

# AGC Sustainability Data Book 2021

For the Year Ended December 31, 2020



Your Dreams, Our Challenge



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## Editing Policy Contents

This Sustainability Data Book contains non-financial aspects (sustainability reporting) and complements the AGC Integrated Report 2021, 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.

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

## Scope of This Report

### Reporting Period

2020 (Jan.–Dec. 2020)

Some information includes content from 2019 and/or 2021

### Organizations Covered in the Report

AGC and its 217 consolidated subsidiaries

(Group companies worldwide)

### Primary Notation and Report Targets 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)

#### • Asia/Group companies in Asia

Group companies in Asia, excluding the AGC Group (Japan)

## Dates of Publication

Japanese version: July 2021 (Previous date of publication: July 2020)

English version: August 2021 (Previous date of publication: August 2020)

## Future Assumptions, Forecasts, and Plans

The Sustainability Data Book 2021 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 2020)

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 yen

Stock issued 227,441,381 shares

Employees 56,179 (consolidated)

7,158 (non-consolidated)

Number of consolidated subsidiaries 217 (including 179 overseas)

# A Message from the President & CEO



**Yoshinori Hirai**  
Representative Director,  
President & CEO

**We will continue contributing to the resolution of social issues and taking on the challenge of realizing the aspirations of society and customers through our differentiated materials and solutions.**

Since its foundation, the AGC Group has continuously provided differentiated materials and solutions needed by society and its customers. I believe that our purpose was and remains to deliver such materials and solutions and, in doing so, help solve social issues.

To fulfill our purpose of addressing social issues through the provision of differentiated materials and solutions, we must understand the changes in society and constantly strive to recognize what society and our customers need from us. Based on future trends in global social issues and risks as well as the social issues that its customers are tackling, the AGC Group identified 10 major opportunities and risks after repeated discussions aimed at clarifying these major opportunities and risks. In addition, while increasing our emphasis creating social value, we outlined our approach in our long-term management strategy, Vision 2030, as follows: "By providing differentiated materials and solutions, AGC strives to help realize a sustainable society and become an excellent company that grows and evolves continuously."

To realize Vision 2030, we will aim to optimize our business portfolio and create economic and social value continuously with both Core and Strategic Businesses as drivers. We will create social value in five areas by contributing to the realization of a sustainable global environment, safe and comfortable urban infrastructure, safe and healthy lifestyles, a healthy and secure society, and fair and safe workplaces. With particular regard to the realization of a sustainable global environment, we have set a target of achieving net zero carbon emissions by 2050.

The AGC Group's brand statement is *Your Dreams, Our Challenge*. This statement encapsulates our commitment to realizing the aspirations of society and customers by taking on ambitious initiatives. Never losing sight of this commitment, the Group will continue providing value to its customers and society through differentiated materials and solutions.

# The AGC Group at a Glance

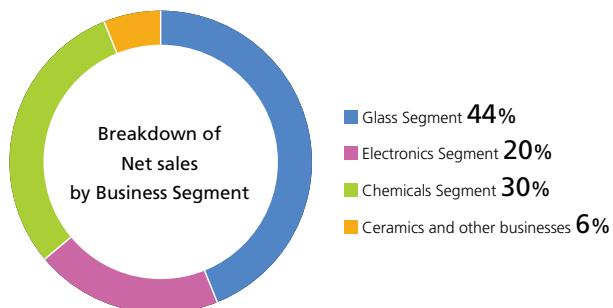
## The AGC Group at a Glance

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

## Description of Businesses

(December 2020)

**AGC Group**  
Net sales: **¥1,412.3 billion**  
Operating profit: **¥75.8 billion**  
Group employees: Approx. **56,200**



<b>Glass Segment</b>	Net sales: <b>¥651.0 billion</b> Operating loss: <b>¥16.6 billion</b>		<b>Architectural glass</b> Net sales: <b>¥324.9 billion</b>
<b>Electronics Segment</b>	Net sales: <b>¥289.4 billion</b> Operating profit: <b>¥37.8 billion</b>		<b>Automotive glass</b> Net sales: <b>¥323.5 billion</b>
<b>Chemicals Segment</b>	Net sales: <b>¥451.2 billion</b> Operating profit: <b>¥50.5 billion</b>		<b>Display</b> Net sales: <b>¥177.2 billion</b>
<b>Ceramics and other businesses</b>	Net sales: <b>¥81.1 billion</b> Operating profit: <b>¥4.2 billion</b>		<b>Electronic materials</b> Net sales: <b>¥105.8 billion</b>
			<b>Chlor-alkali and urethane</b> Net sales: <b>¥264.1 billion</b>
			<b>Fluorochemicals &amp; specialty chemicals</b> Net sales: <b>¥105.7 billion</b>
			<b>Life science</b> Net sales: <b>¥79.9 billion</b>

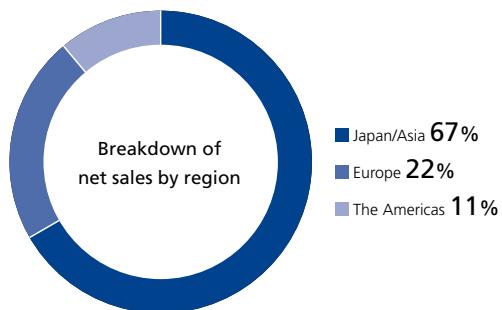
Notes 1. Sub-segment net sales utilize net sales to external customers.

2. As net sales and operating profit (loss) by business segment are before the deduction of eliminations, the sum of net sales by business segment does not equal Companywide net sales, and the sum of operating profit (loss) by business segment does not equal Companywide operating profit.

The AGC Group has established a global business foundation in Japan, Asia, Europe, and the Americas. The Group strives to create new value with globally top-class, diverse materials technologies, a broad customer base, and advanced production technologies as its strengths, cultivated from over 110 years of experience in our Glass, Electronics, Chemicals and Ceramics businesses.

## Global Expansion

(December 2020)



	Japan/Asia	Europe	The Americas
Net sales	¥945.3 billion	¥312.5 billion	¥154.5 billion
Operating profit	¥101.7 billion	¥6.9 billion	¥3.4 billion
Group employees	Approx. 34,100	Approx. 17,000	Approx. 5,100
Number of manufacturing bases	63	23 (including Africa)	13
Architectural glass	●	●	●
Automotive glass	●	●	●
Display	●		
Electronic materials	●	●	●
Chlor-alkali and urethane	●		
Fluorochemicals and specialty chemicals	●	●	●
Life science	●	●	●
Ceramics	●		

