeholders, with the aim of raising awareness and improving the effectiveness of BCPs. In 2022, we conducted an exercise simulating an earthquake directly under Tokyo, and held an online workshop to discuss initial responses, potential damage and our responses in each division, and cross-organization coordination when a disaster strikes.

At AGC Group (Japan), we have been operating an employee safety verification system since 2009 that checks the safety of employees and their families in case of a disaster, and we conduct Companywide safety notification drills twice a year. We also conduct response training for power outages caused by natural disasters at our business locations in Southeast Asia.

We will verify the effectiveness of our established BCPs through repeated training exercises while continuing to improve our BCPs.

Site No.	Maximum Wind Speed (m/s)	Maximum Wave Height (m)	EARTHQUAKE	WIND	FLOOD	TSUNAMI
101	30.0	3.0	Green	Yellow	Red	
102	30.0	3.0	Green	Yellow	Red	
103	30.0	3.0	Green	Yellow	Red	
104	30.0	3.0	Green	Yellow	Red	
105	30.0	3.0	Green	Yellow	Red	
106	30.0	3.0	Green	Yellow	Red	
107	30.0	3.0	Green	Yellow	Red	
108	30.0	3.0	Green	Yellow	Red	
109	30.0	3.0	Green	Yellow	Red	
110	30.0	3.0	Green	Yellow	Red	
111	30.0	3.0	Green	Yellow	Red	
112	30.0	3.0	Green	Yellow	Red	
113	30.0	3.0	Green	Yellow	Red	
114	30.0	3.0	Green	Yellow	Red	
115	30.0	3.0	Green	Yellow	Red	
116	30.0	3.0	Green	Yellow	Red	
117	30.0	3.0	Green	Yellow	Red	
118	30.0	3.0	Green	Yellow	Red	
119	30.0	3.0	Green	Yellow	Red	
120	30.0	3.0	Green	Yellow	Red	
121	30.0	3.0	Green	Yellow	Red	
122	30.0	3.0	Green	Yellow	Red	
123	30.0	3.0	Green	Yellow	Red	
124	30.0	3.0	Green	Yellow	Red	
125	30.0	3.0	Green	Yellow	Red	
126	30.0	3.0	Green	Yellow	Red	
127	30.0	3.0	Green	Yellow	Red	
128	30.0	3.0	Green	Yellow	Red	
129	30.0	3.0	Green	Yellow	Red	
130	30.0	3.0	Green	Yellow	Red	
131	30.0	3.0	Green	Yellow	Red	
132	30.0	3.0	Green	Yellow	Red	
133	30.0	3.0	Green	Yellow	Red	
134	30.0	3.0	Green	Yellow	Red	
135	30.0	3.0	Green	Yellow	Red	
136	30.0	3.0	Green	Yellow	Red	
137	30.0	3.0	Green	Yellow	Red	
138	30.0	3.0	Green	Yellow	Red	
139	30.0	3.0	Green	Yellow	Red	
140	30.0	3.0	Green	Yellow	Red	
141	30.0	3.0	Green	Yellow	Red	
142	30.0	3.0	Green	Yellow	Red	
143	30.0	3.0	Green	Yellow	Red	
144	30.0	3.0	Green	Yellow	Red	
145	30.0	3.0	Green	Yellow	Red	
146	30.0	3.0	Green	Yellow	Red	
147	30.0	3.0	Green	Yellow	Red	
148	30.0	3.0	Green	Yellow	Red	
149	30.0	3.0	Green	Yellow	Red	
150	30.0	3.0	Green	Yellow	Red	
151	30.0	3.0	Green	Yellow	Red	
152	30.0	3.0	Green	Yellow	Red	
153	30.0	3.0	Green	Yellow	Red	
154	30.0	3.0	Green	Yellow	Red	
155	30.0	3.0	Green	Yellow	Red	
156	30.0	3.0	Green	Yellow	Red	
157	30.0	3.0	Green	Yellow	Red	
158	30.0	3.0	Green	Yellow	Red	
159	30.0	3.0	Green	Yellow	Red	
160	30.0	3.0	Green	Yellow	Red	
161	30.0	3.0	Green	Yellow	Red	
162	30.0	3.0	Green	Yellow	Red	
163	30.0	3.0	Green	Yellow	Red	
164	30.0	3.0	Green	Yellow	Red	
165	30.0	3.0	Green	Yellow	Red	
166	30.0	3.0	Green	Yellow	Red	
167	30.0	3.0	Green	Yellow	Red	
168	30.0	3.0	Green	Yellow	Red	
169	30.0	3.0	Green	Yellow	Red	
170	30.0	3.0	Green	Yellow	Red	
171	30.0	3.0	Green	Yellow	Red	
172	30.0	3.0	Green	Yellow	Red	
173	30.0	3.0	Green	Yellow	Red	
174	30.0	3.0	Green	Yellow	Red	
175	30.0	3.0	Green	Yellow	Red	
176	30.0	3.0	Green	Yellow	Red	
177	30.0	3.0	Green	Yellow	Red	
178	30.0	3.0	Green	Yellow	Red	
179	30.0	3.0	Green	Yellow	Red	
180	30.0	3.0	Green	Yellow	Red	
181	30.0	3.0	Green	Yellow	Red	
182	30.0	3.0	Green	Yellow	Red	
183	30.0	3.0	Green	Yellow	Red	
184	30.0	3.0	Green	Yellow	Red	
185	30.0	3.0	Green	Yellow	Red	
186	30.0	3.0	Green	Yellow	Red	
187	30.0	3.0	Green	Yellow	Red	
188	30.0	3.0	Green	Yellow	Red	
189	30.0	3.0	Green	Yellow	Red	
190	30.0	3.0	Green	Yellow	Red	
191	30.0	3.0	Green	Yellow	Red	
192	30.0	3.0	Green	Yellow	Red	
193	30.0	3.0	Green	Yellow	Red	
194	30.0	3.0	Green	Yellow	Red	
195	30.0	3.0	Green	Yellow	Red	
196	30.0	3.0	Green	Yellow	Red	
197	30.0	3.0	Green	Yellow	Red	
198	30.0	3.0	Green	Yellow	Red	
199	30.0	3.0	Green	Yellow	Red	
200	30.0	3.0	Green	Yellow	Red	

Hazard map

Internal Audits

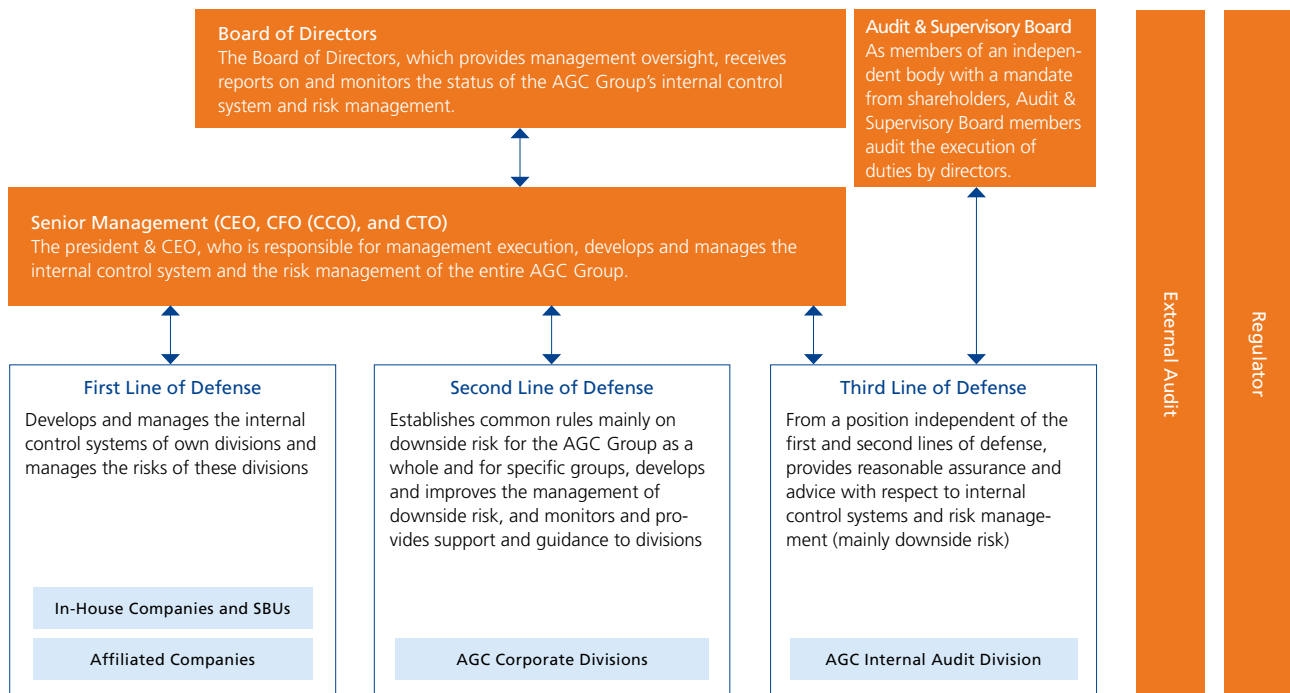
Establishment and Operation of the Internal Control System

The AGC Group is strengthening its internal control system as detailed below:

- The Board of Directors, which fulfills a management supervisory function, monitors the establishment and operational status of the AGC Group's internal control system.
- The president & CEO, who is responsible for management's executive functions, establishes and operates the internal control system of the AGC Group.
- Audit & Supervisory Board members monitor and verify the internal control system.

With respect to management execution, the AGC Group develops and manages governance and internal controls based on the AGC Group Three Lines of Defense Model, which classifies respective bodies and divisions as first, second, and third lines of defense.

● The AGC Group Three Lines of Defense Model (Reference: The Institute of Internal Auditors—Japan)



Note 1: The AGC Group has created the AGC Group Enterprise Risk Management Basic Policies and defines important risk factors as those risks that could have a major impact on the operations of the AGC Group.

Note 2: In-house companies and SBUs have established various systems for managing affiliated companies, which include Second Line of Defense functions for them (for example, business planning & administration offices and CSR offices). In cooperation with such offices, AGC's corporate divisions provide support and guidance to affiliated companies.

↑ Reporting, guidance, and advice

Compliance

Fundamental Approach

■ Formulating a Groupwide Code of Conduct

Compliance is the fundamental premise underlying the AGC Group's business activities. To that end, the AGC Group Code of Conduct sets forth requirements for all employees in the workplace. The code comprises global requirements of business conduct that all employees must follow, regardless of country or region, and regional requirements that take into account the laws, regulations, and business customs of those areas. In 2021, the Group revised its Code of Conduct for Japan, and it is currently in the process of revising the codes of conduct of other countries and regions.

The working regulations of each AGC Group company state that a violation of the AGC Group Code of Conduct is grounds for disciplinary action. In addition, if an employee voluntarily reports his or her own Code of Conduct violation, this will be taken into consideration when determining disciplinary action.

Management Structure

■ Establishment of Global Compliance System

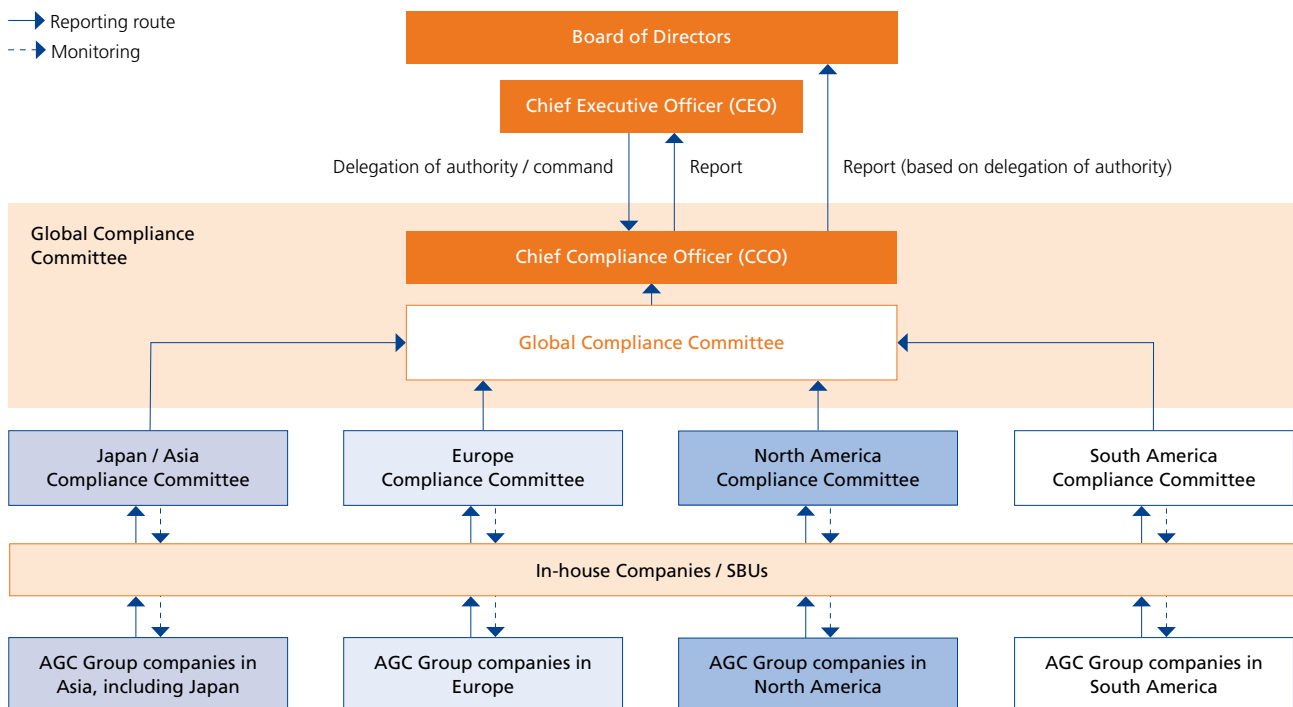
The AGC Group has appointed a Chief Compliance Officer (CCO) responsible for the development of the compliance framework and promotion of compliance in the AGC Group. Under the supervision of the CCO, a global compliance leader, the Global Compliance Committee, and regional compliance committees plan and implement compliance programs and monitor respective regions' compliance efforts. Reports are regularly made to the Board of Directors regarding Groupwide policies and the current status of the compliance system.

In accordance with the guidelines of the compliance reporting system, serious compliance violations are promptly reported to senior management.

■ Submission of Personal Certification on the Code of Conduct

The AGC Group has introduced a system in which its employees periodically submit a personal certification to follow the AGC Group Code of Conduct. The goal of the system is to turn the submission of certifications into an opportunity for all employees to renew their awareness of compliance and take a fresh look at business affairs and the workplace.

● Global Compliance System (as of December 31, 2022)



* The CEO and CCO currently serve concurrently as directors.

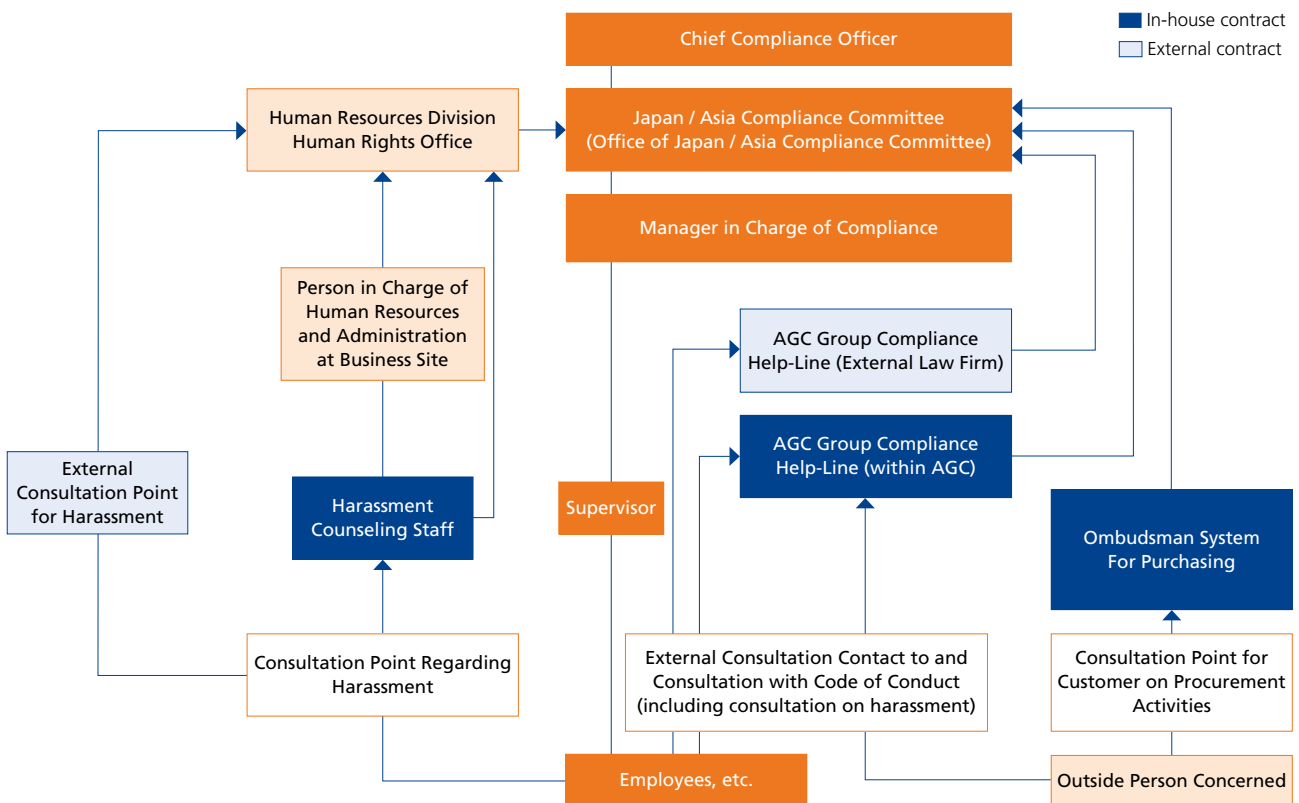
Groupwide Initiatives

■ Establishing Different Helplines

The AGC Group has established several helplines to serve as consultation desks regarding the Code of Conduct. As a general rule, helplines are set up at each Group company, while additional area-wide helplines have been established in Europe, North America, and Asia. Further, in Japan employees can contact external lawyers, while in global locations a common external contact point has been established. To encourage employees to use the helplines, the Group

protects the anonymity of anyone reporting and strictly forbids any act of retaliation against anyone who makes a report in good faith. When those who report offer their real names, efforts are made to facilitate effective two-way communication and provide feedback on the status and results of handling reported issues. For the purpose of providing helpline contact information, helpline numbers are listed in the AGC Group Code of Conduct distributed to all employees. These members are also publicized in each country and region through efforts such as placing posters at each site.

● Helpline Reporting Route (AGC)



● Helpline Consultations (AGC Group)

FY	Number of consultations
2022	Approx. 550

Note: The number of consultations includes messages and direct consultations made via the helpline and questions and requests about the system.

■ Implementing Compliance Training

In order to promote the Code of Conduct globally, the AGC Group provides various training opportunities to its employees around the world and has placed particular emphasis on strengthening compliance training worldwide.

For example, the Group continuously implements compliance-related online training (e-learning) for officers and employees. The Group also proactively promotes training activities intended to reinforce compliance in each country and region, including classroom training as well as the production of training materials that include illustrations and quizzes, pocket-sized compliance cards, simulations, video materials for training, and educational posters.

Despite the COVID-19 pandemic, since 2020 the Group has proactively carried out training activities by holding numerous online training sessions in various regions.

■ Implementing Compliance Surveys

The AGC Group uses surveys to gauge the level of compliance in the workplace and awareness of helplines. Based on the results, any necessary measures are implemented.



Tax Payments

■ Fundamental Approach

The AGC Group recognizes that proper tax payments have an impact on the development of economies and society in each country, and views tax payments as a corporate social responsibility. We make every effort to properly pay taxes and file tax returns on a timely basis in accordance with the tax laws of each country.

We have formulated the AGC Tax Compliance Policy based on this basic view of taxation.

AGC Tax Compliance Policy

I. Basic stance on taxation (proper tax payments are a corporate social responsibility)

Under its new management policy, **AGC plus 2.0**, the AGC Group is committed to providing positive value to all stakeholders. Through this, the Group aims to earn the trust and meet the expectations of society, while also contributing to a sustainable society.

Compliance is a fundamental principle underlying all of the business activities of the AGC Group. The AGC Group Code of Conduct (7. Reports and Records), which summarizes matters that the AGC Group's employees are expected to observe, states the following:

We honestly record, report, and disclose information so that our records reflect the facts.

We comply with financial, accounting and tax laws and company accounting policies and rules.

AGC and AGC Group companies endeavor to ensure accurate and timely tax returns pursuant to the tax laws of each country. We recognize that proper tax payments impact the economic and social development of each country, and that ensuring proper tax payments is one of our corporate social responsibilities.

II. Transactions between affiliated companies (based on arm's length pricing)

As set out in the AGC Group Transfer Pricing Policy:

1. The transfer pricing for tangible goods and/or services should be determined by applying the arm's length principle reflecting the functions performed by the parties, taking into account the assets used by and risks assumed by them based on product groups and/or service categories.

2. The intellectual ownership (including patents, copy-rights, trade secrets, know-how, brands, and so on) is legally registered in the name of the contributing companies of the group who have developed the technologies and know-how. The right to use the intellectual asset can be afterwards granted to other companies of the group but an arm's length compensation will have to be paid by those companies. To determine the compensation, reference will be made to the acquisition costs, the fair market value, and so on.

3. The transfer pricing of financial transactions should be reasonably determined by applying the arm's length principle, by reference to estimated funding rates for borrowers and estimated return rates for lenders from investment or deposit or in consideration of the level of margin for lenders.

III. Relationship with tax authorities (building relationships of trust in good faith, reducing uncertainty, and preventing double taxation)

In addition to appropriate tax reporting and payments to the respective tax authorities in each country, the AGC Group will respond in good faith with regard to various types of tax investigations, preliminary consultations, disclosure of relevant information, etc. The AGC Group is dedicated to building constructive relationships of trust with the tax authorities of each country to ensure proper tax compliance.

The AGC Group also strives to reduce taxation uncertainty and prevent double taxation by building and maintaining fair and trusted relationships with the tax authorities of each country.

IV. Transparency - responding to international efforts (enhancement of corporate value and fulfillment of corporate social responsibility through appropriate tax payment and information disclosure according to the BEPS Action Plan)

The AGC Group recognizes the BEPS Action Plan (a countermeasure against Base Erosion and Profit Shifting), established by OECD / G20, as an important international tax framework for preventing international tax avoidance and excessive tax planning, and for ensuring tax transparency through tax information disclosure.

The AGC Group shall refrain from using excessive tax incentive schemes in low or no-tax countries and regions.

The AGC Group also understands that arbitrary tax avoidance or lack of tax compliance may result not only in immediate financial risks such as tax litigation and penalties, but also poses a risk to the AGC Group's reputation in addition to a risk of adversely affecting economic and social development or damaging relationships with the countries and regions in which the Group operates.

As a global business entity with social responsibilities, the AGC Group is committed to closely monitoring trends in international tax frameworks and responding to any changes in a timely manner. In addition to aiming to improve its corporate value through these efforts, the AGC Group also considers these efforts to be vital in fulfilling its social responsibilities as a global business entity.

Environmental Management

Fundamental Approach

The AGC Group Vision **“Look Beyond”** is our corporate philosophy that guides our business and social activities. Our Mission, Our Shared Values, and Our Spirit are the three elements that form our Vision. Among these elements, Our Shared Values, which state that we will contribute to the creation of a sustainable society in harmony with nature as a good global citizen, embodies our strong commitment to the environment. This is exemplified in two initiatives, one to minimize all environmental impacts resulting from its business activities, and the other to mitigate environmental impact by providing environmentally friendly products.

Due to the potential for a higher environmental impact than other industries, we are therefore committed to meeting environmental standards at our sites around the world that are stricter than prescribed by environmental laws and regulations. We must do our part to protect the sustainable global environment by working to minimize the environmental impact of our business activities. Furthermore, the AGC Group not only provides eco-friendly products like eco-glass as well as wastewater and exhaust gas processing agents that contribute to energy savings as well as water and air conservation, but also products like PVC (polyvinyl chloride) that serve as a foundation for social infrastructure, with the aim of contributing as much as possible to the resolution of global environmental problems and social issues through its products.

For the AGC Group, which engages in sustainability management based on the **AGC plus 2.0** Management Policy, environmental efforts are one of management's most important issues. In 2023, we established the AGC Group EHSQ Policy and revised the AGC Group Environment Policy as a subordinate policy.

Through our commitment to sustainability across the entire value chain of our business activities, from procurement to production, sales, logistics, use, and disposal, we have pledged to realize a sustainable global environment and business management.

AGC Group EHSQ Policy (Excerpt)

(Established January 1, 2023)

To realize a sustainable society and to grow and evolve continuously, AGC Group pursue the Group Vision **“Look Beyond”** and engages in EHSQ (Environment, Industrial Safety & Security, Occupational Health & Safety, Quality) as prerequisite of our business activities.

AGC Group Environment Policy

(Established on February 9, 2001, Revised on January 1, 2023)

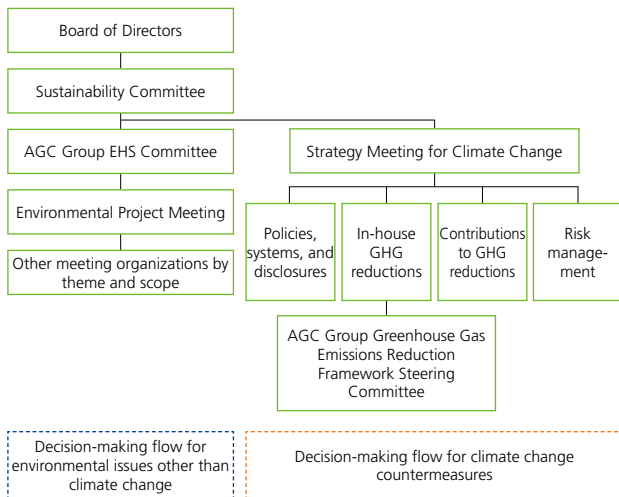
We commit to achieve sustainability in society and our company by contributing to decarbonization, a circular economy, and harmony with nature in all phases of our value chain.

1. In order to contribute to decarbonization, a circular economy, and harmony with nature, we set environmental goals based on our sustainability targets and strive to achieve and further improve them.
2. We strive to develop and offer to the society, products, technologies, services, and equipment taking into due consideration of the sustainability and our entire value chain, and respond to the changing era with innovative solutions.
3. We continuously improve our environmental performance, in accordance with our environmental management system.
4. We comply with the relevant internal and external environmental rules, work toward the prevention of pollution and relevant issues, and contribute to environmental protection.

Management Structure

Groupwide Decision-Making Organizations

The AGC Group has constituted the organizations shown in the diagram below in order to make effective use of plan–do–check–action (PDCA) cycles aimed at achieving the environmental targets it has set.



Progress on environmental activities is duly reported to the Board of Directors. Based on the proposals of the Board of Directors, policies, plans, and progress related to each environmental theme are scrutinized, approved, and supervised.

The Sustainability Committee, chaired by the CEO, has been established as a body for deliberating and deciding on the basic policies and measures related to the AGC Group's sustainability management. The Sustainability Committee's meetings, held four times a year, are attended by the CEO, CFO, CTO, auditors, and all business division heads, the details of which are reported to the Board of Directors twice a year. For important matters related to AGC's materiality, the Sustainability Committee deliberates and makes decisions, which are then discussed and approved by the Board of Directors. Under the supervision of the Board of Directors, the Sustainability Committee is positioned on par with the Management Committee and is responsible for the decision-making and monitoring of the execution of sustainability-related matters, including environmental activities. Its activities entail the formulation of policies related to sustainability, including environmental activities, the promotion of risk management, and control of information disclosure.

Each year, the CEO conducts EHSQ Management Reviews to assess the results of all environmental activity monitoring, and formulate action plans for subsequent years.

The AGC Group EHS Committee, with meetings held four times a year that are chaired by an executive officer in charge of environmental matters, was established based on the AGC Group EHS Committee Criteria as a body for both general managers in charge of environmental activities at in-house companies and strategic business units (SBUs) and employees

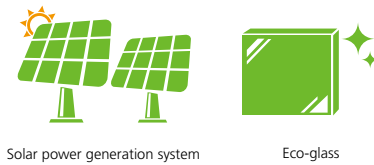
in charge of such activities at corporate divisions to discuss and deliberate the findings of the Sustainability Committee. In particular, the AGC Group EHS Committee's discussions and deliberations pertain to aspects of methods for executing management's decisions related to environment-related risks; the appropriateness of PDCA cycles and corrective actions aimed at continuous improvement based on monitoring; and the state of compliance with environmental laws and regulations. Responsible organizations implement appropriate activities based on the resolutions of the AGC Group EHS Committee in accordance with their respective roles.

In promoting sustainability management in the medium-term management plan, unveiled in February 2021, our environmental policy declares three material issues for the AGC Group in relation to the environment: a decarbonized society, where climate change has been addressed; a circular economy, where resources are effectively used; and a harmony with nature, where relationships with local communities and environmental consideration (conservation of natural capital) are realized. We have set environmental goals for society and are carrying out activities in projects to reduce environmental load.

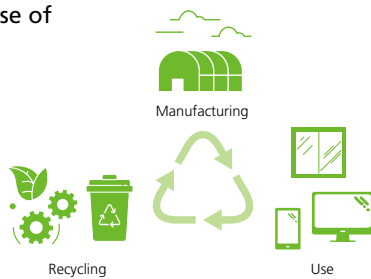
As for our response to climate change issues, we are prioritizing their integration with management strategies and have established the Strategy Meeting for Climate Change under the Sustainability Committee to build an independent promotion system with the aim of achieving our 2030 milestones and the realization of carbon net-zero in 2050. Please refer to page 31 for more details.

Regarding the effective use of resources and relationships with local communities and environmental consideration, we are keen to achieve our short-term KPIs and set medium- to long-term goals in order to realize the social value we want to create.

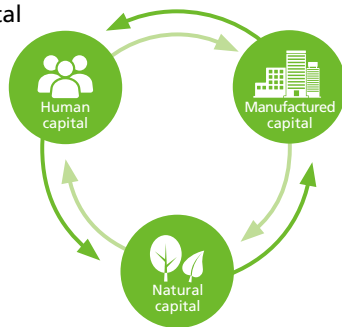
Climate Action



Effective Use of Resources



Conservation of Natural Capital



AGC Group Environmental Management Working Rules

The AGC Group has established the AGC Group Environmental Management Working Rules in order to better ensure the achievement of the targets set to reduce environmental impacts resulting from its business activities and to clarify organizational roles and responsibilities. The rules establish three environmental activity levels for all AGC Group sites according to their environmental impact, assigning environmental activities to them based on their respective level. Sites with clear environmental risks must obtain environmental system standards certification or implement activities based on such certification, collect environmental performance data, and undergo environmental compliance reviews. Regardless of their environmental activity category, the Group stipulates that sites carry out fundamental activities—such as raising awareness of and thoroughly implementing the AGC Group Environment Policy and adhering to legal requirements, the AGC Group's standards, and other regulations—and monitors such activities periodically.

Environmental Management System in Accordance with ISO 14001

With the understanding that achieving environmental objectives requires everyone to work in unison to implement environmental activities in accordance with their different roles and the business models at each base within the value chain, and also that strong involvement from management is necessary to implement effective environmental activities, the AGC Group has established an environmental management system based on ISO 14001 and put the CEO in charge as the environmental management officer.

According to the AGC Group Environmental Management Working Rules, manufacturing sites of a certain scale are obliged to obtain certification for environmental management systems, such as ISO 14001, or to carry out environmental activities in accordance with these standards.

Since 2003, the AGC Single Certificated Environmental Management System (Single Certificated EMS) has been in place for AGC and its affiliated companies. Organizations participating in the Single Certificated EMS have obtained a single certification as a result of being audited by the same external audit agency globally under identical standards. Single Certificated EMS allows the AGC Group to receive unified audits, and to monitor priority issues by setting common focus areas (areas to be particularly scrutinized during audits). In 2022, we set out to utilize environmental technology to address climate change, and verified that environmental activities at each site are incorporating efforts to address climate change.

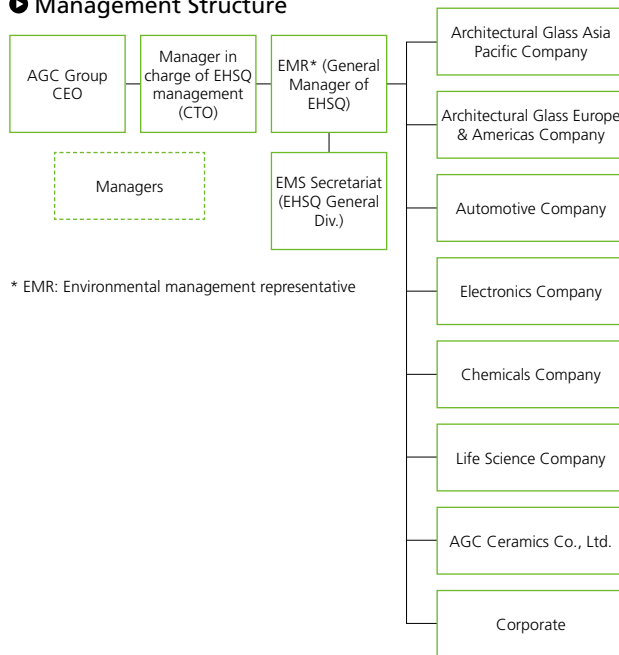
The AGC Group has established the Environmental Manual as a set of operational standards for the Single Certificated EMS, which stipulates that the Single Certificated EMS Secretariat and all divisions must undergo an internal audit at regular intervals. The internal audits verify the level of compliance with standard requirements, consistency with the Group's internal policies, environmental targets and fiscal-year issues, conformity with the purpose and goals, as well as the implementation plans of the Single Certificated EMS, in addition to ensuring that environmental performance is improving. Through these two mechanisms of external audits and internal audits, we are effectively advancing the PDCA cycle. Currently, 86% of certification-eligible bases are participating in Single Certificated EMS.

Regarding manufacturing sites that have obtained standards certifications other than Single Certificated EMS, these bases have followed procedures similar to those mentioned above to obtain these other certifications. At the AGC head office, the EHSQ General Division monitors the status of certification validity and verifies the outcomes of external audits.

The operational conditions of the environmental management system and the outcomes of its initiatives are evaluated through internal and external audits, with monitoring implemented by in-house companies and SBUs in charge of sites

and by the Environment Office of the AGC head office. This information is shared with the AGC Group EHS Committee, which incorporates them into environmental management plans for the Group as a whole and for each in-house company and SBU and uses said results in the formulation of subsequent improvement plans. Results are also reported to management personnel through the Sustainability Committee and the EHSQ Management Review.

Management Structure



Number of Companies Obtaining Environmental Certification

Japan, including AGC	20
Overseas, excluding Japan	50
Total	70

* Year of survey: 2022

81% of companies with manufacturing sites have obtained certification.

Regional Environmental Offices

To implement more timely and substantial environmental, safety, and quality activities in accordance with the legal systems and customs of the countries and regions where it operates, the AGC Group has established organizations that provide support for activities at subsidiaries in each region. Our regional environmental office in Shanghai, which we established in 2019, determines the impact of Chinese government policies—such as rapidly changing environmental laws and regulations—on the AGC Group, building a cross-organizational backup system that allows subsidiaries to devise necessary countermeasures in a timely manner to comply with laws and regulations. In June 2022, we established new regional offices in order to advance environmental, safety, and quality activities in tune with the regional characteristics of Europe and South America. We are planning to establish offices with similar functions in other regions going forward.

External Communication Regarding Environmental Management

The AGC Group proactively and earnestly discloses information externally regarding its environmental management through responses to various external questionnaires and via its integrated report, Sustainability Data Book, and website. We previously conducted tours of manufacturing sites, but had refrained from doing so due to the impact of COVID-19, but are gradually resuming tours. Internally, we share our responses to external questionnaires and strive to communicate through our own internal materials, various meetings, and environmental education.

Violations of Environmental Laws and Regulations and Serious Environmental Incidents

In August 2022, chloric acid leaked from a storage tank at the AGC Kashima Plant in the Chemicals Segment, and some chloric acid flowed into the sea area. See page 92 for more details.

In 2022, there were no other major environmental accidents that impacted local residents or environment-related stakeholders, no cases that triggered dispute settlement mechanisms, sanctions, or infractions of environment-related laws and regulations that would significantly impact the results or corporate valuation of the AGC Group.

■ Initiatives to Prevent Environmental Incidents

The AGC Group assesses the risks and impacts of environmental incidents at every site and implements various physical measures to address them, such as creating a range of materials, including instructions and manuals on preventing leaks, on troubleshooting, holding regular drills, and installing liquid containment barriers, alarms, and telemeters.

■ Environmental Legal Compliance

In addition to declaring its respect for the law in the AGC Group Charter of Corporate Behavior, the AGC Group makes identifying and complying with legal requirements compulsory throughout the entire Group in the AGC Group Environmental Management Working Rules, which establish an environmental management system framework as a mechanism to ensure environmental legal compliance. We have also set voluntary standards at sites where legal standards are applicable to mitigate risks.

■ Environmental Training and Education

The AGC Group holds study sessions at its sites in Japan and around the world regarding general knowledge on environmental issues and its environmental initiatives while promoting awareness of such matters on a Groupwide basis through original animated features and its Sustainability Data Book. The Group prepares educational materials in several languages, including Japanese, English, and Chinese. In addition, in Group personnel training programs, we carry out rank-specific environmental training for employees including senior managers, newly appointed managers, new employees, and those with responsibility for the environment, incorporating environmental education tailored to their respective responsibilities. In Europe, we have adopted environmental and sustainability education in the introductory educational programs that all new employees take in regions around the world, regardless of their employment status, with the aim of incorporating the perspective of achieving environmental targets into the work of all employees.

In addition, we are working to develop human resources

with skills in environmental management and raise the level of environmental management at our business sites by leveraging a skills map, the AGC Group's own human resource database. The Group facilitates mutual communication among employees in charge of the environment by holding meetings, lectures, and site visits five or six times a year for such employees from headquarters and various business sites, in order to provide them with opportunities to share information on recent environmental trends and environmental management technologies and to enable them to communicate on topics such as environmental management methods and challenges, as well as measures for addressing such challenges.

Moreover, starting in 2023, the AGC Group plans to introduce an award system for exemplary environmental activities as a framework for best practices shared by all employees, while providing incentives for each unit of activity within the AGC Group to engage in exemplary environmental activities.

In addition to such Groupwide educational activities, in-house companies and SBUs continuously hold meetings, training, and other activities for employees in charge of the environment from Group companies with a view to achieving their environmental targets and solving environmental issues.

AGC's human resource systems have established programs supporting employees in their acquisition of qualifications, including those related to the environment, as a measure to improve the environmental skills of individuals.

■ Environmental Initiatives in the Value Chain Other than AGC's Own Activities

Environmental initiatives in AGC's supply chain and its environmentally conscious procurement methods are described on pages 95-98 of this document.

■ Environmental Awards in 2022

Many business sites of the AGC Group have received awards from local governments and environmental groups for their excellent environmental initiatives. Below, we list a few examples of these awards.

● Environmental Awards in 2022

Country	Company	Environment-related awards
Japan	AGC Inc., AGC Glass Products Co., Ltd	Business Site Environmental Preservation Award of Excellence in Kashima Area
	AGC Automotive Window Systems Co., Ltd.	Suzuka City Fire Prevention Association Member Award of Excellence
	AGC Micro Glass Co., Ltd.	Onojo City Award of Excellence for Business Garbage Reduction and Recycling
China	AGC Automotive (Suzhou) Inc.	Environmental Protection Demonstration Enterprise
	AGC Display Glass (Shenzhen) Inc.	Shenzhen City Environmental Protection Integrity Enterprise (Green Card) Award
Taiwan	AGC Display Glass Taiwan Inc.	Taiwan Corporate Sustainability Awards - Top 10 Sustainable Model Foreign Enterprises Award
		Fourth National Corporate Environmental Protection Award - Bronze Level Award
		Ministry of Economic Affairs Water Conservation Excellence Unit Award
Thailand	AGC Automotive (Thailand) Co., Ltd.	AMATA Best Waste Management Award 2022
	AGC Techno Glass (Thailand) Co., Ltd.	AMATA Best Waste Management Award 2022 (Platinum level)
	AGC Vinythai Public Company Limited	Eco Factory
		Environmental Good Governance Award (White Flag - Green Star award)
		Green Industry Level 4
Sustainability Disclosure Recognition Award		
Indonesia	PT Asahimas Flat Glass Tbk	Blue Proper Award
		Certification Industri Hijau Award
	P.T. Asahimas Chemical	Green Industry Award Level 5
		Green Proper Award
America	AGC Electronics America	Certificate of Excellence from Clean Water Services
	AGC Biologics, Inc.	King County Gold Award
Mexico	AGC Automotive Glass México S.A. de C.V.	Constancia de Reforestación 2022

AGC's Contributions to the Global Environment

At the AGC Group, we visualize the contributions of our products to achieve SDGs by mapping SDGs to our products to clarify how they can help reach these goals. In particular, we aim to offer more products that lead to solutions for issues related to three AGC materialities related to the environment: addressing climate change, effective use of resources, and considering relationships with local communities and the environment (conservation of natural capital).

Such products include eco-glass (Low-E double glazing) that enhances building energy efficiency, EPINITY®, a 100% bio-based Epichlorohydrin (ECH) made from renewable glycerin, and ACLESYA®, a highly reactive neutralizing agent for exhaust gas treatment. We introduce these products along with other representative products in the AGC Sustainability Data Book. We are committed to providing products that help solve environmental issues, while also striving for even higher functionality and performance.

Furthermore, the AGC Group aims to reduce environmental impacts throughout the product life cycle. We have begun to assess the environmental impact using Life Cycle Assessment (LCA) methodologies from the planning, design, and development stages of our products. We are developing and providing products that contribute to reducing environmental impact during use of the product, as well as products with longer life spans. We will continue to actively utilize LCA methodologies from the design and development stages of our products.

We are also pursuing third-party certification for our products. AGC Glass Europe S.A. was the first company in Europe to obtain Cradle to Cradle™ (C2C) certification for flat glass and coated glass in 2010. Architectural Glass Asia Pacific Company was the first in Indonesia and Thailand to obtain Environmental Product Declaration (EPD) for architectural float glass. Since these products give credits toward LEED (Green Building Certification), they not only satisfy the requirements of government regulations for buildings around the world, but also help customers improve their environmental ratings.



Cradle to Cradle™ Certificate

In parallel with the development and provision of products that contribute to a low-carbon society and reduction of environmental impact, we are also leveraging our knowledge in research, development, and manufacturing to work on the formation of rules in order to realize a sustainable society. For instance, we have participated in the standardization of buildings aimed at achieving a net-zero primary energy balance, known as Zero Energy Buildings (ZEBs), under the rule formation process at the International Organization for Standardization (ISO). Using these technical specifications, we engage in activities to promote ZEB in emerging countries in Asia. As part of efforts by the ISO to standardize the circular economy, we have participated in developing indicators and rules in relation to circularity, such as the recyclability of products, which will contribute to the effective utilization of resources. At meetings of the International Electrochemical Commission (IEC), we are advancing the standardization of GHG emissions reduction contributions, which quantify the amount of GHG emissions reduced throughout the life cycle of products subject to evaluation and have an impact on reducing environmental load. Moreover, we have been involved in the protection of biodiversity at the ISO, the standardization of fuel cells at the IEC and the standardization of BIPV (solar power integrated in buildings) being developed by both the ISO and IEC.

AGC is actively engaged in acquiring environment-related patents. The number of patents owned by the AGC Group that are classified*1 as relating to the SDGs (Goals 7, 12, and 13) that contribute to the creation of a low-carbon society stands at 572*2 (as of February 2023), accounting for approximately 10% of all AGC-owned patents.