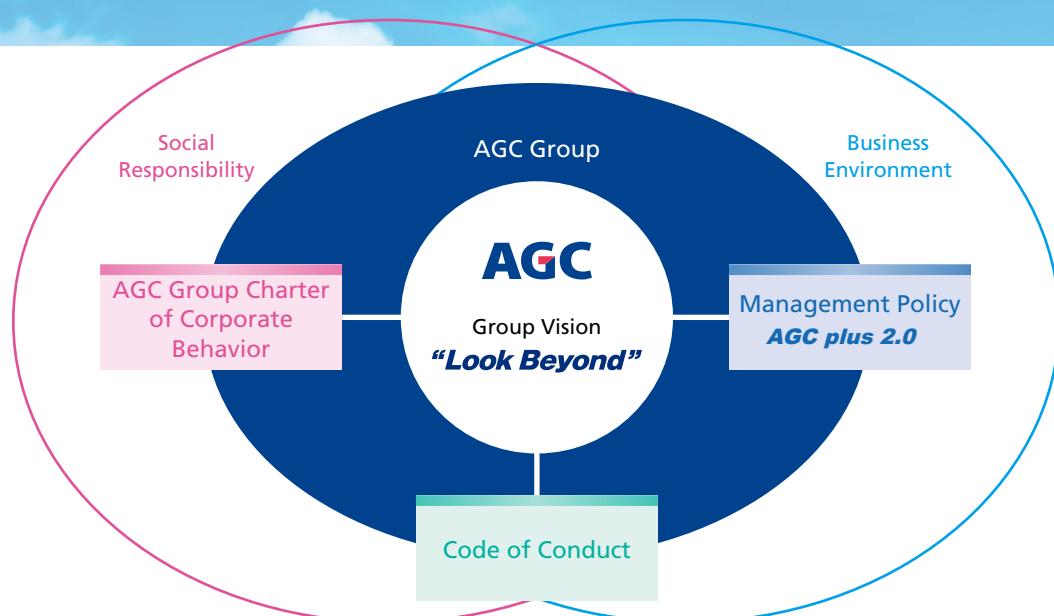
Note: As net sales and operating profit (loss) by region are before the deduction of eliminations and common regional expenses, the sum of net sales by region does not equal Companywide net sales, and the sum of operating profit (loss) by region does not equal Companywide operating profit (loss).

# Approach to Sustainability

## AGC's Group Vision

Based on its **AGC plus 2.0** Management Policy, the AGC Group will aim to earn the trust and meet the expectations of society and continuously deliver value to the world in accordance with its Mission, Shared Values, and Spirit set forth in AGC's Group Vision "**Look Beyond**", which provides grounding for its business activities.

In addition, we have stipulated in the AGC Group Charter of Corporate Behavior the responsibilities we must fulfill as a company in accomplishing Our Mission and declared that we will act autonomously based on this charter. Through the AGC Group Code of Conduct, we make clear the rules that must be observed to enable all employees to perform their duties based on laws and corporate ethics and to demonstrate integrity in their daily actions.



### ► 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 achieving the sustainable development of the planet and 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, and all business division heads 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	Key Risks
<ul style="list-style-type: none"><li><b>Addressing climate change</b> 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 greenhouse gas emissions.</li><li><b>Effective use of resources</b> 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.</li></ul> <ul style="list-style-type: none"><li><b>Developing social infrastructure</b> 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.</li><li><b>Achieving safe, comfortable mobility</b> 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.</li><li><b>Addressing food crises</b> 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 the climate change of recent years. Also, to cope with a growing world population, food productivity must improve.</li><li><b>Building an info-oriented, IoT society</b> 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.</li><li><b>Facilitating better health and longevity</b> 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.</li></ul>	<ul style="list-style-type: none"><li><b>Creating socially and environmental-conscious supply chains</b> 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 concern over potential regulatory violations at operating bases.</li><li><b>Ensuring fair and equal employment and workplace safety</b> 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.</li><li><b>Considering relationships with local communities and the environment</b> 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 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.</li></ul>

## Five Types of Social Value the AGC Group Wants to Create

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



Contributing to the realization of a sustainable global environment



Contributing to the realization of a safe and comfortable urban infrastructure



Contributing to the realization of safe and healthy lifestyles



Contributing to the maintenance of a healthy and secure society



Contributing to the creation of fair and safe workplaces

### ► Products and technologies to create social value

Material opportunities	AGC Group's materials and solutions	Social value	Related SDGs
Addressing climate change	Architectural glass, green refrigerant, automotive infrared cut glass, refractories for biomass boiler, etc.	Contributing to the realization of a sustainable global environment	
Effective use of resources	Fuel cell materials, products for recycled raw materials (glass, refractories, etc.)	Contributing to the realization of a safe and comfortable urban infrastructure	
Developing social infrastructure	Architectural glass, caustic soda, sodium hypochlorite, sodium bicarbonate, PVC, etc.	Contributing to the realization of safe and healthy lifestyles	
Achieving safe, comfortable mobility	Automotive glass antennae, components for automotive sensing radar, HuD components, etc.		
Building an info-oriented, IoT society	Antenna for building windows, materials for semiconductor production, display glass, high-speed communication parts, etc.		
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 membrane for water treatment		

### ► Create social value through healthy corporate activities

Material risks	AGC Group 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	
Effective use of resources	Use of recycled raw materials/materials, reduction of land, etc.	Contributing to the realization of a healthy and secure society	
Creating socially and environmentally conscious supply chains	Supplier selection based on respect for human rights/environmental protection	Contributing to the realization of fair and safe workplaces	
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 environment accidents, generate support, etc.		

# 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.

## ● AGC Group Communication with Stakeholders

### Shareholders and Investors

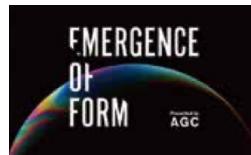
- Regular stockholders' meetings
- Financial settlement briefings
- Information sessions for investors
- Facility tours
- Publishing *AGC Financial Review*, etc.



Earnings presentation (Japan)

### Customers

- Information dissemination with press releases
- Exhibition booths at trade shows
- AGC studio showroom (closed June 2021)



Milan Design Week

### Local Communities

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



Social welfare activities (Brazil)

### 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
- Help lines
- 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.



Site dialogue (Thailand)

### Governments

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



CSR-DIW Continuous Award 2020

## 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.

### ● Main Communication Tools of the AGC Group

		Financial Information	Non-Financial Information	
Booklet	PDF	<i>AGC Integrated Report 2021 (this report)</i>		
		Introducing a wide range of corporate policies, business strategies, and activities aimed at enhancing corporate value over the long term		
Web		<b>Financial Review</b> (English PDF version only) Reporting on financial matters, including business overviews and consolidated financial statements	<b>Sustainability Data Book 2021</b> (PDF version only) Reporting on non-financial data and policies for various initiatives aimed at achieving sustainability	
		 <a href="https://www.agc.com/en/company/agc_report/">https://www.agc.com/en/company/agc_report/</a>	 <a href="https://www.agc.com/en/csr/book/index.html#ac02">https://www.agc.com/en/csr/book/index.html#ac02</a>	
		<b>Shareholder and Investor Information</b> Distributing detailed, timely information on the AGC Group to investors, with a focus on financial information	<b>Corporate Social Responsibility</b> Reporting on non-financial data and policies for various initiatives aimed at achieving sustainability	
		 <a href="https://www.agc.com/en/ir/index.html">https://www.agc.com/en/ir/index.html</a>	 <a href="https://www.agc.com/en/csr/">https://www.agc.com/en/csr/</a>	
		<b>The AGC Website</b> Providing a broad range of in-depth, timely information on the AGC Group		
		 <a href="https://www.agc.com/en/">https://www.agc.com/en/</a>		

## Customers

### Groupwide Initiatives

#### ■ Promoting Global Technology & Networking Activities

As a manufacturer of materials, the AGC Group deals with many customers in various countries and regions. Accordingly, the Group has established customer centers for each division to obtain direct customer feedback and is working on product development and improvement as well as boosting CS (customer satisfaction).

The Group is also promoting the use of proprietary Global Technology Networking (GTNET) activities to discover social issues, trends in leading markets, and cutting-edge technology in a timely manner and relate findings to Group businesses. In these activities, the Group has established offices in North America (Silicon Valley), Europe (Belgium), Southeast Asia (Singapore), and China, where there are many leading electronics and IT-related corporations as well as research facilities of car makers. Through surveys on technological trends, the Group makes proposals regarding the use of new technologies.

#### ■ Distribution of Information on Group Businesses, Products, and Services

In addition to press releases, the AGC Group informs its customers about its businesses, products, and services by operating showrooms and various other initiatives.

#### ■ Exhibitions

The AGC Group holds private exhibitions periodically for individual customers. We use demonstrations of our products and technologies to help us expand our businesses. While we proactively participate in exhibitions in Japan and overseas, the impact of COVID-19 meant that the China International Import Expo was the only overseas exhibition at which we exhibited in 2020. In online exhibitions, we promoted the AGC Group's initiatives by participating in the Combined Exhibition of Advanced Technologies (CEATEC), an international exhibition for information technology and electronics.

#### ● International Exhibition in 2020

##### China International Import Expo

Dates	November 5–10, 2020
Location	Shanghai, China
Details	AGC products were promoted alongside the AGC brand in China
Main visitors	People from all walks of life



#### ● Participation in an Online Exhibition

##### CEATEC 2020 ONLINE

Dates	October 20–23, 2020
Details	To emphasize the appeal of the AGC brand to other companies, including those in the electronics industry
Main visitors	IT-related field



## Shareholders and Investors

### Groupwide Initiatives

#### ■ General Shareholders' Meeting

The general shareholders' meeting provides a convenient opportunity for AGC to interact directly with its shareholders to appropriately disclose resolutions, and more. Specifically, notices of convocation are sent as early as possible and posted on the Company website in both Japanese and English. Notices regarding exercise of voting rights, resolutions, and results of the exercise of voting rights are posted to the homepage in both languages.



#### ■ Dialogue with Shareholders and Investors

##### Analysts and Institutional Investors

Through briefing sessions on medium-term management strategies and financial results, the AGC Group creates opportunities for direct dialogue between analysts, institutional investors, and Group management. The Group also provides online audio streaming of briefing sessions in both Japanese and English. Additionally, Group executives, including the Group CEO and CFO, pay regular visits to institutional investors to promote active dialogue.



Briefing session

##### Individual Investors and Shareholders

To help individual shareholders deepen their understanding of the AGC Group, the Group posts materials including the "Company Overview", which profiles the Company, on its website.

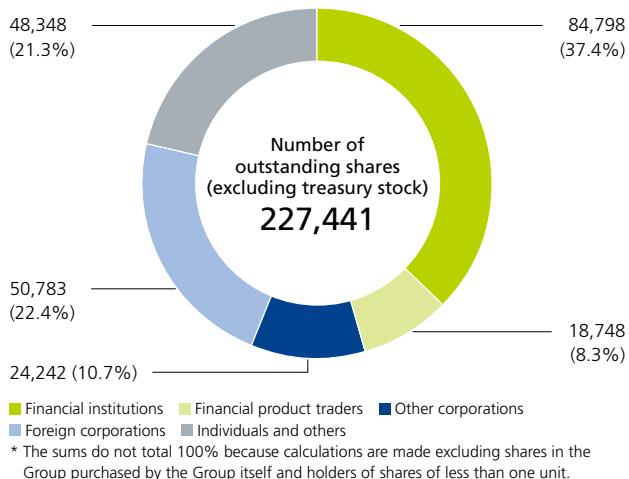
In addition, the *AGC Review* is published twice a year, providing easy-to-understand explanations of the Group's global business activities and products, as well as providing information about its management strategies and business performance.

#### ■ Shareholder Returns

The AGC Group will continue to pay stable dividends with a consolidated dividend payout ratio of 40% as a target. In addition, our basic policy is to acquire treasury stock flexibly as a shareholder return policy that contributes to improving capital efficiency. The AGC Group will take the fundamental approach of applying retained earnings to R&D, capital investment, and loans and investments as well as merger and acquisition activities to improve its corporate value while strengthening its financial position.

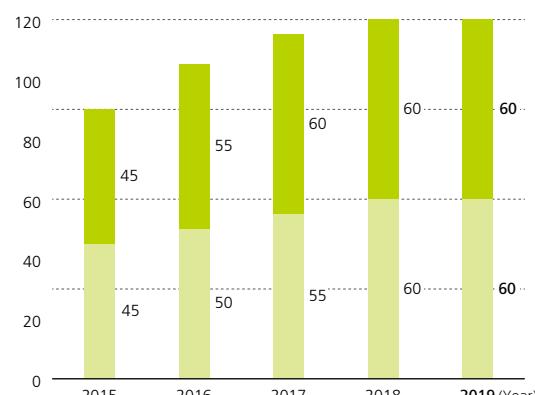
#### ● Number of Shares Held by Type of Investors (as of December 31, 2020)

(Unit: 1,000 shares)



#### ● Dividends per Share

(Yen)



■ Term-end dividend ■ Interim dividend

\* Dividends per share is calculated in consideration of the effects of the 5 into 1 share consolidation implemented by AGC on July 1, 2017.

#### External Evaluations

# Employees

## Groupwide Initiatives

### ■ Publication of the Group Magazine *We are AGC!*

The AGC Group publishes an in-house magazine, *We are AGC!*, which is distributed to all employees and details the Group's values and the direction it plans to take. It also profiles AGC Group employees working in countries and regions around the world and the Group's wide-ranging activities, helping employees and readers deepen their understanding of the Group. We publish the magazine every three months in Japanese and English (16,000 copies in Japanese and 5,000 in English) and issue special editions on an occasional basis that focus on particular regions or themes.



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

### ■ Distribution of "AGC World" on the Intranet

"AGC World", which is online content delivered via the Company's intranet, presents timely messages from senior management and information on the AGC Group both inside and outside Japan through articles and video content. This content is created in Japanese and English and can be viewed by Group company employees in countries and regions around the world.

"AGC world" includes a message from the Group CEO on the brand statement "Your Dreams, Our Challenge," which was declared in 2018. Conversations between Group employees are also posted here alongside articles that provide the chance to learn about SDGs and more. "AGC World" functions as a place to effectively consider the Group's mission as a whole.

Furthermore, in 2020, the Group CEO engaged in direct dialogue with employees at 12 sites in Japan and overseas following improvements to our infrastructure for holding online meetings as a result of the COVID-19 pandemic. Rather than a one-sided message from the CEO, communication was encouraged through discussion on proposals submitted at each location. These talks were uploaded to "AGC World" as examples of opportunities for open communication, and the Group CEO's answers to live questions from employees were shared effectively within the Group.



"AGC World"



The Group CEO engaging in dialogue with employees as introduced through "AGC World"

## Local Communities, NGOs/NPOs, and Governments

### Groupwide Initiatives

#### ■ Participation in External Initiatives

The AGC Group is actively involved in initiatives in various countries and regions. For example, AGC Flat Glass (Thailand) Public participated in the CSR-DIW Initiative promoted by Thai Ministry of Industry's Department of Industrial Works (DIW) to gain CSR certification (CSR-DIW) based on ISO 26000 standards. In addition, AGC is a member of the Council for Better Corporate Citizenship (CBCC).

#### ■ Communication with Local Communities

The AGC Group regularly exchanges information with the communities around its sites, working to promote understanding of the Group's business activities among local communities with the aim of developing together with those communities. Activities are promoted on a site-by-site basis and tailored to conditions in each region. The sites host regular dialogue meetings and plant tours for area residents and children, among other events.