*1 The Group classifies its patents using classifications by each SDG in PatentSight, a patent analysis tool developed by Lexis Nexis Intellectual Property Solutions.

*2 Patent families that have been registered or are in the process of being registered.

Environmental Initiatives and Other Efforts Signed or Supported by AGC

AGC endorses the following international initiatives.



Task Force on Climate-Related Financial Disclosures



Japan Climate Initiative



CDP



Japan Clean Ocean Material Alliance



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

SBTi (Science Based Targets initiative)



30by30



Japan Business Initiative for Biodiversity



Keidanren Committee on Nature Conservation

Contributions to Environmental Conservation Groups



Keidanren Nature Conservation Fund



Corporate member of WWF Japan

List of Companies that Have Obtained ISO 14001 (as of December 2022)

1	AGC Inc.	Japan
2	AGC Mineral Co., Ltd	Japan
3	AGC Fabiritec Co., Ltd	Japan
4	AGC Glass Products Co., Ltd.	Japan
5	AGC Automotive AMC Co., Ltd.	Japan
6	AGC Display Glass Yonezawa Co., Ltd.	Japan
7	AGC Techno Glass Co., Ltd.	Japan
8	AGC Electronics Co., Ltd.	Japan
9	AGC Micro Glass Co., Ltd.	Japan
10	AGC Polycarbonate Co., Ltd.	Japan
11	Optical Coatings Japan	Japan
12	AGC Wakasa Chemicals Co., Ltd.	Japan
13	Keiyo Monomer Co., Ltd.	Japan
14	AGC Coat-Tech Co., Ltd.	Japan
15	AGC Engineering Co., Ltd.	Japan
16	AGC Seimi Chemical Co., Ltd.	Japan
17	AGC Polymer Material Co., Ltd.	Japan
18	AGC Si-Tech Co., Ltd.	Japan
19	AGC Ceramics Co., Ltd.	Japan
20	AGC Plibrico Co., Ltd.	Japan
21	AGC Automotive (Suzhou) Inc.	China
22	AGC Automotive (Qinhuangdao) Inc.	China
23	AGC Automotive (Foshan) Inc.	China
24	AGC Flat Glass Protech (Shenzhen) Inc.	China
25	AGC Display Glass (Kunshan) Inc.	China
26	AGC Display Glass (Shenzhen) Inc.	China
27	ZIBO AGC ALUMINA MATERIALS CO., LTD	China
28	AGC Plibrico (Dalian) Industries Inc.	China
29	AGC Display Glass (Huizhou) Co., Ltd.	China
30	AGC Advanced Electronics Display Glass (Shenzhen) Inc.	China
31	AGC Flat Glass (Dalian) Inc.	China
32	AGC Fine Techno Korea Co., Ltd.	Korea
33	AGC Display Glass Ochang Co., Ltd.	Korea
34	KOREA TACONIC Co., Ltd.	Korea
35	AGC Display Glass Taiwan Inc.	Taiwan
36	AGC Electronics Taiwan Inc.	Taiwan
37	PT Asahimas Flat Glass Tbk	Indonesia
38	PT Asahimas Chemical	Indonesia
39	AGC Automotive Philippines Inc.	Philippines
40	AGC Flat Glass (Thailand) Plc.	Thailand
41	AGC Automotive (Thailand) Co., Ltd.	Thailand
42	AGC Techno Glass (Thailand) Co., Ltd.	Thailand
43	AGC Micro Glass (Thailand) Co., Ltd.	Thailand
44	AGC Vinythai Public Company Limited	Thailand
45	AGC Chemicals Vietnam Co., Ltd.	Vietnam
46	AGC Vidros do Brasil Ltda.	Brazil
47	AGC Automotive Canada, Inc.	Canada
48	AGC Automotive Glass Mexico S.A. de C.V.	Mexico
49	AGC Automotive Mexico S.de R.L. de C.V	Mexico
50	AGC Automotive Americas Co.	U.S.
51	AGC Flat Glass North America, Inc.	U.S.
52	AGC Chemicals Americas, Inc.	U.S.
53	AGC Biologics, Inc.	U.S.
54	AGC Automotive Europe S.A	Belgium
55	AGC Glass Europe	Belgium
56	AGC Flat Glass Czech A.S.	Czech Republic
57	AGC Biologics A/S	Denmark
58	AGC Glass UK Ltd.	U.K.
59	AGC Chemicals Europe, Ltd.	U.K.
60	AGC Multi Material Europe SA	France
61	AGC France S.A.	France
62	AGC Interpane Glass France	France
63	AGC GLASS GERMANY GmbH	Germany
64	Interpane Sicherheitsglas GmbH, Hildesheim	Germany
65	Interpane E&B GmbH, Lauenförde	Germany
66	Interpane Glasgesellschaft mbH, Plattling	Germany
67	AGC Biologics GmbH	Germany
68	AGC Flat Glass Italia S.r.l	Italy
69	AGC FLAT GLASS IBERICA S.A.	Spain
70	AGC Pharma Chemicals Europe, S.L.U.	Spain

* Sale of cross-shareholdings completed in April 2023

Climate Action

Fundamental Approach

For AGC Group, climate change and other global environmental issues are material issues for sustainability management. Opportunities and risks associated with climate change are factors that can have significant impacts across our entire value chain, from procurement of raw materials to manufacturing, logistics, sales, and disposal and end-of-life product treatment, while also affecting value creation models and business strategies.

AGC Group endorses the principles of the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the Financial Stability Board, and properly discloses information about our opportunities, risks, and analyses of climate change.



Addressing Climate Change

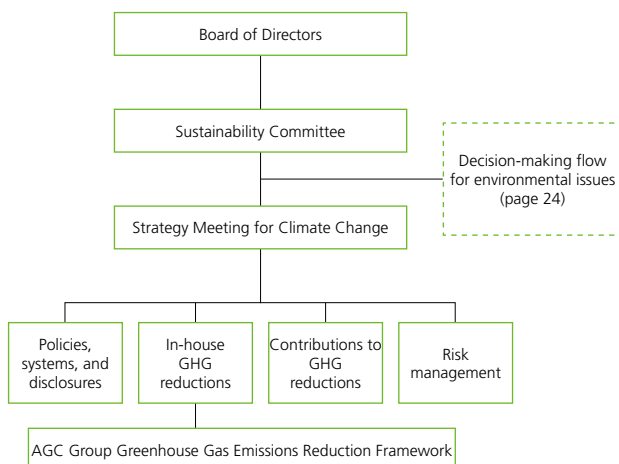
Governance

Management Structure

Based on the decisions made by the Sustainability Committee, the Strategy Meeting for Climate Change, which is led by the general manager of the Sustainability Division in the Corporate Planning General Division, deliberates in a timely fashion on our actions to risks and evaluates management strategies in light of changes inside and outside the Company that result from climate change.

The AGC Group Greenhouse Gas Emissions Reduction Framework, which is led by the general manager of the EHSQ General Division, works closely with specialist entities in the organization on data management, technological innovation, energy management, and supply chain management with the aim of reducing GHG emissions around the world and across the entire business.

Climate Change Management Structure



Strategy

Identification of Climate Change-Related Opportunities and Risks

The AGC Group defines the short term as until next year, the medium term as three years from now, and the long term as 2030 onward. Based on the below 2°C and the 4°C climate change scenarios, the Group identified and assessed climate change-related opportunities and risks that may have an impact on our operations, taking into consideration the perspectives of both the mitigation of and adaptation to climate change, while evaluating the possibility of underlying changes in operations, earnings, and expenses.

In 2019, the AGC Group identified opportunities and risks based on the TCFD framework, using the automotive business as a model case, and also identified opportunities and risks while expanding the scope to all businesses of the AGC Group in stages since trialing the implementation of scenario analysis. In 2022, we clarified opportunities and risks in each business, comprehensively listed factors of impact in each climate change scenario, and assessed the impact in each business segment and SBU.

Evaluation of Climate Change-Related Impact on Each Business Segment

The types of opportunities and risks related to climate change vary by business segment. In order to accurately understand and address these opportunities and risks, it is necessary to grasp conditions at the business segment level. In 2022, the AGC Group assessed these opportunities and risks through extensive discussions among managers and employees in corporate divisions and each business division that shed light on the unique nature of and conditions in each business. Through assessments, rising carbon prices and all physical risks were deemed as risks that could have a Companywide impact. Moreover, it was discovered that customer requests to reduce GHG emissions have occurred to varying degrees in each business. Regarding opportunities, the result found that each business domain has the potential to expand various kinds of opportunities in markets that are evolving due to climate change. In the building and industrial glass field, for example, long-term expansion in the building construction and renovation market is seen in developed countries. Also faster growth is anticipated in markets for parts and materials used in zero-emission vehicles, electric vehicles, and fuel-cell vehicles in the areas of automotive glass, electronic materials, and chemicals. In the chemicals field, meanwhile, AGC Group has many products likely to see business expansion in markets for next-generation energy, coolants, and solvents.

Results of Climate-Related Opportunity and Risk Assessments by Business Segment

Climate change scenarios	Identified opportunities and risks				Related business segment				
	Main categories	Subcategories	Opportunities and risks	Occurrence time frames	Architectural Glass	Automotive glass	Electronics	Chemicals	Ceramics
Below 2°C	Transition risks	Government policies, laws, and regulations	Increase in carbon prices	Short to medium term					
		Reputation	Customer requests to reduce GHG emissions	Medium term					
		Technologies	GHG emissions reductions at in-house power generation facilities	Medium term					
	Opportunities	Products and services	Building construction and renovation market	Short to medium term					
			Solar power generation market	Short to medium term					
			Hydrogen-related market	Medium to long term					
Electric vehicle / fuel-cell vehicle market			Medium to long term						
Next-generation coolants and solvents market	Medium to long term								
4°C	Physical risks	Acute	Sudden disasters	Long term					
		Chronic	Water stress	Long term					
			Rising temperatures	Long term					

Note: For this analysis, the Chemicals Business includes the Life Science business.

Under 2°C Climate Change Scenario

Transition risks

- Acceleration in pricing policies (carbon tax and emission credit trading) for GHG emissions of businesses
- Possibility of costs for fuel payments / emission allowance purchases in all businesses that use fossil fuels
- Customer requests to reduce GHG emissions
- Stronger demands for reducing GHG emissions at businesses from which raw materials are procured; possible impact on sales in some businesses, depending on how customer demands are responded to
- GHG emissions reductions at in-house power generation facilities
- Stronger demands to retire coal-fired power plants with high global warming coefficients; possibility of costs incurred to convert fuels or retire own coal-fired power plants early in some businesses

Opportunities

- Building renovation market
- Acceleration in renovations to improve energy efficiency in buildings; market likely to expand for insulating glass (architectural glass business), PVC sashes, and polyurethane insulating products (chemicals business)
- Solar power generation market
- Solar power generation continues to get installed; market likely to expand for ceramics refractories for melting furnaces used to produce cover glass for solar panels (ceramics business) and fluorine resin films (chemicals business)
- Hydrogen-related market
- Faster adoption of electrolysis-related equipment as production increases for hydrogen derived from renewable energy sources; market likely to expand for ion exchange membrane used in electrolysis (chemicals business)

- Electric vehicle / fuel-cell vehicle market
- Faster transition to alternative automobile fuels; market likely to expand for products used in electric vehicles and fuel cell vehicles, such as electrolytes for solid-state batteries (electronics business) and electrolyte polymer solutions for fuel cells (chemicals business)
- Next-generation coolants and solvents market
- Faster transition to fluorocarbons with low global warming potential; market likely to expand for green coolants and effluents (chemicals business)

4°C Climate Change Scenario

Physical risks

- Sudden disasters
- Increase in frequency of localized extreme weather, such as heavy rain, heavy snowfall, heat waves, and typhoons; possibility of heavier cost burden to deal with damage and impact on sales from halt in operations due to equipment damage and supply chain disruptions across all businesses
- Water stress
- Localized decline in water resources at business operation sites; possibility of impact on sales if it becomes necessary to reduce or stop production at manufacturing sites that use large quantities of water in all businesses
- Rising temperatures
- Increase in average global temperatures; possibility of impact on sales from halt in operations to help employees suffering from heat stroke, and constraints on business activities from need to conserve electricity amid tight electricity supply demand conditions

Analysis of Climate Change Scenarios

AGC Group conducted scenario analyses using the TCFD framework to assess key opportunities and risks shared by multiple businesses or across the entire Group from among the opportunities and risks identified in the assessment.

Based on these analyses, the AGC Group has formulated management strategies and business plans with the aim of mitigating risks and taking advantage of opportunities in order to remain resilient to the impacts associated with climate change.

In the below 2°C scenario, AGC Group assessed to what degree costs will potentially rise stemming from government policies to transition to carbon pricing. Assuming the rise in global temperatures is kept below 2°C, based on the Announced Pledges Scenario disclosed by the IEC, it is forecast that carbon prices might be set at US\$135/t-CO₂ in developed countries and US\$40/t-CO₂ in emerging countries that have declared carbon neutrality. Reconciling these figures with the recent CO₂ emissions of the AGC Group by business and country, it is possible to estimate the overall financial impact on the Group. At the same time, the Group properly assessed the feasibility of carbon pricing, and examined and analyzed the latest carbon pricing policy trends at governments around the world. Each year, the Group evaluates the possibility of these risks materializing, and uses this in its examination of policies to avoid risks.

As a framework for reducing GHG emissions (Scope 1 + 2) in the Group's own activities to ease the impact of this transition, AGC Group ran carbon cost simulations in 2020 (calculated net present value per unit of GHG emissions in

investment projects) and then rolled out an internal carbon pricing system in 2022. Under this internal carbon pricing system, the price is €79/t-CO₂ for business investments and capital investments to reduce GHG emissions. Moreover, AGC Group is making Companywide efforts to comprehensively reduce GHG emissions for Scope 1 + 2 (its own emissions) and Scope 3 (supply chain emissions). In addition to ROCE, AGC Group assesses each business using carbon efficiency as an indicator while considering the risk of carbon costs. It also takes other factors into consideration when deciding how to allocate management resources.

In the below 2°C scenario, AGC Group has identified numerous major opportunities. To address changes in its product markets, it creates business plans based on the market projections of trustworthy third-party organizations. The products that meet new market needs include heat-insulating window glass for buildings (architectural glass business), which excels in durability and recyclability with consideration given to resource recycling, and green coolants and solvents (chemicals business) with very low global warming potential (GWP) coefficients.

In the 4°C scenario, AGC Group did an initial evaluation of the impact on individual operations of seven major manufacturing plants from increasingly severe, sudden disasters—such as flooding and storm surges—caused by climate change. In this evaluation, the average annual impact, taking into consideration the frequency of disasters and the total amount of impact from a single disaster, was calculated. Also the AGC Group conducted a comprehensive analysis of BCP conditions, whether emergency equipment has been

Business Impact Analysis and Response Based on Climate Change Scenarios

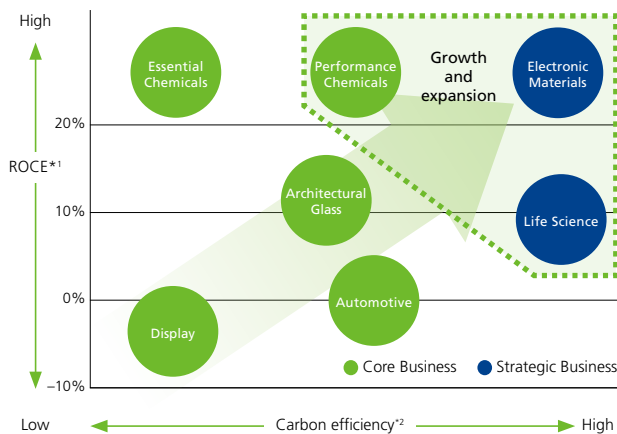
Major Classifications	Opportunities / Risks	Scenarios	Financial Impact	Response
Transition risks	Increase in carbon prices	Developed countries: US\$135/t-CO ₂ Emerging countries: US\$40/t-CO ₂ (2030 / below 2°C scenario)	Up to US\$770 million • Assumes no change from 2021 emissions level (Scope 1 + Scope 2) • Considers possible introduction of carbon pricing in each country and region by 2030 (consolidated basis / below 2°C)	<ul style="list-style-type: none"> Fuel conversion, oxygen combustion, electrification of float glass melting furnaces Reduce electricity consumption intensity and introduce renewable energy in chlor-alkali electrolysis facilities Reflect internal carbon pricing in investment decisions Evaluate business portfolio based on scenario analyses and carbon efficiency
Physical risks	Sudden disasters	Note: Disaster frequency is defined on an individual manufacturing plant basis using models of private-sector weather companies	Up to ¥19 million / year (non-consolidated basis / 2030 / below 2°C and 4°C scenarios)	<ul style="list-style-type: none"> Introduce countermeasures for flooding and storm surges
Opportunities	Building renovation market	Renovation rates in Europe to double by 2030 (2°C and 4°C scenarios)	Calculation	<ul style="list-style-type: none"> Sales of window glass that excels in heat insulation and recyclability Sales of solar cells integrated into building materials
	Next-generation coolants and solvents market	Low-GWP coolant market expected to triple in size by around 2030	Calculation	<ul style="list-style-type: none"> Sales of next-generation, environment-friendly coolants and solvents

installed, histories of problems and disasters related to water, and the results of analysis of each manufacturing site using the World Resource Institute's (WRI) Aqueduct Water Risk Atlas* tool as water risk is ubiquitous across regions. Based on the results of these analysis, the AGC Group has taken countermeasures in tune with the situation in each region, such as installing water removal pumps at manufacturing sites with high risk of storm surges, moving emergency power generation equipment from the ground level to the second floor or higher at manufacturing sites with high risk of flooding, and installing water storage tanks at manufacturing sites with high risk of drought.

At the AGC Yokohama Technical Center, for example, we have been constructing storm surge countermeasures for each facility since 2022. We plan to expand these countermeasures to other bases in Japan and around the world, and by 2025, we aim to have put in place countermeasures at all bases identified to be at high risk of water damage.

* A global tool that provides water risk conditions in each region

Direction of Business Portfolio



*1 Created based on ROCE in 2022

*2 Created based on 2021 CO₂ emissions per unit of 2022 net sales

Risk Management

Process for Identifying and Assessing Climate-Related Risks

For short-term and medium-term climate-related risks, we identify and assess major risks that require a response as part of risk analyses under enterprise risk management conducted every three years. We address identified risks in accordance with the AGC Group Enterprise Risk Management Basic Policies, basic policies aimed at reinforcing the risk management structure of the AGC Group. For long-term risks, we strive to understand various opportunities and risks that could arise from climate change. Moreover, we aim to minimize risks and reinforce our competitiveness by continuing to evaluate the appropriateness of our strategies based on scenario analyses and the deliberations of the Sustainability Committee.

Process for Management of Climate-Related Risks

The Board of Directors and the Management Committee regularly monitor identified climate-related risks and perform the management thereof. Corporate divisions, in-house companies, and SBUs analyze risks and examine countermeasures for each business and project. If necessary, such risks are deliberated on by the Board of Directors and the Management Committee.

Integration of Risk Management Processes with Climate-Related Risk Identification, Assessment, and Management Processes

Factors that cause risks likely to have a major impact on the operations of the AGC Group if they were to materialize are classified as "major risk factors," and the management team maintains and operates a framework for monitoring the Groupwide management of these risks. For climate change risks deemed as major risk factors, AGC Group has created the AGC Group Risk Management Implementation Rules to guide management on how to regularly self-inspect the level of risk management in their organizations and monitor the results.

Indicators and Goals

The AGC Group has designated GHG emissions as a KPI that it manages as an indicator used to assess risks and opportunities related to climate change. As a midway point to its goal of achieving net-zero carbon emissions by 2050, the AGC Group has set 2030 milestone targets to reduce GHG emissions by 30% compared with 2019 levels (Scope 1 + 2). As of 2022, for Scope 3, by 2030 we are targeting a reduction of 30% versus the 2019 level in GHG emissions for categories 1, 10, 11, and 12 and have established an engagement target to encourage suppliers—who account for 30% of category 1 and category 3 GHG emissions—to set Science Based Targets (SBTs). Our 2030 milestone targets and 2027 engagement targets reflect the scientific basis for keeping the average increase in global temperature to well below 2°C compared with the level prior to the industrial revolution. They have been certified as well-below-2°C (WB2°C) by the Science Based Targets initiative (SBTi).

AGC Group is committed to achieving net-zero carbon emissions and has set measures for reducing GHG emissions in each Scope.

For Scope 1, since float glass-melting furnaces in the glass manufacturing process account for half of all GHG emissions, AGC Group is adopting leading-edge production technologies, such as changing fuels to include ammonia combustion, incorporating energy conservation technologies, including total oxygen combustion, and recycling technologies for cullet (glass shards).

For Scope 2, GHG emissions from chlor-alkali electrolysis facilities in the essential chemicals field of the Chemicals

Company make up half of all emissions. AGC Group is responding by using more renewable energy, working to reduce the GHG emissions coefficient of purchased electricity, and deploying the ion exchange membrane (IM) method, an ion exchange method with low environmental impact that the Company developed proprietarily.

For Scope 3, roughly 70% of GHG emissions are traced to purchased products and services (category 1) and the processing of sold products (categories 10 through 12). Because AGC Group cannot take on all of these challenges by itself, the Company aims to enlist the support of its suppliers and cut emissions throughout the entire value chain.

In addition to this, AGC Group is focusing on improving the level of its data accuracy and analysis. In 2022, the Company began to digitalize the management of environmental performance data, including data on GHG emissions. Doing so has helped us visualize emissions at each site and identify bottlenecks. From 2023 onward, we will set targets each year for GHG emissions, and create a structure for advancing a PDCA cycle while keeping track of actual GHG emissions.

AGC Group is also monitoring trends by gathering data on water and cullet (glass shards) use, as well as on other environmental indicators.

In recognition of these efforts to address environmental problems and our proactive disclosure, we were on “CDP A List” (the highest level) in the climate change area in 2022 by the Climate Disclosure Project (CDP), an international non-profit organization that addresses environmental issues such as climate change. In addition, AGC Group was selected in 2022 as a Supplier Engagement Leader, the highest Supplier Engagement Rating available from the CDP.

FY2030 milestone (compared with FY2019)

Scope 1 Scope 2	<ul style="list-style-type: none"> GHG emissions: 30% reduction (Scope 1 and Scope 2 emissions) GHG emissions intensity per unit of sales: 50% reduction (Scope 1 and Scope 2 emissions intensity per unit of sales) 	by FY2050 Net-Zero Carbon Emissions (Scope 1 and 2)
Scope 3	<ul style="list-style-type: none"> GHG emissions: 30% reduction (Total of categories 1,10,11, and 12 in Scope 3 emissions) 	

AGC Group's Initiatives to Address Climate Change

The AGC Group complies with laws and regulations while endorsing the policies of governments in each country and region to mitigate and address climate change. In Japan, for example, AGC Group supports and appropriately responds to the Act on the Rational Use of Energy and the Act on Promotion of Global Warming Countermeasures.

AGC Group also addresses climate change issues by collaborating and coordinating with other companies through participation in industry groups and initiatives that aim for decarbonization. Moreover, the AGC Group supports the spread of energy conservation activities by letting the chairman of the AGC Group also serve as a member of the Energy Conservation Center, Japan (ECCJ), which disseminates information, provides technologies, and seeks international cooperation related to energy conservation. As a member of the Flat Glass Manufacturers Association of Japan, AGC has used its expert knowledge to help formulate effective measures to conserve energy while advocating for government policies to promote the use of highly insulative glass in non-residential buildings, existing buildings, and structures that are behind on the latest developments, in recognition of the importance of conserving energy in homes by promoting the use of highly insulative glass for windows. In 2022, along with this Association, AGC announced the Flat Glass Industry's 2022 Vision for Carbon Neutrality by 2050 as an embodiment of the intentions of flat glass manufacturers.

AGC endorses the Japan Climate Initiative (JCI). In April 2023, an announcement was made recommending the Japanese government work to rapidly introduce carbon pricing and expand the installation of renewable energy through JCI.

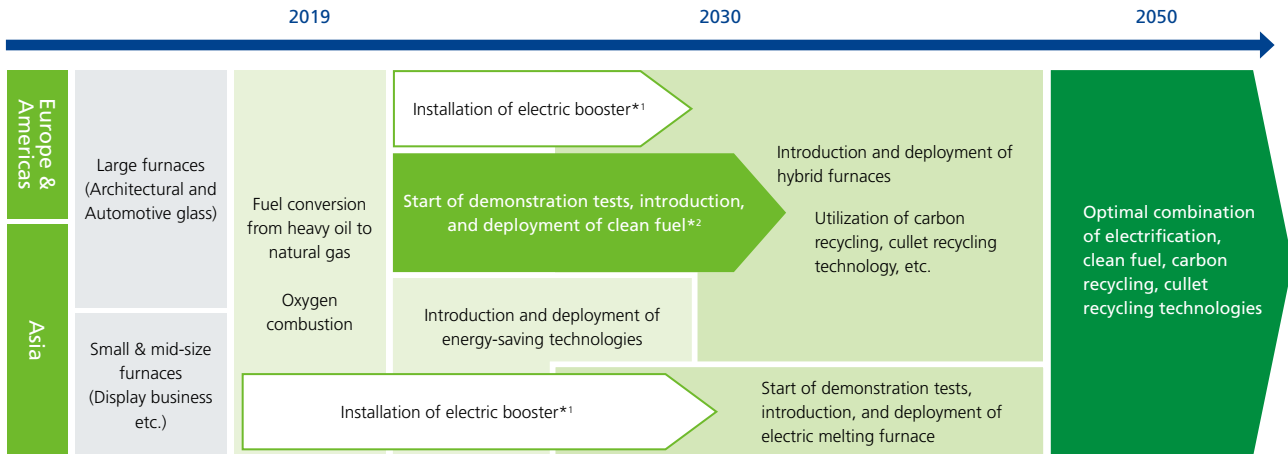
Initiatives to Reduce GHG Emissions (Scope 1 and Scope 2) — Glass Business

■ Innovations in Glass-Melting Process

The material melting process emits the most GHG in glass production. In 2022, AGC Group made progress converting glass furnace fuels from fuel oil to natural gas. Moreover, the Company began to install electric boosters in Europe and the U.S. for the melting process, which reduces the amount of fuel used.

We are implementing optimal measures to reduce GHG emissions in all countries and regions through a combination of raw material recycling technologies, energy conservation technologies, fuel conversion, and the electrification of melting furnaces, while monitoring the difference in GHG emission coefficients for electric power in each region. We are keen to increase energy efficiency through synergies between the glass melting technologies and highly insulative ceramics technologies of the AGC Group.

Technological Roadmap for Reducing GHG Emissions in Float Glass-Melting Furnaces



*1 Energized auxiliary heating

*2 Ammonia, hydrogen, etc.

■ Toward 2030, plan to prioritize electrification in Europe and Americas, and energy conservation in Asia

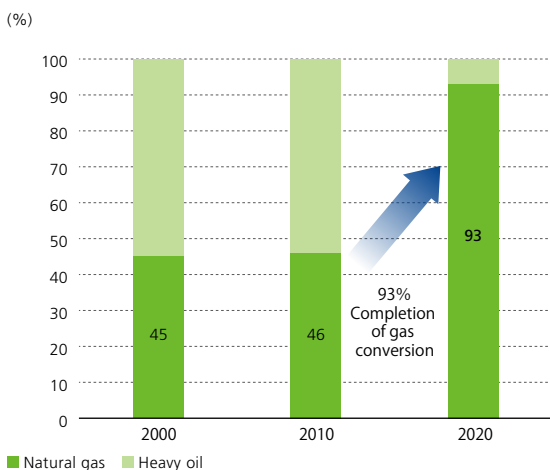
■ Toward 2050, aim to achieve the target by combining multiple technologies with a focus on electrification

Initiatives for Reducing GHG Emissions Resulting from Glass Melting

Fuel Conversion

The AGC Group has begun converting fuel at its facilities to replace heavy oil, which is used in processes including glass melting, with natural gas. Natural gas emits approximately 20% less CO₂ than heavy oil during combustion. In addition, using natural gas reduces sulfur oxide (SO_x) emissions, as such emissions arising from fuel are virtually zero.

Conversion of Fuel Used by Glass-Melting Furnaces*



■ Natural gas ■ Heavy oil

* Includes float furnaces for architectural glass, automotive glass, and glass for displays

Total Oxygen Combustion

The total combustion method uses only oxygen for fuel combustion to produce glass. This method improves energy efficiency as it does not heat nitrogen, which accounts for approximately 80% of air and is not required for combustion.

In addition, given that combustion gas contains almost no nitrogen, this method also helps reduce nitrogen oxide (NO_x) emissions.

All-Electric Melting

All-electric melting is a method by which electric current is applied directly to glass materials to melt them, making it suitable for relatively small furnaces. This method improves energy efficiency as materials are heated directly rather than heated and melted by the heat radiated from combustion flames.

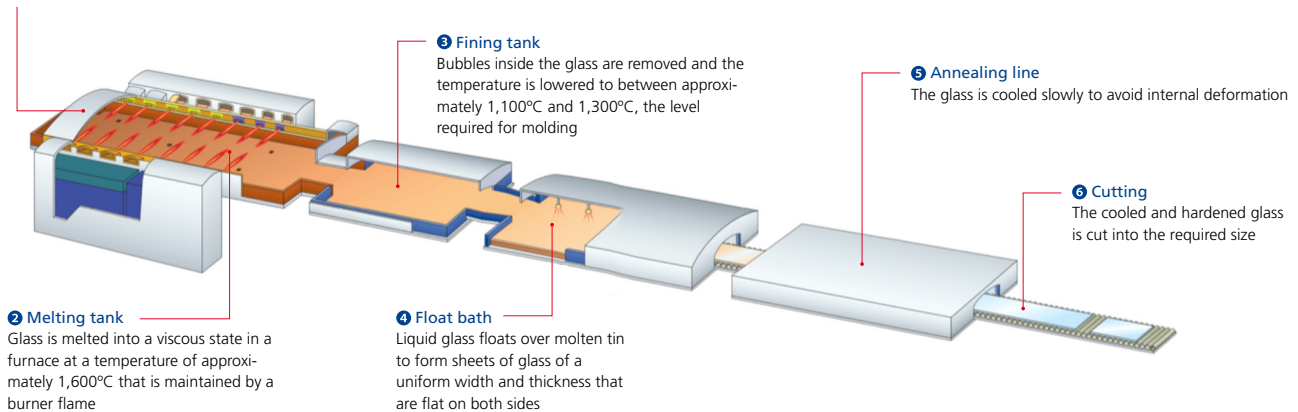
Other Energy Conservation Measures: Example of Excess Heat Recovery

AGC Group conducts activities to conserve energy at each site in addition to those described above. For example, AGC Automotive (Suzhou) Inc., which produces and sells automotive glass in China, is taking extraordinary steps to conserve energy through the combination of data visualization and energy-conserving measures. In particular, the installation of excess heat recovery equipment in glass annealing furnaces has had a major impact. Since glass is produced in extremely high temperatures, cooling water is heated to high temperatures. The amount of natural gas that had been used was reduced thanks to the recovery of 96% of the excess heat from the cooling water and reusing it to operate boilers with heat exchange technology. This initiative cut annual GHG emissions from this process by 40%, and this was recognized with the 2022 Toyota Company Improvement Award for exemplary energy conservation activities.

Initiatives for Reducing CO₂ Emissions Resulting from Glass Melting

1 Slots for feeding raw materials

Glass raw materials, prepared by mixing silica sand, soda ash, dolomite, and other materials, are fed into a melting tank



Glass Production Process (Float Method)

The major environmental impacts associated with glass production result come from two processes: the process of using a burner to melt raw materials, such as silica sand and soda ash, in order to cause a chemical reaction and form glass; and the process of melting the glass for many hours in a melting tank to create homogenous glass with no air bubbles. These processes require large melting tanks several tens of meters in length to be kept at a high temperature for many hours.

Use of Cullet (Glass Shards)

Cullet (glass shards) are used as alternatives to silica sand and other raw materials in the glass production process. In addition to glass scraps emitted in the production process, used waste glass from the market is collected as much as possible and reused as raw materials. AGC Group understands that this has contributed greatly to the reduction of GHG emissions. More specifically, increasing the use of cullet by one ton has had the effect of reducing Scope 1-3 GHG emissions by 0.6-0.7t-CO₂. This is because carbon gas emissions are limited as a result of reduced use of carbonate, such as dolomite and soda ash, key raw materials used to make glass. Cullet can be melted more easily than other raw materials, enabling reductions in CO₂ emissions from fuels. In addition, raw materials imported from overseas can be replaced by cullet, lowering the amount of Scope 3 GHG emissions during the transit of raw materials. As a concrete action toward our goal of reducing GHG emissions, AGC Group will accelerate our efforts to recycle cullet.

Example of Initiative to Use Cullet—Thailand

At the AGC Group, our companies strive to reuse cullet. At AGC Flat Glass (Thailand) Plc., which produces flat glass in Thailand, procurement, production, and sales divisions have collaborated to create a system for collecting and reusing cullet that had previously been disposed of as waste by customers and waste collection companies that are unable to reuse cullet as a valuable material. Additionally, the company created a new framework for collecting cullet from far-away places that had been disposed of due to the lack of any glass production sites nearby. Through this initiative, we have collected an average of 1,573 tons of cullet each month, thereby lightening the waste burden of customers and reducing Scope 1 and 2 GHG emissions by 760t-CO₂ at the company.

Joint Research with Saint-Gobain

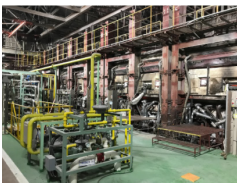
In February 2023, AGC and Saint-Gobain S.A., a glass manufacturing company based in France, announce that they are collaborating on the design of a pilot breakthrough flat glass line.

As part of this project, a production line will be entirely refurbished into a high performing & state-of-the-art line that targets to be 50% electrified and 50% fired by a combination of oxygen and gas. This is a technical breakthrough reducing its direct CO₂ emissions significantly compared to current technology used in flat glass furnaces fired by natural gas. The new technology is expected to be implemented by the 2nd half of 2024.

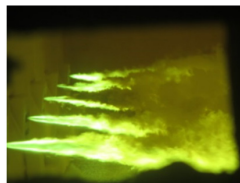
Ammonia Combustion Technology Development Project

AGC has been selected by the New Energy and Industrial Technology Development Organization (NEDO) as a contractor on a project to develop fuel ammonia combustion technology for industrial furnaces. AGC will develop this project jointly with Taiyo Nippon Sanso Corporation, the National Institute of Advanced Industrial Science and Technology (AIST), and Tohoku University from the end of December 2021 to March 2026.

The project will see the installation of an ammonia-oxygen combustion burner in the architectural glass production facility at the AGC Yokohama Technical Center to conduct demonstration tests of ammonia combustion technology. In addition to evaluating the effects of ammonia combustion on glass and the materials that comprise the melting furnace, AGC and its partners will develop a burner that can meet environmental standards with the aim of achieving its full-fledged deployment in glass-melting furnaces.



Glass-melting furnace used for demonstration tests



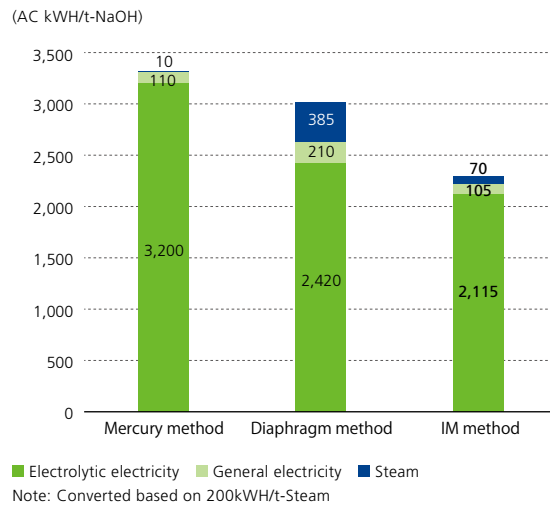
Inside of a glass-melting furnace

Initiatives to Reduce GHG Emissions (Scope 1 and 2) —Other Businesses

Initiatives at AGC's Chlor-Alkali Electrolysis Facility

AGC manufactures chlor-alkali products using the IM method, which it was the first to develop and which is currently used extensively around the world. The Company will aim to increase efficiency in terms of carbon emissions by continuing to improve this method in order to further reduce the amount of electricity it uses.

Electricity Consumption Intensity by Manufacturing Method



	Manufacturing caustic soda concentration	Environmental and health impacts
Mercury method	50	Concerns over wastewater pollution caused by mercury
Diaphragm method	12	Concerns over pneumoconiosis and mesothelioma
IM method	32	Pollution free and safe

Reduction of Fluorocarbon Leakages (Japan)

AGC manages fluorocarbons used as refrigerants in commercial air-conditioners and refrigeration units based on the Act on Rational Use and Appropriate Management of Fluorocarbons, strengthening the operation and management of refrigeration units as well as improving the recovery of refrigerants and optimizing replenishment amounts during maintenance. Thanks to these efforts, AGC's fluorocarbon leakages came to 15,082t-CO₂ in 2022. We will continue to reduce fluorocarbon leakages by maintaining leakage prevention measures and steadily replacing aging refrigeration units with state-of-the-art units that use low-GWP refrigerants.

■ Use of Renewable Energy

In order to reduce Scope 2 emissions, the AGC Group is introducing renewable energy at its sites around the world. Our sales offices had been prioritized in this initiative, and we have been preparing for and examining the large-scale rollout of renewable energy at our manufacturing bases as well, while revising our Groupwide examination structure and ensuring stability in production. In 2022, AGC began to actually install renewable energy facilities at its production bases around the world. The AGC Group will continue to advocate for renewable energy through efforts that include the creation of a global framework for formulating renewable energy procurement policies.

Installment of Solar Power Generation

At AGC Display Glass (Shenzhen) Inc., our display glass production subsidiary in Shenzhen City, China, solar panels installed on the roof of its plants began producing electricity in November 2022. We expect these solar panels to produce 6180MWh in the initial year and a total of 150,000MWh over the next 25 years, reducing GHG emissions by at least 125,000 tons. The generated electricity will be used internally, and any excess amounts will be sold to the local electric power company.

Purchase Contract for Renewable Energy Electricity Certificates

PT Asahimas Chemical is our chemical product production and sales subsidiary in Indonesia. It entered into an agreement to purchase approximately 15 years' worth of renewable energy electricity certificates (about 18,000GWh) issued by PT Perusahaan Listrik Negara (PLN), and began using them in October 2022. This will reduce CO₂ emissions by as much as 15 million tons over a 15-year period, and might cut the AGC Group's total CO₂ emissions by around 10% in the future.

* Calculated assuming 0.87t-CO₂/MWh for PLN's electricity emissions factor in 2021.

Initiatives Aimed at Reducing Scope 3 GHG Emissions

Throughout the value chain, expectations are increasing for companies to work on reducing their GHG emissions. To accelerate initiatives, the AGC Group has set a target for reducing Scope 3 GHG emissions in categories 1, 10, 11, and 12 by 30% by 2030 versus the 2019 level. AGC has also established an engagement target to encourage suppliers—who account for 30% of category 1 and category 3 GHG emissions—to obtain SBT certifications by 2027. The Company has obtained SBT certifications for these targets.

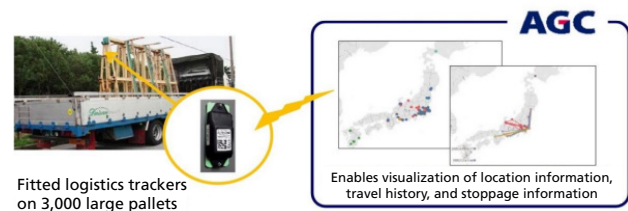
In order to measure and reduce GHG emissions from the products and services we purchase, we must improve communications with our suppliers. In addition to interviewing

our suppliers with our own surveys, we started to use in 2022 the Supply Chain Program offered by CDP. Through this program, we have collected primary data on GHG emission factors for each product of our suppliers with the aim of using this data to create a framework for quantitatively assessing their efforts to reduce GHG emissions and incorporating this into our Scope 3 calculations. We believe that this communications platform is an essential tool for examining measures to reduce GHG emissions through collaboration with our suppliers.

We are endeavoring to improve the precision of our calculations of GHG emissions in the flow of a product after its production and transport to use and disposal by a customer, and plan to take steps to reduce emissions at each stage of this process. For example, we are taking the following steps to increase transportation efficiency.

■ Use of IoT in Glass Transportation Pallets

Since logistics for glass entails significant CO₂ emissions, AGC is working to improve logistics efficiency by using special pallets for transportation that can be location traced. Pallets can be traced in real time using special equipment to determine location, inventory, and delay information. This prevents the loss of pallets and improves transport efficiency by reflecting timely information on transportation routes and cargos in transportation plans, which leads to a reduction in GHG emissions in the transportation stage.



■ Creation of Logistics System Using RFID Tags for Collecting Sodium Bicarbonate Pallets

At the Kashima Plant, AGC attached RFID tags to approximately 20,000 special pallets for transporting sodium bicarbonate, leading to an increase in recovery rates from customers. This decreased opportunity loss in pallets and eliminated the GHG emissions that would have occurred to produce replacement pallets. At the same time, it has helped to reduce GHG emissions by increasing efficiency in transportation by incorporating more accurate position information.

■ Introduction of Hydrogen Fuel Trucks

AGC Display Glass (Shenzhen) Inc., which belongs to the Electronics Company, introduced hydrogen fueled trucks for transporting products in May 2023. AGC Display Glass (Shenzhen) Inc. became the first company in Shenzhen City to use hydrogen fueled trucks through this trial, based on a partnership with Hercules Logistics, a local logistics firm based in Shenzhen City. These trucks are currently being used to transport raw glass, and will be used for other transportation needs in the future.

AGC Display Glass (Shenzhen) Inc. has been recognized by the Chinese government with Green Company certification for its various environmental efforts to conserve water, this initiative with hydrogen fueled trucks, and solar power generation.

Initiatives to Address Climate Change Issues in Back-Office Section

AGC (China) Holdings Inc., which provides corporate services to AGC Group companies located in China, introduced a green savings account service provided by MUFG Bank, Ltd. (Beijing Branch) with the aim of indirectly addressing climate change issues. By putting temporarily available excess funds into the green savings account, these funds can be invested in ESG-related projects, such as energy conservation, environmental improvement, and clean energy projects in China. Interest generated from these funds can also be used in activities that help society, such as donations to the soccer league for people with vision impairments.

Products That Help Address Climate Change

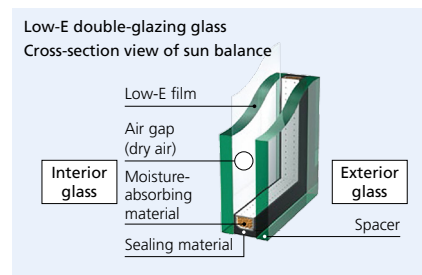
■ National Movement for New and Prosperous Lifestyles toward Decarbonization

Participation in Public-Private Collaborative Association
The Architectural Glass Asia Pacific Company participates in the National Movement for New and Prosperous Lifestyles toward Decarbonization, a public-private collaborative association with other national / local governments, companies, and groups to promote a new and prosperous lifestyle that leads to decarbonization. While working with related parties, the Company provides and proposes products and services that support a new lifestyle that leads to decarbonization.

Eco-Glass (Low-E Double-Glazing Glass)

▶ Improving the Energy Efficiency of Buildings through the Selective Transmission of Light and Heat

The use of low-E double-glazing glass, which reflects solar radiation and other far infrared rays while letting through light, has outstanding thermal insulation performance, helping enhance heating efficiency in winter.

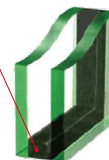


Thermocline®

▶ Realizing Recyclable Double-Glazing Glass Using AGC's Unique Material

Thermocline® is a double-glazing glass achieving durability and insulation by using a material developed by the AGC Group. In addition, as Thermocline® allows double-glazing glass to be assembled and disassembled through a simple process, it contributes to reduced CO₂ emissions throughout its life cycle.