#### Site Reports

# 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. 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 System

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

### ● Attendance Rate of Directors at Board of Directors' Meetings

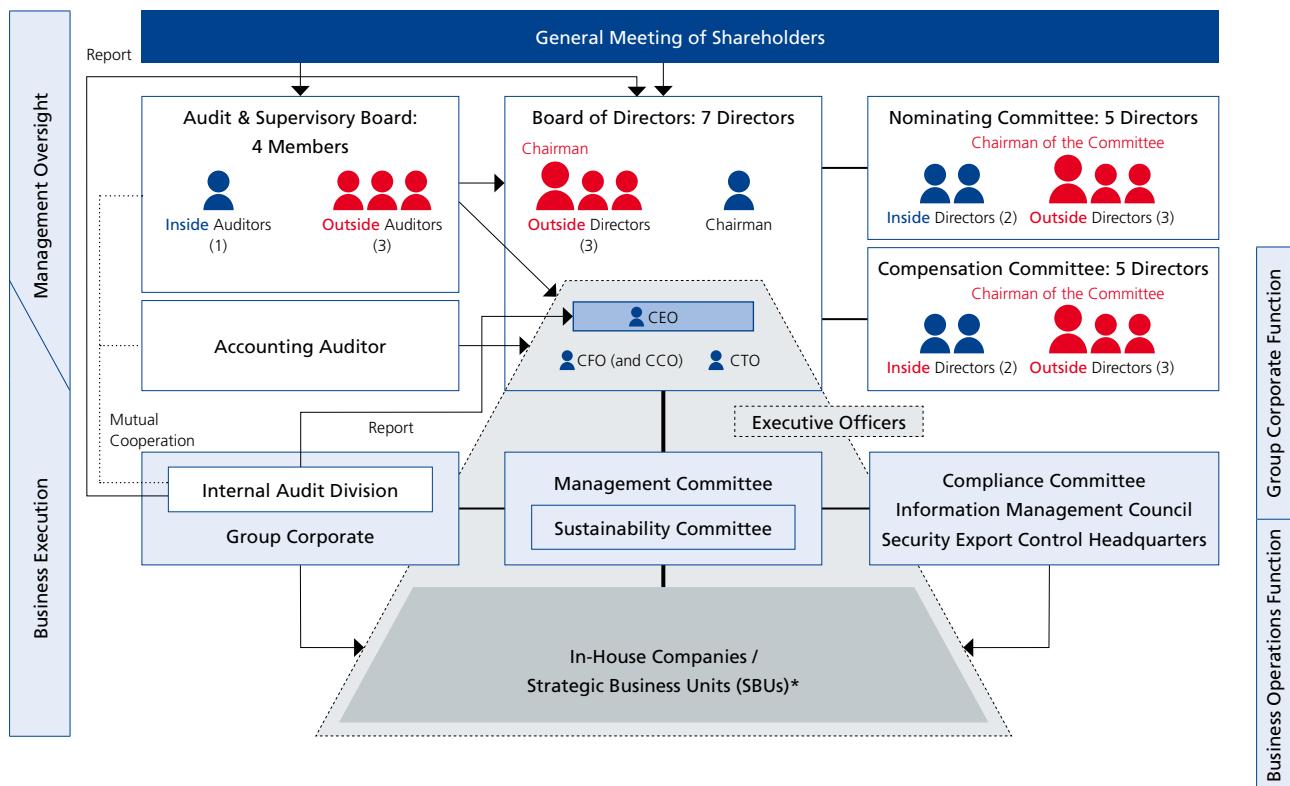
FY	Attendance rate
2018	100%
2019	99%
2020	100%

### ● Attendance Rate of Auditors at Board of Auditors' Meetings

FY	Attendance rate
2018	100%
2019	100%
2020	100%

## ● AGC "Corporate Governance"

### ● The AGC Group's Corporate Governance System (As of March 31, 2021)



● Inside directors or inside 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 billion and which conducts its business globally. At present, there are four in-house companies: the Building & Industrial Glass Company, the Automotive Company, the Electronics Company, and the Chemicals Company. Business units smaller than this are defined as Strategic Business Units (SBUs).

## Management Structure

### ■ Internal Control

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

#### Basic Items for 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 . Corporate Auditors' audit system

After introducing the Internal Control Report System 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 2018, and an external auditor confirmed the appropriateness of the system in its evaluation.

### ● Processes Based on Internal Control Implementation Regulations Related to AGC Group Financial Reporting



# Risk Management

## Management Structure

The AGC Group is united in its efforts regarding risk management.

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 on Internal Control, formulated by the Board of Directors. Under this policy, the AGC Group identifies risks that could significantly hinder the achievement of the Group's management targets, and carries out risk management by dividing it into a management level intended to mitigate the appearance of risks and a response level 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 Group's materiality, 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.

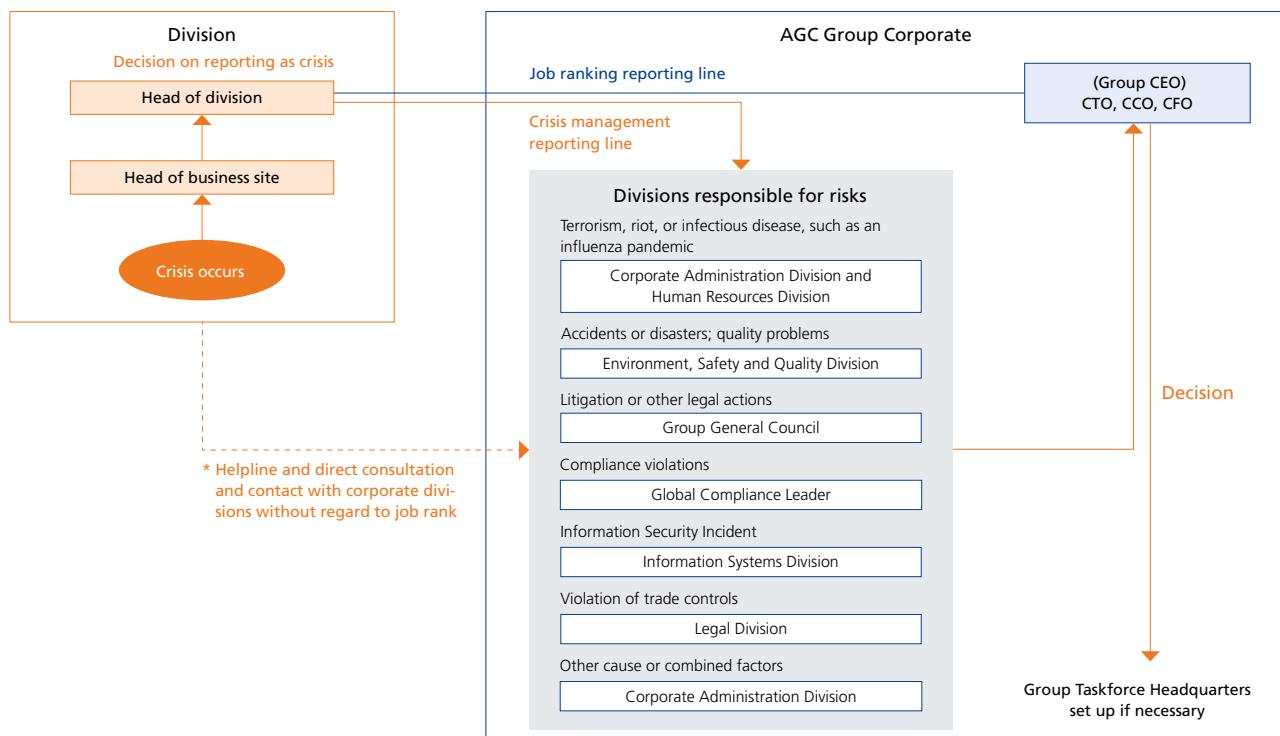
### ■ Responding Effectively in the Event a Risk Occurs

To prepare for a crisis that could have a serious impact on its business activities, the AGC Group has established reporting and response procedures in its AGC Group Crisis Management Guidelines and set up a framework designed to minimize the impact of such a crisis. To respond to the occurrence of accidents and disasters, in particular, accident prevention measures are undertaken at each business site, business continuity plans (BCPs) have been established, and improvement measures are continuously implemented to increase the Group's ability to quickly restore and resume operations.