Requires only butyl, a sealing material developed by AGC



Simple structure of Thermocline™

Building-Integrated Photovoltaic (BIPV) Modules**▶ Unlocking New Possibilities for Architecture through Photovoltaic Glass**

BIPV modules are a type of glass that facilitate the generation of solar power by sandwiching power generation cells between sheets of glass. These modules simultaneously create energy functions and maintain the aesthetic appeal of buildings while retaining the natural lighting innate to glass. Another advantage of BIPV modules is that they allow the use of existing murals and windows without installing solar panels.



The Singapore Institute of Technology's new Punggol Campus

Low-Carbon Glass**▶ Major Reduction in Carbon Footprint of Products Compared with Ordinary Products**

Products being developed and sold by AGC Glass Europe S.A. feature a 40% smaller carbon footprint than ordinary products while preserving the same aesthetics, quality, and technical specifications. All of AGC's technologies are brought together to produce these products in high-energy-efficiency melting furnaces that use sustainable raw materials and large volumes of cullet.

F-CLEAN® Fluoropolymer Resin Film for Greenhouses**▶ Supporting Agriculture through Long-Life Greenhouses**

F-CLEAN® is a fluoropolymer resin film for greenhouses. While ordinary agricultural film has a life span of between three and five years, F-CLEAN® lasts for over 30 years without being replaced, thereby helping minimize plastic waste. With a high light transmission ratio, this film also contributes to improved productivity for agricultural products.



F-CLEAN® in use at a greenhouse

AMOLEA® Series**▶ Refrigerants and Solvents with a Global Warming Potential (GWP) Equivalent to 1/100th of Previous Products**

The next-generation refrigerants and solvents of the AMOLEA® series have an extremely low GWP. We are proceeding with the commercialization of these products in a variety of product areas, including automobile air-conditioning systems and turbo freezers, and we plan to expand into other such areas going forward, including air-conditioning for rooms.



GHG Emissions Data

● The AGC Group's Energy and Material Balance (2022)

The AGC Group mainly uses heavy oil, natural gas, city gas, hydrogen, and coal as direct energy; and electricity, steam, and heat as indirect energy.

INPUT	Total energy consumption
	119 PJ Fuel consumption 82 PJ (of which, renewable fuel accounts for 0.6 PJ)
	Electricity consumption 9.4 million MWh (of which, renewable electricity accounts for 259,000 MWh)
	Heat consumption 0.004 PJ
	Steam consumption 3.2 PJ
	↓
OUTPUT	GHG Emissions
	Scope 1 + Scope 2 = 11.0 million t-CO₂-e
	Scope 1 6.3 million t-CO₂-e (Of which, energy-derived CO ₂ emissions account for 4.8 million t-CO₂-e and GHG emissions other than energy-derived CO ₂ emissions account for 1.5 million t-CO₂-e)
	Scope 2 4.7 million t-CO₂-e

Note 1: GHG emissions were calculated using the market-based method

Note 2: Electricity usage does not include electricity generated in-house, which is counted in fuel usage.

Note 3: CO₂ emissions from biomass fuels was 57,000 t-CO₂-e (not included in the above figures because it is outside Scope 1 and 2).

● Energy Consumption and Intensity Per Unit of Sales

	2019	2020	2021	2022
Total amount used (PJ)	120	121	123	119
Intensity per unit of sales (TJ/¥100 million)	7.9	8.6	7.3	5.9
Fuel used (PJ)	82	86	88	82
(of which, renewable energy derived (PJ))	0.06	0.04	0.05	0.6
Electricity used (1,000 MWh)	9,669	8,922	8,949	9,434
(of which, renewable energy derived (1,000 MWh))	107	121	118	259
Heat used (PJ)	0.006	0.004	0.004	0.004
Steam used (PJ)	3.7	3.3	3.6	3.2

● GHG Emissions (Scope 1, Scope 2, and Scope 3)

(Thousand t-CO₂-e)

	2019	2020	2021	2022
Scope 1 (direct emissions)	6,379	6,567	6,964	6,308
Scope 2 (indirect emissions from purchased energy)	5,225	4,576	4,444	4,705
Scope 3 (other indirect emissions)	13,270	11,659	11,585	10,508
Total	24,874	22,802	22,993	21,521

* Coverage of Scope 1 and Scope 2 emissions: AGC Inc. and its consolidated subsidiaries (a total of 129 manufacturing and non-manufacturing sites as defined by the Company's standards)

Coverage of Scope 3 emissions: AGC Inc. and its consolidated subsidiaries (a total of 239 manufacturing and non-manufacturing sites as defined by the Company's standards)

● GHG Emissions (Scope 3)

(Thousand t-CO₂-e)

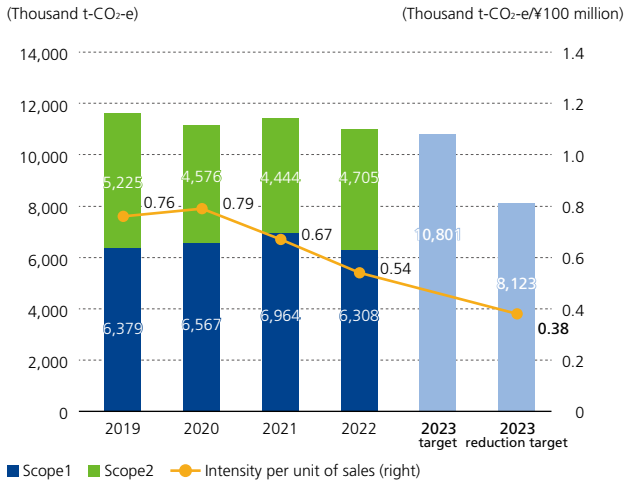
Category	Business	2019 actual	2020 actual	2021 actual	2022 actual
1	Purchased products and services	4,170	3,716	3,406	4,004
2	Capital goods	389	684	685	778
3	Fuel and energy-related activities not included in Scope 1 and Scope 2	1,394	1,102	2,266	1,334
4	Transportation and distribution (upstream)	1,020	1,007	1,293	954
5	Waste emitted from business	56	35	14	49
6	Business trips	19	43	18	53
7	Employees commuting to work	21	51	20	31
8	Lease assets (upstream)	NA	NA	NA	NA
9	Transportation and delivery (downstream)	NA	NA	NA	NA
10	Processing of sold products	245	269	261	344
11	Use of sold products	2,302	1,945	1,681	1,483
12	Disposal of sold products	3,426	2,581	1,716	1,259
13	Lease assets (downstream)	167	167	167	162
14	Franchises	NA	NA	NA	NA
15	Investments	59	58	58	58
Total GHG emissions (Scope 3)		13,270	11,659	11,585	10,508

* Figures for 2019, 2020, and 2021 have been retroactively adjusted due to a change in the emissions intensity set used to calculate GHG emissions (Scope 3)

Category	Calculation methodology
1	The volume of resources used in conjunction with producing products multiplied by the emissions intensity* per resource
2	The amount of investment in capital goods multiplied by the emissions intensity* per investment amount
3	The amount of fuel and energy used multiplied by the emissions intensity* for each type of fuel and energy
4	The volume of emissions related to the procurement of materials and parts and the volume of emissions from transportation when shipping products, based on the volume of resources used during product production and the ton-kilometer data for product transportation, multiplied by the emissions intensity*
5	Volume of waste resulting from business activities that is processed by external service providers multiplied by emissions intensity* per method
6	Global emissions calculated based on the result of multiplying AGC business travel expenses by the emissions intensity* per transportation method, using estimates based on employee composition ratios
7	Global emissions calculated based on the result of multiplying AGC commuting expenses by the emissions intensity* per transportation method, using estimates based on employee composition ratios
8	Emissions for leased properties calculated in Scope 1 and Scope 2
9	The AGC Group does not calculate emissions from its products as they are intermediate components, such as parts and materials, which do not consume energy during use.
10	Weight of sold products multiplied by the basic unit of processing per product and the electricity emissions intensity
11	GHG emitted directly through the use of products sold at sales outlets multiplied by emissions intensity* per product, based on assumed use conditions
12	The weight of products sold multiplied by the basic unit per type of waste matter. For a portion of products, it is calculated by determining the volume of leakage from the weight sold and multiplying the figure by their global warming potential.
13	Leased floor space in a building multiplied by basic unit of floor space and emissions intensity*
14	Not applicable as the AGC Group does not operate franchises
15	Scope 1 and 2 emissions at affiliated companies in which AGC's ownership is less than 50% are calculated based on its percentage ownership.

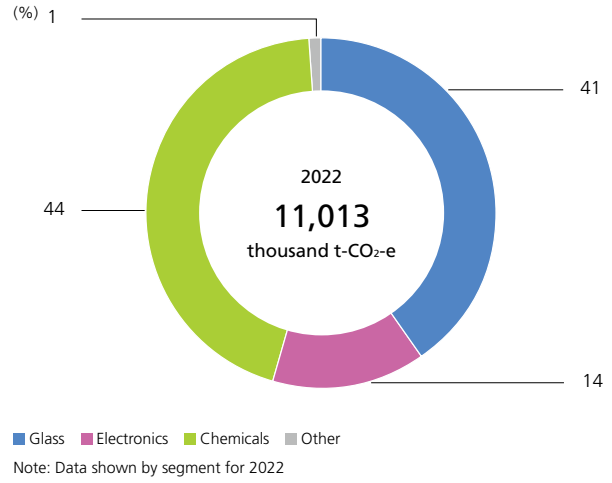
* Emissions intensities are based on the Sustainable Management Promotion Organization's life cycle assessment inventory database (Inventory Database for Environmental Analysis: IDEA), Gabi, and the Japanese Ministry of the Environment's database.

GHG Emissions (Scope 1 and Scope 2) and Emissions Intensity per Unit of Sales (Market-Based Method)



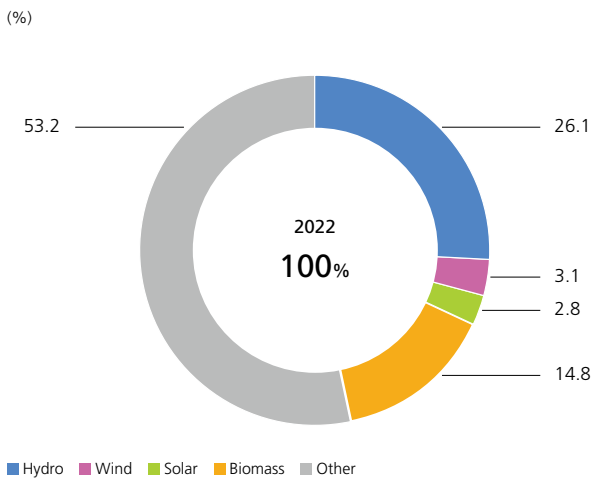
Note: 11.6 million t-CO₂-e when calculated using the location-based method.
 In fiscal 2022, Scope 1 and 2 GHG emissions totaled 11,013,000 t-CO₂-e and intensity per unit of sales was 540 t-CO₂-e per hundred million yen, representing cuts of 5.1% and 29% versus the 2019 reference year. On a year-on-year basis, total Scope 1 and 2 emissions were reduced by roughly 400,000 t-CO₂-e, owing to the purchase of renewable energy electricity certificates, the greater use of biomass fuels and other renewable energy uses, as well as progress in fuel conversion for the glass melting process.

GHG Emissions (Scope 1 and Scope 2) by Business Segment



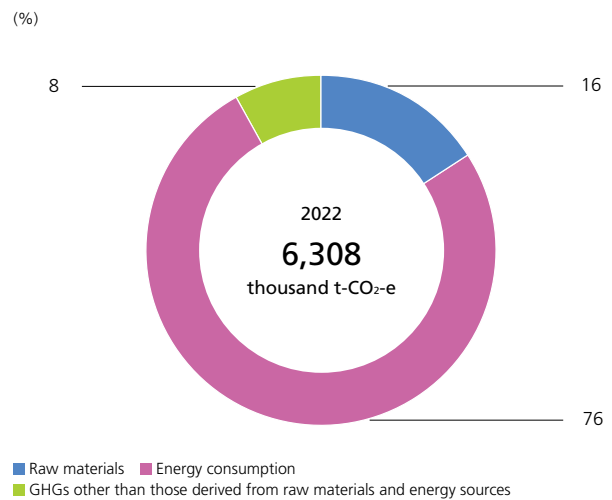
Note: Data shown by segment for 2022

Adoption of Renewable Energy



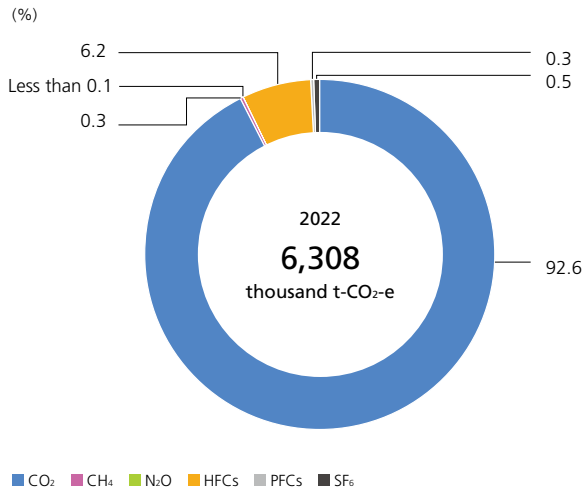
Note: Renewable energy adopted by the AGC Group is derived by using solar power generation equipment, electricity from renewable energy sources utilizing a 100% non-feed-in tariff scheme, non-fossil-fuel certificates designated as renewable energy (Japan), and a renewable energy integrated power grid. Other includes renewable energy from renewable energy electricity certificates.

Breakdown of GHG Emissions (Scope 1)

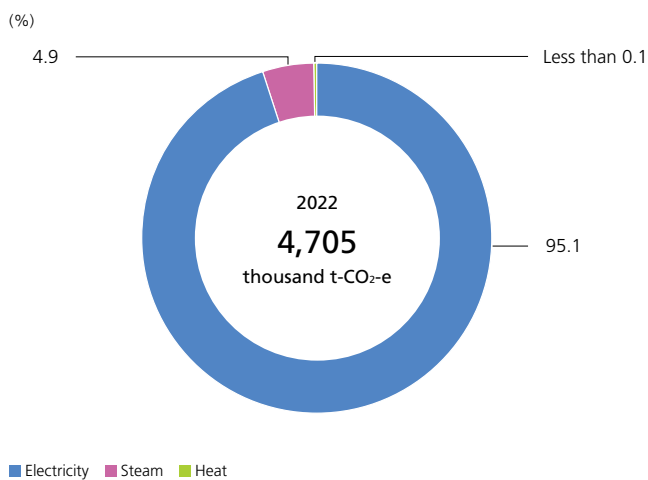


Note: Data shown by source for 2022

● Breakdown of GHG Emissions (Scope 1)



● Breakdown of GHG Emissions (Scope 2)



■ Calculation Terms for GHG Emissions and Other Environmental Impacts

- Values reported by the AGC Group's environmental database system in fiscal 2022 (January 1, 2022, to December 31, 2022)
- AGC on a non-consolidated basis and its subsidiaries (excluding subsidiaries and equity-method companies) are included in the scope of calculations. The scope of other detailed calculations is in accordance with the AGC Group Guidelines for Calculating GHG Emissions and the AGC Group's Environmental Performance Data Guidance, which are based on the Greenhouse Gas Protocol.
- Thermal units and emission factors used in Scope 1 and Scope 2 calculations are based on the Basic Policy on the Rationalizing Use of Energy and Shifting to Non-fossil Energy, the Act on Promotion of Global Warming Countermeasures, and the Environmental Protection Agency's Greenhouse Gas Reporting Program.
- Electricity emission factors used in Scope 1 calculations use emission factors by electricity utility operator and factors stipulated by the International Energy Agency and the governments of various countries.
- The global warming potential of GHGs other than CO₂ uses the values in the Intergovernmental Panel on Climate Change's Fourth Assessment Report.
- Emission factors for chlorofluorocarbon with GHG effects not specified in the Act on Promotion of Global Warming Countermeasures use values stipulated by AGC based on technical literature.
- AGC and the 307 sites of 129 consolidated Group subsidiaries in Japan and overseas are included in the scope of calculations of Scope 1 and Scope 2. 415 sites of 239 companies are included in Scope 3 calculations. Subsidiaries and equity-method companies are excluded.
- Actual values prior to 2021 differ from values disclosed in previous years improvements in the accuracy of data and other factors.
- When contracts and other documents confirm the market-based method, the market-based factor is used in calculations. In any other cases, the location-based method is used.
- Scope 3 calculations are based on the IDEA v3.2 and the Ministry of the Environment's database v3.2.

■ Information Disclosure through the CDP

The AGC Group has been completing the CDP's climate change questionnaire since 2010.

The Group's responses to the questionnaire can be viewed here. [CDP Climate Change 2022](#)

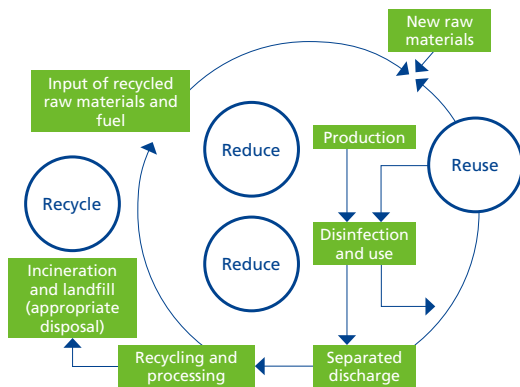


Effective Use of Resources

Fundamental Approach

The raw materials of the AGC Group's products include silica sand, fluorite, and other natural resources. To effectively utilize the planet's finite resources, we will strengthen initiatives to limit new resource procurement with the intention of building resource circulation loops at every phase of our business activities by enhancing existing reduce, reuse, and recycle (3Rs) initiatives; by reusing resources; by expanding the use of recycled resources; and by increasing resource productivity* in all aspects of operations, including packing materials. Furthermore, we aim to realize a circular economy by balancing sustainable social growth with economic growth through the provision of more products with longer life spans and designs for the 3Rs.

* An index that comprehensively indicates how effectively resources are being used. The index is calculated as the ratio of the volume of natural resources and energy used to the production amount and economic value generated therefrom.



Targets for the Effective Utilization of Resources

By thoroughly restricting waste emissions and separating waste, the AGC Group constantly strives to reduce final landfill volume, and targets a final landfill ratio of less than 1% by 2025 for the entire Group. Each business segment sets its own targets for reusing resources and is redoubling efforts to reduce the amount of new resources used. Moreover, we are working toward targets for using materials not derived from petroleum in a bid to reduce petroleum-derived plastics. We are discussing the setting of medium-term goals for 2030 to move toward the realization of a circular economy by maximizing the utilization of resources through the reuse of resources, thereby limiting the extraction of new resources.

Initiatives for the Effective Use of Resources and the Appropriate Disposal of Waste

Initiatives for Recycling Plastic Resources

With plastic waste accumulating in the ocean, there is an urgent need to recycle more plastics. AGC Group is taking steps to reduce the volume of waste plastic and is working to cut the amount of plastic waste by thoroughly separating used plastic so that it can be used in the production of new plastic products as a side industry. One of our environment target KPIs for 2025 is to use more recycled plastic and biomass plastic in order to reduce petroleum-derived plastic use. The AGC Group trains employees on the recycling and reuse of plastics through internal environmental education videos and special contents created in online shopping web sites for office supplies. In the production process for products made from plastics, it has launched an initiative to collect plastic scraps for use as a raw material in recycled material production at film makers.

The main initiatives being taken to recycle plastic resources are as follows:

1. Employee training: Employees receive training about the Law for Recycling Plastic Materials and promoting the use of recycled plastic and biomass plastic through internal environmental education videos, our resource procurement website, and other educational events.
2. Limit emission of waste plastic: AGC Group restricts the emission of plastic waste by thoroughly separating used plastic and working with side industries to reuse it in the production of new plastic products.
3. Promote reuse of waste plastic: Waste emitted from our business activities is properly disposed of through the exchange of manifests with waste management companies. We have recycled waste, including the collection of waste heat, and promote the reuse of waste by converting it in the material cycle.
4. Promote use of recycled plastic and biomass plastic: AGC Group has set environmental targets as KPIs for 2025. It promotes the use of recycled plastic and biomass plastic through internal environmental education videos, a special page on its materials procurement website, and other educational events.

AGC also participates as a member of the Clean Ocean Material Alliance (CLOMA), a group of companies working together to solve the problem of plastic waste (microplastic) in our oceans. The AGC Group plans to advance activities to further recycle and reuse plastic materials by collaborating with film manufacturers and other companies, while obtaining information about biomass / recycled plastics, material recycling, and chemical recycling.

■ Targets for the Effective Utilization of Resources

Use of Cullet (Glass shards)

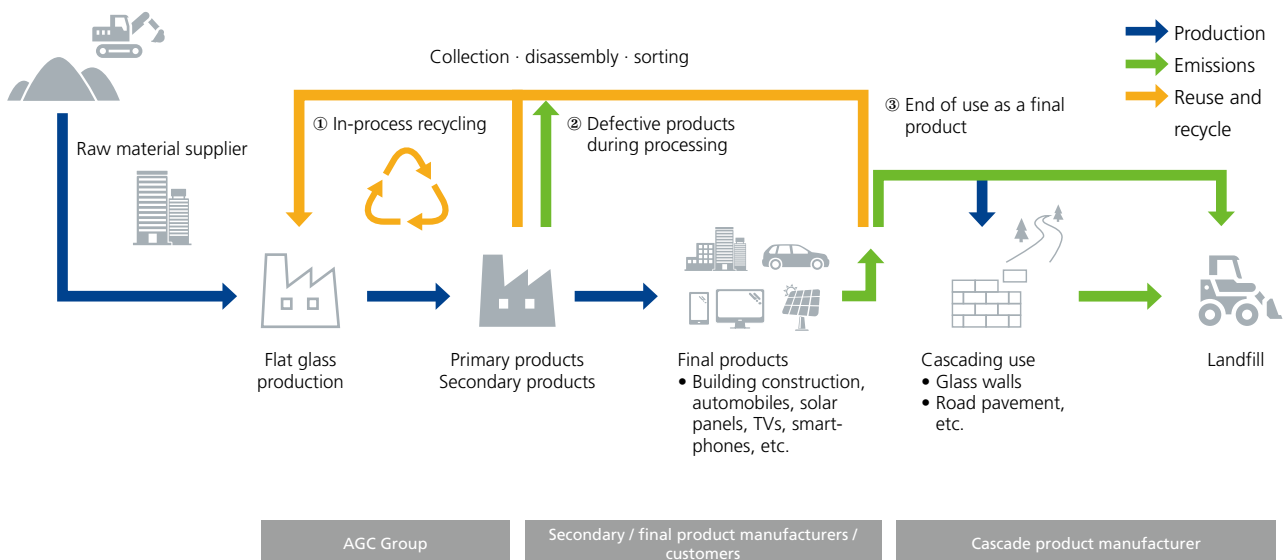
The AGC Group uses natural resources, such as silica sand, in the production of glass. Even if glass breaks and becomes refuse glass (cullet), heat can be applied to melt it down and produce glass with the same qualities as the original glass. Glass is a recyclable material and excels from the standpoint of resource recycling. The AGC Group is working to expand the use of glass cullet in order to reduce the use of natural resources.

Cullet can be classified into three categories: (1) cullet generated within the glass manufacturing process; (2) cullet produced during the glass processing stage; and (3) cullet generated at the end user stage, such as when window glass for buildings and vehicles, as well as solar panels, is discarded. AGC Group have been thoroughly collecting and maximizing the use of cullet in categories (1) and (2) within the AGC Group. For category (3), while some of the cullet is repurposed for use as a sub-base material, the reality is that most

of it is sent to landfill. At the AGC Group, in order to promote the use of cullet generated at the end user stage (upon disposal), we are advancing the development of glass recycling technology and collaborating with side industries. Aiming for a circular economy, we have set goals for glass cullet utilization rates and are working diligently to achieve them.

Further, the Group uses glass cullet as a raw material for smartphone glass, which must be of particularly high quality. Most types of smartphone glass are coated, and cullet generated from coated glass is generally difficult to utilize as a glass input because the coating material affects the quality of the glass. Nonetheless, based on strict quality control, the AGC Group uses cullet generated from coated glass as a recycled resource. Also, labeling that shows the percentages of recycled materials in our products is in accordance with ISO 14021 and has acquired certification from third-party organizations.

● Flow for Retrieving Cullet



Initiatives to Reduce Waste Generation

Auto Parts Recycling Initiatives

In the Automotive Company, we are recycling automobile window glass materials. The windows of cars are made of laminated glass, consisting of two layers of glass and an intermediate plastic film. During the manufacturing process, offcuts of this intermediate film are produced. By collecting these offcuts and returning them to the film manufacturers, we enable the reutilization of these materials as inputs for new intermediate films.

Recycling of Fluorine Products

The AGC Group is committed to reusing and recycling fluoropolymer resin films.

Not only are we reusing scrap materials generated in the manufacturing process as raw materials, we are also retrieving and recycling used fluoropolymer resin films from customers, especially ethylene tetrafluoroethylene (ETFE) films, such as the ETFE film cover ToughShield® and the ETFE film for agricultural greenhouses F-Clean®.

The latter is retrieved using special bags, and then cleaned and crushed for reprocessing. These materials are then regenerated into fluororesin molded products, such as waterproofing films.



F-Clean® collection bags

Returnable Glass Pallets for Transporting Glass Products

For pallets used to transport glass products, we use a returnable type of iron pallet that can be reused as a platform for transporting glass products. In 2020, we introduced a pallet IoT system, a location management system for pallets, with the aim of ensuring the recovery of pallets and increasing the efficiency of their transportation.

Reusable Packaging and Transportation Pallets

For many years, AGC Glass Europe S.A. has been implementing measures for glass transportation pallets and packaging boxes pursuant to European Directive 94/62/EC, which includes stipulations on packaging waste.

Traditionally, wooden pallets were used for transporting flat glass. However, AGC Glass Europe S.A. began using iron pallets at an early stage. These sturdy and easy-to-handle pallets are retrieved from our customers for reuse. Currently, our reuse rate in Belgium is as high as 98%. Additionally, while wooden pallets are still used for some maritime transportation, for products shipped from our main glass

manufacturing bases in four major countries in Europe, pallets are made from sustainable wood that has received PEFC certification.*

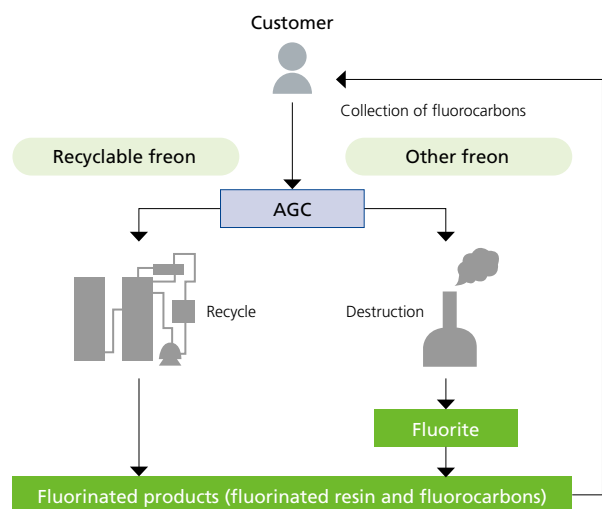
* PEFC (Programme for the Endorsement of Forest Certification schemes): The world's largest forest certification system, operated by a non-profit NGO that aims for sustainable forest management.

Recovery and Recycling of Fluorocarbons and Calcium Fluoride

In the Chemicals Company, the AGC Group manufactures various fluorinated products such as alternatives for hydrochlorofluorocarbons (HCFC and HFC) and hydrofluoric acid. Calcium fluoride (fluorite) is a natural resource used as a raw material for these fluorinated products, but deposits and producing countries are limited, and most Japanese enterprises, including the AGC Group, depend on imports from China.

Since 1997, the AGC Group (Japan) has been recovering used fluorocarbon products from customers and then destroying and recycling them at the AGC Chiba Plant. In 2021, fluorocarbons equivalent to approximately 1.10 million tons of CO₂ were recovered, and the calcium fluoride obtained through the destruction process was reused as raw material. Also, at the same plant calcium fluoride (fluorite) is recovered and reused from waste fluid generated in the manufacturing process. Furthermore, after customers use hydrofluoric acid in the wastewater treatment process, the Group recovers and reuses the waste calcium fluoride generated.

Recovery and Recycling of Fluorocarbons



Initiatives to Reduce Hazardous Waste

AGC's Kashima Plant is significantly reducing specially controlled industrial waste by using boilers to combust waste oil that contains hazardous oxidizing agents. Moreover, exhaust heat from this process is recovered and used as a source of energy.

Further, the Group's Chiba Plant helps reduce the amount of hazardous waste in society by collecting and destroying used fluorocarbons. The technology we use for recovering and recycling fluorocarbons earned the Minister of Economy, Trade and Industry Award at the Resource Recirculation Technology and System Awards in 2014.

Reuse of Refractory Materials

From the perspective of waste reduction in the ceramics business, we are taking actions aimed at a circular economy, such as the reduction of raw material loss, the recycling and reuse of used refractory materials, and increasing the usage rate of recycled refractory materials. AGC Plibrico Co., Ltd. provides monolithic refractories for use in steelmaking processes, such as in blast furnaces at steelworks, and engages in activities to recycle and reuse used refractories. Furthermore, AGC Ceramics Co., Ltd. undertakes research and pilot testing related to the recycling and reuse of monolithic refractories and refractories for glass kilns.

■ Targets for the Effective Utilization of Resources Initiatives Tasked with the Appropriate Disposal of Waste

As sites that dispose of waste, the AGC Group's bases in Japan meet the responsibilities that they have to monitor the generated industrial waste until the completion of its disposal by confirming the status of disposal through on-site inspections of waste disposal service providers. These measures are pursuant to the Waste Management and Public Cleansing Act. The Groupwide goal is to conduct on-site inspections of all waste disposal service providers over a three-year period. AGC plants that are geographically close to waste disposal service providers cooperate by conducting on-site checks and sharing the results of these checks.

Since fiscal 2020, we have changed certain plans due to the COVID-19 pandemic.

Proper Management and Treatment of PCBs

The Stockholm Convention on Persistent Organic Pollutants calls for the use of equipment containing PCBs to be discontinued by 2025 and for such equipment to be disposed of by 2028. The AGC Group is advancing the discontinuation and disposal of equipment containing PCBs in accordance with the laws and regulations of each country and region in which it operates.

AGC and the AGC Group's sites in Japan ended their use of electric devices using high-concentration PCBs in 2005 and 2009, respectively. At present, these devices are stored according to the relevant legislation and their treatment, which is entrusted to the Japan Environmental Storage &

Safety Corporation (JESCO), has been progressing.

Furthermore, the AGC Group will continue to systematically dispose of low-concentration PCBs.



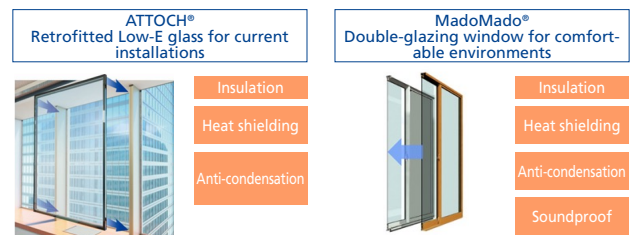
Storage area for PCB waste (Yokohama Technical Center)

Products Contributing to Effective Use of Resources

Retrofittable Energy-Saving Glass Products: MadoMado® and ATTOCH®

▶ Design of these products improves the effective use of resources

MadoMado® is a high-performance secondary window that is primarily installed on the interior side of residential windows, while ATTOCH® is a glass for renovations that can be retrofitted to windows of buildings, transforming them into low-E double glazing (Eco Glass). Since these products can be used without replacing existing window frames and glass, there is no generation of waste from old frames or glass. Moreover, as they are installed from the inside, there is no need for external scaffolding around buildings, enabling the reduction of installation time and costs for customers. These products enhance heat-shielding and insulation performance in existing buildings, contributing to energy conservation and the effective use of resources.



By retrofitting windows with Low-E glass (insulating glass) from the inside, it is possible to install double-glazing glass with high energy conservation properties.

This product is retrofitted to existing window frames and glass by attaching an additional sheet of high-performance glass on the inside.

EPINITY®

▶ 100% Bio-Based Epichlorohydrin (ECH)

Epichlorohydrin (ECH) is one of the main raw materials in epoxy resins that are widely used in protective coatings, adhesives, and electronic components in the automotive, electronics, and construction industries. EPINITY®, which is manufactured and sold by AGC Vinythai Public Company Limited*1 in the Chemicals Business, is a 100% bio-based ECH that uses renewable glycerin derived from palm oil, a by-product from the production of bio diesel and oleochemicals. In addition to curbing the extraction of new resources and reducing environmental impact, sustainability is considered throughout the production, such as reusing 100% of

the wastewater generated during manufacturing. Compared to conventional petroleum-derived ECH, it has up to 67% less GWP. It not only contributes to the effective use of resources, but also addresses climate change issues. The product is certified by credible sustainability standards: the RSB certification*2 to demonstrate its sustainable operation and reduction on negative impact to environment; and the RSPO certification*3 to support the use of sustainable palm oil and derivatives along the supply chains.

*1 In July 2023, Advanced Biochemical (Thailand), which runs the EPINITY® business, was transferred to its parent company AGC Vinythai Public Company Limited.

*2 RSB: Roundtable on Sustainable Biomaterials

*3 RSPO: Roundtable on Sustainable Palm Oil



Unified Brand for Silica Products: RESIFA™

▶ Products That Contribute to the Reduction of Marine Microplastics

Silica, a material that exists in various forms in nature, is expected to become an alternative to microplastics, which have had a concerning impact on ecosystems due to outflow into oceans. AGC SI-Tech Co., Ltd., a wholly owned subsidiary of AGC, offers silica products suitable for a variety of applications, including cosmetics, industry, and medicine, under the unified brand RESIFA™. In the medical field, it is used in some purification applications for novel coronavirus vaccines, thereby contributing not only to the environment, but also to solving various social issues.

RESIFA™		
SUNSPHERE®	M.S.GEL®	SUNLOVELY®
<ul style="list-style-type: none"> 化粧品、製剤用フラスコ 包装、フィルム用フラスコ 機能性材料用樹脂 無塵用樹脂 	<ul style="list-style-type: none"> HPLCカラム充填剤 医薬品、実用物の精製 機能性材料用樹脂 	<ul style="list-style-type: none"> コーティング用バインダー 液体用フラスコ 機能性材料用樹脂

DA CAPO

▶ Products That Contribute to the Effective Use of Social Resources

A skin care cosmetic for sensitive skin produced by Hokkaido Soda Co., Ltd., DA CAPO includes chitosan extract, a moisturizing ingredient that the company manufactures by recycling the shells of crabs caught in the seas around Hokkaido.

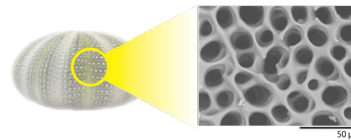
CONCEPT | DA CAPO | Tomakomai-City



Uniporous

▶ A Biological Filter Material Effectively Utilizing Discarded Sea Urchin Shells (Hokkaido Soda Co., Ltd.)

Hokkaido Soda Co., Ltd., in collaboration with the Fisheries Research Department, Hokkaido Research Organization, has developed and is selling a biological filter material called Uniporous that effectively utilizes sea urchin shells. The annual catch of sea urchin in Hokkaido is about 4,300 tons, but only about 15% of that is edible flesh, and it takes much time and effort to process the sea urchin shells, which account for most of the waste.



Porous sea urchin shell, which is effective as a biological filter material

Based on the management policy of the AGC Group, Hokkaido Soda aims to solve this social issue through science and technology cultivated over many years. With cooperation from the Fisheries Research Department of the Hokkaido Research Organization, Hokkaido Soda has commercialized a biological filter material that takes advantage of the lightweight, porous structure of the sea urchin shell, creating a highly adherent surface for bacteria.

This product has been recognized for its high recyclability and was selected as a Hokkaido Certified Recycled Product in November 2019.

LUMIFLON™—Fluoropolymer Resin for Coatings

▶ Products That Contribute to the Effective Use of Resources by Extending Life Cycles

Our paints have been used in various architectural structures, such as Tokyo Skytree, Akashi Kaikyo Bridge, and Marina Bay Sands in Singapore. These paints offer high weather resistance and corrosion protection, eliminating the need for repainting for several decades. Compared to other paint products, they consume fewer resources due to less frequent repainting, and they also reduce opportunities for the emission of volatile harmful substances associated with painting. We also offer products with low environmental impact, such as water-based and flake-type paints.



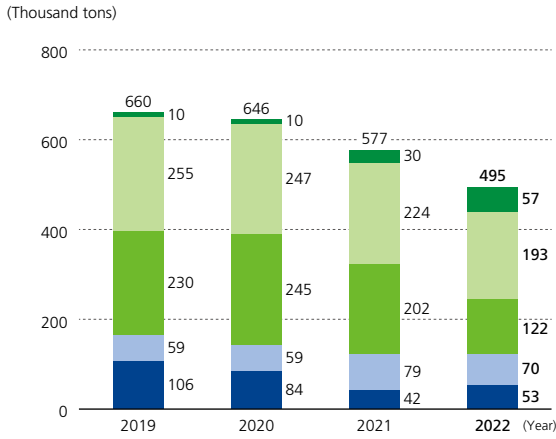
Pearl River Tower (China)

Akashi Kaikyo Bridge

Ferrari World Abu Dhabi (United Arab Emirates)

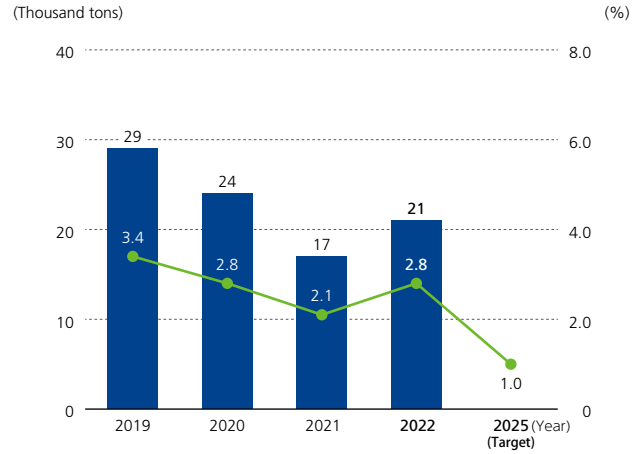
Related Data

● Total Volume of Waste Generated by Region



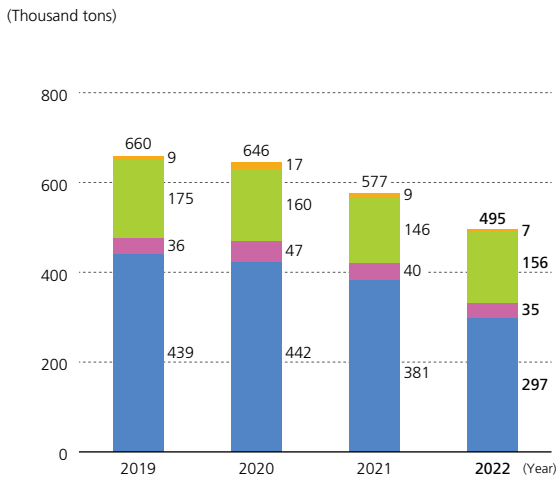
■ AGC ■ Group companies in Japan ■ Group companies in Asia
 ■ Group companies in Europe ■ Group companies in the Americas
 Note: Until 2021, valuable materials were included in the results figures of certain regions.
 From fiscal 2022 onward, only the volumes of generated waste are presented.

● Landfill Volume and Landfill Percentage (Global / AGC Group total)



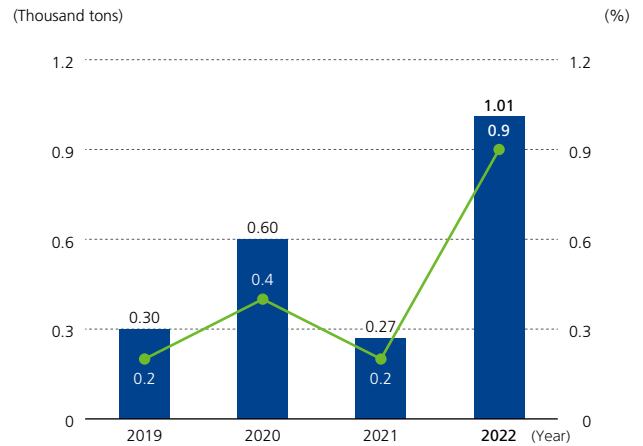
■ Landfill volume ● Landfill percentage (right)

● Total Volume of Waste Generated by Business



■ Glass ■ Electronics ■ Chemicals ■ Other
 *1 Until 2020, valuable materials were included in the results figures of certain regions.
 From fiscal 2021 onward, only the volumes of generated waste materials are presented
 *2 Data shown by segment for 2022

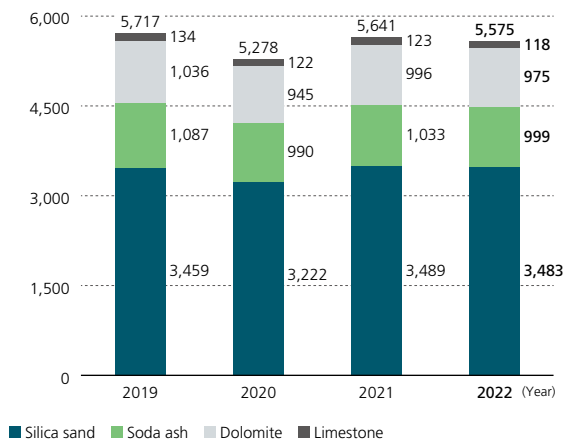
● Landfill Volume and Landfill Percentage (Japan / AGC Inc. parent basis)



■ Landfill volume ● Landfill percentage (right)

Resource Input for Main Raw Materials for Glass

(Thousand tons)

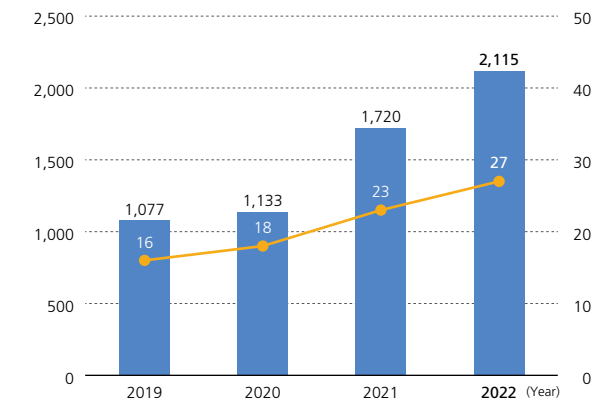


■ Silica sand ■ Soda ash ■ Dolomite ■ Limestone

Volume and Ratio of Recycled Materials Used as Glass Inputs

(Thousand tons)

(%)



■ Recycled volume — Recycled percentage (right)

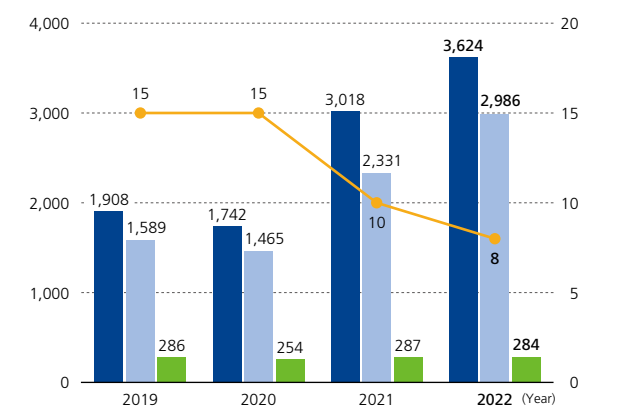
Note: Recycled volume ÷ (Recycled volume + Mineral-derived resources (new input))

Recycled resources: Recycled cullet (pre-consumer recycled materials), recycled cullet (pre-consumer recycled materials), and recovered salt cake

Plastic Waste Generation Volume and the Landfill (AGC Inc. and Its Domestic Affiliated Companies)

(t)

(%)

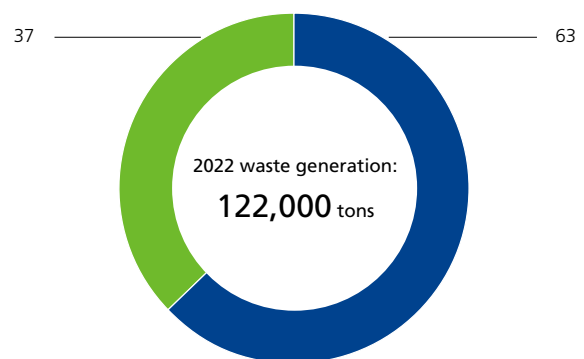


■ Plastic Waste generation volume ■ Plastic waste recycled volume
■ Plastic waste landfill disposal volume — Plastic waste landfill disposal percentage (right)

Note: Plastic waste does not include plastic waste that is converted into valuable materials. Volume of waste plastic recycling includes heat utilization (thermal recycling)

Hazardous Waste Generation (Chemicals Company Only)

(%)



■ Hazardous waste ■ Non-hazardous waste

Plastic Emission Volume and Treatment Methods

AGC Inc. and AGC Glass Products Co., Ltd. are large emitters of plastic as defined by the Law for Recycling Plastic Materials

Plastics Emissions Volume (2022)

	AGC Inc.		AGC Glass Products Co., Ltd.		
	Weight (tons)	Ratio (%)	Weight (tons)	Ratio (%)	
Total emissions of plastics	3,978	100	597.7	100	
Breakdown	Sold as valuable material	2,514	63.2	0.7	0.1
	Emitted as industrial waste	1,464	36.8	597	99.9

Waste Plastic Processing Methods (2022)

Method of treating waste plastics	AGC Inc.	AGC Glass Products Co., Ltd.
	Ratio (%)	
Recycling*1	21.1	9.0
Use as heat (thermal recycling)*2	43.2	78.0
Simple incineration	8.6	5.2
Unknown incineration*3	20.3	0
Landfill	6.8	7.9

*1 Chemical or material recycling

*2 Disposal as RPF (waste solid fuel) or fuel to make cement, disposal through incineration to generate electricity or heat

*3 Use as heat or simple incineration

Conservation of Natural Capital and Biodiversity

Fundamental Approach

Our lives and businesses greatly depend on natural capital, including biodiversity, and maintaining the health of natural capital is essential to the ongoing business activities of the AGC Group. Moreover, the AGC Group has an impact on natural capital through its business activities, and it manages these factors in all phases of the value chain in an effort to minimize environmental load. We aim not only to reduce our negative impacts but also to create positive impacts and contribute to the conservation of natural capital.

Initiatives for Biodiversity Conservation

The AGC Group Environment Policy states “We commit to achieve sustainability in society and our company by contributing to decarbonization, a circular economy, and harmony with nature in all phases of our value chain.”

Biodiversity of flora and fauna is a vital and indispensable component of the natural capital that the AGC Group aims to conserve and positively impact. Therefore, with an eye on the realization of harmony with nature, we have set goals to carry out in biodiversity conservation activities at all our sites by 2025, and we are working to develop and implement specific action plans at each site.

In addition, as a member of the Keidanren Committee on Nature Conservation, AGC endorses the Declaration of Biodiversity by Keidanren and is actively engaged in conserving natural capital and biodiversity. Furthermore, as a member company of the Japan Business Initiative for Biodiversity (JBIB), AGC shares issues with other companies and organizations, and by deepening our understanding of biodiversity conservation, we are able to carry out more effective

initiatives. We also endorse the 30 by 30 Alliance, which is administered by the Ministry of the Environment of Japan. This alliance aims to effectively conserve more than 30% of land and sea as healthy ecosystems by 2030. We are keen to conserve biodiversity on land owned or managed by the AGC Group, and we aim to obtain certification as OECM,* a certification given by the Ministry of the Environment.

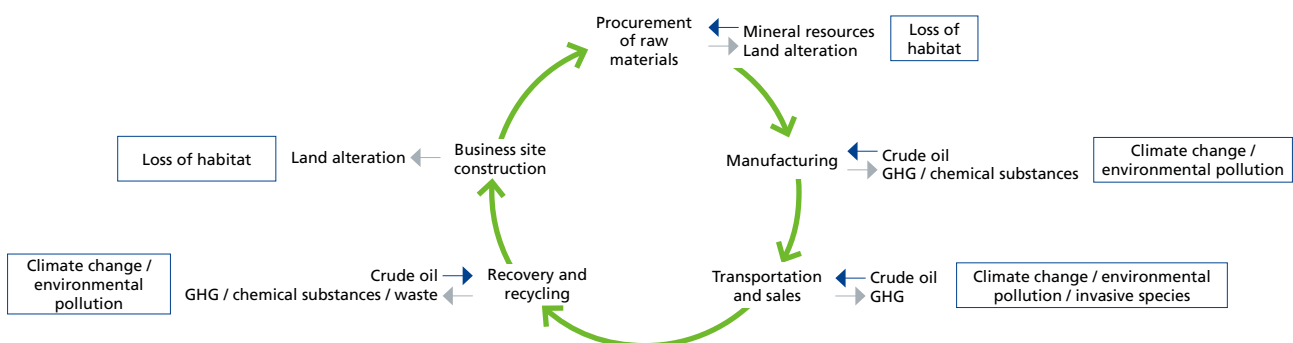
* Other Effective area-based Conservation Measures

Affiliation with the Roundtable on Sustainable Palm Oil

With the large-scale development of oil palm plantations around the world, environmental problems such as the deforestation of tropical rainforests and CO₂ emissions from peat areas, as well as forced labor and child labor of plantation workers have become issues. In 2020, the Chemicals Company joined the RSPO, a non-profit organization that promotes sustainable palm oil production and use. To support the use of sustainable palm oil in value chains, our subsidiary, AGC Vinythai Public Company Limited*, which produces bio-based ECH has been certified by RSPO Supply Chain Certification Standard (RSPO SCCS) under mass balance model. This model allows for mixing of RSPO and non-RSPO certified palm-based products at any stage in the supply chain. Thus, we can offer RSPO certified bio-based ECH, which is derived from sustainable palm-based glycerine and delivered to downstream users under a credible and transparent tracking system.

* In July 2023, Advanced Biochemical (Thailand), which runs the EPINITY business, was transferred to its parent company AGC Vinythai Public Company Limited.

Relationship between the Value Chain and Impacts on Nature



■ Conversion of Cullet into Artificial Silica Sand

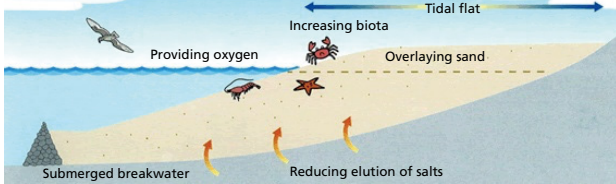
During manufacturing processes, the glass business generates glass waste called cullet. Cullet is mainly recycled as a raw material for asphalt. However, by converting cullet into artificial silica sand, the AGC Takasago Factory is helping regenerate tidal flats through the creation of artificial tidal flats.



Cullet

Pulverized cullet

With the decrease in the number of tidal flats and a renewed appreciation of their value, many regions have begun attempts to regenerate their tidal flats in recent years. One method of regeneration is the creation of artificial tidal flats, which are designed to cover the seabed with clean sand to reduce the elution of nutrient salts from the seabed, supply oxygen that purifies water, and restore biodiversity.



Source: The Fisheries Agency website (Japanese only)

To use cullet as silica sand for tidal flats, the removal of sharp edges so that people and animals can step on it without being injured and conformity with standards on water-bottom sediment are necessary. Therefore, the cullet that the Takasago Factory generates is only used in artificial tidal flats after being made edgeless through the use of a milling machine and passing elution tests.

■ Engagement with Ecologically Protected Areas

As nature conservation areas are at the core of ecosystem protection, the AGC Group thinks that we must protect these areas and pass on their value to future generations. Accordingly, the AGC Group regularly confirms and categorizes the status of protected areas within a 10-kilometer radius of 270 manufacturing and non-manufacturing bases in Japan and overseas. In these activities, the AGC Group gathers information on Japan and other countries concerning their Key Biodiversity Areas (KBA), which are included in the World Database on Protected Areas (WDPA), as well as information regarding species on the International Union for Conservation of Nature (IUCN) Red List by using open data in Japan and the Integrated Biodiversity Assessment Tool (IBAT). Going forward, the AGC Group will not only identify protected areas and species but also evaluate whether our business activities affect them.

● Number of Protected Areas and IUCN Red List Species within 10 Kilometers and within 50 Kilometers of AGC Group Bases

	Within 10 km			Within 50 km
	Protected areas	WDPA	KBA	IUCN Red List species, etc.
Asia	127	124	77	134
Europe	102	100	60	104
Americas	15	15	8	14

● Number of Species on the IUCN Red List and Domestic Conservation Lists in Areas within 50 km of AGC Group Bases

Critically endangered	265 species
Endangered	650 species
Vulnerable	1,050 species
Near threatened	1,006 species

■ Initiatives to Conserve Biodiversity

Conservation of Wild Orchids

Golden, silver, and sword-leaved helleborine orchids grow naturally on the grounds of the AGC's Yokohama Technical Center. As endangered species, these orchids have been included in the red lists of the Ministry of the Environment, Kanagawa Prefecture, and other prefectures. Although the coastal areas are not the natural habitat of the orchids, we aim to look after them carefully given their status as local assets whose annual flowering attracts visitors and because of the scarcity of green spaces in Yokohama. Accordingly, under the guidance of external experts, our employees weed out invasive species and perform other maintenance tasks in the area to protect these rare orchids.



From foreground, Guinlan, Kugenumaran, Kinran orchids



Conservation activity

Golden orchid: Designated as vulnerable in the Ministry of the Environment's Red List 2020 and Kanagawa Prefecture's Red List 2020

Silver orchid: Designated as critically endangered, vulnerable, and near threatened in the red lists of 39 prefectures

Sword-leaved helleborine orchid: Designated as vulnerable in the Ministry of the Environment's

Red List 2020 and Kanagawa Prefecture's Red List 2020

Initiatives for Species Conservation

AGC Vinythai Public Company, which operates the Chemicals Business in Thailand, has continued to carry out the Coral Reef Cultivation Project since 2003, and so far, it has planted about 90,000 corals around the Gulf of Thailand. This initiative is carried out by AGC Vinythai Public Company in collaboration with the Department of Marine and Coastal Resources of the Ministry of Natural Resources and Environment in Thailand, navy personnel, academic institutions, local governments, and neighboring residents. PVC pipes, one of the company's products, are used as beds for coral seedlings to conserve coral reefs. AGC Vinythai Public Company also supports regional eco-tourism, which contributes to higher incomes for local residents. In recent years, projects were started in the Ko Sichang district in Chonburi Province and the Ko Mak district in Trat Province in 2020.

Since 2016, similar efforts have been made in Indonesia, with PT Asahimas Chemical, which operates a chemical business, working with the Indonesian NPO KEHATI to promote coral reef conservation activities on Sangiang Island.



Coral propagation using PVC pipes

Initiatives to Conserve Mangrove Forests

PT Asahimas Chemical has been supporting a mangrove afforestation project implemented by the NPO KEHATI since 2021. Mangrove forests create rich ecosystems and play various roles, including acting as breakwaters to protect the coast from erosion by high waves. With employees of PT Asahimas Chemical joining hands with local residents, this project aims to plant about 140,000 mangroves by 2026 on roughly 14 hectares of land to rehabilitate mangrove forests in the Panimbang District, Banten Province, Java, and neighboring areas that were washed away by a tsunami in 2018. In addition, we plan to academically verify the carbon dioxide absorption effect of the mangroves, report the results to the Indonesian government, and consider possible avenues for contributing to carbon net-zero.

Environmental Activities in the Philippines

AGC Automotive Philippines Inc., which belongs to the Automotive Company, is advancing environmental activities in collaboration with various business partners. As the Vice President of CSR for TSC (Toyota Suppliers Club: an organization of parts manufacturers cooperating with Toyota Motor Philippines Corporation) in the Philippines, the company plays a central role in the environmental initiatives undertaken by member companies. In 2022, it led initiatives that included cleanup efforts along local rivers and afforestation projects,

while aiming to reduce waste across all member companies and raising awareness about the protection of the natural environment.



Lecture about afforestation held by expert invited from the Department of Agriculture (Bureau of Plant Industry)

Initiatives to Address Water Issues

■ Use of Water as a Shared Resource

The AGC Group draws on approximately 90 million cubic meters of water annually for its business activities. Water is not only a crucial resource for the AGC Group's operations, but it is also a precious resource for companies and citizens in the entire water basin. Therefore, the AGC Group regards the effective use of water and the preservation of water quality as part of its corporate mission. The AGC Group views the consumption of water resources and the pollution of water quality through its supply chain as a result of its production activities as long-term risks. Consequently, we are working to reduce these risks through efficient water use and the reduction of pollutants. In addition to developing technologies for water resource use and purification in its own production activities, the AGC Group is also actively developing products that can reduce water resource consumption and water pollution around the world.

■ Use of Water Resources

Evaluation of Water Resource Usage

The AGC Group recognizes the need for sustainable use of water resources in its business activities, and commits to the appropriate utilization and discharge of these water resources in the future. Given the regional variability of environmental impacts due to water usage and water quality contamination, it is crucial to evaluate water usage at the location of each site.

In 2022, the AGC Group conducted evaluations of water resource usability at each site where its bases are located using three indicators: Baseline Water Stress from the Aqueduct Water Risk Atlas provided by the WRI, as well as the Baseline Water Depletion and Blue Water Scarcity from the Water Risk Filter offered by the World Wildlife Fund (WWF). For each of these indicators, we scored each one on a five-point scale and assigned the highest score from the three evaluations as the final water resource utilization risk for each site. Out of approximately 200 sites, 25 sites received the highest score of 5. Looking ahead, the AGC Group will prioritize sorting out the relationship between water usage and

surrounding water stress at these sites, and proceed to take appropriate measures.

Initiatives and Targets Related to Anticipated Water Shortages

In 2022, AGC Group also evaluated the risk of water shortages. We first gathered current information on drought risk at each site from the WRI's Aqueduct Water Risk Atlas and graded risk from A to E. To predict the future impact of climate change on the outcome of this baseline evaluation, two scenarios were used: the IPCC AR5 Atlas of Global and Regional Climate Projection Supplementary Material's RCP 2.6 and RCP 8.5 scenarios. On this basis, we categorized and identified the rate of change in future annual precipitation by 2055 and 2090, giving four distinct cases in total. This evaluation revealed relatively low risks that could not be completely negated in Japan and the Americas. On the other hand, the evaluation identified relatively high risks associated with climate change, mainly in Europe and the Middle East.

Given the possibility of higher water resource prices due to water shortages, the introduction of water resource taxes and the implementation of water extraction regulations that could result in operational stoppages, the AGC Group is implementing region-specific measures, such as the installation of water storage tanks at sites where water shortage risks have been identified. We aim to attain a 100% implementation rate for these measures at high-risk sites by 2025. For business divisions and sites where the risk of water shortages cannot be negated, we have set targets for reducing water usage and decide measures based on the results of regular monitoring. Furthermore, to reduce water extraction, we are reusing water used for cooling chemical facilities in a cascading manner while managing water quality.

Initiatives and Targets Related to Effective Use of Water Resources

The AGC Group is taking steps to reduce water usage as a response to water risks and to minimize environmental impact. The Group has set goals based on the business and location characteristics of each business unit and site. In the Architectural Glass Europe Company, for example, we aim to reduce water intake per square meter of glass production by 15% by 2030 compared to the 2020 level. In the Automotive Company, for each region, we set water intake targets per square meter of glass production by 2030, compared to the 2019 level, and we have been making progress toward each target.

Additionally, the Production Technology Division, which is responsible for equipment maintenance and utility management at Group plants across business units, supports the reduction of water usage by improving equipment efficiency. For example, AGC Display Glass (Shenzhen) Inc. in the Electronics Company is now able to reuse wastewater after introducing ultrafiltration membrane and reverse osmosis

membrane filtering equipment thanks to support from the Production Technology Division. This led to a 66% reduction in the amount of wastewater and industrial water intake compared to before the facility enhancement.

■ Initiatives to Reduce Water Use

Initiatives to Improve Ratio of Recycled Water Use

AGC Automotive Mexico S.de R.L. de C.V, which produces and sells automotive glass in Mexico, set its sights on water RO (reverse osmosis) systems as a part of an environmental performance improvement project. Expanding the capacity of this system led to a 25% reduction in water consumption for this system.

Participation in Local Government Project to Use Recycled Water

At AGC Advanced Electronics Display Glass (Shenzhen) Inc., which produces LCD display glass in Shenzhen City, China, we participate in a project to use reclaimed water in Guangming District, Shenzhen City where the company is located, and together with neighboring companies, we helped reduce water volume by 3 million cubic meters annually in the region. Through this initiative, reclaimed water is being used to wash roads and water plants in the Guangming District.

Products Contributing to Effective Use of Water

One example of our contributions to the resolution of water-related issues is the manufacture and sale of sodium hypochlorite. As well as helping provide safe and secure drinking water to people all over the world, sodium hypochlorite enables appropriate sewage treatment, thereby contributing to the environmental conservation of rivers and other waterways into which wastewater is discharged. In addition, through the production of ion-exchange membranes and the sale and licensing of technology in processes that utilize them, we facilitate the creation of drinking water from water containing salt and the reuse of wastewater by purifying it through small-scale installations in developing countries.

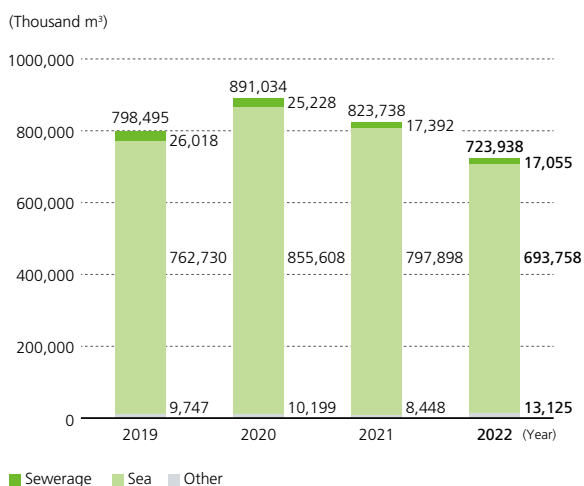
Related Data

Water Stress Evaluation: Survey Results (by level, number of sites, water intake amount)

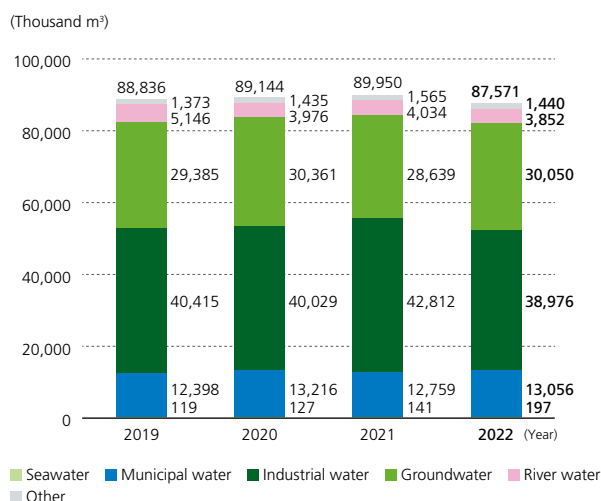
Water stress level	No. of bases	Water intake in 2022 (Thousand m ³)
5...High	25	2,184
4...Medium to high	29	10,923
3...Medium	63	51,488
2...Medium to low	52	20,200
1...Low	20	1,086

* The evaluation was conducted in 2021. There were 189 manufacturing sites at that time. All 189 manufacturing sites were subject to the evaluation.

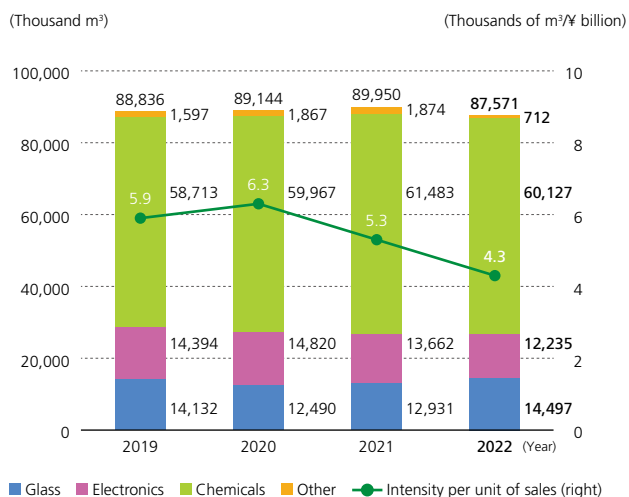
Total Water Emissions by Destination (AGC Group)



Water Intake by Source (excluding seawater for cooling on-site power generation facilities utilized by the Chemicals Company)

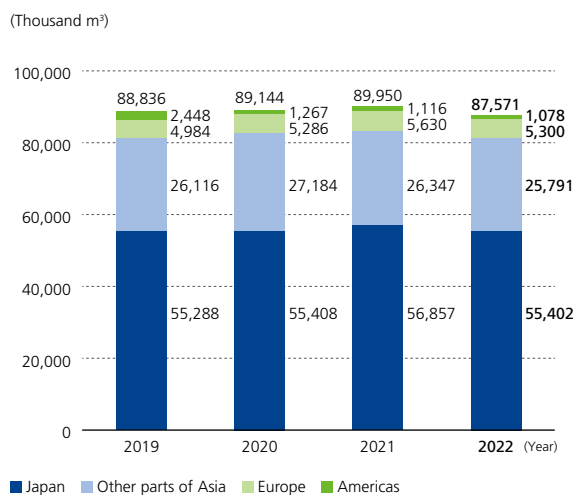


Water Intake and Intensity per Unit of Sales by Business Segment (excluding seawater for cooling on-site power generation facilities utilized by the Chemicals Company)

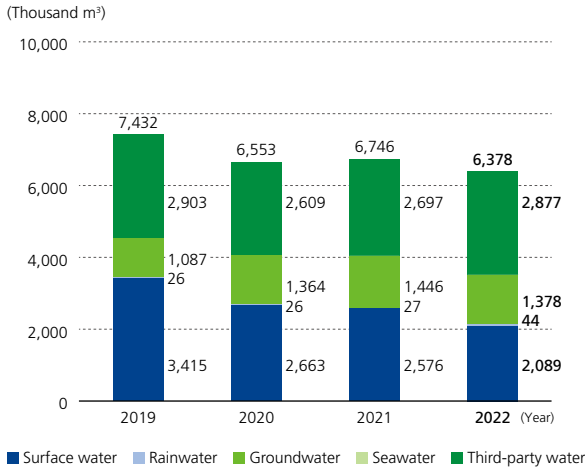


Note: Data shown by segment for 2022

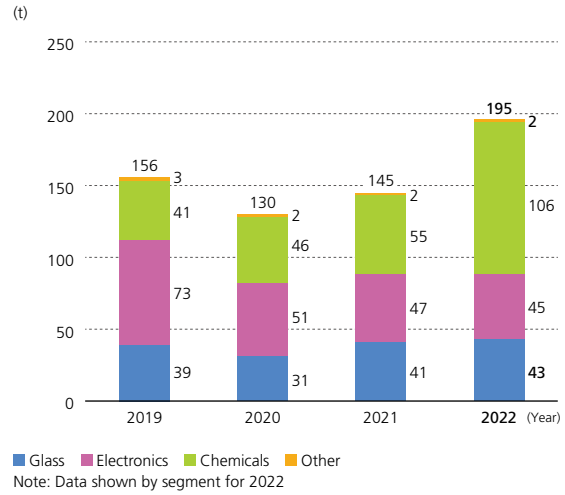
Water Intake by Region (excluding seawater for cooling on-site power generation facilities utilized by the Chemicals Company)



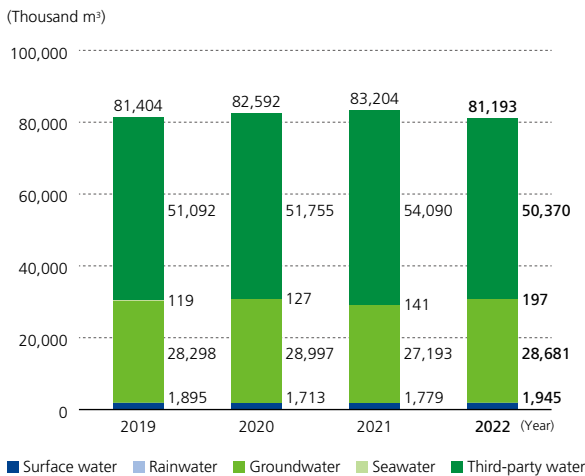
Water Intake by Source (Europe and the Americas) (excluding seawater for cooling on-site power generation facilities utilized by the Chemicals Company)



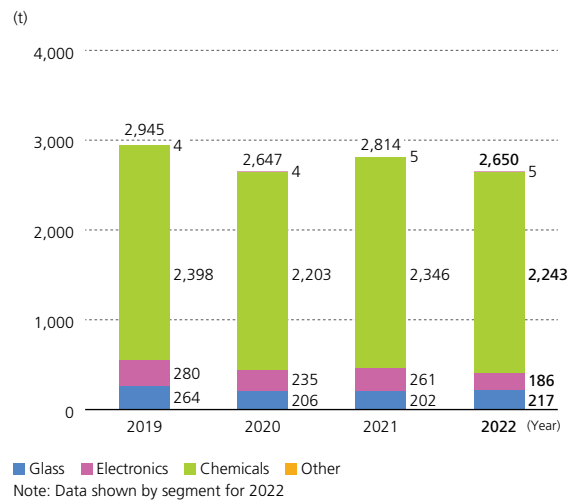
Emissions of Water Pollutants (Biochemical Oxygen Demand) by Business Segment



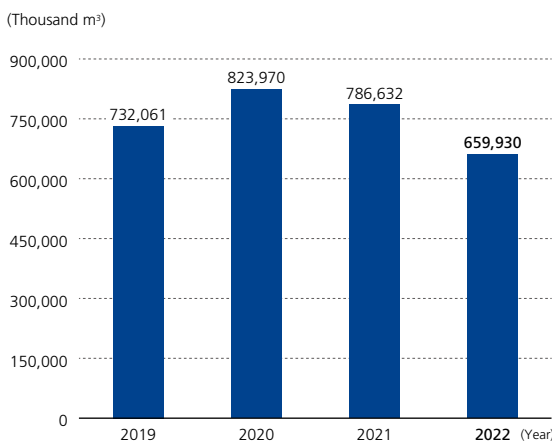
Water Intake by Region (Japan and Other Parts of Asia) (excluding seawater for cooling on-site power generation facilities utilized by the Chemicals Company)



Emissions of Water Pollutants (Chemical Oxygen Demand) by Business Segment



Use of Seawater for Cooling On-Site Power Generation Facilities Utilized by the Chemicals Company



Information Disclosure through the CDP

The AGC Group has been completing the CDP's climate change questionnaire since 2010. The Group's responses to the 2022 questionnaire can be viewed here.

[CDP Water Security 2022](#)



Initiatives for the Management of Air Pollutants

Given the emissions of such air pollutants as sulfur oxides, nitrogen oxides, soot, and dust generated when fossil fuels are combusted during the glass manufacturing process, the AGC Group is reducing its air pollutant emissions by enforcing at manufacturing sites voluntary standards that are stricter than statutory standards. We are implementing a wide range of initiatives to reduce air pollutants.

These include switching to manufacturing methods that minimize the release and transfer of hazardous chemical substances, reducing the use of hazardous chemical substances by changing product designs and specifications, introducing recovery and treatment equipment that lowers chemical substance emissions into the atmosphere and water, and changing over to alternative chemical substances. In Japan, we are also voluntarily monitoring the handling, release, and transfer of hazardous chemical substances that are not covered by the stipulations of the Pollutant Release and Transfer Register (PRTR) Law.

Initiatives to Reduce Air Pollutants

AGC Automotive (Suzhou) Inc. has been vigorously implementing measures to reduce air pollutants since 2019. By switching from heavy oil to natural gas as fuel for its glass furnace, the company has significantly reduced its SOx emissions. In addition, it has introduced desulfurization and denitrification facilities, and continues to make improvements and renovations. As a result, SOx and NOx emissions in 2022 were 80% lower than the 2018 level before this initiative was undertaken, and emissions have consistently stayed well below the city's regulatory values. In recognition of its excellent initiatives to reduce air pollutants in recent years, AGC Automotive (Suzhou) Inc. has been singled out as a model company for environmental protection by the local environmental bureau in Suzhou City.

Products That Help Prevent Air Pollution

ACLESYA®, a Highly Reactive Neutralizing Agent for Exhaust Gas Treatment

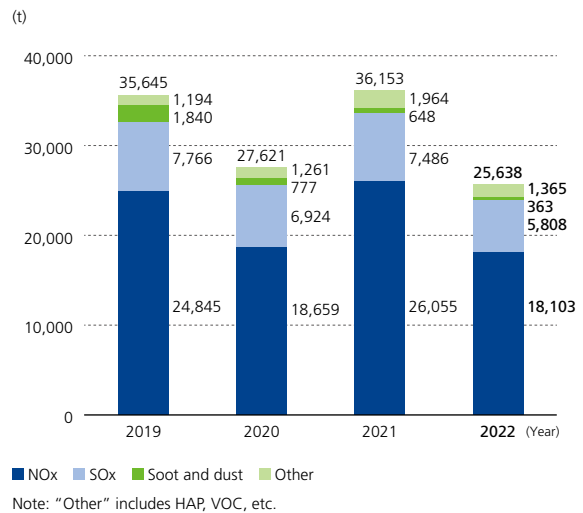
ACLESYA® neutralizes hydrogen chloride and sulfur oxide in the exhaust gases of waste incinerators, thereby significantly eliminating a cause of air pollution. The product also helps curb fly ash and reduces the environmental impact of final disposal.

 [ACLESYA® | Products and Service Information | AGC Chemicals Company \(agc-chemicals.com\)](https://www.agc-chemicals.com)

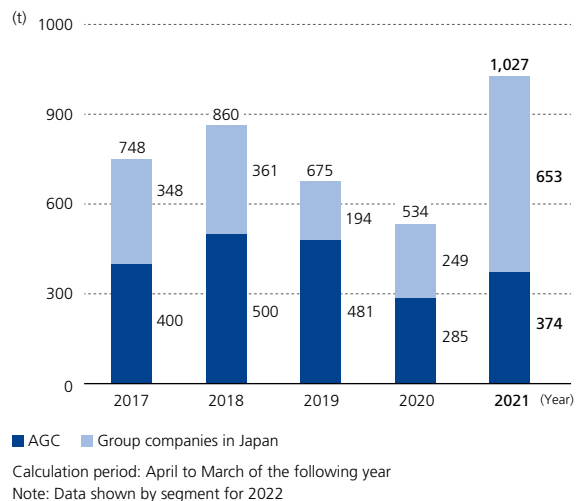


Related Data

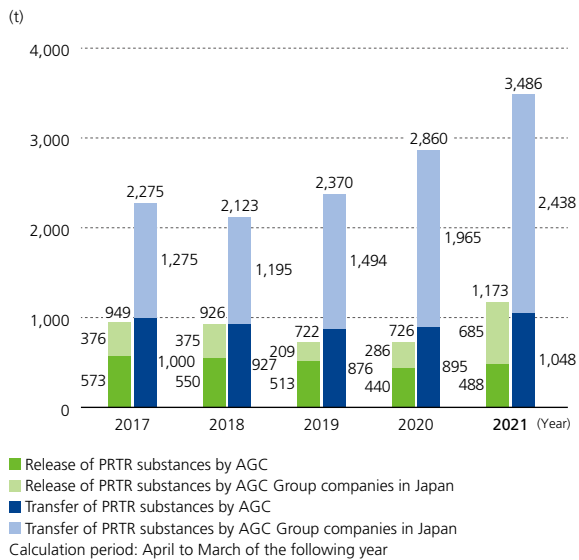
Air Pollutant Emissions of the AGC Group



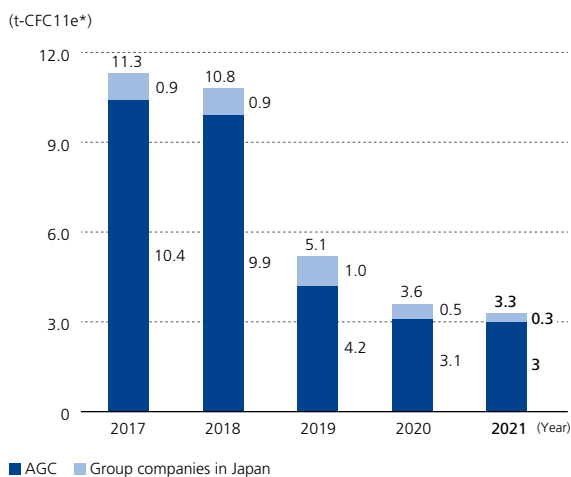
Volatile Organic Compound Emissions of the AGC Group (Japan)



Release and Transfer of Substances Subject to Notification under the PRTR Law



Atmospheric Release of Ozone-Depleting Substances Subject to Notification under the PRTR Law



* t-CFC11e = Ozone-depleting substances (t) × Ozone depletion potential
 Ozone depletion potential is a coefficient that expresses the destructive effect of the unit weight of substances released into the atmosphere, with chlorofluorocarbon-11 assigned a relative value of 1.
 Calculation period: April to March of the following year

Initiatives for the Prevention of Soil and Groundwater Contamination

To prevent soil and groundwater contamination, the AGC Group Guidelines regarding Measures for Soil and Groundwater Control set out standards for the storage and handling of hazardous substances, the management of storage tanks, and the management of wastewater and rainwater. Further, the guidelines stipulate methods of disclosing information on countermeasures if soil or groundwater contamination is discovered. We appropriately submit progress reports to administrative agencies and disclose information on the Group website with respect to measures for preventing the spread of and purifying known soil or groundwater contamination.

When acquiring, selling, or leasing land, we conduct environmental due diligence to evaluate in advance whether the real estate in question has any environmental defects. If soil or groundwater contamination is discovered, we minimize risks associated with laws and regulations and then acquire, sell, or lease the land.

Initiatives at the Chiba Plant

In 2001, the volatile organic compounds 1,2-dichloroethane, tetrachloroethylene, trichloroethylene, dichloromethane, and carbon tetrachloride were detected in a groundwater survey conducted at the Chiba Plant. AGC is taking measures to prevent the external spread of these substances by pumping up groundwater, purifying soil through soil vapor extraction, and establishing water insulation walls.

In addition, pursuant to the Water Pollution Prevention Act, we are taking measures to prevent underground seepage from the surface of the ground on which manufacturing equipment is installed.

Initiatives at the Kashima Plant

Dichloromethane and carbon tetrachloride were detected in a groundwater survey at the Kashima Plant in 2006. AGC is taking measures to prevent the external spread of these substances by pumping up groundwater, purifying soil through soil vapor extraction, and establishing water insulation walls. Also, as fluorine and arsenic surface soil contamination was discovered, soil was replaced and the surface re-covered.

Initiatives for the Management of Chemical Substances

As well as a range of different types of glass for use in architecture, automobiles, and displays, the AGC Group sells electronic device components, chemicals, and ceramics. Moreover, our products have a wide range of applications. They are not only indispensable to various industries but also used to improve the convenience of day-to-day life. Meanwhile, as we use chemical substances in manufacturing processes, we have established risk management that reflects environmental impacts through entire value chains. Also, we endeavor to provide safe, reliable products.

■ Addressing Regulations in Each Country and Region

The AGC Group shares information and develops human resources within the Group to comply not only with Japanese environmental regulations but also with the environmental regulations of various countries and regions. Specifically, we are disseminating information about world-wide environmental regulatory trends within the Group and sharing changes and developments in regulatory trends during regular information sharing sessions. In addition, as part of our awareness-raising activities, we conduct internal training from a broad perspective for all stakeholders involved in the management of chemical substances contained in our products, including trends in environmental regulations in each country and region, and approaches to managing chemical substances. Similarly, for those who are directly involved in the management of chemical substances on a daily basis, we conduct internal training to comply with the PRTR system, which stipulates the registration of releases and movements of harmful substances.

■ Management of Chemical Substances in Value Chains

In accordance with AGC Group Chemicals in Products (CiP) Management Standards, we minimize risks associated with the inclusion and use of hazardous and dangerous chemical substances in processes. These efforts extend from R&D on products and manufacturing methods through to product disposal.

• Development

At the development stage, we reduce hazardous chemical substances used in both manufacturing processes and products.

• Procurement

As for procurement, we have established and follow the AGC Group Integrated Green Procurement Guidelines, which require reporting on the volumes of chemical substances that are subject to management under customers' green purchasing guidelines as well as the provision of declarations on the non-inclusion of environmentally hazardous substances. Further, we seek reductions in the environmental impact of chemical substances used in the manufacturing processes of business partner companies.

• Manufacturing

When using chemical substances during manufacturing, we not only comply with laws and regulations but also follow voluntary guidelines: the AGC Group Chemical Substance Management Regulation Guidelines. Based on these guidelines, we manage chemical substances used, assign chemical substance managers, and conduct chemical substance risk assessments. Moreover, taking into consideration the risk of environmental pollution or adverse health effects, we manage all chemical substances that we use, including those that are not regulated by law, under an original Chemical Substance Registration System.

In Japan, with the aim of ensuring proper understanding of PRTR Law requirements and calculation methods for reporting values, the AGC Group carries out PRTR training, standardizes data calculation methods in line with manufacturing processes, and raises awareness of rule changes while maintaining systems for data collection, calculation, checking, and notification. In addition, we engage in a broad range of reduction measures, including switching to manufacturing methods that do not use substances subject to the PRTR Law.

Further, a wide variety of chemical substances are used in the buildings and equipment required for our business activities. The Group thus complies with the laws and regulations of each country in respect to these chemical substances and also voluntarily manages them.

The Chemical Company's rigorous compliance with laws and regulations coupled with efforts to reduce its environmental burden led to participation in the perfluorooctanoic acid (PFOA) stewardship program of the U.S. Environmental Protection Agency, which resulted in the discontinuation of the manufacture and use of PFOA by the Group at the end of 2015. We have also been actively engaged in the voluntary management of fluorochemical substances. For example, the Group achieved the 2020 GHG emissions reduction targets set out in a voluntary action plan prepared collaboratively by the Ministry of Economy, Trade and Industry, the Japan Fluorocarbon Manufacturers Association, and the Japan Chemical Industry Association. In addition, ahead of industry peers we have developed and introduced alternative products and technologies that have excellent safety and sustainability performance. For example, we have recently developed the AMOLEA® series, which provides alternatives to hydrofluorocarbon refrigerants and solvents and has low GWP. Also, we have developed an ion exchange membrane for use in the electrolysis of water that produces hydrogen, which promises to be a next-generation energy source.

Recent years have seen the strengthening of regulations related to fluorochemical substances and growing interest in environmental protection worldwide. By continuing to appropriately manage chemical substances, we will reduce our environmental impact and make effective use of resources. At the same time, we will contribute to the development of a sustainable society by making maximum use of the character-

istics of fluorochemical substances.

AGC issues Safety Data Sheets (SDS) for each product in Japanese, English, Chinese, Korean, and Malaysian. Information about the correct way to use and dispose of our products, as well as their impact on the environment and health, is provided to customers in each country where our products are actually used. Moreover, we provide information about harmful chemical substances contained in our products in accordance with laws, regulations, and the needs of our customers.

• Transportation

At the transportation stage, Yellow Cards are used at AGC Group sites within Japan to share information about emergency procedures that should be taken when transporting our products in accordance with the characteristics of chemical substances and products loaded on trucks and other means of transportation. In addition, industrial waste, including harmful substances, emitted during the manufacturing process is noted on Waste Data Sheets (WDS), which contain information about the properties of the industrial waste and are provided to transportation companies and waste management companies.

• Usage and disposal

At the usage and disposal stages, through answers to customer's environmental surveys, the AGC Group shares information about its initiatives to manage substances that impact the environment, reduce regulated chemical substances, reduce packaging materials and waste, cut CO₂ emissions in the manufacturing process and logistics, and reduce the amount of water resources consumed.

■ Initiatives to Reduce Hazardous Chemical Substances

The AGC Group completed the removal of friable asbestos from its Japanese business sites in 2008. The Group also disposes of non-friable asbestos in an appropriate manner.

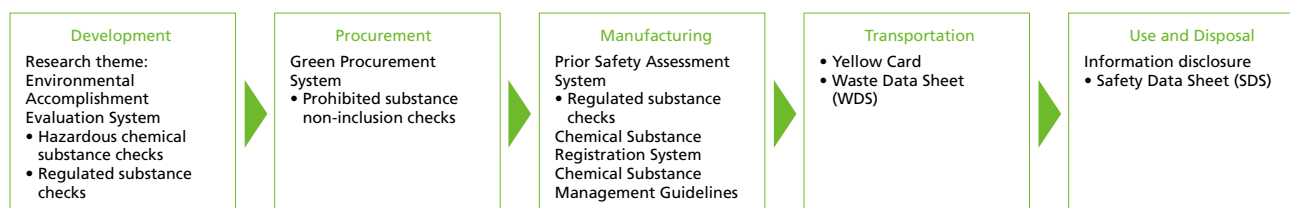
In response to the Minamata Convention on Mercury, the AGC Group has conducted a survey on the inclusion and use of mercury not only in manufacturing processes but across entire supply chains. The results showed that mercury is still used to some extent in porosimeters and other measuring equipment. However, no operational risks are posed by this equipment as the aforementioned convention permits the use of appropriately managed equipment. Naturally, we utilize permitted mercury-containing equipment in compliance with laws and regulations. Further, although alternative equipment is often unavailable, we replace equipment with substitutes wherever possible.

■ Initiatives in PFAS Management

PFAS (per- and polyfluoroalkyl substances) is a general term for organic fluorine compounds mainly composed of carbon and fluorine.

Currently, there are about 12,000 types of these organic fluorine compounds, and a very small number of them are of concern for accumulation in the environment and the human body. The manufacture and use of this very small number of hazardous compounds have been prohibited by law. AGC voluntarily ceased the production and use of these regulated fluorine compounds before the regulations came into effect. Unregulated organic fluorine compounds have several excellent characteristics and continue to support our livelihoods and industries in various ways. The fluorinated compound products that AGC produces, uses, and ships have been designed to reduce environmental risks, taking into account each use environment and disposal method. AGC will continue to research, develop, manufacture, and sell fluorine compound products as indispensable materials for realizing a sustainable society, while monitoring regulatory trends and environmental loads.

● Initiatives for Managing Chemical Substances in Value Chains



Verification Statement

AGC has acquired third-party certification for data on waste volumes, including valuable materials, in addition to GHG emissions (Scope 1, 2 and 3), water usage and wastewater emissions in 2022.

Independent Assurance Report



Mr. Yoshinori Hirai
Representative Director and President
AGC Inc.

We, SOCOTEC Certification Japan (hereafter "SOCOTEC"), have performed a limited assurance engagement, in response to the entrustment from AGC Inc. (hereafter "the Company") in order to provide an opinion as to whether the subject matter information (reported to the Company's SoFi database system (hereafter "the System") Greenhouse gas emissions information for fiscal year 2022 (Jan. 1, 2022 to Dec. 31, 2022)) of the Company meets the criteria in all material respects.

1 Subject Matter Information and Criteria

The subject matter information for our assurance is "a report on GHG Emissions and Environmental Performance Data (shown in APPENDIX)" covering Scope 1 and Scope 2 Greenhouse gas emissions (Location-based and Market-based) from 307 domestic and overseas sites as of Dec. 31, 2022, Scope 3 Greenhouse gas emissions as defined by the Company, Water usage (purchase and water intake volume) and discharge in 202 domestic and overseas sites as of Dec. 31, 2022 and Wastes including "sellable waste" (generation of waste and sellable waste) generated at 136 domestic and overseas sites as of Dec. 31, 2022.