### 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



## Groupwide Initiatives

### ■ Business Continuity Approach

The AGC Group has formulated the AGC Group Business Continuity Plan (BCP) Development Guidelines for use by divisions and business sites when formulating BCPs in preparation for large-scale accidents or disasters. The Group's BCP is continuously maintained and improved upon based on the business continuity management (BCM) process.

### ■ Formulating a BCP in Accordance with the AGC Group Basic Policy to Cope with Natural Disasters

Recognizing that a large-scale natural disaster could seriously impact its business activities, the AGC Group has set four priorities to respond effectively: human life and safety first, prevention of secondary disasters, contribution to and co-existence with society, and business continuity.

Based on these priorities, the Group has assessed risks related to earthquakes, wind damage, flooding, and other natural disasters at its major business sites (about 200 around the world). It has produced hazard maps that color-code hazard risks by degree and formulated BCPs for business sites that face high hazards and risks.

At every major business site in Japan and Asia, where there is a high risk of earthquakes, BCPs for earthquakes are fully developed. Furthermore, simulation drills are held every year at AGC's headquarters, with participation by the Group CEO, the heads of each division, and major interested parties. These drills ensure the BCP is understood by all participants while augmenting its effectiveness. In 2019, the Group held an emergency earthquake drill with the supposed epicenter directly beneath the Tokyo Metropolitan Area, including theoretical training exercises and workshops prompting all divisions to actively cooperate and respond in the event of a disaster.

In addition, since 2009, the AGC Group (Japan) has been using a safety confirmation system for confirming the safety of employees and their families in the event of a disaster and practices such drills across the Group twice annually. In addition, Group companies in Southeast Asia conduct drills for responding to power outages caused by a natural disaster. The Group intends to repeat these drills in the future to verify how effectively the established BCP can be carried out and to continuously make improvements to the plan.



## Internal Audits

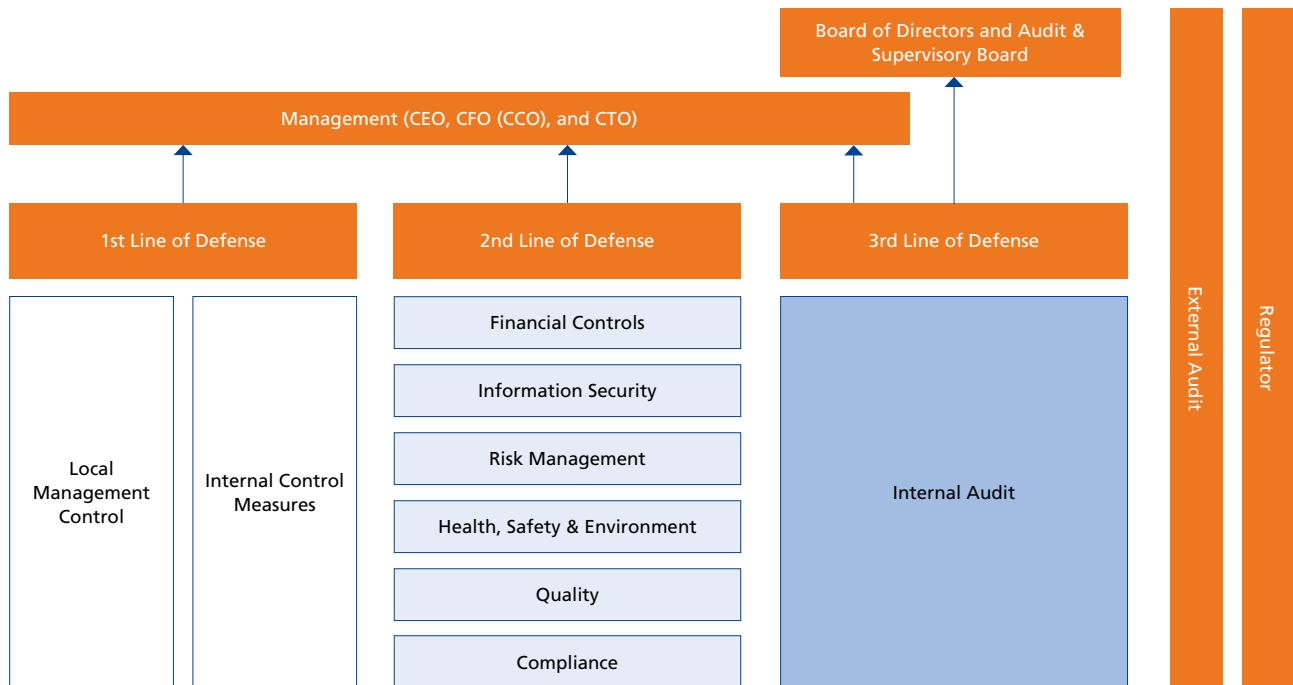
### Establishment and Operation of the Internal Control System

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

- The Board of Directors, which has 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. Executive management functions are implemented based on the concept of the following Three-Line Defense Model.

- As the first line of defense, responsible persons in each in-house company, SBU, and division establish and operate the internal control system of organizations under their control.
- As the second line of defense, the corporate divisions continuously monitor the establishment and operational status of the internal control system of each division and Group company.
- As the third line of defense, the Internal Audit Division independently audits the establishment and operational status of the internal control system of each division.

#### ● The AGC Group's Three-Line Defense Model (Reference: The Institute of Internal Auditors - Japan)



## ■ Internal Audit

To maintain its independence, the Internal Audit Division has established a Corporate Internal Audit Global Leader (head of the Internal Audit Division at AGC) who reports directly to the CEO, overseeing the leader of each audit division (regional leader) established in Japan, Asia, Europe, and North America.

Under this system, audit departments in each region promote the establishment, operation, and improvement of Group companies' internal controls through effective and efficient auditing. In addition, the Corporate Internal Audit Global Leader promptly reports important matters detected by audits to the president & CEO and also regularly reports to Audit & Supervisory Board members and corporate auditors.

In carrying out internal audits, the Group establishes common global auditing items. In 2020, it established (1) Compliance with Antitrust Laws and Regulations, (2) Information Security Management, (3) Anti-Bribery Control, and (4) Data Accuracy as focus items. In addition, when selecting items for audit, the Group uses criteria established

on the basis of risk. Although its auditing activities were impacted by COVID-19 in 2020, the Group audited 22 targets globally with a focus on higher-risk items through a combination of remote and on-site audits.

The Group also conducts pre-operational and M&A audits to assess the internal control status of newly established companies and M&A companies. In 2020, it performed two such audits globally.

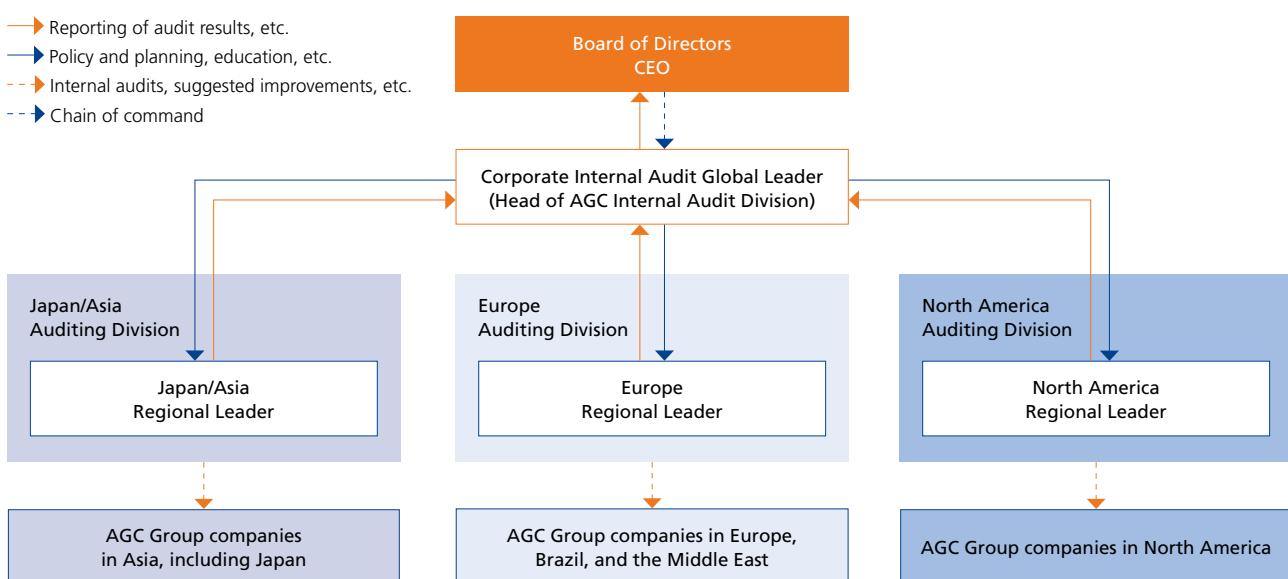
Additionally, Groupwide, crucial thematic audits were carried out on specific themes, providing even deeper results.

## ■ EHSQ Monitoring

Under a management policy based on the AGC Group's Vision "**Look Beyond**", the Group aims to improve societal trust, customer satisfaction (CS), and employee satisfaction (ES) through the implementation of environmental, occupational health and safety, and quality management in relation to all of its business activities.

## ● Global Internal Auditing Structure

- Reporting of audit results, etc.
- Policy and planning, education, etc.
- - → Internal audits, suggested improvements, etc.
- - → Chain of command



# 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 supplements that take into account the laws, regulations, and business customs of those areas. Going forward, the Group will revise its Japanese Code of Conduct and subsequently undertake revisions in 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

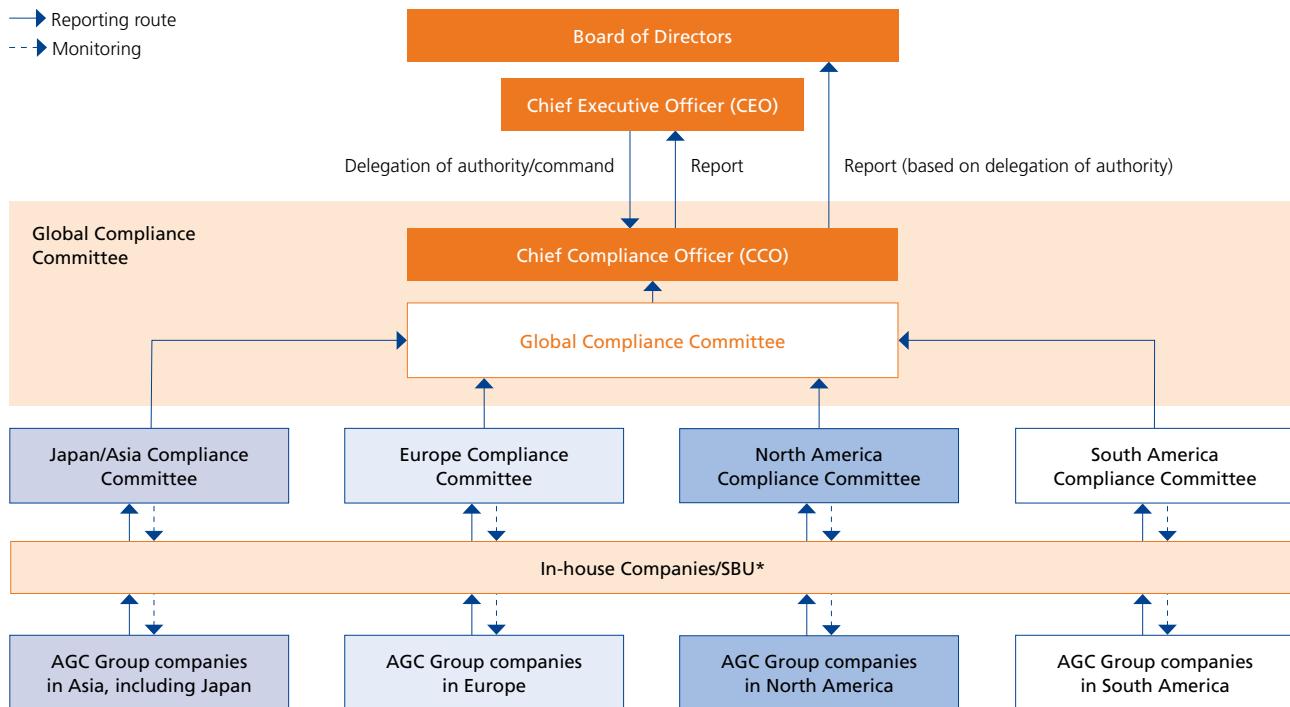
The AGC Group has established a Chief Compliance Officer (CCO) responsible for the development of the compliance framework and promotion of compliance in the AGC Group. Under the supervision of the CCO, a Global Compliance Leader, Global Compliance Committee, and local Compliance Committees are established to 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 top 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 July 1, 2021)



\* The CEO and CCO currently serve concurrently as directors.

\* SBU is a counter for Strategic Business Units.