The criteria for preparing subject matter information are "AGC Group Guidelines for Calculating Greenhouse Gas Emissions" and "AGC Group Environmental Performance Data Guidance".

2 Management Responsibility

Greenhouse gas emissions information for fiscal year 2022 (Jan. 1, 2022 to Dec. 31, 2022) reported to the System was prepared by the management of the Company, who is responsible for the integrity of the assertions, statements, and claims made therein (including the assertions over which we have been engaged to provide limited assurance), the collection, quantification and presentation of all data and information in the report, and applied criteria, analysis and publication.

The management of the Company is responsible for maintaining adequate records and internal controls that are designed to support the reporting process and ensure that Greenhouse gas emissions information for fiscal year 2022 (Jan. 1, 2022 to Dec. 31, 2022) reported to the System is free from material misstatement whether intentional or negligent.

3 Assurance Practitioner's Responsibility

The responsibility of SOCOTEC is to express a limited assurance conclusion as to whether the subject matter information has been prepared in compliance with the criteria in all material respects.

SOCOTEC performed limited assurance engagement in accordance with the verification procedures stipulated by SOCOTEC and "ISO14064-3: Specification with guidance for the verification and validation of greenhouse gas statements" and the International Standard on Assurance Engagements (ISAE) 3000 (Revised), "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" of International Auditing and Assurance Standards Board (IAASB).

The procedures implemented in the limited assurance engagement are limited in their type, timing and scope as compared to the procedures implemented in the reasonable assurance engagement. As a result, our limited assurance engagement does not provide as high assurance as reasonable assurance engagement.

Our procedures performed depend on the assurance professional practitioner's judgement, including the risk of material misstatement, whether due to fraud or error. Our conclusion was not designed to provide assurance on internal controls.

We believe that we have obtained the evidence to provide a basis for the conclusion for limited assurance.





SOCOTEC

4 Assurance Procedures

The procedures that SOCOTEC has conducted are based on professional judgment and include, but are not limited to:

- Evaluation of policies and procedures created by the Company in relation to subject matter information
- Questions to the Company personnel to understand the above policies and procedures
- Verification that the target project meets eligibility requirements
- Matching with the basis data by trial calculation and recalculation
- Obtaining and collating material for important assumptions and other data
- We visited the Head Office, Kansai Plant (Amagasaki Factory), Aichi Plant and Ohami-Shirasato Mining Station of the Company as verification sites in order to confirm the calculation structure and procedures, data collection and implementation status of record control.

5 Statement of Our Independence, Quality Control and Competence

SOCOTEC has introduced and maintained a comprehensive management system that conforms to the accreditation requirements of "ISO17021 Conformity assessment -- Requirements for bodies providing audit and certification of management systems". In addition, we have also established a management system according to "ISO14065 Greenhouse gases -- Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition". These meet the requirements of International Standard on Quality Control 1 by the International Auditing and Assurance Standards Board and Code of Ethics for Professional Accountants by International Ethics Standards Board for Accountants. We maintain a comprehensive quality control system that includes ethical rules, professional standards and documented policies and procedures for compliance with applicable laws and regulations.

The SOCOTEC Group is a comprehensive third-party organisation in inspection, testing and certification operations, and conducts management system certification services and training services related to quality, environment, labour and information security in countries around the world. Engaged in performance data and sustainability report assurance of environmental and social information, SOCOTEC affirms that it is independent of the organisation that has ordered the assurance engagement, its affiliated companies, and stakeholders, and that there is no possibility of impairing impartiality or conflict of interest.

We assure that the team engaged in the assurance is selected based on knowledge, experience in the relevant industry, and the competence requirements for this assurance engagement.

6 Use of Report

Our responsibility in performing our limited assurance activities is to the management of the company only in accordance with the terms for this engagement as agreed with the Company. We do not therefore assume any responsibility for any other purpose or to any other person or organisation.

7 Our Conclusion

On the basis of our procedures performed and evidence obtained nothing has come to our attention that causes us to believe that the subject matter information is not, in all material respects, prepared and reported in accordance with the stated criteria.

SOCOTEC Certification Japan

Seigo Futaba
Managing Director
5 July 2023



APPENDIX to Independent Assurance Report



GHG Emissions and Environmental Performance Data

Table 1 GHG emissions (Scope 1, 2, 3)

Scope	Location-based [t-CO2e]	Market-based [t-CO2e]
Scope 1	6,308,306	—
Scope 2	4,830,553	4,705,025
Scope 3	10,508,398	—

Table 2 GHG emissions (Scope 3 breakdown by category)

Category No.	Category	Emissions [t-CO2e]
Category 1	Purchased goods and services	4,003,665
Category 2	Capital goods	778,335
Category 3	Fuel-and-energy-related activities (not included in Scope 1 or 2)	1,333,735
Category 4	Upstream transportation and distribution	953,846
Category 5	Waste generated in operations	49,442
Category 6	Business travel	53,266
Category 7	Employee commuting	30,510
Category 10	Processing of sold products	344,099
Category 11	Use of sold products	1,482,930
Category 12	End of life treatment of sold products	1,259,119
Category 13	Downstream leased assets	161,513
Category 15	Investments	57,938
Total	—	10,508,398



SOCOTEC Certification Japan: This appendix is a valid document as an appendix to the independent assurance report issued to AGC Inc. on 5 July 2023.
APPENDIX 1/2



Table 3 Environmental performance data

Category	Subject	Volumes	Unit
Waste	Amount of generation of waste	518,212	t
	Amount of sellable waste	233,625	t
Water	Amount of water purchased/water intake	747,500,723	m ³
	Amount of discharge	723,938,024	m ³
	Amount of water purchased/water intake (Figures excluding seawater used to cool in-house power generation equipment (Chiba Plant, ASC) used by the Chemicals Company)	87,571,123	m ³
	Amount of discharge (Figures excluding seawater used to cool in-house power generation equipment (Chiba Plant, ASC) used by the Chemicals Company)	58,779,323	m ³



SOCOTEC Certification Japan: This appendix is a valid document as an appendix to the independent assurance report issued to AGC Inc. on 5 July 2023.
APPENDIX 2/2

Respecting Human Rights

Fundamental Approach

In 2011, the United Nations Human Rights Council announced its Guiding Principles on Business and Human Rights. Among the stated principles is "the responsibility of companies to respect human rights." As an initiative in line with this principle, the AGC Group, a company that values human rights, created the definition of "Respect for People" in the AGC Group Charter of Corporate Behavior.

Furthermore, regarding employees' rights, the Group complies with the laws and regulations of each country or region and respects the rights to freedom of association and collective bargaining.

Management Structure

The AGC Group conducts human rights efforts in collaboration with relevant departments. The Human Resources Division conducts education on human rights as well as implementing voluntary inspections in relation to human rights and labor practices. Meanwhile, the Procurement & Logistics Division is responsible for a questionnaire survey on sustainable procurement, which covers the status of and initiatives in relation to human rights and labor practices in supply chains. In addition, the Human Resources Division and the Compliance Division have established internal and external consultation contact channels (harassment consultation desks, helplines, etc.) in a manner that takes into consideration those seeking consultation.

Groupwide Initiatives

■ Responding to Issues Regarding Human Rights and Labor Relations

The Human Resources Division and relevant workplaces cooperate to deal with human rights and labor relations issues. The Group also responds seriously to claims and comments received via the homepage and other channels, from persons inside and outside the Company.

■ Regular Self-Assessments of Human Rights and Labor Practices

The AGC Group conducts a self-assessment of human rights and labor practices every three years at Group companies in and outside of Japan, including inspections of child labor and forced labor, in order to ascertain the status of respecting human rights and the labor practices within the Group. The Group carried out such an assessment at approximately 190 companies in 2022 and responded promptly to cases requiring rectification. The next assessment is scheduled in 2025 after the Group updates its checklist based on social trends and other factors.

■ Support for the UK Modern Slavery Act 2015

AGC Chemicals Europe released the following official statement in accordance with the UK Modern Slavery Act 2015.

 [MODERN SLAVERY & HUMAN TRAFFICKING STATEMENT](#)

► Important Human Rights Issues in the Chemical and Construction Material Industries

Core operation / Supply chain	Workplace conditions	Working hours
		Health and safety
		Disciplinary measures
	Discrimination	During work
Redundancy and dismissal		
Forced or compulsory labor	Deposits and papers	
	Forced overtime	
	Human trafficking	
Freedom of association	Freedom of association and collective bargaining	
	Conflict with local law	
Community	Resources	Use of natural resources
Society and government	Relations with governments	Bribery and corruption
		Relationships with countries that have a low awareness of human rights
	Relations with consumers	Health and safety

AGC Initiatives

■ Measures to Deal with Human Rights Issues and Harassment

AGC conducts harassment prevention and compliance training programs and endeavors to provide employees with a work environment that is free from discrimination and harassment. We implement stratified training and take measures aimed at preventing sexual harassment, power harassment, and various other types of harassment. If harassment occurs, we take corrective measures to prevent recurrence, which include reeducation of the individual at fault. To facilitate early detection of problems, AGC has established internal and external consultation contact channels (harassment consultation desks, helplines, etc.) in a manner that takes into consideration those seeking consultation. Through these contact channels, we expedite the provision of consultations to employees with concerns, address problems, and prevent their occurrence. Moreover, the helpline managed by the Compliance Department is available to not only AGC employees but all Group employees.

■ Freedom of Association and the Right to Collective Bargaining

Within AGC, the employees' union, the AGC Labor Union, works to maintain and strengthen healthy labor-management relations. In labor-management negotiations, both sides take a logical and reasonable attitude to solving problems through discussion. The labor union negotiates with management on working and other conditions for its members. The union managers and top management of AGC have meetings that are focused on management of the entire business at least twice a year.

● Data about the AGC Labor Union

FY	Number of members*	Average age	Length of service
2018	4,154	39.4	15 years and 1 months
2019	4,212	39.4	15 years and 3 months
2020	4,386	39.6	15 years and 2 months
2021	4,526	39.7	15 years and 3 months
2022	4,535	40.0	15 years and 6 months

* AGC adopts a union shop system under its labor agreement.

Human Resource Management

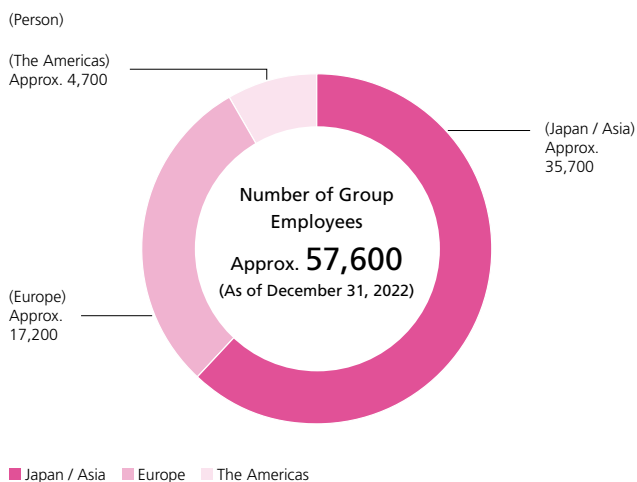
Fundamental Approach

To continuously evolve as a truly global enterprise, the AGC Group has set out the “7 Key Principles for People”, which are aimed at realizing progressive human resource management.

Management Structure

In the AGC Group, the Human Resources Division takes the initiative in conducting human resource management in line with the “7 Key Principles for People”, which define our philosophy toward human resource management. With regard to labor laws and practices in each country or region as well as employees’ understanding of their roles, the Group works in cooperation with HR representatives in each company and region to execute the principles.

Number of Employees by Region (AGC Group)



AGC Group “7 Key Principles for People”

The AGC Group wishes to pursue these principles as the foundation of our “7 Key Principles for People” to maximize our performance as a truly global corporation.

Implementation of “Look Beyond”

AGC Group requires all employees to commit to our Shared Values of “Look Beyond”—Our four Shared Values: Innovation & Operational Excellence, Diversity, Environment, and Integrity.

Diversity for Organizational Competitiveness

AGC Group builds teams of diverse people who support our four Shared Values of “Look Beyond” and have the abilities to contribute to organizational competitiveness.

Development and Growth

AGC Group encourages employees to grow and provides them with opportunities for self-development.

Job Satisfaction and Pride

AGC Group encourages employees to achieve their goals so that they feel a sense of pride and satisfaction in their work.

Work Environment and Conditions

AGC Group provides a safe and healthy work environment.

Open Communication

AGC Group emphasizes open communication in the workplace to create a better organizational climate.

Evaluation, Recognition, and Rewarding Performance

AGC Group evaluates and recognizes employees who contribute to the organization and rewards their contributions.

Groupwide Initiatives

■ Fostering Global Leaders

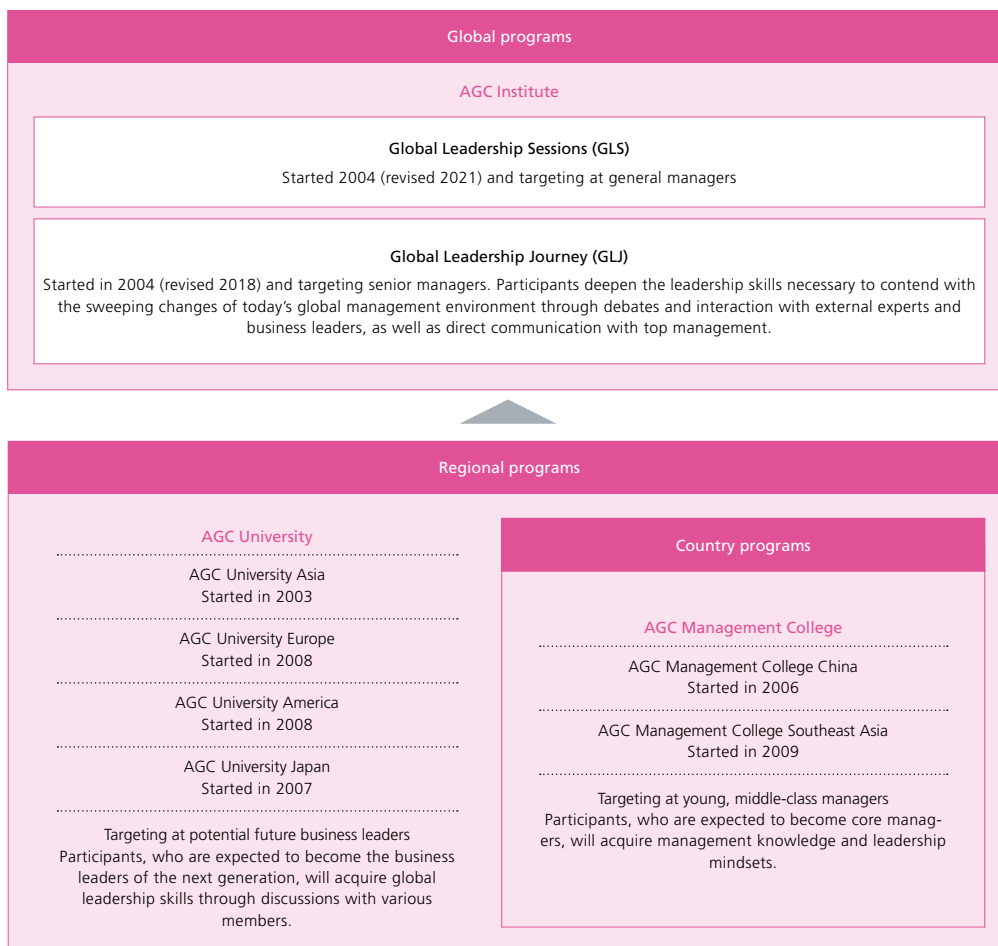
The AGC Group identifies talent from all over the world, regardless of nationality and gender, to promote the fostering of global leaders who can lead the Group forward globally and in a systematic and organized way. The Group trains diverse talent at the global, national, and regional levels.

In an effort to promote the localization of business management for Group companies in each region, the Group encourages assignments and projects outside the home

country as well as Groupwide training courses and on-site training, in accordance with the current status of respective businesses and regions.

In 2022, the Group hosted a global program, including online training, to develop talented management personnel for Group companies and divisions in all countries and regions where they operate, although a portion of the program was canceled due to COVID-19.

● The AGC Group's Leader Training Programs



AGC Initiatives

■ Human Resource Management System

AGC manages employees fairly in consideration of their abilities and performance. The Company aims to provide its diverse range of employees with the systems and environments necessary to help them perform their jobs, without discrimination based on gender, age, or disability.

For that reason, the Company clarifies employees' roles, functions, and responsibilities and utilizes and evaluates capable employees fairly, regardless of age, length of service, or gender.

● Number of Employees at AGC

As of December 31, 2022, excluding those dispatched from other Group companies

Classification		Men	Women	Total	Percentage of women employees
Managers		2,495	205	2,700	8%
Non-managers	Career-track positions	741	189	930	20%
	Shop-floor workers	3,120	150	3,270	5%
	Clerical positions	12	500	512	98%
	Subtotal	3,873	839	4,712	18%
Total		6,368	1,044	7,412	14%

● Employee-Related Data for AGC

As of December 31, 2022

Item	Men	Women	Total
Average age	43.4	42.4	43.3
Average length of service	18.1 years	14.6 years	17.6 years
Average overtime working hours	18.5 hours/month (average for members of the labor union)		
Percentage of paid leave taken	96.0% (average for members of the labor union)		

● Number of Employees Retiring (AGC)

Period: April 2022 to March 2023
Excludes employees retiring upon reaching the mandatory retirement age

	Number of people
Number of employees retiring	189

● Retention Rate of New Career-Track Employees (AGC)

As of April 2023

Year of recruitment	Number of people	Retained employees	Retention rate
2020	117	106	90.6%
2021	114	112	98.2%
2022	122	121	99.2%

● Retention Rate of Career-Track Hires (AGC)

Year	Percentage of mid-career hires among regular employees
2020	45.8%
2021	52.5%
2022	57.9%

Improving Employee Engagement

Fundamental Approach

The AGC Group, under the banner "AGC People: the driver of our growth!", is committed to fostering an organizational culture where diverse individuals can demonstrate their potential and contribute to enhancing the Company's value through high engagement. Engagement is about nurturing an environment where motivated individuals and a company striving for a better organizational culture mutually grow and uplift each other. To this end, employees, managers, and members of the senior management team all consider ways to solve problems and find appropriate measures through dialogue. The Group also strives to make these approaches and activities part of its employees' daily work.

Groupwide Initiatives

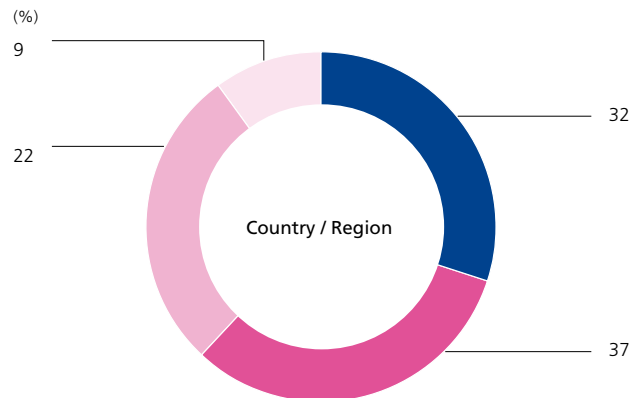
Since 2005, every three years the Group has conducted engagement surveys targeting Group company employees both inside and outside Japan, with the aim of improving overall engagement. Based on the results of these surveys, the Group formulates and executes necessary policies at individual divisions or workplaces and confirms the positive effect of the policies in the following survey.

Most recently, in September 2022 the Group conducted a seventh survey in 24 languages targeting approximately 50,000 individuals. The positive response rate increased compared with the previous survey in 2022, and the effect of measures taken by each division and workplace was evident. Based on the results of the 2022 survey, we have been discussing workplace issues and developing additional measures to resolve them. In the future, we plan to conduct another systemic survey, and we will utilize the results of this survey to inform the next set of engagement enhancement initiatives that we tackle.

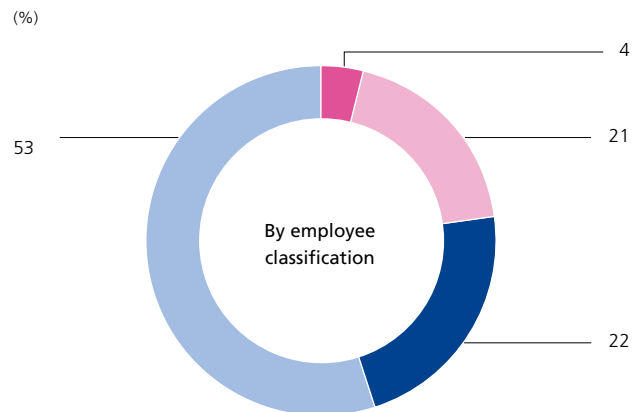
Employee Engagement Survey 2022 Details.

 [AGC Integrated Report 2023 P81 Employee Engagement Survey 2022](#)

Engagement Survey Respondents by Region / Job



■ Japan ■ Asia ■ Europe ■ The Americas



■ Executive ■ Manager / supervisor ■ Professional / administrative ■ Shop floor

Engagement Survey Respondents

	Eligible employees	Respondents	Response rate
First survey (conducted in July 2005)	9,247	8,435	91%
Second survey (conducted in November 2007)	40,100	31,126	78%
Third survey (conducted in November 2010)	39,055	31,729	81%
Fourth survey (conducted in November 2013)	40,321	33,214	82%
Fifth survey (conducted in November 2016)	43,546	36,773	84%
Sixth survey (conducted in September 2019)	47,533	41,897	88%
Seventh survey (conducted in September 2022)	49,468	42,656	86%

Engagement Survey Topics

Employee Engagement	Employee Enablement	Change from Previous Iterations
<ol style="list-style-type: none"> 1. Clear and promising direction 2. Leadership 3. Quality and customer focus 4. Respect and recognition 5. Development opportunities 6. Compensation 	<ol style="list-style-type: none"> 1. Performance management and compensation 2. Authority and empowerment 3. Resources 4. Collaboration 5. Work efficiency 	Understanding and practice of "Look Beyond"

■ Establishment of the AGC Group CEO Award System

The AGC Group has set up the annual AGC Group CEO Award System with the goal of creating a positive corporate culture that encourages respect, commendation of success, and recognition of efforts among its members. Information on the award-winning activities is shared via the intranet website. To maintain a high level of motivation for its employees, the Group is constantly rethinking ways to acknowledge and commend their contributions.

● Commendations Awarded across the AGC Group in Fiscal 2022

Division	Number
Architectural Glass Asia Company	4
Architectural Glass Europe and US Company	5
Automotive	8
Electronics	8
Chemicals	8
AGC Ceramics	2
CTO Office* ¹	5
CFO Office* ² and Internal Auditing	2
Total	42

*1 The Productivity Innovation Division, Business Development Division, Intellectual Property Division, EHSQ General Division, and Technology General Division

*2 The Corporate Planning General Division, Corporate Communications and Investor Relations Division, Legal Division, Human Resources Division, Finance & Control Division, Purchase & Logistics Division, and Information Systems Division

■ Maximizing Employee Potential through Diverse Workstyles

The AGC Group has set out its long-term management strategy, Vision 2030. To put this strategy into practice, since 2016 the Group has been reviewing workstyles that allow all employees to work to their full potential and work environments that allow Group employees to work creatively.

For example, AGC itself is focusing on initiatives for promoting more flexible and diverse workstyles. These include the introduction of a system giving employees time off in the case of their spouse transferring jobs, and another system that provides teleworking options that are not only limited to cases of childcare or nursing care. Other initiatives include the enhancement of the reemployment registration system, which envisions potential life stage changes for once-retired employees, the introduction of a system providing support for employees undergoing medical treatment that encourages striking a balancing between treatment and work, and the implementation of a system offering paid leave in one-hour increments.

The Group will continue to encourage the use and establishment of these systems. By doing so, the AGC Group aims to become a company that puts into practice its human resource management system—"AGC People: the driver of our growth!"—viewing its human resources as the Group's most important asset and drawing out their maximum potential.

To maximize their potential, it is crucial to guarantee the physical and mental well-being of all employees, which directly leads to increased employee activity, satisfaction, and productivity. This is the foundation of "AGC People: the driver of our growth!" To this end, the Group actively supports healthy management initiatives applicable to the AGC Group as a whole.

Global Promotion of Diversity

Fundamental Approach

Diversity is one of the four values in the AGC Group's vision, **"Look Beyond"**, and it simultaneously forms the bedrock of the AGC Group while being the source of our competitive edge. By utilizing a diverse workforce and providing opportunities for their skills to be fully utilized, management aims to foster innovation and create value. The AGC Group values diversity in terms of not only gender, age, race, nationality, disability status, sexual orientation and gender identity, religious beliefs and creeds, and values, but also in terms of career paths, experiences, and work styles. We strive to convert this diversity into strength by emphasizing equity and inclusion while creating systems and environments that facilitate work by our diverse personnel.

■ AGC's Definition of DE & I

[Diversity] Diversity refers to the respect and appreciation of individual differences. It acknowledges diversity in age, gender, ethnicity, religion, disabilities or illnesses, gender identity, sexual orientation, education, and nationality. The emphasis is on empowering individuals by valuing and leveraging these differences.

[Equity] Equity is about providing each member with unique support to help them succeed and grow.

[Inclusion] Inclusion is a proactive initiative to incorporate each member's ideas, knowledge, styles, approaches, and perspectives to maximize the success of the business and the well-being of its members.

Management Structure

In order to create an environment where diverse talent can fully utilize their abilities, the AGC Group established the Diversity Council in 2022, chaired by the CEO. This council meets semi-annually to share information and discuss cross-departmental issues, and advances concrete measures based on four key approaches: fostering a supportive culture, recruitment, human resource development, and creating a conducive work environment.

Groupwide Initiatives

■ Hiring Diverse Personnel

To strengthen its brand as a global employer, the AGC Group has an integrated recruiting website for Japan, Europe, and Thailand, featuring a consistent recruitment brand message for the entire AGC Group.

Moreover, since 2010, when hiring new graduates for career-track positions, AGC has boosted efforts to hire Japanese and non-Japanese students graduating from overseas universities as well as non-Japanese students graduating from Japanese universities.

Also, the Asia-Pacific region is an important location in AGC's business strategy. To accelerate new business and market development, the local holding company AGC Asia Pacific Pte. Ltd. was established in Singapore in 2013 and, regardless of country of origin, the Group is hiring ambitious, highly capable, and talented people from both inside and outside the region.

● Non-Japanese Nationals Hired during New Graduate Recruitment for Career-Track Positions (AGC)

Year	Exchange students in Japan	Graduates of overseas universities
2019	3	2
2020	2	6
2021	4	1
2022	6	1



The recruiting website for Japan

■ Empowering Women

The AGC Group manages its organization without regard to gender, in accordance with Diversity, one of the four Shared Values of the Group Vision **“Look Beyond”**. Guided by the AGC Group Charter of Corporate Behavior and discussions at meetings of the Board of Directors, the Group is proactively encouraging women in the workplace while striving to create work environments that facilitate work and are free of discrimination based on gender or any other grounds.

To create an environment that encourages the active participation of women, AGC has established a registration system for retirees wishing to be rehired. Under this system, we register female retirees who would like to return to work and give those who have registered priority over external applicants when hiring. We have also introduced the women’s mentorship system where senior female employees provide support to junior female employees. Moreover, AGC provides child-raising support for employees with children who have not been placed in childcare centers yet due to waitlists or other reasons, and this support includes the introduction of the Nursery Use Support System for external nurseries registered as AGC corporate bodies. In addition, AGC has put into place a system giving employees time off in situations where their spouse is transferring jobs, allowing them to take as much as three years off in cases where the employee will accompany their spouse to the job transfer location. In these ways, the AGC Group supports a flexible work-life balance for its employees.

■ Support for Raising Children

AGC provides support through a cross-departmental network of female employees for raising children, examples of which include the introduction of the Nursery Use Support System for external nurseries registered as AGC corporate bodies; the creation and distribution of handbooks for female employees and female managers who are pregnant or raising children; the holding of tri-party meetings between the Women’s Activity Secretariat, female employees, and their managers (both before taking childcare leave and after returning); and the holding of career design seminars after returning to work.

AGC Initiatives

■ Promotion of Female Employees to Management Positions

In July 2021, AGC endorsed the goal of “30% by 2030” that the Japanese Trade Union Confederation is encouraging companies to achieve. Accordingly, to provide society with value through the realization of diversity that empowers talented personnel regardless of gender, AGC aims for women to account for 30% of its directors and Audit & Supervisory Board members and 20% of its executive officers by 2030. Further, women accounted for 4.8% of AGC’s managers (division manager or higher) as of the end of December

2022. Also, we have appointed one female outside director and one female Audit & Supervisory Board member as well as internally promoting two female employees to the position of executive officer.

Going forward, our initiatives will focus on stepping up the recruitment of talented women, actively promoting female employees through assignment and development, and creating an environment that empowers female employees (the introduction of required systems). Our goal is to raise the percentage of women in management positions (division manager or higher) to approximately 8.0% by 2030.

● Trends in Percentages of Female Managers (Division Manager or Higher)

Year	Percentage of female employees
2018	3.3%
2019	3.5%
2020	3.6%
2021	3.9%
2022	4.8%

● Trends in Percentages of Female Managers (General Supervisor or Higher)

As of December 31, 2022 (excluding members over 60 years old)

Year	Percentage of female employees
2018	5.2%
2019	5.7%
2020	5.9%
2021	6.8%
2022	7.0%

● Number of New Female Graduates Recruited for General Career-Track Positions

Year	Number of new female graduates	Total new graduates	Percentage of female employees
2020	30	120	25.0%
2021	17	111	15.3%
2022	23	122	18.9%

● Wage Gap Between Men and Women

Year	Management positions (division manager or higher)	Non-management positions
2022	98.7%	81.1%

Note: Gap when dividing regular employees into management and non-management categories

■ Employment of People Who Have Reached Retirement Age

In April 2006, the AGC Group introduced a system to continuously employ retiring non-managers who meet personnel criteria for continuous employment. The criteria are provided in the labor-management agreement with the aim of utilizing the expertise, technological prowess, and skills of retirees and of reinforcing personnel ranks.

Since fiscal 2013, AGC has been gradually raising the age limit of employees eligible to apply for continuous employment, in accordance with a revision of the Law Concerning Stabilization of Employment of Older Persons, and plans to abolish age limitations by fiscal 2025.

Similarly, going beyond legal stipulations, AGC has been gradually raising its retirement age, currently set at 60, since fiscal 2015 and will bring it up to 65 in fiscal 2025. This will allow employees over 60 to continue thriving in important positions in the workplace.

● Number of Continuously Employed Individuals Aged 60 or More

Year	Number of reemployed retirees	Number of retirees	Continuous employment rate
2017	63	84	75.0%
2018	64	100	64.0%
2019	—	—	—
2020	41	71	58.0%
2021	58	113	51.3%
2022	—	19	—

Notes: 1. As shown in the table below, the age of retirement is gradually increasing, and there were no retirees in 2019.
 2. An optional retirement system has been in use since fiscal 2021. Employees who opted to retire before the age of retirement are included in the number of retirees.
 3. Number of retirees that used the optional retirement system in 2022.

● Reference: Retirement Age for Employees Based on Date on Which They Become 60 Years of Age (up to 2022)

Year	Retirement age	Year of retirement
2017	63	2020
2018		2021
2019	64	2023
2020		2024
2021	65	2026
2022		2027

■ Employment of People with Disabilities

The AGC Group has expanded employment opportunities for people with disabilities. AGC has exceeded the employment rate of people with disabilities designated by law and continues to promote understanding of this initiative throughout the Company.

● Employment of People with Disabilities

FY	Number of people with disabilities (actual number)	Employment rate
2017	122	2.30%
2018	127	2.28%
2019	129	2.23%
2020	137	2.32%
2021	144	2.36%
2022	145	2.32%

■ Special Subsidiary, AGC Sunsmile

AGC Sunsmile, Inc. is a special subsidiary established in 2002 with a view to increasing the employment of people with intellectual disabilities. In cooperation with relevant organizations, the Company strives to provide a better work environment for highly motivated employees. Duties consist mainly of cleaning Company offices, dormitories, and Company residences, and the business is being developed in the Keihin, Sagami, and Kansai areas. At the AGC Kansai Plant, employees with intellectual disabilities are assigned to greening activities and janitorial work. Depending on the needs of departments at business bases, such employees also engage in the conversion of documents into portable document format (PDF) and supplementary work related to manufacturing processes. Moreover, we are creating additional opportunities for AGC Sunsmile employees to contribute by extending the scope of their work.

Work–Life Balance

Fundamental Approach

The foundation of the AGC Group's human resource management, the "7 Key Principles for People", outlines how to maintain a work environment that allows employees to work safely. Based on these principles, the Group seeks to secure and maintain a work environment and conditions that enable employees to work with enthusiasm.

Management Structure

The Human Resources Division is the main body in the AGC Group working to ensure a quality work–life balance for all Group employees. Based on the laws and practices of each country and region in which it operates, the Group considers work–life balance on a company-by-company basis, in light of the nature of business conducted by individual companies.

AGC Initiatives

AGC is improving its work environment with the aim of helping its employees perform their jobs with peace of mind and fully demonstrate their abilities at every stage of their lives. More specifically, in addition to maintaining a system for work–life balance, AGC creates an environment that facilitates the use of this system.

■ Supporting Employees Caring for Children or Family Members

AGC has implemented several systems for employees who care for children and family members, including a childcare leave system, a child nursing leave system, and a shortened working-hour system. In 2012, the Group introduced a flexible work-from-home system that eliminates commuting times and allows employees to spend more time with their children and others requiring care.

In recognition of the results of these various initiatives, in 2008, 2011, 2015, and 2019 AGC was certified by the Tokyo Labor Bureau of the Ministry of Health, Labour and Welfare, based on the Act on Advancement of Measures to Support Raising Next-Generation Children, and authorized to use the Kurumin certification mark to indicate its support for the next generation. Further, AGC was selected by the Ministry of Economy, Trade and Industry in cooperation with the Tokyo Stock Exchange as a NADESHIKO brand company for its exceptional promotion of women's success (fiscal 2019 and fiscal 2020).

● Employees Taking Childcare / Family Care Leave

Year	Number of employees who took childcare leave	Number of employees who took family care leave
2018	95 (including 25 male employees)	7
2019	99 (including 30 male employees)	10
2020	109 (including 49 male employees)	2
2021	132 (including 61 male employees)	3
2022	205 (including 129 male employees)	11



AGC was selected as a NADESHIKO brand company in fiscal 2020.



Next-Generation Support Certification Mark "Kurumin"

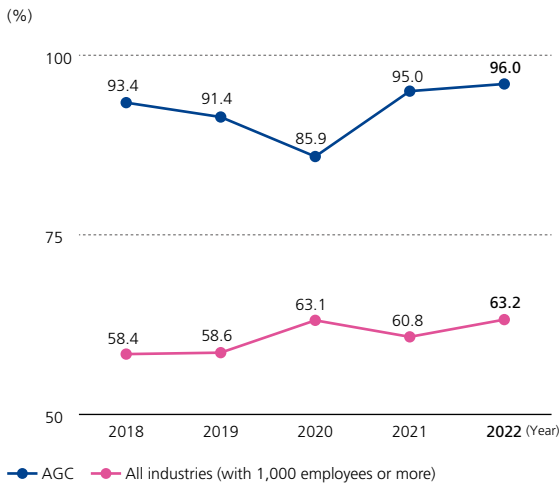
● Comparison between AGC's System and Legal Requirements

System	Details
Childcare leave	Available until the child becomes two years old
Shortened working hours for childcare	Working hours can be shortened by up to two and a half hours per day until the child completes third grade at elementary school
Capping of the number of overtime and holiday working hours for childcare, including exemptions for late-night work	If an employee wishes, their overtime, holiday, and late-night working hours may be capped or exempted
Child nursing leave	Five days allowed per child each year until the child completes third grade at elementary school
Support for nursery use	Nurseries that AGC is affiliated with may be used in areas of high need (Tokyo and Kanagawa)
Working from home	Working from home is possible without stating reasons, such as raising children or nursing care (no limit on number of days)
Flexitime	Flexitime without core working hours is possible without stating reasons, such as raising children or nursing care
Paid leave in one-hour increments	Employees may take a maximum of five days of their allotted annual paid leave in one-hour increments.
Leave of absence during spouse's job transfer	Leave of absence is possible if required to accompany spouse on new job transfer (maximum three years)
Registration for reemployment of retirees	Registration for reemployment is possible for those who quit the company voluntarily for any of the following reasons: marriage, childbirth, raising children, spouse's job transfer, or nursing care
Women's mentorship system	Mentorships from senior female employees are available for work-related experience counseling or personal advice (general career-track position female employees)

■ Promoting Annual Paid Leave (AGC)

In fiscal 2022, AGC employees took 96.0% of their leave (the average for labor union members). As a part of the annual paid leave system, the Group has also introduced a half-day leave system for employees.

● Average Percentage of Annual Paid Leave Used



Notes: 1. Labor union member average

2. Data for all industries is sourced from a General Survey on Working Conditions by the Ministry of Health, Labour and Welfare.

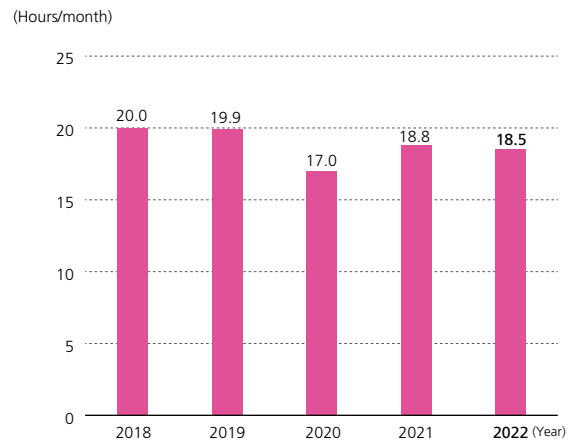
■ Reducing Overtime Working Hours

AGC strives for the proper management of its employees' working hours. Currently, based on the idea that AGC will strive to reduce overtime and holiday work by helping its employees find ways to work more efficiently and to ensure that unpaid overtime is not worked, AGC manages daily work through sufficient communication between administrators and their subordinates, implements agreements with the labor union based on the Labor Standards Act, and promotes appropriate management of working hours using data recorded by ID card readers and PC logs.

To prevent health complications caused by overworking, AGC has set in-house standards, which are stricter than those mandated by law, requiring employees who have completed a certain amount of overtime to visit an occupational physician.

In addition, the sharing of case studies is promoted so that human resource managers at each Group company in Japan can discover activities that promote the effective management of working hours.

● Overtime Working Hours (AGC)



Note: Labor union member average

Employee Education

Fundamental Approach

The AGC Group outlined its policy on Development and Growth in the “7 Key Principles for People”, which aim to realize progressive human resource management. The Group has established a variety of training programs, such as technology and skills training provided alongside rank-specific training.

The AGC Group aims to become a company that puts into practice its human resource management slogan—“AGC People: the driver of our growth!”—and its human resources are the driving force for the growth of the Group’s business operations. This training further supports employee growth.

Management Structure

The AGC Group organizes an educational system, chiefly through the Human Resources Division, in cooperation with the personnel officers of each in-house company and region. In addition, the training systems and methods are continuously reviewed and improved.

Groupwide Initiatives

■ AGC Monozukuri Training Center

The AGC Monozukuri Training Center is an educational facility designed to effectively cultivate AGC Group personnel. The training center comprises two areas, one for training and one for practical application, and it provides training on about 120 clerical and technical topics, principally for AGC Group employees in Japan. In terms of practical training, technical education is designed around the concept of “the site, the work, and the conditions.” The training center, equipped with the same machines and equipment as those used in AGC Group plants, provides trainees with practical, hands-on learning opportunities. Trainees are able to learn about processes they may not encounter in their daily work at their respective plants, such as the structure of a melting furnace and relevant troubleshooting methods. Training is also provided to business partners to boost the standard of manufacturing excellence and personnel cultivation throughout the supply chain.



Training and education building

● Number of AGC Monozukuri Training Center Users

FY	Annual training hours (hours/person)
2020	3,676 (Center visitor numbers restricted to prevent the spread of COVID-19)
2021	415 (Center visitor numbers restricted to prevent the spread of COVID-19)
2022	1,530 (Center visitor numbers restricted to prevent the spread of COVID-19)

■ Training Programs

The AGC Group continuously works to develop human resources by implementing training according to rank, from new employees up to management, as part of its rank specific development programs. In addition, the Group enhances and carries out many types of elective training in various specializations and for improving business skills.

■ Provision of Online Training

Since 2014, the AGC Group has been providing employee training online as part of its “learn anytime, anywhere” workplace-building initiative. As of the end of 2022, more than 50 of the training courses had been made available online or through videos. Through supplementation of these courses, the Group will continue to support its employees’ education. Meanwhile, to balance preventing the spread of COVID-19 with continuous learning, the Group largely carried out its training as scheduled by holding group training, at which participants would normally assemble in one place, online or via video streaming. The Group will continue to examine a range of training methods and improve training contents as it strives to create an environment conducive to learning for its employees.

■ Promoting AGC Group Improvement and Innovation Activities

The AGC Group promotes improvement and innovation activities in order to raise the productivity of the entire Group. In addition to increasing productivity throughout the supply chain, the Group is actively expanding the scope of activities to related departments, such as sales and marketing. In recent years, by simulating optimal productivity when new businesses and products are about to be launched, the Group has been raising the likelihood of success in its business ventures. In addition, we have begun new activities to build rewarding work environments and improve employee engagement by systematically identifying and promoting the resolution of issues in organizations.

Improvement Management Program

We conduct training aimed at fostering core personnel who have knowledge and skills related to improvement management and are able to advance business improvement and innovation in workplaces. As a result of this training, more than 220 personnel now promote improvement and innovation activities at business bases worldwide.

A key goal of the training is to ensure that personnel understand the importance and roles of industrial engineering and data science in designing digital transformation systems. Therefore, we are focusing on giving personnel the ability to solve practical problems through an approach that rationally sets out business issues in terms of design and then uses data science to gain insight into current situations and to discover improvement scenarios.

Development of Dual-Skilled Personnel

We are focusing on the development of dual-skilled personnel who have both operational knowledge in relation to mainstay businesses and advanced data analysis skills. Globally, we operate a practical training system that enables the progressive acquisition of machine learning and multivariate analysis knowledge and skills, which are essential when utilizing data science. By combining practical data science training that sets issues identified in workplaces as assignments for trainees with education that emphasizes practice, we are increasing the quality of improvement and innovation activities.

■ Skills Map: A Unique Personnel Database

The AGC Group introduced a unique personnel database, the Skills Map, in 2010. This Groupwide database, in which employees are registered according to their specialty, enables the Group to “see” the skills held by employees in various divisions. As of the end of December 2022, approximately 6,000 employees were registered under the Skills Map in 29 technical categories and 12 sales and administrative categories. The database helps us utilize human resources effectively, encourage communication among personnel, and facilitate Cross-Divisional Network Activities (CNA).

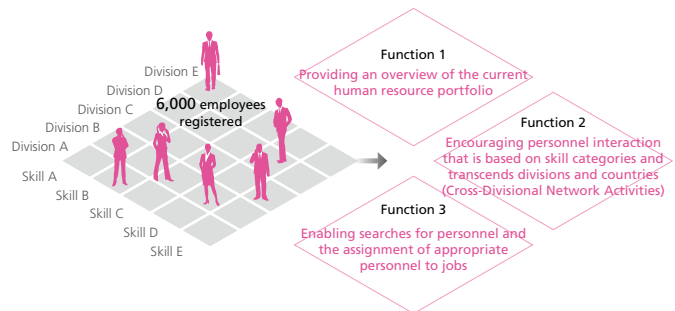
Using the Skills Map, we have created a human resource database for the AGC Group, making it easier to quickly search for human resources. By analyzing the human resources database, we will use it to come up with and advance strategic human resource measures in human resources management, including hiring, training, and positioning.