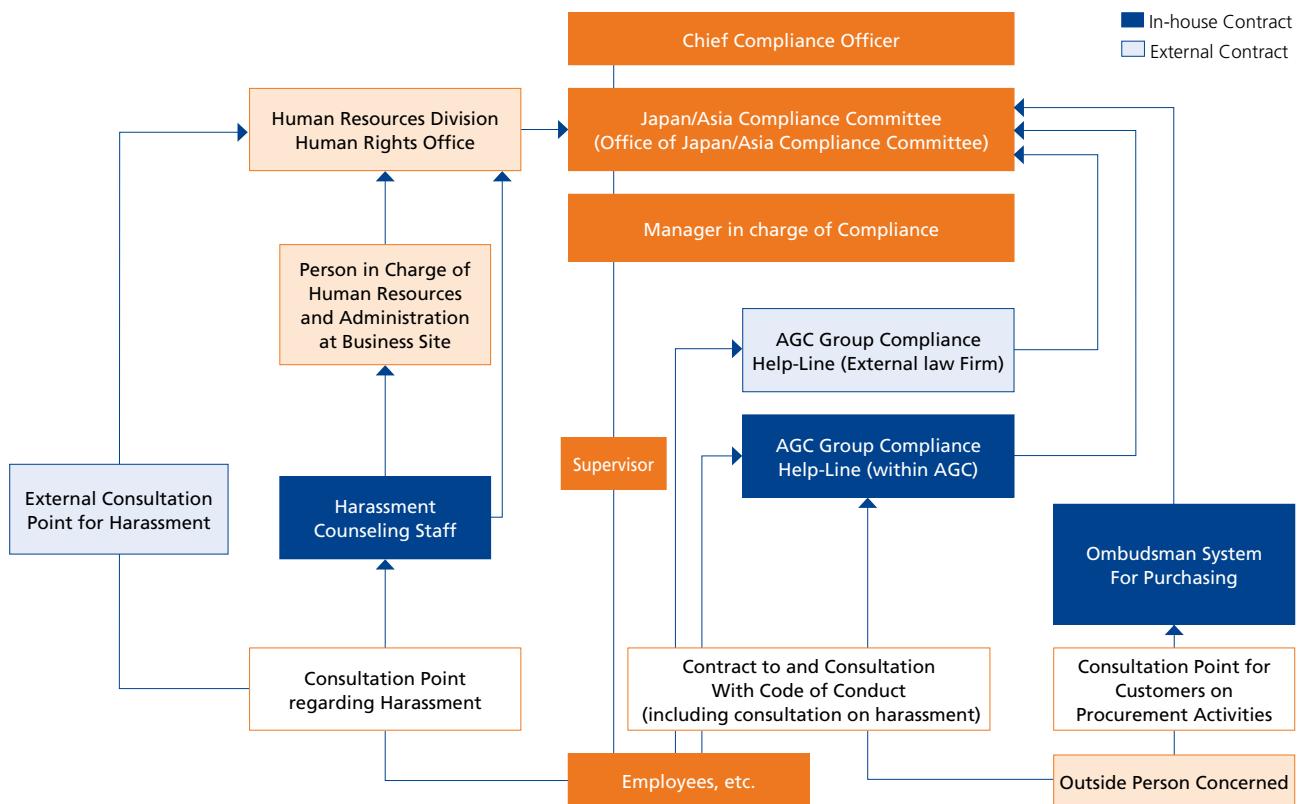
## Groupwide Initiatives

### Establishing Different Helplines

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

### Help-Line Reporting Route (AGC)



### Help-Line Consultations (AGC Group)

FY	Number of consultations
2020	Approx. 400

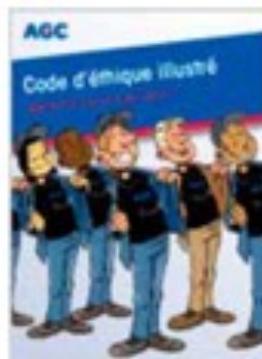
\* This number includes messages and direct consultations made via the Help-Line and questions and requests about the system.

### 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) in Japan, Europe, and North America. 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, the Group proactively carried out training activities in 2020 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 the ease of use of helplines. Based on the results, any necessary measures are implemented.

# Environmental Management

## Fundamental Approach

The AGC Group is a global solution provider of architectural, automotive, and display glass, chemicals, ceramics, and other high-function materials and components. Through more than a century of technological innovation, we have developed world-class core technologies in fields that include glass, chemicals, and ceramics.

Initiatives to address global environmental problems and build a green society, including efforts to achieve the United Nations Sustainable Development Goals (SDGs), are an urgent priority. Mindful of this, the AGC Group recognizes its responsibility to society and ranks environmental initiatives as one of its most important management tasks as it aims to be a company that develops sustainably with society.

As an expression of this stance, the AGC Group has set forth "**Look Beyond**" as a corporate philosophy upon which all of its business and social activities are founded.

**"Look Beyond"** articulates our determination to have perspectives beyond our own fields of expertise and to continue creating value worldwide by pursuing innovations without becoming complacent about the status quo while anticipating and envisioning the future. **"Look Beyond"** comprises three elements: Our Mission, Our Shared Values, and Our Spirit. Among these elements, Our Shared Values, which states that we will contribute to the creation of a sustainable society in harmony with nature as good global citizens, embodies our strong commitment to the environment.

In accordance with this corporate philosophy, we have established the AGC Group Environment Policy, which expresses our basic approach to implementing environmental activities. The policy declares that the AGC Group will realize a sustainable global environment and management by carrying out initiatives in all phases of its business activities, from procurement and manufacturing to sales, logistics, use, and disposal.

Guided by this recognition and approach, the AGC Group actively carries out environmental management activities aimed at minimizing the environmental impacts of all aspects of its business activities and mitigating the environmental impacts of its products, while ensuring legal compliance as a matter of course at its sites throughout the world.

## AGC Group Environment Policy

(Enacted on February 9th, 2001)

Amended on January 1st, 2019)

### Principle

At AGC Group we recognize that our businesses activities, by using a large amount of resources and energy, have an impact on the environment. In line with AGC Group vision "**Look Beyond**", we have set the "environment" as one of our company shared values and we are committed to take actions accordingly.

We are also committed to contribute to the creation of a sustainable society as an outstanding player in the global Materials Industry by efficiently utilizing limited resources and energy and by taking account into due consideration our impact on the natural environment, including climate change and biodiversity.

### Slogan

Let's all contribute to environmental activities, as a good global citizens.

### Environmental codes of conduct

We commit to adhere to the following key principles:

1. Improve the environmental performance continuously, in accordance with environmental management system.
2. Comply with internal and external relevant environmental rules worldwide.
3. Set goals and do our utmost towards improving environmental impact of our business by addressing responsible use of resources, climate change mitigation and adaptation, waste avoidance and recycling, as well as appropriate management of chemicals substances.
4. Strive to offer to society our products, service and technologies taking into due consideration their environmental impacts.
5. Communicate about our progress to our internal and external stakeholders