■ CNA: Cross-Divisional Network Activities

Following the introduction of the Skills Map, activities that had once been the main focus of a single division have now become the activities of skills-based groups based on the Skills Map, whereby activities are now shared among members of a skills group as well as being exchanged with external entities. We call such activities CNA, and this has invigorated cross-divisional activities and broadened our human networks within the Group and externally. AGC helps to provide opportunities for employees to take advantage of “spontaneous learning” for their individual education and growth through the use of internal networks. Such “spur-of-the-moment” activities (opportunities) have become a “third place” (i.e., not at home or the workplace) where it is exceedingly easy for constructive exchanges to take place among the participants. We are encouraging such activities to take place at all levels, from information exchange to joint research. By discussing potential roadblocks and bringing together skills and knowledge, solutions to common issues and ideas for new technologies emerge. For example, collaboration between the sales and R&D departments gives the customer a role in the R&D process, allowing them to bring in

viewpoints and fresh ideas that can spark new initiatives. We aim to further the advancement of AGC’s unique organizational culture that draws out value through diversity.

● The Three Functions of the Skills Map



AGC’s Initiatives

■ Career Development Support (AGC)

AGC has introduced the Challenge Career System to encourage employees to apply for the jobs they want on their own volition. The system assigns appropriate people to newly launched businesses and operations that need strengthening, further invigorating the organization in the process. In addition, the Professional System and the Meister System have been adopted in order to appropriately evaluate and manage those with highly specialized expertise or advanced technological skills.

Challenge Career System

- An in-house voluntary recruitment system, under which employees apply to job offers publicly posted by inhouse organizations once a month (a total of 229 employees to date)
- An in-house free agent system, under which employees register for the jobs that they wish to perform at other departments and undergo screening individually for job consideration (a total of 120 employees to date)
- Job Challenge (in-house side jobs): A system that lets employees apply to internal job postings in any division and work a side job (starting in 2023)

Professional System

A system under which managers, who have extremely high practical knowledge, skills, or behavioral traits regarding technological skills and expertise vital to the AGC Group and can exercise them to a great extent, are certified as professionals, evaluated, and treated appropriately (55 managers).

Meister System

A system under which engineers, who have outstanding technical skills and knowledge vital to the continuous development of the AGC Group and can exercise them to a great extent and who are responsible for the training and guidance of their successors, are certified, evaluated, and treated appropriately (6 employees)

Note: Current numbers are as of December 31, 2022. The number listed for the Challenge Career System is the total number of users since 1999.

Occupational Health and Safety

Fundamental Approach

To realize a sustainable society and to grow and evolve continuously, AGC Group pursues the Group Vision **“Look Beyond”** and engages in EHSQ as prerequisite of our business activities.

AGC Group's Health and Safety Management Initiatives

The policies and measures regarding occupational health and safety in the AGC Group are deliberated and decided upon by the Sustainability Committee, chaired by the CEO of the AGC Group, after being reviewed by the AGC Group EHS Committee, which is chaired by the head of the EHSQ General Division. The findings of the Sustainability Committee are reported to the Board of Directors. Furthermore, important issues based on materiality are deliberated and decided upon by the Sustainability Committee, and then reviewed and resolved by the Board of Directors.

Excerpts from AGC Group EHSQ Policy

(Established on January 1, 2023)

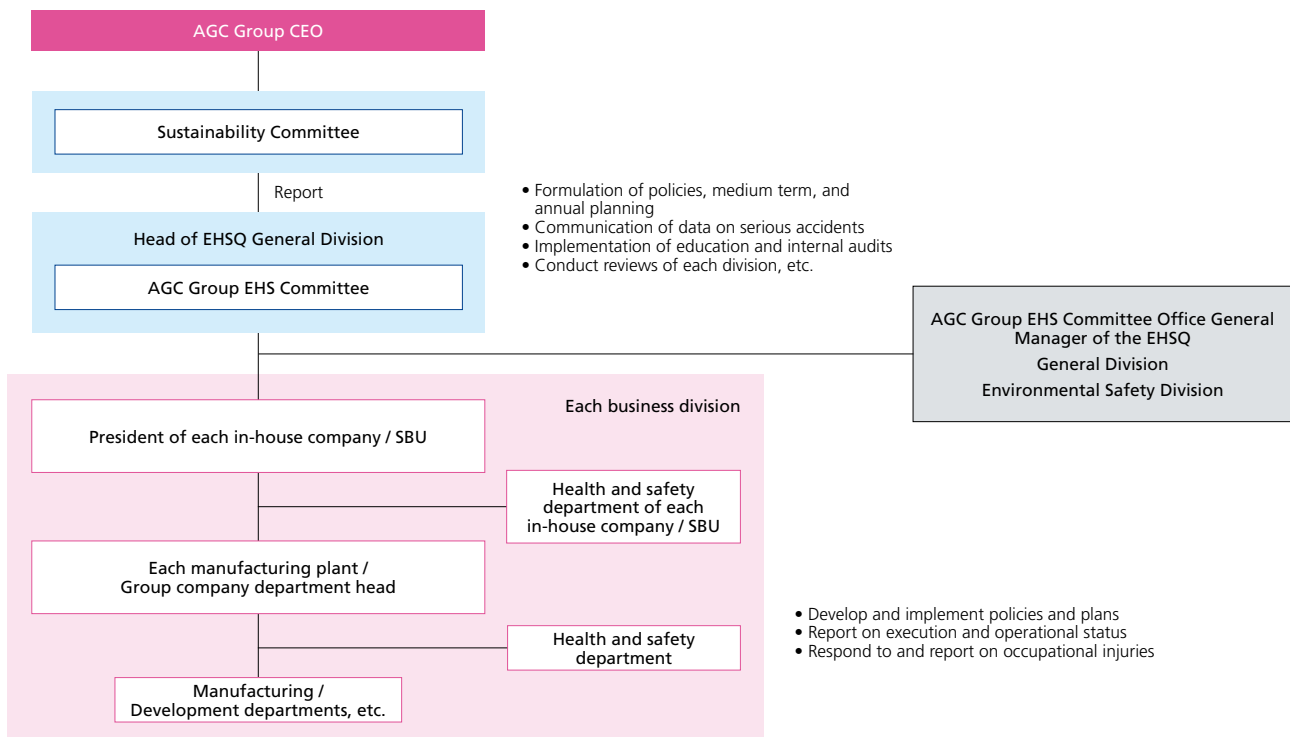
To realize a sustainable society and to grow and evolve continuously, AGC Group pursue the Group Vision **“Look Beyond”** and engage in EHSQ (Environment, Industrial Safety & Security, Occupational Health & Safety, Quality) as a prerequisite of our business activities.

AGC Group Occupational Health and Safety Policy

(Established on February 9, 2001, revised on January 1, 2023)

Our motto is “No Production without assurance of safety”. We are committed to sharing and demonstrating this motto with all workers of the AGC Group.

1. We comply with OHS-related laws and other requirements.
2. We set objectives and strive to achieve them to continuously improve the OHS Management System.
3. We create a safe and healthy workplace through continuous risk assessment.
4. We foster a safety culture in the AGC Group through all the workers' participation in the OHS activities.



Management Structure

The AGC Group is pushing ahead with health and safety activities based on the concept of an occupational health and safety management system (OHSMS).

Since fiscal 2013, the Group has been using the EHSQ Management System to manage EHSQ across the entire Group. Based on the approach of ISO 45001, the Group stipulates aspects of EHSQ management that it must carry out in the AGC Group Occupational Safety and Health Regulations and applies them globally at each in-house company and SBU.

Additionally, each business site engages in its own activities based on the OHSMS framework, sets up OHSMS and monitors its operation, runs OHSMS self-diagnosis systems (since 2021), and strives to improve health and safety management levels through audits conducted by corporate divisions and individual business units. Furthermore, business sites endeavor to obtain third-party OHSMS certification for organizations and plants with significant occupational health and safety risks.

Each business unit examines its policies and measures, reports the progress at EHSQ management reviews and other occasions, and continuously conducts improvement activities.

Number of Plants Obtaining OHSMS Third-Party Certification

(As of December 31, 2022)

Coverage	Number of certified plants
Japan	7
Asia (excluding Japan)	14
Europe	53
The Americas	4
Total	78

Groupwide Initiatives

Developing a System to Collect Global Occupational Accident Data

The AGC Group has developed a system for collecting all of the standardized occupational accident data of the Group globally, including that of its business partners at business sites, and introduced a system in 2021 for sharing this information laterally. We collect and analyze historical occupational injury data with the aim of preventing accidents from happening in the first place, and preventing similar accidents from happening again. In order to prevent occupational injuries, we are working toward our targets for occupational health and safety with an eye on achieving them by 2025. Over the long term, incidents have trended downward.

In the past few years, the number of occupational accidents has leveled off, although some areas have experienced

an increase. We have therefore launched occupational safety and disaster prevention projects across Group divisions, and are taking steps globally to create systems and frameworks for ensuring workplace safety and security. Our ultimate aim is to foster a safety culture at AGC.

Number of Occupational Accidents (AGC Group, Including Business Partners)

In 2022, there were zero fatal accidents among AGC Group employees or the employees of its business partners. However, there was one serious accident at an affiliated company in China where an employee was electrocuted to a degree that caused deep burns and lasting after-effects. AGC Group has set and manages occupational safety targets (KPIs) that aim to halve the frequency of accidents requiring leave by the end of 2025, compared with the 2019 level, and aims for zero fatalities and injuries caused by serious accidents, including death and partial loss of bodily functions.

Occupational Safety Targets and Results

KPIs	Scope	Target	2020 result	2021 result	2022 result
Number of fatalities	AGC Group employees (including business partners)	0	0	0	0
Number of fatalities and injuries caused by serious accidents, including partial loss of bodily functions*1	AGC Group employees (including business partners)	0	2	0	1
Frequency of accidents requiring leave*2	AGC Group employees (including business partners)	Halve frequency of accidents requiring leave by 2025 compared with 2019 level 0.99 to 0.48	0.98	0.77	0.79

*1. Serious accidents, including those that cause partial loss of bodily functions, are accidents that lead to Grade 1 through Grade 7 injuries as defined by the Ministry of Health, Labour and Welfare.

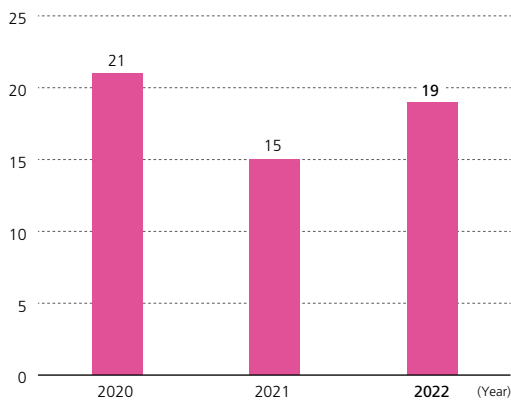
*2. Frequency of accidents requiring leave is the ratio of those employees who die or are injured in occupational accidents and instructed by their doctor to take leave for at least one day per one million manhours.

Number of Accidents Requiring Leave

In 2022, there were 124 accidents that required leave among the employees of the AGC Group and its business partners. Such types of accidents tend to be cuts, scrapes, recoiling motions, stumbling and falling, and flying and falling. The AGC Group continuously implements measures to prevent the following examples of accidents from happening in the first place, and similar accidents from happening again.

Japan

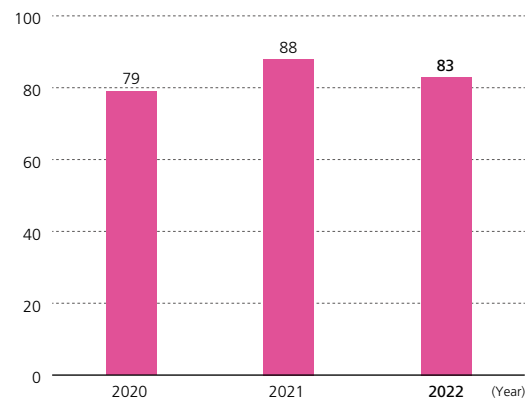
(Number of accidents)



■ Accidents requiring leave (including business partners)

Europe

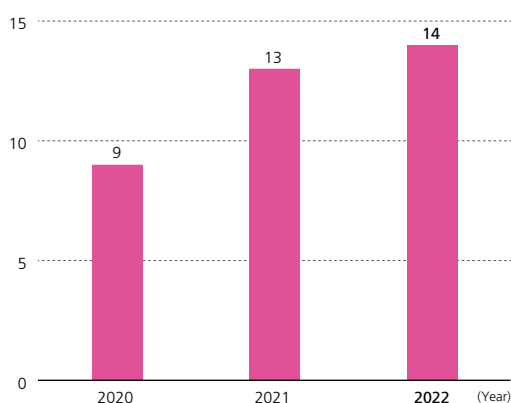
(Number of accidents)



■ Accidents requiring leave (including business partners)

Asia (other than Japan)

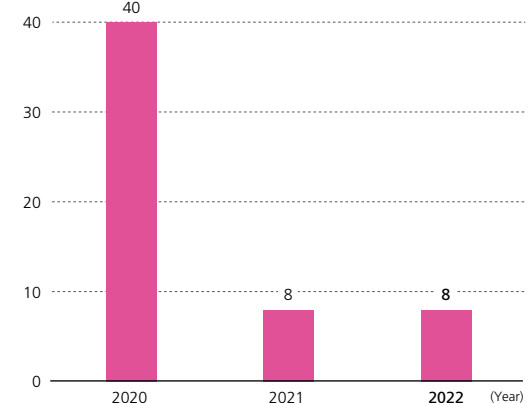
(Number of accidents)



■ Accidents requiring leave (including business partners)

The Americas

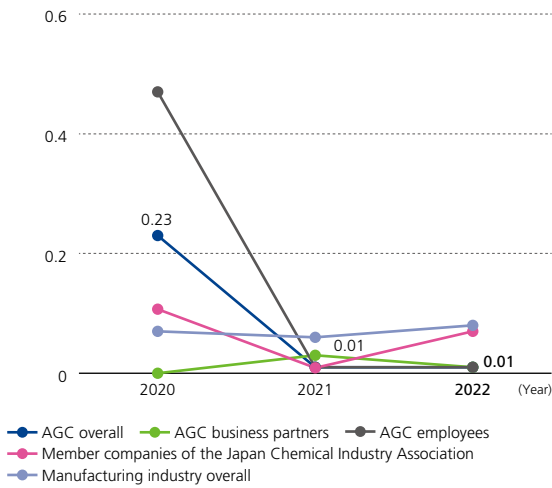
(Number of accidents)



■ Accidents requiring leave (including business partners)

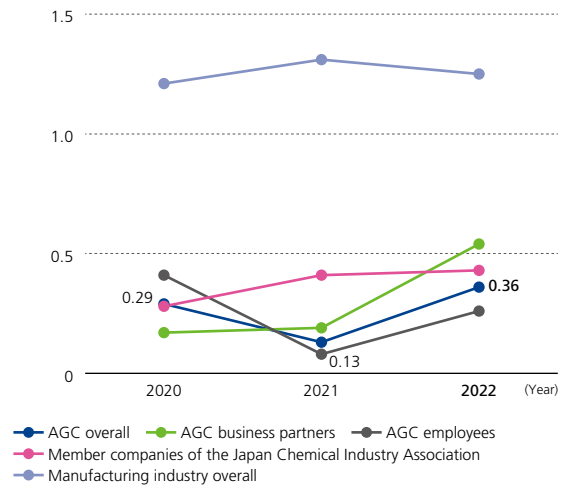
Notes: 1. Accidents requiring leave are occupational accidents where a doctor instructs the affected person to take at least one day of leave. However, this excludes cases where the affected person is given time off to get evaluated at a hospital.
2. Standards for deciding whether an accident requires leave differ by Japan / Asia and Europe and the U.S., making it impossible to draw a direct comparison of the number of such accidents.

Severity of Accidents (AGC and business partners)



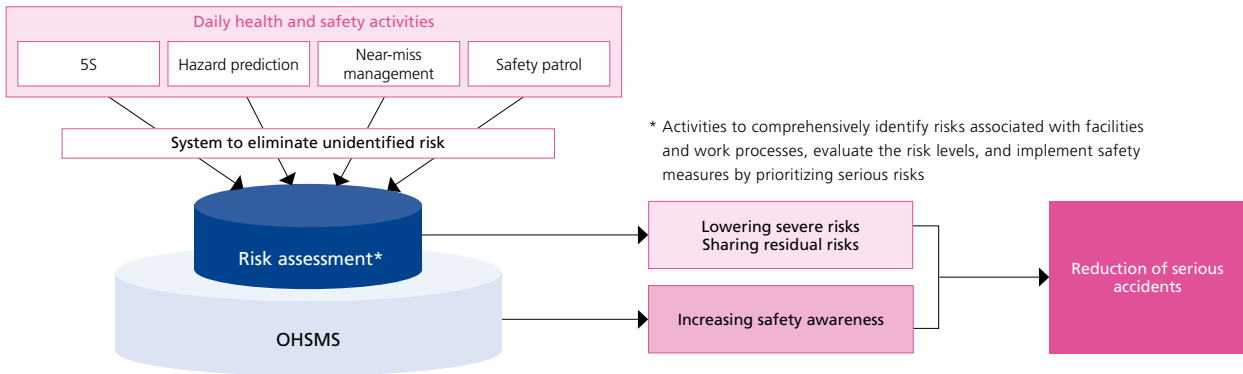
Notes: 1. "Severity" expresses the severity of accidents as the number of days lost per 1,000 working hours.
 2. "AGC overall" is the combined figure for AGC employees and employees of AGC business partners.

Frequency of Accidents Requiring Leave (AGC and business partners)



Notes: 1. "Frequency" expresses the frequency of occupational accidents as the number of fatalities and injuries per one million working hours.
 2. "AGC overall" is the combined figure for AGC employees and employees of AGC business partners.

The AGC Group's Health and Safety Management Initiatives



■ Promoting Safety Activity-Related Information Sharing That Transcends National and Departmental Boundaries

Under normal circumstances, the AGC Group holds meetings for employees in charge of safety from all relevant countries. As in the previous fiscal year, however, fiscal 2022 saw restrictions placed on business trips to meeting destinations due to restrictions arising from COVID-19, which resulted in the use of online meetings along with some on-site participation (hybrid format). Issues requiring reform are shared through activities that highlight the Group's stance on health, safety, and the environment and each participating country aspires to improve their safety initiatives through these meetings.

■ Continuing to Advance Risk Assessments

The AGC Group is taking steps to improve its risk assessments with an initiative to reduce the risk of occupational accidents. The AGC Group (Japan) trains managers and supervisors and implements routine training for employees who conduct risk assessments at manufacturing sites. Since 2020, due to restrictions caused by COVID-19, it has been a challenge to hold training sessions at training centers and travel destinations, but online seminars have been held on the web. In addition to periodic training, in 2009, the Group began safety enhancement activities, selecting qualified individuals from those in charge of development, manufacturing, equipment, or other important matters at each manufacturing site to conduct intensive education on risk assessments and daily safety activities.* In fiscal 2022, 28 people completed the program, and these individuals now work as core safety personnel. There are currently over 400 core safety personnel operating across all business sites.

* Health and safety conventional activities such as 5S (seiri (sort), seiton (set in order), seiso (shine), seiketsu (standardize), and shitsuke (sustain)) activities, risk prediction, near-miss management (hiyari-hatto), and safety patrols

■ Promoting Machinery Safety by Introducing Safe Manufacturing Machines

Reducing risks associated with manufacturing machinery is essential for realizing safe production workplaces. Building on efforts to minimize machine-related risks through established risk assessment methods, the AGC Group is working to ensure the installation of safer manufacturing machinery by taking into consideration additional risk assessment protocols at the design stage via advanced safety inspections.

In Europe, risk-reduced facilities were introduced based on the local law-enforced system of CE marking.*¹ Additionally, the crucial role of risk assessments by facility users is stipulated in the European Union framework.

In Japan and the rest of Asia, the Group encourages all managers responsible for safety to obtain qualifications as a safety assessor and safety basic assessor under a certification system,*² so they have a full understanding of international safety standards when adopting plans and machinery. The number of employees with this certification rose further in

fiscal 2018, with a particularly large increase in the number of employees from Asian Group companies obtaining safety.

*1 Products with the CE mark are certified as meeting the standards set by all member states of the European Union.

*2 The safety assessor certification is awarded for understanding and possessing the practical skills related to machinery safety. Based on international safety standards and developed by Nippon Electric Control Equipment Industries Association and other organizations, the certification is verified by a third party. Three levels of certification are available: safety lead assessor, safety assessor, and safety sub-assessor. The certification for the assessment of basic safety, which targets operators of machinery and tests fundamental knowledge of machinery safety, is verified by a third party.



Training for safety basic assessor certification (Taiwan)

■ Continuing to Advance Risk Assessments

The AGC Group strives to prevent adverse health effects, fires, and explosions from occurring by managing chemical substances used at each worksite by appointing experienced chemical substance managers, conducting appropriate risk assessments, implementing risk-reduction measures, and training personnel who handle chemical substances. For risk assessments of chemical substances, the Group created its own standardized assessment method and has made it known Groupwide by conducting in-house training at production sites and other worksites. Based on the Globally Harmonized System of Classification and Labeling of Chemicals, the Group's assessment method is a simple and useful way to assess the risks, danger, or toxicity of chemical substances and can be applied in any country worldwide. In addition, the Group promotes the implementation of risk assessments of work areas based on actual surveys of workplaces.

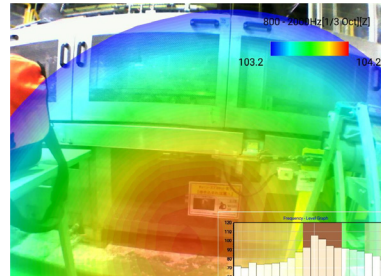


Chemical Substance Risk Assessment Training

■ Improving Occupational Health Standards

With the goal of preventing adverse health effects associated with work processes involving noise, hot and humid work environments, dust and chemical substances, the AGC Group has established global standards and implements a range of measures, including work environment measurements, risk assessments, risk reduction countermeasures, and health checkups.

At our Aichi Plant, noise generated during the manufacture of tempered glass for automobiles had become an issue. Although we had struggled to identify the extent of the noise and where it originated, we were able to clarify the source and the extent when advancing measures to reduce such noise by using digital noise visualization equipment (acoustic cameras) in addition to the conventional graphical display of numerical values. As a result, we have accurately sound-proofed the affected area by enclosing it, thereby effectively improving the workplace environment.



Identifying the source and extent of noise using an acoustic camera

■ Improving the Level of Safety Awareness

The AGC Group is implementing stratified education to raise safety awareness.

The Human Error Prevention Manual, among others, is a proprietary textbook that has been translated into multiple languages for use in training courses at each plant.

The Group also conducts practical training for safety patrols in Asia, including Japan, to give workers the skills needed to identify latent but serious workplace risks while on patrols. As part of the training, participants conduct safety patrols from the perspective of machinery safety and relevant laws and regulations along a mock production line with more than 140 flaws. This firsthand experience in machinery safety fosters the ability to identify the risks caused by unsafe situations in facilities. Since fiscal 2012, this training has been conducted for safety managers throughout Japan, and several safety managers from Group companies outside of Japan have also received the training. A safety patrol facility has been partially deployed at PT Asahimas Flat Glass Tbk, in Indonesia, mainly focused on providing similar training for safety managers in the region. Furthermore, a meeting to announce improvement initiatives is held every year in the fall by the Purchase & Logistics Division of AGC and AGC Logistics Co., Ltd. (AGL). At the meeting, improvements to safety and quality regarding the distribution of goods by business partners and AGL are announced. To promote a common culture of safety between AGL and business partners, a full circuit inspection and “finger-pointing and calling” safety checks are carried out at each business partner and around their trucks.



Practical safety patrol training

■ Implementing Hazard Simulation Training

The AGC Group is implementing safety sensory education that simulates many occupational hazards, such as getting caught in machinery, receiving electric shocks, cut wounds, chemical burns, and dangers arising from objects falling, spilling, and overturning, with the aim of enhancing safety awareness and eliminating unsafe behavior leading to occupational accidents. In recent years, content that allows users to experience dangerous situations through virtual reality (VR) technology using simple devices has also increased.

Currently, the AGC Group is equipping the AGC Yokohama Technical Center and a number of business sites in Japan and overseas with several types of safety sensory equipment, in addition to using VR technology to facilitate experiences of hazards inherent at those sites. The Group is also promoting the training and upskilling of instructors who can lead safety sensory education on a regular basis.



Leak simulation of hazardous chemical materials (Indonesia)



Instructor upskilling (Japan)



Getting a physical sense of the impact of a fall through numerically based visualization



Instructor development (China)



Experiencing getting caught in a revolving belt and roller at the Yokohama Technical Center



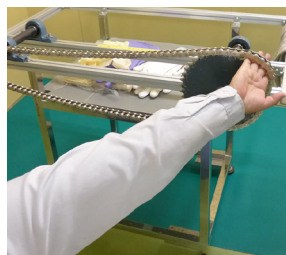
Experiencing getting caught in a revolving belt and roller at the Yokohama Technical Center



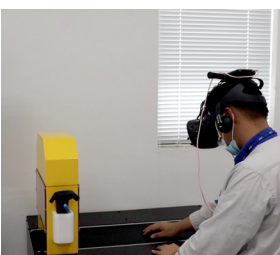
Experiencing the danger of a forklift crash through the use of virtual reality technology in Japan



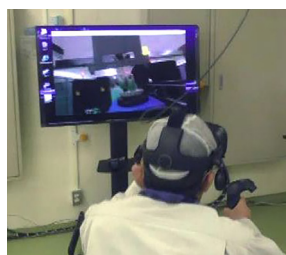
Experiencing the danger of a forklift crash through the use of virtual reality technology in Japan



Experiencing getting caught in a chain in Japan



Experiencing getting caught in machinery (China)



Experiencing a robot crash through the use of virtual reality technology in Japan

AGC Initiatives

■ Labor Union Participation in Health and Safety Measures (AGC)

At AGC, based on collective labor agreements, labor unions' advice and guidance regarding safety and health are considered. Business partners working with us at business sites participate in the meetings of safety and health committees held at the business sites. Safety officers and employee representatives are given regular opportunities to exchange opinions, which are then reflected in various safety and health measures.

Creating a Comfortable Workplace

Fundamental Approach

Through occupational health and safety activities, the AGC Group promotes the creation of a pleasant workplace environment based on its Occupational Health & Safety Policy. Further, we have established the AGC Health Declaration, and we are pursuing initiatives aimed at maintaining and enhancing employee health.



Note: Initially, AGC will rigorously inform its employees about and implement measures based on the AGC Health Declaration. In the future, the Company will consider adopting the same approach with respect to the employees of Group companies in Japan and overseas.

Management Structure

Occupational Health Management through Divisional Cooperation

Based on the Occupational Health & Safety Policy and the AGC Health Declaration, the AGC Group promotes health management measures for creating a comfortable workplace environment in cooperation with related divisions. This is accomplished by placing the representative director & senior executive vice president in charge of health management promotion and appointing and assigning a head industrial physician, with related divisions collaborating for extra support.

AGC Groupwide Initiatives

AGC Group General Affairs and HR Personnel Network Conference (AGC Group (Japan))

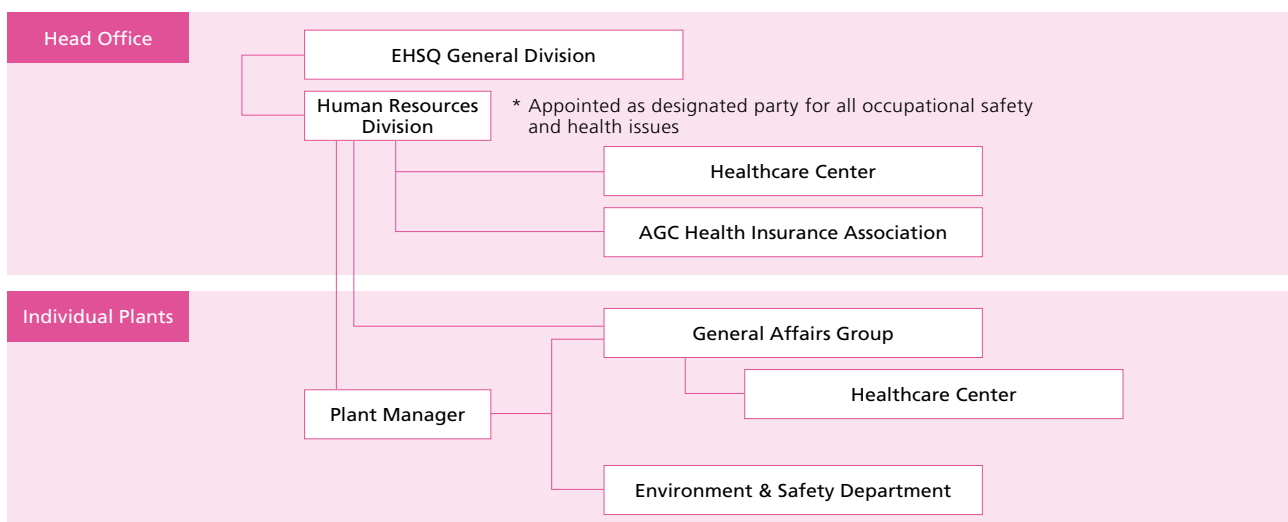
The AGC Group holds regular conferences for general affairs and HR personnel from each Group company in Japan. Outside lecturers are invited to speak, providing a chance for such personnel to deepen their understanding on the latest trends in labor laws. Through discussion, the participants also review health management, workstyles, and Group policies on matters including harassment prevention.

In addition to the conferences, the Group regularly checks employee working hours and the status of responses to legal changes, thus aiming to enhance collaboration within AGC. In response to growing attention from society regarding compliance, the AGC Group is promoting the creation of comfortable working environments through occupational safety and health activities for everyone at the Group.

The AGC Group's Health and Safety Management Initiatives

Chief Promotion Officer: Representative Director & Senior Executive Vice President

Promotion Officer: Senior Executive Officer & General Manager of the Human Resources Division



AGC's Initiatives

Promoting Health and Productivity Management

- Maintaining and improving the physical and mental health of every employee improves employee vitality and productivity and is a fundamental element in aiming to become a company that puts into practice its human resource management slogan—"AGC People: the driver of our growth!"
- This is a strategic initiative to ensure that all employees working at the AGC Group can continue to maximize their potential.

Health and Productivity Management Goals

- Continuously maintaining and promoting health
By looking after their health, all AGC employees should be able to continue to work actively as they get older.
- Improving productivity and job satisfaction
All AGC employees should be able to work productively by utilizing a number of workstyles and improving their

physical and mental condition. Employees should be able to make the most of their potential and derive satisfaction from their work.

- Enriching public and private life
Every AGC employee should have a fulfilling life at the Company and at home, deriving satisfaction from both work and private life.

When its motivated human resources can maximize their potential, the Company becomes stronger as a whole.

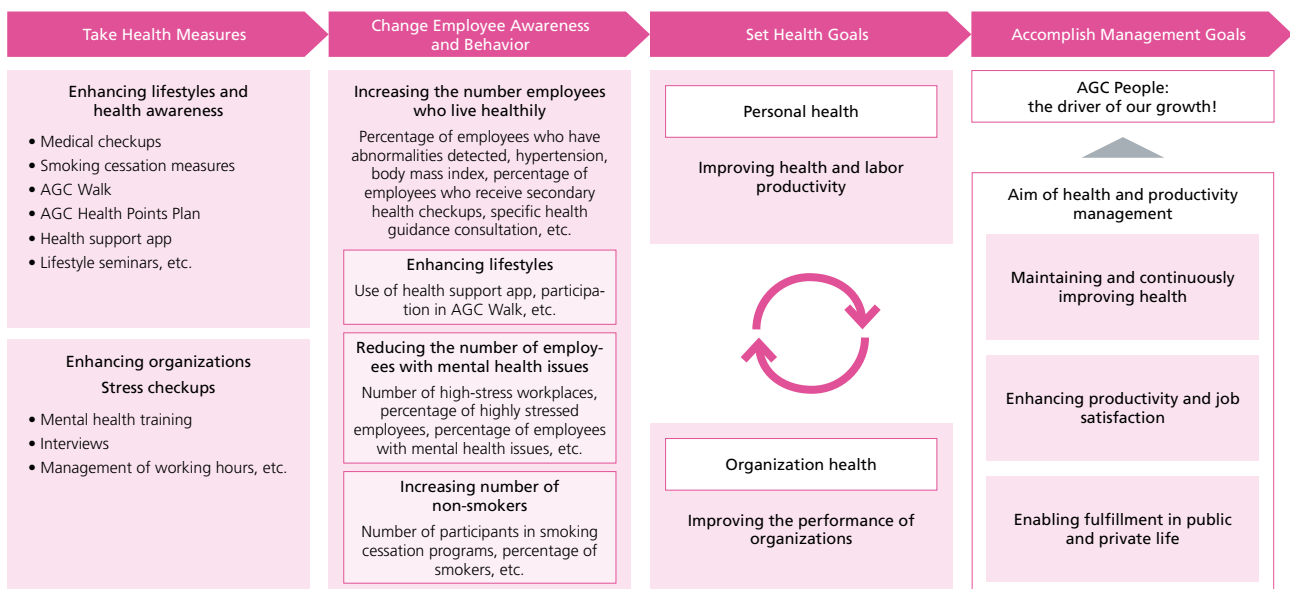
The Focuses of AGC's Initiatives

While advancing the initiatives below to maintain and enhance health in accordance with the AGC Health Declaration, the Group will further develop its Health and Productivity Strategy Management Map, establish key performance indicators, and proceed through PDCA cycles.

● Aim of Health and Productivity Management



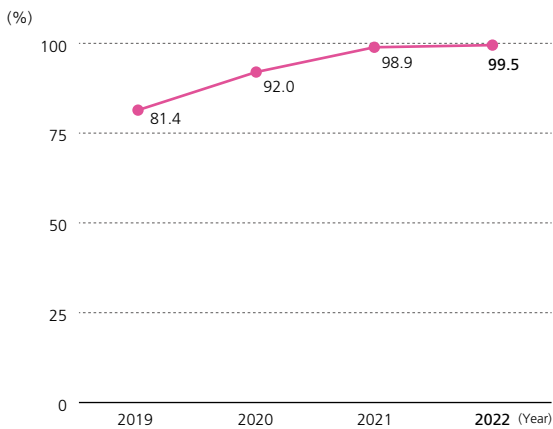
● Health and Productivity Management Strategy Map



Progress of Activities to Maintain and Enhance Health

- Enhancement of follow-ups for employees who have abnormalities detected during physical examinations
AGC is committed to activities that support the health of employees who have abnormalities detected, recommending they get secondary health checkups and helping with medical costs (i.e., the entire cost of the secondary health checkup is borne by the Company). In recent years, the percentage of employees who have abnormalities detected has declined, and we remain committed to activities to help employees maintain and enhance their health.
 - Percentage of employees receiving regular health checkups
Fiscal 2022: 100% ⇒ Continue as current
 - Percentage of employees receiving secondary health checkups
Fiscal 2021: 98.9%; Fiscal 2022: 99.5% ⇒ Aim for 100%
 - Percentage of employees who have abnormalities detected
Fiscal 2021: 19.7%; Fiscal 2022: 18.4% ⇒ Aim for 16.0% by fiscal 2025
 - Health guidance implementation ratio in 2022: 83.2%

Percentage of Employees Who Received a Second Health Checkup



- Preventing mental health issues
 - Percentage of employees receiving stress checkups
Fiscal 2022: 97.0% ⇒ Aim for 100%
 - Of those who took stress checkups, percentage of employees found to have high stress levels
Fiscal 2022: 10.9%
- Ensuring that employees are not exposed to secondhand smoke and reducing the employee smoking rate
 - Companywide indoor smoking ban (2021)
 - Number of smoking areas
Fiscal 2021: Decrease of 60.0% compared with fiscal 2019
 - Banning the selling of tobacco at business sites (fiscal 2019)
 - Smoking rate
Fiscal 2021: 24.1% ⇒ Fiscal 2022: 22.4% ⇒ Aim for below 20.0% by fiscal 2025
- Establishing of exercise habits (walking)
Fiscal 2022: 8,116 total participants

Raising awareness of health

We are helping employees maintain and improve their health by investing around ¥50 million in the AGC Health Points Plan, an incentive plan for all employees to engage in healthy activities, and our Health Support App, a tool for individuals to manage their health (as of 2022, 46.6% of employees had installed the app). In 2022, we held a total of 34 health events and seminars at all of our bases, and participants were given AGC Health Points as an incentive. We will continue to raise awareness of health issues and help our employees enhance their health.

- Health and productivity indicators
Presenteeism in 2022: 16.4%*¹
Absenteeism in 2022: 2.9 days*²

*1. A state where employee productivity worsens due to sub-optimal health. Calculated using SPQ (University of Tokyo's first version)

*2. All-employee average of total number of days taken off and long-term absences due to illness

Prevention and management of global health issues

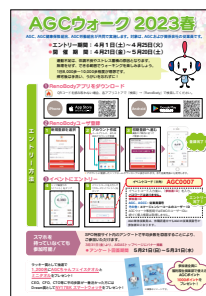
Novel coronavirus diseases

AGC offered to administrate vaccines to all employees and some families.

The Company made it mandatory for employees to get a health checkup once a year to facilitate the early detection of tuberculosis with chest x-rays and provided guidance related to lifestyle-related diseases. The Company also made concerted efforts to reduce the risk of COVID-19 cases developing serious complications.

Infectious diseases around the world

AGC offers vaccinations to employees and their families for various infectious diseases, such as polio, tetanus, rabies, and typhoid.



Flyer of AGC Walk

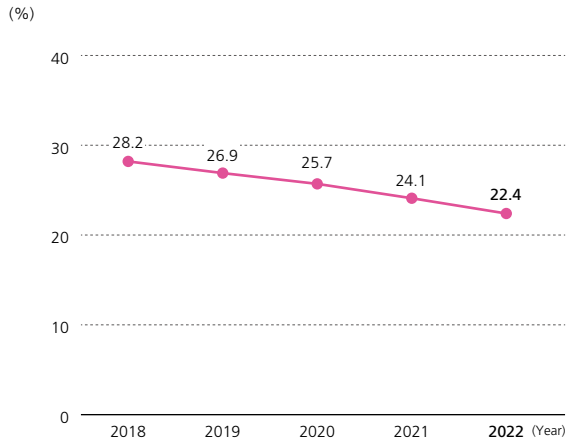


Certified as a White 500 Company in the 2023 Health & Productivity Outstanding Organizations Recognition Program



Health support app

Percentage of Employees Who Smoke



Industrial Safety and Security

Fundamental Approach

The AGC Group, which develops its businesses in local communities, believes that ensuring safety and security is a major prerequisite for achieving sustainable growth. Based on this belief, the AGC Group has established the AGC Group Industrial Safety & Security Policy to promote various issues surrounding industrial safety and security.

AGC Group Industrial Safety & Security Policy

(Established on February 7, 2003, and revised on January 1, 2023)

The AGC Group engages in activities to prevent disasters and improve security based on the strong belief that “actively engaging in security and disaster prevention activities is our fundamental obligation as a company developing businesses in local communities.”

1. We comply with relevant Group internal and external rules concerning industrial safety and security rules worldwide.
2. We develop and continuously improve management initiatives to prevent incidents associated with industrial safety and security.
3. We strive to communicate with internal and external stakeholders proactively.

Management Structure

In addition to striving to prevent accidents and other crises, such as unforeseen accidents, the AGC Group is working under the AGC Group Industrial Safety & Security Policy to prevent the escalation of accidents that do occur by promoting countermeasures to deal promptly and accurately with such crises. The Group promotes risk reduction and preventive measures in its business activities by applying a PDCA cycle. Each business division promotes fire prevention, countermeasures for industrial safety accidents, and risk assessments for natural disasters based on action plans drawn up for that year by the corporate EHSQ General Division.

In addition to these measures, the Group strives for continuous improvement through internal audits that monitor the extent to which the above measures have been carried out.

In the Chemicals Business, the Chiba Plant and the Kashima Plant in Japan are business sites that have been certified to utilize high-pressure gas. To promote a higher level of voluntary safety at business sites certified to utilize high-pressure gas, AGC has established a safety management system headed by the CEO and with the general manager of the EHSQ General Division and the president of an in-house company as the officers in charge of safety.

Groupwide Initiatives

■ Chloric Acid Leak Accident at the Kashima Plant

On August 27, 2022, chloric acid leaked from a storage tank at the Kashima Plant in the Chemicals Business, and some chloric acid flowed into the sea. Although the leak did not result in any harm to people or noticeably impact the environment around the plant, the leak was a cause of great concern for the people living nearby, the local government, and other involved people. Learning from the causes of this accident, AGC is taking the necessary steps to prevent a recurrence of leaks from existing storage tanks and ones to be built in the future. Taking this accident with the utmost sincerity, the AGC Group is increasing efforts to reduce the risk of leaks and unintended releases by inspecting all of its tanks and storage facilities for hazardous and poisonous substances at all Group bases in Japan and around the world, especially those belonging to the Chemicals Business.

■ Prevention of Accidents with Preliminary Assessments for New Facilities

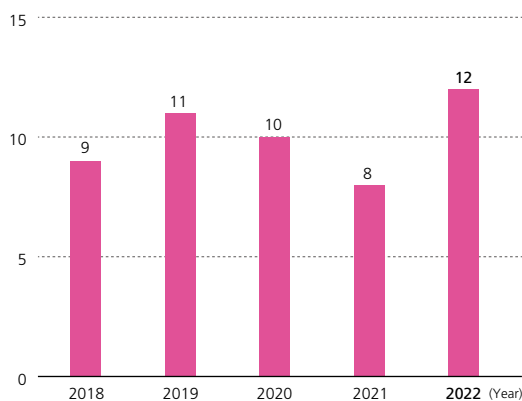
When building, expanding, or modifying facilities deemed to be at risk, the AGC Group conducts risk assessments for safety and disaster prevention during the design, construction, and startup phases based on its Prior Safety Assessment System, and verifies that the facilities are truly safe. At chemical plants, if our safety assessments find an area that ranks high in terms of danger, we implement HAZOP, ESD-HAZOP, and procedural HAZOP risk assessments that test for accidents triggered by deviations in process equipment (voltage changes, valve malfunctions, etc.), unsteady operations, and procedural operation mistakes during emergencies (emergency shutdowns).

■ Prevention of Fire and Prevention of Recurrence

The AGC Group is working to continuously improve fire prevention activities at its domestic and overseas sites through environmental, industrial safety, and security preservation audits conducted by each business division and the EHSQ General Division. In 2022, 12 fires broke out at Group sites; however, through quick initial response measures, none affected local communities or led to fatal incidents.

● Number of Fires* (AGC Group)

(Incidents)



Note: Based on the number of fires that needed to be put out by fire extinguishers, the total number of fires is the number of such fires with effects that made the reporting of the fires to a governmental agency necessary.

■ Initiatives to Improve Self-Managed Industrial Safety and Security Capabilities

The AGC Group launched the AGC Group Industrial Safety & Security Policy with the goals of reducing risks related to industrial safety and security and strengthening its self-managed industrial safety and security capabilities. Under this policy, the Group continuously improves such capabilities by implementing third-party assessments and clarifying items for improvement based on assessment results. The assessments are as follows: (1) the Japan Industrial Safety Competency Center carries out assessments of self-managed industrial safety and security capabilities at designated worksites in Japan managed under the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities; (2) the Group implements safety culture assessments (adoption of the questionnaire format mainly developed by Professor Kenichi Takano of Keio University and Associate Professor Akira Tose of Niigata University) at medium-sized manufacturing plants in Japan, other countries in Asia, and Europe; and (3) the Group conducts activities to improve industrial security capabilities at processing and assembly plants under the guidance of local fire departments. Going forward in-house companies and SBUs will unite to roll out these assessments not only in Japan but also globally.

1) Designated worksites in Japan managed under the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities: Assessments of self-managed industrial safety and security capabilities by the Japan Industrial Safety Competency Center are carried out at the Chiba and Kashima plants, the Kansai Plant (Takasago Factory), and AGC Ceramics Co., Ltd. (Takasago). An assessment is scheduled to be carried out at the AGC Yokohama Technical Center. The Group reconfirmed the problems with the safety foundations and safety culture at these plants that came to light through the safety assessments, drew up a three-year improvement plan, and is in the process of rolling out improvement activities. In addition to such assessments at manufacturing plants, AGC plans to improve comprehensive industrial safety capabilities, including those of headquarters, by carrying out interviews of executives based at headquarters (those in general manager positions at each company) by an expert from the Japan Industrial Safety Competency Center. We believe that these new initiatives can also contribute to research efforts into the comprehensive industrial safety capabilities of Japanese industry.

2) Medium-sized manufacturing plants: Safety culture assessments (adoption of the questionnaire format mainly developed by Professor Kenichi Takano of Keio University and Associate Professor Akira Tose of Niigata University) The Group has concluded a joint research contract with Niigata University on safety culture assessments, under which it implements assessments of more than 40,000 employees in Japan, other countries in Asia, and Europe. The Group will implement improvement activities based on a three-year improvement plan that reflects the strengths and weaknesses revealed by the assessments and will monitor the effect of improvements by carrying out second assessment in about three years' time. From 2023, we commenced secondary assessments in Japan and the Asia region. We will implement full-fledged measures to promote safety culture assessments and improvement activities in Europe and the Americas.

● 2022–2024 Assessment (Implementation) Plan

Year	Japan	Asia	Europe	Number of plants assessed (implemented)
2022	4	4	1	9
2023	21	9	8	38
2024	5	17	8	30

Other activities under the joint research contract with Niigata University include accepting interns, building the foundations of safety culture through safety culture assessments, and dispatching employees to Niigata University as lecturers. In addition, with the aim of fostering a safety culture, we conduct exchanges with other companies and exchange information and opinions on progress in advancing safety culture assessments.

3) Processing and assembly plants: Activities to improve industrial security capabilities under the guidance of local fire departments

In these activities, processing and assembly plants conduct education and training focused on fire prevention with the cooperation of municipal fire departments. We have already commenced these activities at the Eniwa and Tosu plants of AGC Glass Products Co., Ltd., and we will roll out these activities to business sites throughout Japan.

■ Education and Training for Security Incidents

When an industrial safety and security incident occurs, it is necessary to minimize the impact on employees and local communities. The AGC Group conducts planned education and training at its business sites with the objective of minimizing the impact on employees and local communities in the event of an industrial safety and security incident occurring. At the Chiba and Kashima plants, in particular, which are located in regions with industrial complexes, we implement the following education and training based on annual plans.

[Education]

- Industrial safety and security education (for employees and employees of business partners)
- Basic first-aid training courses (in-house)

[Training]

- Indoor fire hydrant training (initial firefighting tournament)
- Training on the reporting of matters anomalous with the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities (training on the emergency call-up of divisional employees)
- Training on responding to natural disasters, including earthquakes (evacuation and safety confirmation drills)
- Safety confirmation training using the emergency call system (the AGC Group in Japan)
- Fire extinguisher handling training
- Training based on the International Convention for the Safety of Life at Sea (SOLAS)
- Combined disaster prevention training at industrial complexes
- Joint disaster prevention and reporting training at offshore industrial complexes
- Offshore disaster prevention training (oil fence extension training)

[Plant contests]

- Outdoor fire hydrant handling techniques contest
- Respirator application contests



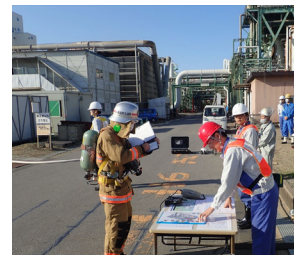
Fire prevention training in combination with the fire department at the Chiba Plant



Fire hydrant handling techniques contest at the Chiba Plant



Respirator application contest at the Chiba Plant



Fire prevention training in combination with the fire department at the Kashima Plant



Fire prevention training in combination with the fire department at the Kashima Plant



Fire prevention training in combination with the fire department at AGC Glass Products' Eniwa Plant

Supply Chain

Fundamental Approach

As described in the AGC Group Charter of Corporate Behavior, the AGC Group strives to establish mutually beneficial and appropriate relationships with business partners, ensuring that the principles of compliance with the charter are in line with the fundamental stance of the AGC Group. By so doing, the Group seeks to promote good supply chain management.

Management Structure

The Purchase & Logistics Division plays the main role in continuing the stable procurement of raw materials and other materials. The division also conducts initiatives to solve social issues involving human rights, labor practices, and the environment with business partners and the rest of the supply chain. The Group has established the AGC Group Purchasing Policy, which clearly states the Group's responsibility to help realize a sustainable society. The Group has made the policy available to business partners worldwide by posting it on the AGC Group website and has asked them to understand and cooperate with the policy. We also presented the policy to participants at policy briefings for business partners in an effort to train and educate our business partners on this content.

In accordance with the aforementioned policy, from 2022 to 2023 we conducted a questionnaire on sustainable procurement, verified conditions at 280 companies based on the responses received from business partners, and identified the locations of potential risks. Also, we requested that business partners make improvements in areas where they had low scores.

Groupwide Initiatives

■ Point of Contact for Compliance in Procurement Activities

The AGC Group works to ensure the transparency of purchasing transactions and the prevention of fraud. As part of these efforts, we have set up a point of contact for compliance in procurement activities. The contact can be used by business partners to point out problems related to transactions with AGC Group employees by e-mail or regular mail, and the issues raised are kept strictly confidential and resolved promptly.

 [Point of Contact for Compliance in Procurement Activities](#)

■ Regular Review of the Content of Contracts

To promote good supply chain management, the AGC Group uses the most up-to-date contract with relevant CSR clauses when making new contracts or renewing contracts with business partners.

AGC Group Purchasing Policy

(Established in 2009 and revised on January 1, 2020)

The AGC Group pursues the Shared Values outlined in the AGC Group Vision **"Look Beyond"** and the AGC Group Charter of Corporate Behavior and will regulate its performance regarding purchasing, which is explicitly stated in the AGC Group Purchasing Policy below.

1. Basic Purchasing Principles

1. Fair and equitable transactions

Our procurement policy is to consistently search for innovative technologies, products, and services with a fair and equitable manner globally.

2. Compliance to related laws and regulations, and behavior considering safety, the environment, and human rights

In carrying out purchasing activities, AGC will comply with the applicable laws and regulations of each country and international norms, act with integrity, and give due consideration to safety, the environment, natural resource conservation, and human rights. In particular, in order not to promote conflicts or foster human rights violations through the procurement of mineral resources, through the identification of conflict minerals (tin, tantalum, tungsten, and gold) and cobalt as high-risk minerals, we will promote responsible mineral procurement through the adoption of smelters and refiners that have been certified as not using minerals that are related to armed conflict or acts of injustice such as human rights violations.

3. Partnership with business partners

AGC will establish long-term, mutually prosperous partnerships to produce better products with its business partners. To this end, we will endeavor to keep close communication with our business partners to build and enhance our trusting relationships.

4. Protection of information, intellectual property, and other assets of business partners

AGC will properly manage and protect the proprietary information, intellectual property, and other assets of our business partners while procuring goods and services.

2. Criteria for Selecting Business Partners

AGC will apply key criteria to evaluate and select business partners, as follows.

1. Sound management, steady supply, and flexibility to match with the fluctuating demand.
2. Appropriate quality, pricing, delivery date punctuality, consideration to safety & environment and technical service level.
3. Making endeavors to realize each item of the "Request for Cooperation in Sustainable Procurement".

3. Request for Cooperation in Sustainable Procurement

AGC strives to be a company trusted by all of its stakeholders, a company that meets the expectations of the global business community to grow and develop responsibly, and a company that significantly contributes to a healthier global society. In order to fulfill our social responsibilities toward the realization of a sustainable society as the AGC Group, we would like to promote our efforts together with the companies linked to our supply chain. Accordingly, we would like to share with and request our business partners to comply with and enforce the following points and would like to ask for their understanding and cooperation.

1. Legal compliance, fairness, and integrity

To comply with laws and international norms of each country and region, conduct fair transactions, and execute the following:

- Maintain healthy and normal relations with political entities and governments and do not give or receive inappropriate profits in relation to stakeholders
- Do not engage in activities that hinder fair competition in the market or cause abuse of superior bargaining position
- Establish a management system for the import and export of goods and technologies regulated by laws and regulations of each country and region and carry out proper export procedures
- In the procurement of mineral resources contained in products, identify conflict minerals (tin, tantalum, tungsten, and gold) and cobalt as high-risk minerals and promote responsible mineral procurement through the adoption of smelters and refiners that have been certified as not using minerals that are related to armed conflicts or acts of injustice such as human rights violations
- Do not have any relationship with anti-social forces
- Establish and put into practice a mechanism such as policies, organizations, guidelines, reporting systems, and educations, to enforce thorough compliance and to prevent and detect inappropriate practices at an early stage

2. Environment, safety, and quality

To provide high-quality, safe, and environmentally friendly products and services, reduce environmental burdens, ensure product and workplace safety, and implement the following:

- Comply with the laws and regulations of each country and region regarding the environment and appropriately manage chemical substances contained in products and chemical substances discharged in the external environment based on laws and regulations
- Strive to protect the environment and natural resources and reduce the final disposal volume of waste
- Establish an environmental management system and continuously operate and improve it
- Contribute to the prevention of global warming and strive to save energy
- Work for safety, security, and disaster prevention and work to prevent accidents
- Ensure products that meet the safety standards stipulated by the laws and regulations of each country and region and provide accurate information on items that may cause danger or health damage to users

3. Human rights and labor

Respect the dignity and human rights of all people and do the following:

- Do not discriminate against people regardless of race, ethnicity, religion, nationality, political affiliation, age, gender, disability, marriage, sexual preference, or any other factors
- Do not engage in acts such as sexual harassment and power harassment that inflict damage on the personality of others or harm personal dignity
- Do not allow forced labor, slave labor, child labor, unfair low-paid labor, and do not participate in human rights violations
- Respect employee rights and build and maintain good relationships with employees through discussion and dialogue
- Comply with the laws and regulations of each country and region regarding employee working hours, holidays, paid leave, grants, and wages
- Establish an environment where employees can work safely and physically and mentally healthily

4. Risk, information, and intellectual property management

Establish a system to avoid risks to business and execute the following for information and intellectual property management:

- Establish a business continuity plan that provides measures to enable business continuity or early recovery when an unforeseen circumstance such as a disaster or accident occurs, and upon such occurrence, cope with it promptly and disclose accurate information
- Make proper recording and reporting necessary for the business activities based on the facts and, as well as keeping records, practice appropriate information management so that confidential information of parties such as customers, business partners, and the Company, including personal information, will not be leaked
- Disclose information such as financial status, business results, and details of business activities appropriately to stakeholders
- Properly manage own and other parties' intellectual properties and do not obtain third-party trade secrets by illegal means or perform any act that infringes on the intellectual property of a third party

■ Initiatives in Concert with Our Business Partners

The AGC Group regularly conducts CSR procurement surveys. To better understand the implementation of CSR activities at its business partners, the Group has created questionnaires and guidelines used to confirm the progress of CSR activities.

Policy Briefing for Business Partners

Since 1997, the AGC Group has held briefing sessions for its business partners to deepen communications with its partners and expand and unify its business activities across the supply chain. In 2023, around 100 participants from 90 companies in various industries in Japan and overseas attended the session. Business partners were presented with a letter of appreciation for their ongoing cooperation, and the then AGC Group CEO, Yoshinori Hirai, gave a presentation on the Group's medium-term management plan. Following the meeting, a lively exchange of views took place among business partners, AGC Group executives, and AGC Group division heads.



Social gathering with business partners

■ Hosting Workshops on the Environment, Safety, and Compliance

In 2020, the Group revised the AGC Group Integrated Green Procurement Guidelines, which provide a common approach for all business divisions. In accordance with these guidelines, green procurement guidelines for each business division have been created. Based on each business division's green procurement guidelines, new and existing business partners' environmental management and the inclusion of chemical substances with high levels of environmental impact are checked and risk assessed by requesting the completion of prescribed forms. Moreover, these guidelines are used to facilitate green procurement of raw materials and other materials suited to each business.

 [AGC Group Integrated Green Procurement Guidelines](#)

■ Initiatives Related to High-Risk Minerals (Conflict Minerals and Cobalt)

As part of its efforts to realize sustainable and responsible supply chains, the AGC Group procures minerals responsibly. When procuring minerals that could potentially be associated with conflicts (tantalum, tin, tungsten, and gold) and high risk minerals such as cobalt, we confirm whether there is any risk of the minerals being associated with human rights violations related to the mining, transportation, and trade of minerals or with support for armed groups in conflict-affected and high-risk areas. Further, we use smelters and refineries that are certified as not using minerals for which there are concerns in relation to the aforementioned issues. With the cooperation of related business partners, we identify risks through due diligence and take corrective action if a significant risk is found in a supply chain.

In 2021, we established the AGC Group Responsible Minerals Sourcing Policy, which we posted on our website to make it available to business partners worldwide. Further, we requested the cooperation of business partners in achieving this initiative for the responsible procurement of minerals.

In addition, as a result of conducting a survey from 2021 to 2022 on the procurement of high-risk minerals and products containing high-risk minerals, which targeted AGC Group business sites worldwide, the Group was able to identify 383 upstream refiners, of which 276 were certified by the Responsible Minerals Initiative. Going forward, we will continue to identify and take corrective actions in response to risks.

 [AGC Group Responsible Minerals Sourcing Policy](#)

■ Hosting Workshops on the Environment, Safety, and Compliance

AGC regularly hosts workshops on the environment, safety, and compliance for major business partners. The Group also holds lectures on strategies and environmental targets in relation to its sustainability management, organizes gatherings aimed at sharing information on each Group company's activities, and conducts tours of outstanding plants.

Also, the Group organizes various training programs for its business partners with a view to promoting manufacturing and personnel development that is based on an awareness of the entire supply chain.

■ Assessing Business Partners' Satisfaction with the AGC Group through an Annual Survey

Since 2008, AGC has been conducting an annual survey of its major business partners to assess the level of satisfaction they have in their relationships with the AGC Group. The purpose of the survey is to build relationships of trust with these business partners and create a mutually beneficial environment for offering better products.

The anonymity of the survey is guaranteed so that respondents can feel comfortable in answering questions candidly and honestly. About 200 business partners have been surveyed each year, and the overall results were shared with business partners who responded to the survey and relevant personnel at AGC.

Fair Transactions

Fundamental Approach

In its AGC Group Charter of Corporate Behavior, the AGC Group stipulates that it will conduct appropriate transactions and otherwise conduct its business in accordance with the principle of fair competition and all applicable laws and regulations. The Group also strives to maintain sound relationships with politicians, governments, other organizations, and individuals and firmly confront anti-social forces as it aims to conduct fair transactions.

Management Structure

Since 2006, the AGC Group has been implementing a global legal management system and strengthening monthly reporting on and monitoring of disputes faced by the Group, in order to grasp their status quickly and deal with each case appropriately. With regard to the disputes faced by the Group, information is gathered at the Group General Counsel level and is promptly reported to senior management and the Group CEO. Moreover, periodic reports are given to the Board of Directors on the progress of the disputes and the status of the global legal management system. In addition, the AGC Group is working to reduce legal management risk by hosting legal affairs meetings with Regional General Counsels and cooperating with related in-house divisions.

Groupwide Initiatives

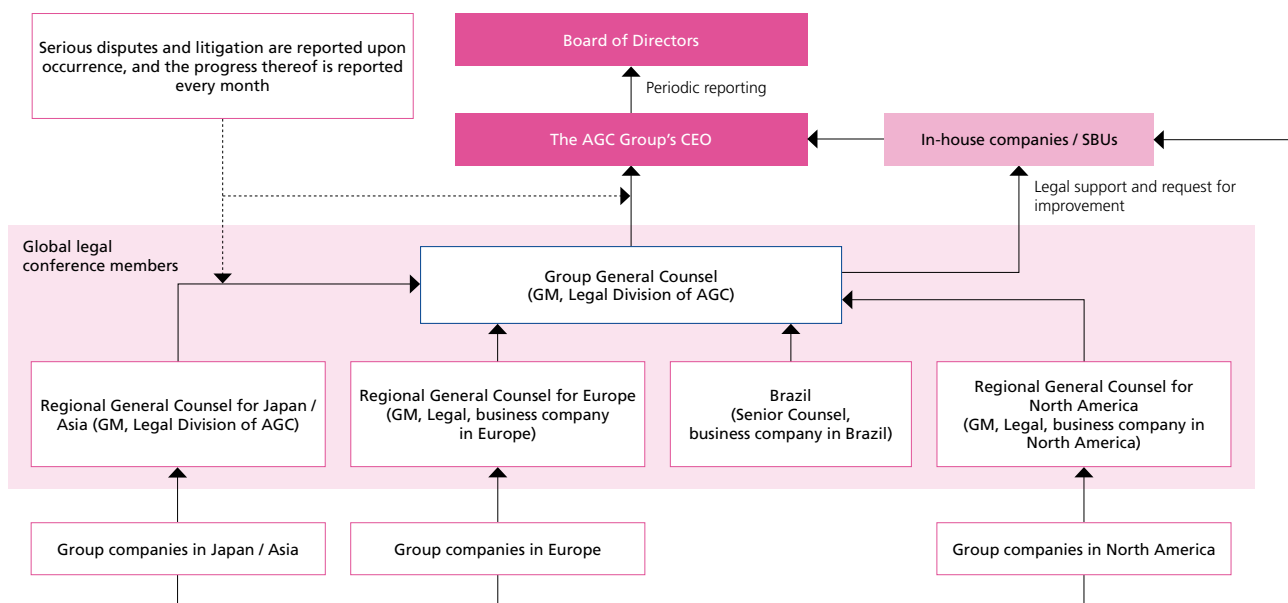
■ Compliance with Antitrust Laws

In addition to the AGC Group Code of Conduct that summarizes matters all employees must comply with in their work, the AGC Group has formulated and implemented global guidelines for compliance with antitrust laws. The guidelines state that, when meeting with a competitor company, (1) the legality of the purpose of the meeting shall be fully examined and participation shall be allowed only on an extremely limited basis, (2) advance permission to attend must be obtained from a supervisor, and (3) following attendance, meeting minutes must be prepared. Moreover, the Group is promoting face-to-face and e-learning education regarding compliance with antitrust laws in each region and organization. One of the global common priority audit items for internal audits is "organization and procedure for compliance with antitrust laws." Audits of the status of compliance with these global guidelines are also implemented.

● Status of Implementing Measures for Complying with Antitrust Laws (AGC Group)

Year	Number of participants in e-learning	Number of internal audits
2022	Approx. 8,500	38

● Global Legal Management System



■ Anti-Corruption Measures

The AGC Group Code of Conduct stipulates that the AGC Group maintain sound relationships with government agencies and other responsible organizations and individuals, and the Group works to comply with each country's and region's laws and regulations regarding anti-corruption.

Moreover, with the prevention of bribery and other corrupt practices being strengthened worldwide, the AGC Group is promoting relevant education for its employees. In addition to the AGC Group Anti-Bribery Rules for public officers, the Group established and implemented procedures, concepts, and judgment criteria for high-risk countries and regions.

Further, in 2022 the AGC Group was not subject to any punitive measures issued by authorities in relation to corruption.

■ Compliance with Contractual Requirements and the Revised Worker Dispatching Act

The AGC Group conducts business in collaboration with business partners involving contracted companies and temporary workers. In addition, the Group conducts a survey every year on compliance with contractual requirements at AGC production plants and major Group companies in Japan and confirmed again in 2022 that compliance-related rules are being observed. The Group will continue to make efforts to disseminate and thoroughly comply with contractual requirements and comply with the revised Worker Dispatching Act.

■ Compliance with the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors

At the AGC Group, we strive to rectify any transaction and business practices that impede the formation of partnerships with our business partners, while complying with criteria stipulated in the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises, in accordance with our Partnership Building Declaration in December 2020, in light of the importance of creating a mutually beneficial environment and increasing value added throughout our supply chain.

As a part of these efforts, in February 2023, we shared information to about 20 people, including managers in charge of managing outsourcing and procurement in each business segment, about key points to be aware of when complying with the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors, including how to respond to the recent rise in raw material and fuel prices.

The AGC Group continues to train controllers and managers on best practices for compliance with this Act. In 2022, we conducted an e-learning program on the Act for approximately 9,300 trainees.

■ Prevention of Insider Trading

To protect its shareholders and investors and ensure the fairness and reliability of securities markets, the AGC Group is making every effort to spread awareness of the prevention of insider trading. In addition to clearly stating in the AGC Group Code of Conduct that insider trading is forbidden, systems intended to prevent it are stipulated in the Information Control Council Establishment Guidelines and the Insider Trading Prevention and Control Rules.

Furthermore, regular opportunities to learn about the AGC Group Code of Conduct are provided, and information regarding the prevention of insider trading is thoroughly disseminated. The understanding of this information is reaffirmed when oaths are taken. Special training is implemented for directors, executive managers, and personnel in specific posts (corporate planning, accounting, finance, corporate communications, investor relations, etc.).

Furthermore, if an AGC Group director or employee has concerns as to whether buying or selling stocks could fall under insider trading, the Information Control Council prepares a system for review and works to prevent any instance of insider trading.

Respect for Intellectual Property Rights

Fundamental Approach

As stipulated in the AGC Group Charter of Corporate Behavior, the AGC Group properly manages and protects the Company's information, intellectual property rights, and assets, and it strives to respect the intellectual property rights of others, including customers and business partners.

Management Structure

The AGC Group considers intellectual property rights such as patents, utility model rights, trademark rights, design rights, and copyrights as valuable intangible assets, and the Intellectual Property Division takes the lead in protecting and enforcing these rights.

Groupwide Initiatives

■ Protection and Utilization of Intellectual Property Rights Created within the AGC Group

In addition to making intellectual property rights as a vital business strategy resource, the AGC Group works to protect and further expand such rights and promote the use of intellectual property to heighten its competitive advantage.

For example, the Group globally files intellectual property applications for inventions created at development sites in each country and works to acquire rights adapted to its business activities. Since procedures for the protection of intellectual property rights differ by country, rights acquisition is conducted in cooperation with local patent attorney offices and Group companies. The Group also takes strict action on any infringements of its intellectual property rights by other parties in compliance with the local laws and regulations of each country.

In addition, to use the intellectual property rights held by the Group to promote intellectual property strategies linked to the business and brand strategies of each business division, intellectual property conferences attended by the heads of each business division are held regularly by each division.

■ Prevention of Infringement of the Intellectual Property Rights of Other Parties

The AGC Group is creating a framework, including employee education, to prevent infringement of the intellectual property rights of others. The Group continuously monitors the intellectual property rights of others and checks to make sure it will not be violating said rights before new products are released or new business operations commence.

■ Employee Training regarding Intellectual Property Rights

The AGC Group emphasizes employee training regarding intellectual property rights from the dual perspectives of adequately protecting its own intellectual property rights and respecting those of others.

In Japan, aside from hosting intellectual property training for employees in the initial stages of their joining the firm, the Group carries out intellectual property training and promotes intellectual property education for each in-house company, technical division, and research division as necessary. Additionally, intellectual property training is implemented at overseas Group companies and tailored to suit local conditions.

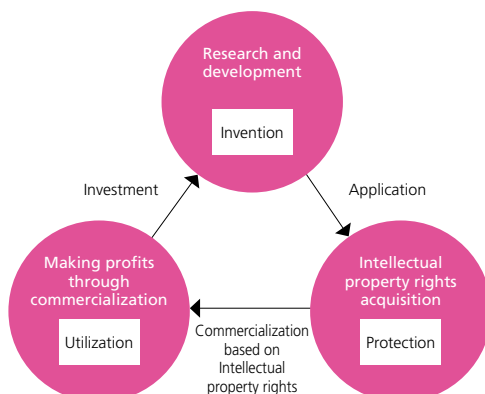
Initiatives at Individual Companies

■ Award System for Inventors of Employees

AGC has a substantial Award System for Inventors in place for outstanding employee inventions. Similar systems are being prepared at Group companies in Japan. In addition, reward systems are being prepared overseas based on the legal framework in each country and region, taking each location's present circumstances into consideration.

 [Reward System for Inventors](#)

● Cycle of Intellectual Property Creation



Maintaining Information Security

Fundamental Approach

Based on ISO 27000, the international standard for information security management systems, the AGC Group established an Information Security Policy. Based on this policy, which is shared Groupwide, the Group appropriately stores, uses, and manages informational assets and protects personal information.

Management Structure

Based on its common initiative items, the AGC Group has formulated standards and guidelines, with additional items taking into account regional circumstances (Europe, the Americas, and Asia, including Japan). In addition, in the event of a serious information security incident occurring, the Group has established a system to minimize the impact in accordance with the AGC Group Crisis Management Guidelines.

Groupwide Initiatives

■ Strengthening Response Capabilities against Cyberattacks

To maintain stable transactions with its customers, the AGC Group is reinforcing initiatives for tackling the increasing threat of cyberattacks.

- We have formulated Groupwide common management regulations based on international standards for measures to address the security of our information systems and production equipment as well as improve our protection and detection equipment. At the same time, we have put in place a management system under which we are working to improve structures and carry out training with a view to strengthening our ability to respond quickly in the event of an information security incident occurring.
- To achieve this goal, we are continuously implementing technological penetration testing and comprehensive assessments by third parties.
- In addition, in light of the COVID-19 pandemic since 2020, we have strengthened our existing measures for addressing security issues in remote working.

■ Internal Audits on Information Security

The AGC Group has selected “measures for preventing leaks of important confidential information” as one of the shared priority items for internal audits (see page 17).

Initiatives at Individual Companies

■ Information Security Training

Information security training is implemented at AGC as part of training for new-graduate hires and mid-career employees.

We also provide annual e-learning on a common Group platform for new employees.

Social Contribution Activities

AGC Group Social Contribution Basic Policy

Under the three pillars of the AGC Group Social Contribution Basic Policy—support for the next generation, harmony with local communities, and natural environment conservation—the AGC Group carries out social contribution activities in over 20 countries and regions throughout Japan and Asia, the Americas, and Europe.

Social contribution activities at each base are positioned as initiatives that help build good relationships in “relationships with local communities,” one of the long-term social issues we recognize as key to sustainability management.

Moving forward, the Group will continue to actively promote social contributions for its diverse stakeholders and conduct activities that lead to the resolution of social issues.

AGC Group Social Contribution Basic Policy

(Established on February 10, 2010)

In its AGC Group Charter of Corporate Behavior, the AGC Group declares it will “strive to be a trusted corporate citizen, fulfilling its responsibilities to the communities in which it does business.” To achieve this goal, we conduct social contribution activities in three priority areas.

Priority Areas

1. Support for the next generation
We, as a creator of future value, support the development of children, who will carry the future, helping them live out their dreams.
2. Harmony with local communities
We, as a member of the communities in which we operate, contribute to their sustainable development.
3. Natural environment conservation
We, as a global enterprise, contribute to the resolution of global environmental problems.

Total Financial Expenditures on Social Contribution Activities (AGC Group)

Year	Amount
2020	¥4,770.0 million
2021	¥3,730.0 million
2022	¥5,170.0 million

Total Number of Employees Participating in Social Contribution Activities (the AGC Group)

Year	Number of Employees
2020	11,543
2021	9,648
2022	14,848

Total Expenditures by Field of Emphasis: 2022 (the AGC Group)

Category	Amount	Rate
Support for the next generation	¥165 million	32%
Harmony with local communities	¥99 million	19%
Natural environment conservation	¥49 million	9%
Others	¥204 million	40%

Expenditures by Use: 2021 Results (the AGC Group)

Purpose of Use	Amount	Rate
Donations, material donations	¥369 million	71%
Employee participation and dispatch	¥76 million	15%
Voluntary programs	¥61 million	12%
Opening of facilities, acceptance of tours	¥11 million	2%

Internal Systems

AGC Inc. has introduced the Volunteer Leave and Sabbatical System in order to support, as a company, the self-directed volunteer activities of individual employees.

For volunteer activities that meet predetermined criteria

Volunteer Leave System: 5 days a year

Volunteer Sabbatical System: 3 to 30 months (up to two times within this timeframe)

Anti-Corruption

Political Donations

The AGC Group complies with the Political Funds Control Act with regard to political donations, which requires pre-approval with checks each time on their necessity.

In fiscal 2022, AGC Inc. made political donations amounting to ¥40,000.

Quality Assurance

Fundamental Approach

The AGC Group pursues Innovation & Operational Excellence, one of its Shared Values. Further, the AGC Group Quality Policy calls on us to continue creating the value that customers expect. Accordingly, in developing and marketing products and services of superior quality, the Group gives due consideration to safety and the environment. Moreover, we raise the quality of products and services to ensure the satisfaction and trust of customers.

Management Structure

Under the AGC Group Quality Policy, the AGC Group has established autonomous quality management systems that comply with ISO 9001 and similar standards in each division. To this end, the Group conducts internal audits and reviews in a manner best suited to the business and division in question, and it continuously improves the effectiveness and efficiency of quality management systems.

In addition, since 2013, in accordance with the concept of the EHSQ Management System, the EHSQ General Division seeks to comprehensively understand the EHSQ initiatives of the entire Group. In fiscal 2021, we established the AGC Group Quality Management Rules and took measures to improve quality. The EHSQ General Division is also building a system that contributes to EHSQ-related management activities for the entire Group.

Regarding quality, the Group holds an Expanded Quality Conference for the managers of the quality departments in each business division every year to share issues and example cases. In fiscal 2022, the conference featured a review of the previous fiscal year, confirmation of issues that the AGC Group should address in the current fiscal year, and the sharing of information on the efforts of each division to improve quality.

Acquisition of ISO 9001 and ISO/IATF 16949* Certification

(As of the end of December 2022)

Location	Number of certified organizations
Japan	32
Asia (excluding Japan)	30
Europe	48
North America and South America	15
Total	125

* Standards for quality management systems to be applied in the automotive industry, which requires compliance with the global procurement criteria for automotive parts

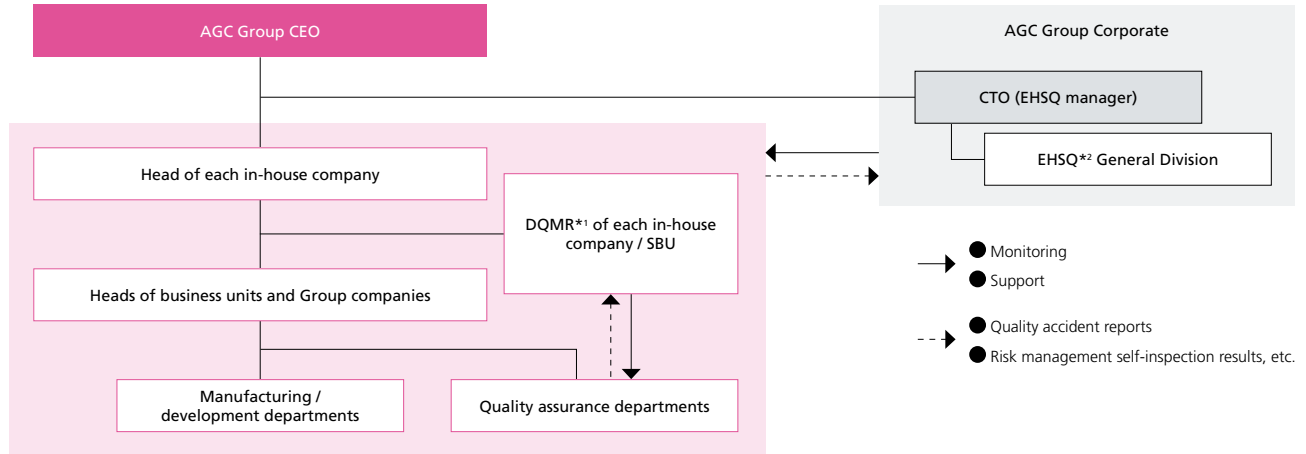
The AGC Group Quality Policy

(Established on September 8, 2004, and revised on January 1, 2023)

Having “incorporating the concept of customer satisfaction into daily work processes” as a fundamental aspect of our businesses, we continue to create the value expected of our customers through the development and provision of products and services.

1. We will provide products and services that conform to the requirements of laws, regulations, and customers.
2. We will ensure and improve the quality of our products and services, including appropriate consideration for safety and the environment.
3. We will create factual records of necessary information about products and services, and properly manage, report and disclose this information.
4. We will participate in the continuous improvement of the effectiveness and efficiency of our quality management, and each of us will individually strive to enhance the quality of our work.
5. In order to ensure that the above points are materialized, each business division will establish individual policies and targets and implement a PDCA cycle.

Quality Management System



*1 Division quality management representative

*2 Environment, occupational health and safety, and quality

Groupwide Initiatives

Compliance with Legal and Regulatory Requirements regarding Products

Through risk management self-inspections, which are based on an integrated risk management system, the AGC Group annually checks the management of systems related to compliance with laws and regulations on products at each business division and continuously pursues improvements.

Initiatives at Individual Companies

Improvement of the Reliability of Product Inspection Data

To improve the reliability of product inspection data, the AGC Group has established a corporate-level team tasked with the automation of product inspections. The Group is developing and introducing to each Group company IoT-enabled automated inspection systems that do not require human intervention. In addition, for inspection processes that are difficult to automate, we are strengthening management measures to ensure the provision of reliable data on quality to customers.

Product Safety Initiatives

Fundamental Approach

Under the AGC Group's management policy of "providing safety security, and comfort to society," the Group conducts reviews that include the perspective of product safety, from the product development stage through to trial manufacture and actual manufacture, to avoid harm or danger to the customer.

For some of its products, the Group fully discloses appropriate information for the safe use of its products and has acquired certification in countries where its products are sold. Product safety is also certified by third-party organizations.

Management Structure

Within the AGC Group, each division builds quality management systems that comply with ISO 9001 and other standards. The Group also conducts internal audits and reviews best suited to the business division in question and continuously improves the effectiveness and efficiency of quality management systems.

Groupwide Initiatives

■ Compliance with the Consumer Product Safety Act

The AGC Group (Japan) has created a system to promptly report serious accidents regarding Group products to the Consumer Affairs Agency and prevent damage escalation, based on the Consumer Product Safety Act and Safe Management of Product Related Defects Standards (enacted in 2014). By confirming risk management conditions on a regular basis corresponding to the risk level set for the product in question and through other initiatives, the Group seeks to prevent accidents before they occur.

Adding to these efforts, information on product accidents released by the Consumer Affairs Agency and the National Institute of Technology and Evaluation (NITE) is collected and classified when it concerns AGC Group products. The information is shared internally.

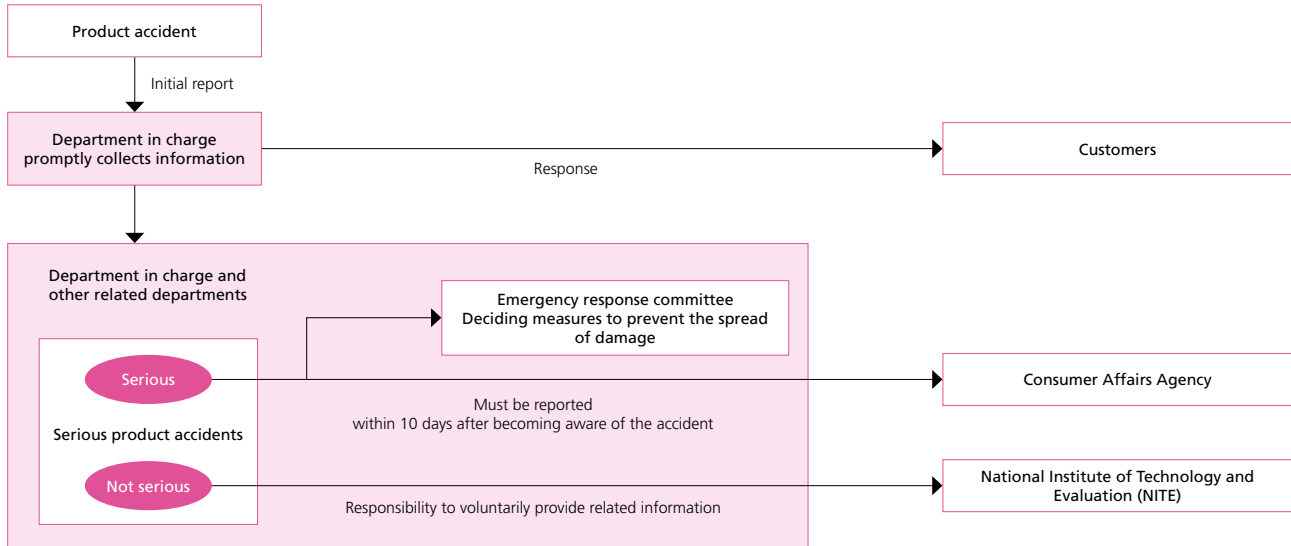
Study meetings are held to allow the employees in charge at related Group divisions to maintain and raise knowledge of product safety.

In 2021, the AGC Group reported one serious incident to the Consumer Affairs Agency.

📍 Change in the Number of Reported Serious Product Accidents (the AGC Group in Japan)

Year	Number of cases
2018	0
2019	1
2020	0
2021	1
2022	1

Reporting Flow for Serious Product Accidents under the Consumer Product Safety Act

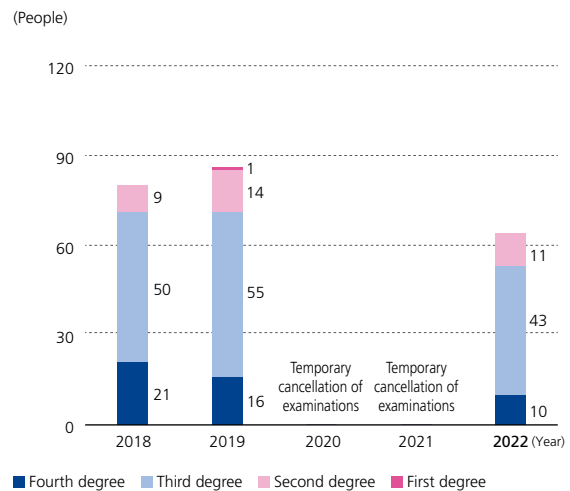


Implementing Quality Training

The AGC Group provides quality training in each business division according to their respective needs. Based on necessity, the Group is also taking steps to maintain and raise quality awareness through quality compliance training for employees, drawing on internal and external quality case studies. The AGC Group (Japan) encourages its employees to acquire a certificate on quality control.*

* A certificate on quality control (QC) issued by the Japanese Society for Quality Control

Number of Employees Who Passed the QC Certification Examination (the AGC Group in Japan)



Pursuit of Customer Satisfaction (CS)

Fundamental Approach

The AGC Group constantly strives to achieve customer satisfaction (CS). The Group defines customers as “people and organizations who receive benefit (value) from the products (including services) and information entailed in the AGC Group’s work.” As such, the Group works toward CS of not only business customers but all Group employees.

Management Structure

Under the quality management system of the AGC Group, in-house companies take various measures to enhance CS. In addition to conducting CS education through rank-specific training, the Group actively works to ensure the CS spirit is rooted in the AGC Group’s corporate culture.

Groupwide Initiatives

■ Implementing Full-Scale CS Training

Based on the management policy of “creating new value and functions for customers and business partners and building trust with them”, the employees of AGC incorporate the CS viewpoint into their daily activities as a fundamental aspect of their work. To add further value for its customers, the Group provides specialized CS training and other types of training to all divisions based on their specific needs. Moreover, CS is an important theme in the Group’s rank-specific training.

As of December 31, 2022, a total of 8,172 employees have undergone CS training (excluding training provided independently by specific divisions).

Customer Service

The AGC Group seeks to provide CS by establishing customer centers and customer service windows for specific businesses.

The Architectural Glass Asia Pacific Company (Japan) has established a customer center for architectural glass to respond accurately to inquiries from customers in the building industry, as well as regular customers. The Architectural Glass Europe & Americas Company (Europe) also produces websites for customers in multiple local languages.

Also, the Chemicals Company has created inquiry forms on its website in 10 languages. A system has been established to automatically forward inquiries accepted through these forms to the most qualified specialist available, depending on the target business, product, and region of the sender, and response is made in a timely manner.

GRI Standards Index

AGC refers to GRI Standards (GRI 1: Foundation 2021) and reports information based on the GRI content index for the period from January 1, 2022, to December 31, 2022.

1. The organization and its reporting practices

Universal Standards	Requirements		Page listed	
GRI 2: General Disclosures 2021	2-1	Organizational details	a. report its legal name; b. report its nature of ownership and legal form; c. report the location of its headquarters; d. report its countries of operation.	AGC Integrated Report 2023 (P111) Sustainability Data Book 2023 (P1) Company Overview Our Network Company Overview Corporate Governance Company Overview / Business site
	2-2	Entities included in the organization's sustainability reporting	a. list all its entities included in its sustainability reporting; b. if the organization has audited consolidated financial statements or financial information filed on public record, specify the differences between the list of entities included in its financial reporting and the list included in its sustainability reporting; c. if the organization consists of multiple entities, explain the approach used for consolidating the information, including: i. whether the approach involves adjustments to information for minority interests; ii. how the approach takes into account mergers, acquisitions, and disposal of entities or parts of entities; iii. whether and how the approach differs across the disclosures in this Standard and across material topics.	Sustainability Data Book 2023 (P1) Scope of This Report Financial Review 2022 (English only) (P63–64)
	2-3	Reporting period, frequency and contact point	a. specify the reporting period for, and the frequency of, its sustainability reporting; b. specify the reporting period for its financial reporting and, if it does not align with the period for its sustainability reporting, explain the reason for this; c. report the publication date of the report or reported information; d. specify the contact point for questions about the report or reported information.	AGC Integrated Report 2023 (P2) Sustainability Data Book 2023 (P1) Scope of This Report Inquiries Regarding Sustainability
	2-4	Restatements of information	a. report restatements of information made from previous reporting periods and explain: i. the reasons for the restatements; ii. the effect of the restatements.	
	2-5	External assurance	a. describe its policy and practice for seeking external assurance, including whether and how the highest governance body and senior executives are involved; b. if the organization's sustainability reporting has been externally assured: i. provide a link or reference to the external assurance report(s) or assurance statement(s); ii. describe what has been assured and on what basis, including the assurance standards used, the level of assurance obtained, and any limitations of the assurance process; iii. describe the relationship between the organization and the assurance provider.	Sustainability Data Book 2023 (P62–65) Verification Statement Financial Review 2022 (English only) (P66–74)

2. Activities and workers

Universal Standards	Requirements		Page listed	
GRI 2: General Disclosures 2021	2-6	Activities, value chain and other business relationships	a. describe its policy and practice for seeking external assurance, including whether and how the highest governance body and senior executives are involved; b. if the organization's sustainability reporting has been externally assured: i. provide a link or reference to the external assurance report(s) or assurance statement(s); ii. describe what has been assured and on what basis, including the assurance standards used, the level of assurance obtained, and any limitations of the assurance process; iii. describe the relationship between the organization and the assurance provider.	AGC Integrated Report 2023 (P31-32, P42-64) Sustainability Data Book 2023 (P3-4) Overview of the AGC Group Sustainability Data Book 2023 (P95,98) Supply Chain Our Network Company Overview Products Procurement Policy

GRI 2: General Disclosures 2021	2-7	Employees	<p>a. report the total number of employees, and a breakdown of this total by gender and by region;</p> <p>b. report the total number of:</p> <ul style="list-style-type: none"> i. permanent employees, and a breakdown by gender and by region; ii. temporary employees, and a breakdown by gender and by region; iii. non-guaranteed hours employees, and a breakdown by gender and by region; iv. full-time employees, and a breakdown by gender and by region; v. part-time employees, and a breakdown by gender and by region; <p>c. describe the methodologies and assumptions used to compile the data, including whether the numbers are reported:</p> <ul style="list-style-type: none"> i. in head count, full-time equivalent (FTE), or using another methodology; ii. at the end of the reporting period, as an average across the reporting period, or using another methodology; <p>d. report contextual information necessary to understand the data reported under 2-7-a and 2-7-b;</p> <p>e. describe significant fluctuations in the number of employees during the reporting period and between reporting periods.</p>	Sustainability Data Book 2023 (P68,70) Human Resources Management
	2-8	Workers who are not employees	<p>a. report the total number of workers who are not employees and whose work is controlled by the organization and describe:</p> <ul style="list-style-type: none"> i. the most common types of worker and their contractual relationship with the organization; ii. the type of work they perform; <p>b. describe the methodologies and assumptions used to compile the data, including whether the number of workers who are not employees is reported:</p> <ul style="list-style-type: none"> i. in head count, full-time equivalent (FTE), or using another methodology; ii. at the end of the reporting period, as an average across the reporting period, or using another methodology; <p>c. describe significant fluctuations in the number of workers who are not employees during the reporting period and between reporting periods.</p>	

3. Governance

Universal Standards	Requirements		Page listed	
GRI 2: General Disclosures 2021	2-9	Governance structure and composition	<p>a. describe its governance structure, including committees of the highest governance body;</p> <p>b. list the committees of the highest governance body that are responsible for decisionmaking on and overseeing the management of the organization's impacts on the economy, environment, and people;</p> <p>c. describe the composition of the highest governance body and its committees by:</p> <ul style="list-style-type: none"> i. executive and non-executive members; ii. independence; iii. tenure of members on the governance body; iv. number of other significant positions and commitments held by each member, and the nature of the commitments; v. gender; vi. under-represented social groups; vii. competencies relevant to the impacts of the organization; viii. stakeholder representation. 	AGC Integrated Report 2023 (P94–99,102) Sustainability Data Book 2023 (P13–14) Corporate Governance Corporate Governance
	2-10	Nomination and selection of the highest governance body	<p>a. describe the nomination and selection processes for the highest governance body and its committees;</p> <p>b. describe the criteria used for nominating and selecting highest governance body members, including whether and how the following are taken into consideration:</p> <ul style="list-style-type: none"> i. views of stakeholders (including shareholders); ii. diversity; iii. independence; iv. competencies relevant to the impacts of the organization. 	AGC Integrated Report 2023 (P94–97)
	2-11	Chair of the highest governance body	<p>a. report whether the chair of the highest governance body is also a senior executive in the organization;</p> <p>b. if the chair is also a senior executive, explain their function within the organization's management, the reasons for this arrangement, and how conflicts of interest are prevented and mitigated.</p>	AGC Integrated Report 2023 (P103) Corporate Governance

GRI 2: General Disclosures 2021	2-12	Role of the highest governance body in overseeing the management of impacts	<p>a. describe the role of the highest governance body and of senior executives in developing, approving, and updating the organization's purpose, value or mission statements, strategies, policies, and goals related to sustainable development;</p> <p>b. describe the role of the highest governance body in overseeing the organization's due diligence and other processes to identify and manage the organization's impacts on the economy, environment, and people, including:</p> <ol style="list-style-type: none"> whether and how the highest governance body engages with stakeholders to support these processes; how the highest governance body considers the outcomes of these processes; <p>c. describe the role of the highest governance body in reviewing the effectiveness of the organization's processes as described in 2-12-b, and report the frequency of this review.</p>	AGC Integrated Report 2023 (P41,85) Sustainability Data Book 2023 (P24-26) Environmental Management Sustainability Promotion System
	2-13	Delegation of responsibility for managing impacts	<p>a. describe how the highest governance body delegates responsibility for managing the organization's impacts on the economy, environment, and people, including:</p> <ol style="list-style-type: none"> whether it has appointed any senior executives with responsibility for the management of impacts; whether it has delegated responsibility for the management of impacts to other employees; <p>b. describe the process and frequency for senior executives or other employees to report back to the highest governance body on the management of the organization's impacts on the economy, environment, and people.</p>	AGC Integrated Report 2023 (P85) Sustainability Data Book 2023 (P24-26) Environmental Management Sustainability Promotion System
	2-14	Role of the highest governance body in sustainability reporting	<p>a. report whether the highest governance body is responsible for reviewing and approving the reported information, including the organization's material topics, and if so, describe the process for reviewing and approving the information;</p> <p>b. if the highest governance body is not responsible for reviewing and approving the reported information, including the organization's material topics, explain the reason for this.</p>	
	2-15	Conflicts of interest	<p>a. describe the processes for the highest governance body to ensure that conflicts of interest are prevented and mitigated;</p> <p>b. report whether conflicts of interest are disclosed to stakeholders, including, at a minimum, conflicts of interest relating to:</p> <ol style="list-style-type: none"> cross-board membership; cross-shareholding with suppliers and other stakeholders; existence of controlling shareholders; related parties, their relationships, transactions, and outstanding balances. 	AGC Integrated Report 2023 (P103-104, 111)
	2-16	Communication of critical concerns	<p>a. describe whether and how critical concerns are communicated to the highest governance body;</p> <p>b. report the total number and the nature of critical concerns that were communicated to the highest governance body during the reporting period.</p>	AGC Integrated Report 2023 (P102) Sustainability Data Book 2023 (P15-16) Risk Management Sustainability Data Book 2023 (P19-20) Compliance
	2-17	Collective knowledge of the highest governance body	<p>a. report measures taken to advance the collective knowledge, skills, and experience of the highest governance body on sustainable development.</p>	AGC Integrated Report 2023 (P91-105)
	2-18	Evaluation of the performance of the highest governance body	<p>a. describe the processes for evaluating the performance of the highest governance body in overseeing the management of the organization's impacts on the economy, environment, and people;</p> <p>b. report whether the evaluations are independent or not, and the frequency of the evaluations;</p> <p>c. describe actions taken in response to the evaluations, including changes to the composition of the highest governance body and organizational practices.</p>	AGC Integrated Report 2023 (P94)
	2-19	Remuneration policies	<p>a. describe the remuneration policies for members of the highest governance body and senior executives, including:</p> <ol style="list-style-type: none"> fixed pay and variable pay; sign-on bonuses or recruitment incentive payments; termination payments; clawbacks; retirement benefits; <p>b. describe how the remuneration policies for members of the highest governance body and senior executives relate to their objectives and performance in relation to the management of the organization's impacts on the economy, environment, and people.</p>	AGC Integrated Report 2023 (P98-99) Corporate Governance AGC Integrated Report 2023 (P98-99) Corporate Governance

GRI 2: General Disclosures 2021	2-20	Process to determine remuneration	<p>a. describe the process for designing its remuneration policies and for determining remuneration, including:</p> <ul style="list-style-type: none"> i. whether independent highest governance body members or an independent remuneration committee oversees the process for determining remuneration; ii. how the views of stakeholders (including shareholders) regarding remuneration are sought and taken into consideration; iii. whether remuneration consultants are involved in determining remuneration and, if so, whether they are independent of the organization, its highest governance body and senior executives; <p>b. report the results of votes of stakeholders (including shareholders) on remuneration policies and proposals, if applicable.</p>	AGC Integrated Report 2023 (P98-99) Corporate Governance
	2-21	Annual total compensation ratio	<p>a. report the ratio of the annual total compensation for the organization's highest-paid individual to the median annual total compensation for all employees (excluding the highest-paid individual);</p> <p>b. report the ratio of the percentage increase in annual total compensation for the organization's highest-paid individual to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual);</p> <p>c. report contextual information necessary to understand the data and how the data has been compiled.</p>	

4. Strategy, policies and practices

Universal Standards	Requirements		Page listed	
GRI 2: General Disclosures 2021	2-22	Statement on sustainable development strategy	<p>a. report a statement from the highest governance body or most senior executive of the organization about the relevance of sustainable development to the organization and its strategy for contributing to sustainable development.</p>	AGC Integrated Report 2023 (P8-12) Sustainability Data Book 2023 (P2) A Message from the President & CEO Sustainability > Message from the President and CEO
	2-23	Policy commitments	<p>a. describe its policy commitments for responsible business conduct, including:</p> <ul style="list-style-type: none"> i. the authoritative intergovernmental instruments that the commitments reference; ii. whether the commitments stipulate conducting due diligence; iii. whether the commitments stipulate applying the precautionary principle; iv. whether the commitments stipulate respecting human rights; <p>b. describe its specific policy commitment to respect human rights, including:</p> <ul style="list-style-type: none"> i. the internationally recognized human rights that the commitment covers; ii. the categories of stakeholders, including at-risk or vulnerable groups, that the organization gives particular attention to in the commitment; <p>c. provide links to the policy commitments if publicly available, or, if the policy commitments are not publicly available, explain the reason for this;</p> <p>d. report the level at which each of the policy commitments was approved within the organization, including whether this is the most senior level;</p> <p>e. report the extent to which the policy commitments apply to the organization's activities and to its business relationships;</p> <p>f. describe how the policy commitments are communicated to workers, business partners, and other relevant parties.</p>	Sustainability Data Book 2023 (P66-67) Respecting Human Rights AGC Group Charter of Corporate Behavior Standards Sustainability-related policies, criteria, and guidelines
	2-24	Embedding policy commitments	<p>a. describe how it embeds each of its policy commitments for responsible business conduct throughout its activities and business relationships, including:</p> <ul style="list-style-type: none"> i. how it allocates responsibility to implement the commitments across different levels within the organization; ii. how it integrates the commitments into organizational strategies, operational policies, and operational procedures; iii. how it implements its commitments with and through its business relationships; iv. training that the organization provides on implementing the commitments. 	Sustainability Data Book 2023 (P66-67) Respecting Human Rights Standards

GRI 2: General Disclosures 2021	2-25	Processes to remediate negative impacts	<p>a. describe its commitments to provide for or cooperate in the remediation of negative impacts that the organization identifies it has caused or contributed to;</p> <p>b. describe its approach to identify and address grievances, including the grievance mechanisms that the organization has established or participates in;</p> <p>c. describe other processes by which the organization provides for or cooperates in the remediation of negative impacts that it identifies it has caused or contributed to;</p> <p>d. describe how the stakeholders who are the intended users of the grievance mechanisms are involved in the design, review, operation, and improvement of these mechanisms;</p> <p>e. describe how the organization tracks the effectiveness of the grievance mechanisms and other remediation processes, and report examples of their effectiveness, including stakeholder feedback.</p>	Sustainability Data Book 2023 (P20) Compliance Inquiries Point of Contact for Compliance in Procurement Activities Compliance Help Lines
	2-26	Mechanisms for seeking advice and raising concerns	<p>a. describe the mechanisms for individuals to:</p> <ol style="list-style-type: none"> seek advice on implementing the organization's policies and practices for responsible business conduct; raise concerns about the organization's business conduct. 	Sustainability Data Book 2023 (P20) Compliance Inquiries Point of Contact for Compliance in Procurement Activities Compliance Help Lines Sustainability Data Book 2023 (P20) Compliance Sustainability Data Book 2023 (P67) Respecting Human Rights Sustainability Data Book 2023 (P95) Supply Chain Sustainability Data Book 2023 (P108) Pursuit of Customer Satisfaction (CS) Sustainability Data Book 2023 (P26) Environmental Management Sustainability Data Book 2023 (P30) Environmental Management
	2-27	Compliance with laws and regulations	<p>a. report the total number and the monetary value of fines for instances of noncompliance with laws and regulations that were paid during the reporting period, and a breakdown of this total by:</p> <ol style="list-style-type: none"> instances for which fines were incurred; instances for which non-monetary sanctions were incurred; <p>b. report the total number and the monetary value of fines for instances of noncompliance with laws and regulations that were paid during the reporting period, and a breakdown of this total by:</p> <ol style="list-style-type: none"> fines for instances of non-compliance with laws and regulations that occurred in the current reporting period; fines for instances of non-compliance with laws and regulations that occurred in previous reporting periods; <p>c. describe the significant instances of non-compliance;</p> <p>d. describe how it has determined significant instances of non-compliance.</p>	Sustainability Data Book 2023 (P26) Environmental Management
	2-28	Membership associations	<p>a. report industry associations, other membership associations, and national or international advocacy organizations in which it participates in a significant role.</p>	Sustainability Data Book 2023 (P30) Environmental Management

5. Stakeholder engagement

Universal Standards	Requirements		Page listed	
GRI 2: General Disclosures 2021	2-29	Approach to stakeholder engagement	<p>a. describe its approach to engaging with stakeholders, including:</p> <ol style="list-style-type: none"> the categories of stakeholders it engages with, and how they are identified; the purpose of the stakeholder engagement; how the organization seeks to ensure meaningful engagement with stakeholders. 	Sustainability Data Book 2023 (P11-12) Stakeholders
	2-30	Collective bargaining agreements Material Topics	<p>a. report the percentage of total employees covered by collective bargaining agreements;</p> <p>b. for employees not covered by collective bargaining agreements, report whether the organization determines their working conditions and terms of employment based on collective bargaining agreements that cover its other employees or based on collective bargaining agreements from other organizations.</p>	Sustainability Data Book 2023 (P67) Respecting Human Rights

Material Topics

Universal Standards	Requirements		Page listed	
GRI 3: Material Topics 2021	3-1	Process to determine material topics	a. describe the process it has followed to determine its material topics, including: <ul style="list-style-type: none"> i. how it has identified actual and potential, negative and positive impacts on the economy, environment, and people, including impacts on their human rights, across its activities and business relationships; ii. how it has prioritized the impacts for reporting based on their significance; b. specify the stakeholders and experts whose views have informed the process of determining its material topics.	AGC Integrated Report 2023 (P41)
	3-2	List of material topics	a. list its material topics; b. report changes to the list of material topics compared to the previous reporting period.	AGC Integrated Report 2023 (P41) AGC Sustainability management
	3-3	Management of material topics	For each material topic reported under Disclosure 3-2, the organization shall: <ul style="list-style-type: none"> a. describe the actual and potential, negative and positive impacts on the economy, environment, and people, including impacts on their human rights; b. report whether the organization is involved with the negative impacts through its activities or as a result of its business relationships, and describe the activities or business relationships; c. describe its policies or commitments regarding the material topic; d. describe actions taken to manage the topic and related impacts, including: <ul style="list-style-type: none"> i. actions to prevent or mitigate potential negative impacts; ii. actions to address actual negative impacts, including actions to provide for or cooperate in their remediation; iii. actions to manage actual and potential positive impacts; e. report the following information about tracking the effectiveness of the actions taken: <ul style="list-style-type: none"> i. processes used to track the effectiveness of the actions; ii. goals, targets, and indicators used to evaluate progress; iii. the effectiveness of the actions, including progress toward the goals and targets; iv. lessons learned and how these have been incorporated into the organization's operational policies and procedures; f. describe how engagement with stakeholders has informed the actions taken (3-3-d) and how it has informed whether the actions have been effective (3-3-e). 	AGC Integrated Report 2023 (P39-41,85) Sustainability Data Book 2023 (P9-10) Sustainability at the AGC Group Sustainability Data Book 2023 (P66) Respecting Human Rights Sustainability Data Book 2023 (P81) Occupational Health & Safety Sustainability Data Book 2023 (P95) Supply Chain AGC Sustainability management

Topic Standards

Economic

Universal Standards	Requirements		Page listed	
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	a. Direct economic value generated and distributed (EVG&D) on an accruals basis, including the basic components for the organization's global operations as listed below. If data are presented on a cash basis, report the justification for this decision in addition to reporting the following basic components: <ul style="list-style-type: none"> i. Direct economic value generated: revenues; ii. Economic value distributed: operating costs, employee wages and benefits, payments to providers of capital, payments to government by country, and community investments; iii. Economic value retained: 'direct economic value generated' less 'economic value distributed'. b. Where significant, report EVG&D separately at country, regional, or market levels, and the criteria used for defining significance.	Financial Review 2022 (English only)
	201-2	Financial implications and other risks and opportunities due to climate change	a. Risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue, or expenditure, including: <ul style="list-style-type: none"> i. a description of the risk or opportunity and its classification as either physical, regulatory, or other; ii. a description of the impact associated with the risk or opportunity; iii. the financial implications of the risk or opportunity before action is taken; iv. the methods used to manage the risk or opportunity; v. the costs of actions taken to manage the risk or opportunity. 	AGC Integrated Report 2023 (P86-88) Sustainability Data Book 2023 (P31-34) Climate Action Addressing climate change

Universal Standards	Requirements		Page listed
GRI 201: Economic Performance 2016	201-3	Defined benefit plan obligations and other retirement plans	Financial Review 2022 (English only)(P41-43)
	201-4	Financial assistance received from government	
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	AGC Integrated Report 2023 (P28)
	203-2	Significant indirect economic impacts	AGC Integrated Report 2023 (P39) Sustainability Data Book 2023 (P10) Sustainability at the AGC Group

Environmental

Universal Standards	Requirements		Page listed
GRI 301: Materials 2016	301-1	Materials used by weight or volume	Sustainability Data Book 2023 (P51) Sustainable Use of Resources
	301-2	Recycled input materials used	Sustainability Data Book 2023 (P51) Sustainable Use of Resources
	301-3	Reclaimed products and their packaging materials	

Universal Standards	Requirements		Page listed	
GRI 302: Energy 2016	302-1	Energy consumption within the organization	<ul style="list-style-type: none"> a. Total fuel consumption within the organization from non-renewable sources, in joules or multiples, and including fuel types used. b. Total fuel consumption within the organization from renewable sources, in joules or multiples, and including fuel types used. c. In joules, watt-hours or multiples, the total: <ul style="list-style-type: none"> i. electricity consumption ii. heating consumption iii. cooling consumption iv. steam consumption d. In joules, watt-hours or multiples, the total: <ul style="list-style-type: none"> i. electricity sold ii. heating sold iii. cooling sold iv. steam sold e. Total energy consumption within the organization, in joules or multiples. f. Standards, methodologies, assumptions, and/or calculation tools used. g. Source of the conversion factors used. 	Sustainability Data Book 2023 (P42) Climate Action
	302-2	Energy consumption outside of the organization	<ul style="list-style-type: none"> a. Energy consumption outside of the organization, in joules or multiples. b. Standards, methodologies, assumptions, and/or calculation tools used. c. Source of the conversion factors used. 	
	302-3	Energy intensity	<ul style="list-style-type: none"> a. Energy intensity ratio for the organization. b. Organization-specific metric (the denominator) chosen to calculate the ratio. c. Types of energy included in the intensity ratio; whether fuel, electricity, heating, cooling, steam, or all. d. Whether the ratio uses energy consumption within the organization, outside of it, or both. 	Sustainability Data Book 2023 (P42) Climate Action
	302-4	Reduction of energy consumption	<ul style="list-style-type: none"> a. Amount of reductions in energy consumption achieved as a direct result of conservation and efficiency initiatives, in joules or multiples. b. Types of energy included in the reductions; whether fuel, electricity, heating, cooling, steam, or all. c. Basis for calculating reductions in energy consumption, such as base year or baseline, including the rationale for choosing it. d. Standards, methodologies, assumptions, and/or calculation tools used. 	
	302-5	Reductions in energy requirements of products and services	<ul style="list-style-type: none"> a. Reductions in energy requirements of sold products and services achieved during the reporting period, in joules or multiples. b. Basis for calculating reductions in energy consumption, such as base year or baseline, including the rationale for choosing it. c. Standards, methodologies, assumptions, and/or calculation tools used. 	
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	<ul style="list-style-type: none"> a. A description of how the organization interacts with water, including how and where water is withdrawn, consumed, and discharged, and the water-related impacts caused or contributed to, or directly linked to the organization's activities, products or services by a business relationship (e.g., impacts caused by runoff). b. A description of the approach used to identify water-related impacts, including the scope of assessments, their timeframe, and any tools or methodologies used. c. A description of how water-related impacts are addressed, including how the organization works with stakeholders to steward water as a shared resource, and how it engages with suppliers or customers with significant water-related impacts. d. An explanation of the process for setting any water-related goals and targets that are part of the organization's management approach, and how they relate to public policy and the local context of each area with water stress. 	Sustainability Data Book 2023 (P54–55) Conservation of Natural Capital and Biodiversity
	303-2	Management of water discharge-related impacts	<ul style="list-style-type: none"> a. A description of any minimum standards set for the quality of effluent discharge, and how these minimum standards were determined, including: <ul style="list-style-type: none"> i. how standards for facilities operating in locations with no local discharge requirements were determined; ii. any internally developed water quality standards or guidelines; iii. any sector-specific standards considered; iv. whether the profile of the receiving waterbody was considered. 	Sustainability Data Book 2023 (P59) Conservation of Natural Capital and Biodiversity

Universal Standards	Requirements		Page listed
GRI 303: Water and Effluents 2018	303-3	<p>Water withdrawal</p> <p>a. Total water withdrawal from all areas in megaliters, and a breakdown of this total by the following sources, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Produced water; v. Third-party water. <p>b. Total water withdrawal from all areas with water stress in megaliters, and a breakdown of this total by the following sources, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Produced water; v. Third-party water, and a breakdown of this total by the withdrawal sources listed in i-iv. <p>c. A breakdown of total water withdrawal from each of the sources listed in Disclosures 303-3-a and 303-3-b in megaliters by the following categories:</p> <ul style="list-style-type: none"> i. Freshwater ($\leq 1,000$ mg/L Total Dissolved Solids); ii. Other water ($> 1,000$ mg/L Total Dissolved Solids). <p>d. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p>	Sustainability Data Book 2023 (P56-57) Conservation of Natural Capital and Biodiversity
	303-4	<p>Water discharge</p> <p>a. Total water discharge to all areas in megaliters, and a breakdown of this total by the following types of destination, if applicable:</p> <ul style="list-style-type: none"> i. Surface water; ii. Groundwater; iii. Seawater; iv. Third-party water, and the volume of this total sent for use to other organizations, if applicable. <p>b. A breakdown of total water discharge to all areas in megaliters by the following categories:</p> <ul style="list-style-type: none"> i. Freshwater ($\leq 1,000$ mg/L Total Dissolved Solids); ii. Other water ($> 1,000$ mg/L Total Dissolved Solids). <p>c. Total water discharge to all areas with water stress in megaliters, and a breakdown of this total by the following categories:</p> <ul style="list-style-type: none"> i. Freshwater ($\leq 1,000$ mg/L Total Dissolved Solids); ii. Other water ($> 1,000$ mg/L Total Dissolved Solids). <p>d. Priority substances of concern for which discharges are treated, including:</p> <ul style="list-style-type: none"> i. how priority substances of concern were defined, and any international standard, authoritative list, or criteria used; ii. the approach for setting discharge limits for priority substances of concern; iii. number of incidents of non-compliance with discharge limits. <p>e. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p>	Sustainability Data Book 2023 (P56) Conservation of Natural Capital and Biodiversity Site Reports
	303-5	<p>Water consumption</p> <p>a. Total water consumption from all areas in megaliters.</p> <p>b. Total water consumption from all areas with water stress in megaliters.</p> <p>c. Change in water storage in megaliters, if water storage has been identified as having a significant water-related impact.</p> <p>d. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used, including whether the information is calculated, estimated, modeled, or sourced from direct measurements, and the approach taken for this, such as the use of any sector-specific factors.</p>	
GRI 304: Biodiversity 2016	304-1	<p>Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas</p> <p>a. For each operational site owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas, the following information:</p> <ul style="list-style-type: none"> i. Geographic location; ii. Subsurface and underground land that may be owned, leased, or managed by the organization; iii. Position in relation to the protected area (in the area, adjacent to, or containing portions of the protected area) or the high biodiversity value area outside protected areas; iv. Type of operation (office, manufacturing or production, or extractive); v. Size of operational site in km² (or another unit, if appropriate); vi. Biodiversity value characterized by the attribute of the protected area or area of high biodiversity value outside the protected area (terrestrial, freshwater, or maritime ecosystem); vii. Biodiversity value characterized by listing of protected status (such as IUCN Protected Area Management Categories, Ramsar Convention, national legislation). 	Sustainability Data Book 2023 (P53) Conservation of Natural Capital and Biodiversity

Universal Standards	Requirements		Page listed	
GRI 304: Biodiversity 2016	304-2	Significant impacts of activities, products, and services on biodiversity	<p>a. Nature of significant direct and indirect impacts on biodiversity with reference to one or more of the following:</p> <ul style="list-style-type: none"> i. Construction or use of manufacturing plants, mines, and transport infrastructure; ii. Pollution (introduction of substances that do not naturally occur in the habitat from point and non-point sources); iii. Introduction of invasive species, pests, and pathogens; iv. Reduction of species; v. Habitat conversion; vi. Changes in ecological processes outside the natural range of variation (such as salinity or changes in groundwater level). <p>b. Significant direct and indirect positive and negative impacts with reference to the following:</p> <ul style="list-style-type: none"> i. Species affected; ii. Extent of areas impacted; iii. Duration of impacts; iv. Reversibility or irreversibility of the impacts. 	Sustainability Data Book 2023 (P52-53) Conservation of Natural Capital and Biodiversity Creating a Healthy and Secure Society through Connections
	304-3	Habitats protected or restored	<p>a. Size and location of all habitat areas protected or restored, and whether the success of the restoration measure was or is approved by independent external professionals.</p> <p>b. Whether partnerships exist with third parties to protect or restore habitat areas distinct from where the organization has overseen and implemented restoration or protection measures.</p> <p>c. Status of each area based on its condition at the close of the reporting period.</p> <p>d. Standards, methodologies, and assumptions used.</p>	Sustainability Data Book 2023 (P53-54) Conservation of Natural Capital and Biodiversity
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	<p>a. Total number of IUCN Red List species and national conservation list species with habitats in areas affected by the operations of the organization, by level of extinction risk:</p> <ul style="list-style-type: none"> i. Critically endangered ii. Endangered iii. Vulnerable iv. Near threatened v. Least concern 	Sustainability Data Book 2023 (P53) Conservation of Natural Capital and Biodiversity
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	<p>a. Gross direct (Scope 1) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>c. Biogenic CO₂ emissions in metric tons of CO₂ equivalent.</p> <p>d. Base year for the calculation, if applicable, including:</p> <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions. <p>e. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>f. Consolidation approach for emissions; whether equity share, financial control, or operational control.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p>	AGC Integrated Report 2023 (P89) Sustainability Data Book 2023 (P42-44) Climate Action
	305-2	Energy indirect (Scope 2) GHG emissions	<p>a. Gross location-based energy indirect (Scope 2) GHG emissions in metric tons of CO₂ equivalent.</p> <p>b. If applicable, gross market-based energy indirect (Scope 2) GHG emissions in metric tons of CO₂ equivalent.</p> <p>c. If available, the gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all.</p> <p>d. Base year for the calculation, if applicable, including:</p> <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions. <p>e. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source.</p> <p>f. Consolidation approach for emissions; whether equity share, financial control, or operational control.</p> <p>g. Standards, methodologies, assumptions, and/or calculation tools used.</p>	AGC Integrated Report 2023 (P89) Sustainability Data Book 2023 (P42-44) Climate Action

Universal Standards	Requirements		Page listed
GRI 305: Emissions 2016	305-3 Other indirect (Scope 3) GHG emissions	<p>The reporting organization shall report the following information:</p> <ul style="list-style-type: none"> a. Gross other indirect (Scope 3) GHG emissions in metric tons of CO₂ equivalent. b. If available, the gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all. c. Biogenic CO₂ emissions in metric tons of CO₂ equivalent. d. Other indirect (Scope 3) GHG emissions categories and activities included in the calculation. e. Base year for the calculation, if applicable, including: <ul style="list-style-type: none"> i. the rationale for choosing it; ii. emissions in the base year; iii. the context for any significant changes in emissions that triggered recalculations of base year emissions. f. Source of the emission factors and the global warming potential (GWP) rates used, or a reference to the GWP source. g. Standards, methodologies, assumptions, and/or calculation tools used. 	AGC Integrated Report 2023 (P89) Sustainability Data Book 2023 (P42) Climate Action
	305-4 GHG emissions intensity	<ul style="list-style-type: none"> a. GHG emissions intensity ratio for the organization. b. Organization-specific metric (the denominator) chosen to calculate the ratio. c. Types of GHG emissions included in the intensity ratio; whether direct (Scope 1), energy indirect (Scope 2), and/or other indirect (Scope 3). d. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all. 	AGC Integrated Report 2023 (P89) Sustainability Data Book 2023 (P43) Climate Action
	305-5 Reduction of GHG emissions	<ul style="list-style-type: none"> a. GHG emissions reduced as a direct result of reduction initiatives, in metric tons of CO₂ equivalent. b. Gases included in the calculation; whether CO₂, CH₄, N₂O, HFCs, PFCs, SF₆, NF₃, or all. c. Base year or baseline, including the rationale for choosing it. d. Scopes in which reductions took place; whether direct (Scope 1), energy indirect (Scope 2), and/or other indirect (Scope 3). e. Standards, methodologies, assumptions, and/or calculation tools used. 	AGC Integrated Report 2023 (P88-89) Sustainability Data Book 2023 (P34, 42-44) Climate Action
	305-6 Emissions of ozone-depleting substances (ODS)	<ul style="list-style-type: none"> a. Production, imports, and exports of ODS in metric tons of CFC-11 (trichlorofluoromethane) equivalent. b. Substances included in the calculation. c. Source of the emission factors used. d. Standards, methodologies, assumptions, and/or calculation tools used. 	Sustainability Data Book 2023 (P59) Conservation of Natural Capital and Biodiversity
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	<ul style="list-style-type: none"> a. Significant air emissions, in kilograms or multiples, for each of the following: <ul style="list-style-type: none"> i. NOx ii. SOx iii. Persistent organic pollutants (POP) iv. Volatile organic compounds (VOC) v. Hazardous air pollutants (HAP) vi. Particulate matter (PM) vii. Other standard categories of air emissions identified in relevant regulations b. Source of the emission factors used. c. Standards, methodologies, assumptions, and/or calculation tools used. 	Sustainability Data Book 2023 (P58) Conservation of Natural Capital and Biodiversity Site Reports

Universal Standards	Requirements		Page listed	
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	a. For the organization's significant actual and potential waste-related impacts, a description of: <ol style="list-style-type: none"> i. the inputs, activities, and outputs that lead or could lead to these impacts; ii. whether these impacts relate to waste generated in the organization's own activities or to waste generated upstream or downstream in its value chain. 	Sustainability Data Book 2023 (P45-49) Effective Use of Resources
	306-2	Management of significant waste-related impacts	a. Actions, including circularity measures, taken to prevent waste generation in the organization's own activities and upstream and downstream in its value chain, and to manage significant impacts from waste generated. b. If the waste generated by the organization in its own activities is managed by a third party, a description of the processes used to determine whether the third party manages the waste in line with contractual or legislative obligations. c. The processes used to collect and monitor waste-related data.	Sustainability Data Book 2023 (P45-49) Effective Use of Resources Site Reports
	306-3	Waste generated	a. Total weight of waste generated in metric tons, and a breakdown of this total by composition of the waste. b. Contextual information necessary to understand the data and how the data has been compiled.	Sustainability Data Book 2023 (P50-51) Effective Use of Resources
	306-4	Waste diverted from disposal	a. Total weight of waste diverted from disposal in metric tons, and a breakdown of this total by composition of the waste. b. Total weight of hazardous waste diverted from disposal in metric tons, and a breakdown of this total by the following recovery operations: <ol style="list-style-type: none"> i. Preparation for reuse; ii. Recycling; iii. Other recovery operations. c. Total weight of non-hazardous waste diverted from disposal in metric tons, and a breakdown of this total by the following recovery operations: <ol style="list-style-type: none"> i. Preparation for reuse; ii. Recycling; iii. Other recovery operations. d. For each recovery operation listed in Disclosures 306-4-b and 306-4-c, a breakdown of the total weight in metric tons of hazardous waste and of non-hazardous waste diverted from disposal: <ol style="list-style-type: none"> i. onsite; ii. offsite. e. Contextual information necessary to understand the data and how the data has been compiled.	Sustainability Data Book 2023 (P50-51) Effective Use of Resources
	306-5	Waste directed to disposal	a. Total weight of waste directed to disposal in metric tons, and a breakdown of this total by composition of the waste. b. Total weight of hazardous waste directed to disposal in metric tons, and a breakdown of this total by the following disposal operations: <ol style="list-style-type: none"> i. Incineration (with energy recovery); ii. Incineration (without energy recovery); iii. Landfilling; iv. Other disposal operations. c. Total weight of non-hazardous waste directed to disposal in metric tons, and a breakdown of this total by the following disposal operations: <ol style="list-style-type: none"> i. Incineration (with energy recovery); ii. Incineration (without energy recovery); iii. Landfilling; iv. Other disposal operations. d. For each disposal operation listed in Disclosures 306-5-b and 306-5-c, a breakdown of the total weight in metric tons of hazardous waste and of non-hazardous waste directed to disposal: <ol style="list-style-type: none"> i. onsite; ii. offsite. e. Contextual information necessary to understand the data and how the data has been compiled.	Sustainability Data Book 2023 (P50-51) Effective Use of Resources
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	a. Significant fines and non-monetary sanctions for non-compliance with environmental laws and/or regulations in terms of: <ol style="list-style-type: none"> i. total monetary value of significant fines; ii. total number of non-monetary sanctions; iii. cases brought through dispute resolution mechanisms. b. If the organization has not identified any non-compliance with environmental laws and/or regulations, a brief statement of this fact is sufficient.	Sustainability Data Book 2023 (P26) Environmental Management

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GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	a. Percentage of new suppliers that were screened using environmental criteria.
	308-2	Negative environmental impacts in the supply chain and actions taken	a. Number of suppliers assessed for environmental impacts. b. Number of suppliers identified as having significant actual and potential negative environmental impacts. c. Significant actual and potential negative environmental impacts identified in the supply chain. d. Percentage of suppliers identified as having significant actual and potential negative environmental impacts with which improvements were agreed upon as a result of assessment. e. Percentage of suppliers identified as having significant actual and potential negative environmental impacts with which relationships were terminated as a result of assessment, and why.
			Sustainability Data Book 2023 (P95–98) Supply Chain Procurement Policy

Social

Universal Standards	Requirements		Page listed
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	a. Total number and rate of new employee hires during the reporting period, by age group, gender and region. b. Total number and rate of employee turnover during the reporting period, by age group, gender and region.
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	a. Benefits which are standard for full-time employees of the organization but are not provided to temporary or part-time employees, by significant locations of operation. These include, as a minimum: i. life insurance; ii. health care; iii. disability and invalidity coverage; iv. parental leave; v. retirement provision; vi. stock ownership; vii. others. b. The definition used for 'significant locations of operation'.
	401-3	Parental leave	a. Total number of employees that were entitled to parental leave, by gender. b. Total number of employees that took parental leave, by gender. c. Total number of employees that returned to work in the reporting period after parental leave ended, by gender. d. Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work, by gender. e. Return to work and retention rates of employees that took parental leave, by gender.
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	a. A statement of whether an occupational health and safety management system has been implemented, including whether: i. the system has been implemented because of legal requirements and, if so, a list of the requirements; ii. the system has been implemented based on recognized risk management and/or management system standards / guidelines and, if so, a list of the standards / guidelines. b. A description of the scope of workers, activities, and workplaces covered by the occupational health and safety management system, and an explanation of whether and, if so, why any workers, activities, or workplaces are not covered.
			Sustainability Data Book 2023 (P70) Human Resource Management Sustainability Data Book 2023 (P76) Work-Life Balance Sustainability Data Book 2023 (P82) Occupational Health & Safety

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GRI 403: Occupational Health and Safety 2018	403-2	Hazard identification, risk assessment, and incident investigation	<p>a. A description of the processes used to identify work-related hazards and assess risks on a routine and non-routine basis, and to apply the hierarchy of controls in order to eliminate hazards and minimize risks, including:</p> <ul style="list-style-type: none"> i. how the organization ensures the quality of these processes, including the competency of persons who carry them out; ii. how the results of these processes are used to evaluate and continually improve the occupational health and safety management system. <p>b. A description of the processes for workers to report work-related hazards and hazardous situations, and an explanation of how workers are protected against reprisals.</p> <p>c. A description of the policies and processes for workers to remove themselves from work situations that they believe could cause injury or ill health, and an explanation of how workers are protected against reprisals.</p> <p>d. A description of the processes used to investigate work-related incidents, including the processes to identify hazards and assess risks relating to the incidents, to determine corrective actions using the hierarchy of controls, and to determine improvements needed in the occupational health and safety management system.</p>	Sustainability Data Book 2023 (P81-87) Occupational Health & Safety
	403-3	Occupational health services	<p>a. A description of the occupational health services' functions that contribute to the identification and elimination of hazards and minimization of risks, and an explanation of how the organization ensures the quality of these services and facilitates workers' access to them.</p>	Sustainability Data Book 2023 (P81-87) Occupational Health & Safety
	403-4	Worker participation, consultation, and communication on occupational health and safety	<p>a. A description of the processes for worker participation and consultation in the development, implementation, and evaluation of the occupational health and safety management system, and for providing access to and communicating relevant information on occupational health and safety to workers.</p> <p>b. Where formal joint management-worker health and safety committees exist, a description of their responsibilities, meeting frequency, decision-making authority, and whether and, if so, why any workers are not represented by these committees.</p>	Generating New Value from Fair and Safe Workplaces
	403-5	Worker training on occupational health and safety	<p>a. A description of any occupational health and safety training provided to workers, including generic training as well as training on specific work-related hazards, hazardous activities, or hazardous situations.</p>	Sustainability Data Book 2023 (P85-87) Occupational Health & Safety Generating New Value from Fair and Safe Workplaces
	403-6	Promotion of worker health	<p>a. An explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services, and the scope of access provided.</p> <p>b. A description of any voluntary health promotion services and programs offered to workers to address major non-work-related health risks, including the specific health risks addressed, and how the organization facilitates workers' access to these services and programs.</p>	Sustainability Data Book 2023 (P85-87) Occupational Health & Safety
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	<p>a. A description of the organization's approach to preventing or mitigating significant negative occupational health and safety impacts that are directly linked to its operations, products or services by its business relationships, and the related hazards and risks.</p>	Sustainability Data Book 2023 (P88-91) Creating a Comfortable Workplace
	403-8	Workers covered by an occupational health and safety management system	<p>a. If the organization has implemented an occupational health and safety management system based on legal requirements and/or recognized standards / guidelines:</p> <ul style="list-style-type: none"> i. the number and percentage of all employees and workers who are not employees but whose work and/or workplace is controlled by the organization, who are covered by such a system; ii. the number and percentage of all employees and workers who are not employees but whose work and/or workplace is controlled by the organization, who are covered by such a system that has been internally audited; iii. the number and percentage of all employees and workers who are not employees but whose work and/or workplace is controlled by the organization, who are covered by such a system that has been audited or certified by an external party. <p>b. Whether and, if so, why any workers have been excluded from this disclosure, including the types of worker excluded.</p> <p>c. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p>	Sustainability Data Book 2023 (P81-84) Occupational Health & Safety

Universal Standards	Requirements		Page listed
GRI 403: Occupational Health and Safety 2018	403-9	<p>Work-related injuries</p> <p>a. For all employees:</p> <ul style="list-style-type: none"> i. The number and rate of fatalities as a result of work-related injury; ii. The number and rate of high-consequence work-related injuries (excluding fatalities); iii. The number and rate of recordable work-related injuries; iv. The main types of work-related injury; v. The number of hours worked. <p>b. For all workers who are not employees but whose work and/or workplace is controlled by the organization:</p> <ul style="list-style-type: none"> i. The number and rate of fatalities as a result of work-related injury; ii. The number and rate of high-consequence work-related injuries (excluding fatalities); iii. The number and rate of recordable work-related injuries; iv. The main types of work-related injury; v. The number of hours worked. <p>c. The work-related hazards that pose a risk of high-consequence injury, including:</p> <ul style="list-style-type: none"> i. how these hazards have been determined; ii. which of these hazards have caused or contributed to high-consequence injuries during the reporting period; iii. actions taken or underway to eliminate these hazards and minimize risks using the hierarchy of controls. <p>d. Any actions taken or underway to eliminate other work-related hazards and minimize risks using the hierarchy of controls.</p> <p>e. Whether the rates have been calculated based on 200,000 or 1,000,000 hours worked.</p> <p>f. Whether and, if so, why any workers have been excluded from this disclosure, including the types of worker excluded.</p> <p>g. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p>	Sustainability Data Book 2023 (P81–82) Occupational Health & Safety Generating New Value from Fair and Safe Workplaces
	403-10	<p>Work-related ill health</p> <p>a. For all employees:</p> <ul style="list-style-type: none"> i. The number of fatalities as a result of work-related ill health; ii. The number of cases of recordable work-related ill health; iii. The main types of work-related ill health. <p>b. For all workers who are not employees but whose work and/or workplace is controlled by the organization:</p> <ul style="list-style-type: none"> i. The number of fatalities as a result of work-related ill health; ii. The number of cases of recordable work-related ill health; iii. The main types of work-related ill health. <p>c. The work-related hazards that pose a risk of ill health, including:</p> <ul style="list-style-type: none"> i. how these hazards have been determined; ii. which of these hazards have caused or contributed to cases of ill health during the reporting period; iii. actions taken or underway to eliminate these hazards and minimize risks using the hierarchy of controls. <p>d. Whether and, if so, why any workers have been excluded from this disclosure, including the types of worker excluded.</p> <p>e. Any contextual information necessary to understand how the data have been compiled, such as any standards, methodologies, and assumptions used.</p>	Sustainability Data Book 2023 (P82–84) Occupational Health & Safety Site Reports
GRI 408: Child Labor 2016	408-1	<p>Operations and suppliers at significant risk for incidents of child labor</p> <p>a. Operations and suppliers considered to have significant risk for incidents of:</p> <ul style="list-style-type: none"> i. child labor; ii. young workers exposed to hazardous work. <p>b. Operations and suppliers considered to have significant risk for incidents of child labor either in terms of:</p> <ul style="list-style-type: none"> i. type of operation (such as manufacturing plant) and supplier; ii. countries or geographic areas with operations and suppliers considered at risk. <p>c. Measures taken by the organization in the reporting period intended to contribute to the effective abolition of child labor.</p>	Sustainability Data Book 2023 (P66) Respecting Human Rights
GRI 409: Forced or Compulsory Labor 2016	409-1	<p>Operations and suppliers at significant risk for incidents of forced or compulsory labor</p> <p>a. Operations and suppliers considered to have significant risk for incidents of forced or compulsory labor either in terms of:</p> <ul style="list-style-type: none"> i. type of operation (such as manufacturing plant) and supplier; ii. countries or geographic areas with operations and suppliers considered at risk. <p>b. Measures taken by the organization in the reporting period intended to contribute</p>	Sustainability Data Book 2023 (P66) Respecting Human Rights

Universal Standards	Requirements		Page listed	
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	<p>a. Percentage of operations with implemented local community engagement, impact assessments, and/or development programs, including the use of:</p> <ul style="list-style-type: none"> i. social impact assessments, including gender impact assessments, based on participatory processes; ii. environmental impact assessments and ongoing monitoring; iii. public disclosure of results of environmental and social impact assessments; iv. local community development programs based on local communities' needs; v. stakeholder engagement plans based on stakeholder mapping; vi. broad based local community consultation committees and processes that include vulnerable groups; vii. works councils, occupational health and safety committees and other worker representation bodies to deal with impacts; viii. formal local community grievance processes. 	Site Reports
	413-2	Operations with significant actual and potential negative impacts on local communities	<p>a. Operations with significant actual and potential negative impacts on local communities, including:</p> <ul style="list-style-type: none"> i. the location of the operations; ii. the significant actual and potential negative impacts of operations. 	
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	<p>a. Percentage of new suppliers that were screened using social criteria.</p>	
	414-2	Negative social impacts in the supply chain and actions taken	<p>a. Number of suppliers assessed for social impacts. b. Number of suppliers identified as having significant actual and potential negative social impacts. c. Significant actual and potential negative social impacts identified in the supply chain. d. Percentage of suppliers identified as having significant actual and potential negative social impacts with which improvements were agreed upon as a result of assessment. e. Percentage of suppliers identified as having significant actual and potential negative social impacts with which relationships were terminated as a result of assessment, and why.</p>	Sustainability Data Book 2023 (P95–98) Supply Chain Procurement Policy