## Management Structure

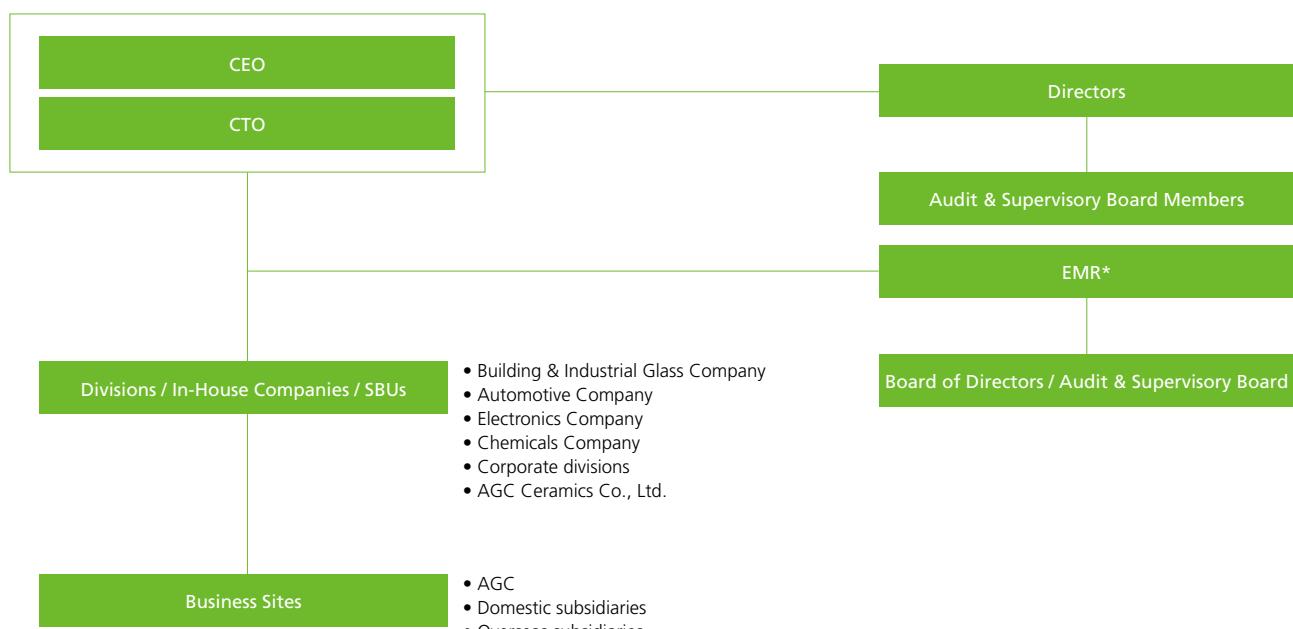
Based on its belief that the active involvement of management personnel is essential to achieving highly effective and practicable environmental activities, the AGC Group has established an environmental management system and designated the chief technology officer (CTO) as environmental management officer. The AGC Group assesses the level of improvement in environmental activities as a whole through a management review conducted by the individual in charge, as stipulated by ISO 14001, the international standard for designing and implementing an environmental management system. The AGC Group then takes into account the results of this review when formulating the following fiscal year's policy and plan. In addition, the Sustainability Committee, which is chaired by the president CEO, shares information on social trends related to the environment, society, and corporate governance and discusses the role that the AGC Group should fulfill and how it should address issues that may pose business risks.

The Group has established environmental policies and annual tasks as specific activities in its Groupwide environmental management system as well as setting forth the AGC

Group Environmental Management Working Rule. Under this rule, all AGC Group sites are assigned categories of environmental activities to implement, based on the environmental risks they face. The environmental activity categories divide the sites into one of three levels based on a number of criteria, which also stipulate that they raise awareness of and thoroughly implement the AGC Group's environmental policies, and identify and adhere to legal requirements and the AGC Group's standards, regardless of which category they fall into. Category One sites, which have the most significant environmental impacts of the three levels, must obtain environmental system standards certification, collect environmental performance data, and undergo environmental compliance reviews. Sites in Categories Two and Category Three promote environmental activities with reference to environmental management system standards based on their environmental activity category.

Through this system of activities, all of AGC Group's sites and employees work together to implement environmental conservation activities at manufacturing sites as well as appropriate environmental activities in their respective businesses.

### ● The AGC Group's Environmental Management System (as of March 31, 2021)



\* Environmental management officer

## Establishment of Regional EHS Offices

To promote more timely and substantial environment, health, and safety (EHS) activities in accordance with the legal systems and customs of each country and region, we have shifted from maintaining a system in which the headquarters in Japan promoted EHS activities for the entire Group to advancing the establishment of organizations that support EHS activities at affiliate companies in each region. Through these organizations, we are building a system that will effectively and efficiently carry out and promote a variety of EHS activities that need to be implemented on a Groupwide basis.

In fiscal 2019, we established a regional office in Shanghai, which determines the impact of Chinese government policies on the AGC Group, such as rapidly changing laws and regulations, thereby allowing us to devise necessary countermeasures in a timely manner.

## An Environmental Management System in Accordance with ISO 14001

We believe that operating an environmental management system in accordance with ISO 14001 is effective for implementing environmental activities. Accordingly, our sites have been acquiring ISO 14001 certification since the 1990s. In addition, the AGC Group has had in place the AGC Multisite Certification Environmental Management System (Multisite EMS) since 2003, the scope of which covers AGC and certain affiliated companies, as a means to continuously improve the AGC Group's environmental management system. Organizations that participate in the Multisite EMS are reviewed by a single external review organization under the same assessment criteria and receive a single ISO 14001 certification.

For sites that do not participate in the Multisite EMS, the AGC Group Environmental Management Working Rule mandates that environmental activity Category One sites acquire environmental management standards certification, such as ISO 14001, and prescribes that Category Two sites implement environmental activities with reference to environmental management system standards. Together with the in-house companies and SBUs in charge of the sites, the Environment Office of the Corporate Environment, Safety and Quality Division monitors the environmental activities of the entire Group, using the results of external assessments.

## Environmental Education

The AGC Group communicates the purpose of its environmental activities and continuously implements a broad spectrum of education and training for its employees to help them incorporate an environmental perspective into their own work. We carry out level-specific environmental training for employees including senior managers, newly appointed managers, new employees, and those with responsibility for the environment, providing them with environmental education tailored to their respective responsibilities.

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 resources database. The Group holds meetings five or six times per year for environmental champions from headquarters and each business site, and it conducts reciprocal visits to facilitate information-sharing on environmental trends and environmental management skills, methods, challenges, and solutions through lectures and tours.

In 2020, we invited an external lecturer to hold an online seminar on the key points of legal compliance and the relationship between corporate reputation in terms of environmental, social, and governance (ESG)-related issues and environmental activities from the viewpoint of various stakeholders. We have also created animated environmental education materials, which we broadcast within the Group to raise the environmental awareness of a greater number of employees.

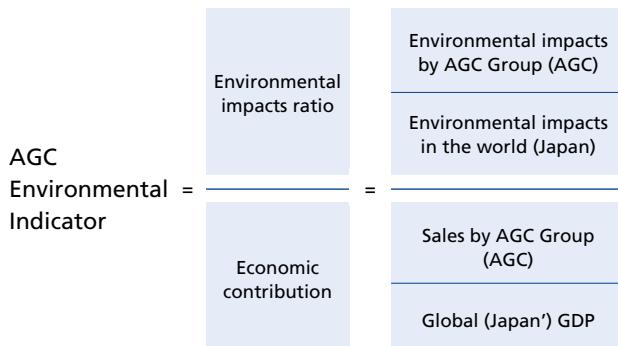
## Monitoring

### ■ AGC Environmental Indicator to Determine Environmental Impacts

The AGC Group uses the AGC Environmental Indicator as an index of environmental efficiency to independently assess the environmental impacts of its business activities. Using this indicator, the Group can calculate how the environment is affected in relation to improvements in the Group's economic performance, while at the same time striving to reduce the environmental impacts shown by the indicator.

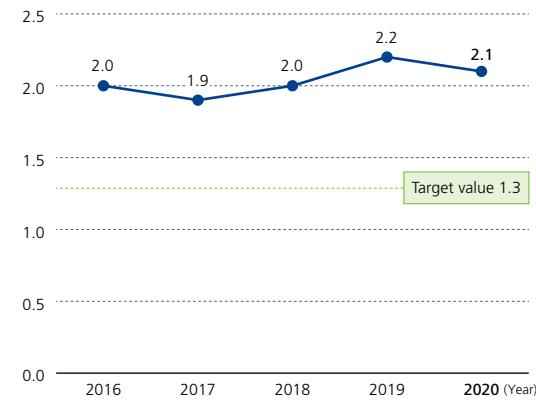
The AGC Environmental Indicator allows the AGC Group to evaluate its position both in terms of sales and individual types of environmental impacts and distinguish AGC Group businesses that have relatively high environmental impacts.

### ● AGC Environmental Indicator Calculation Method



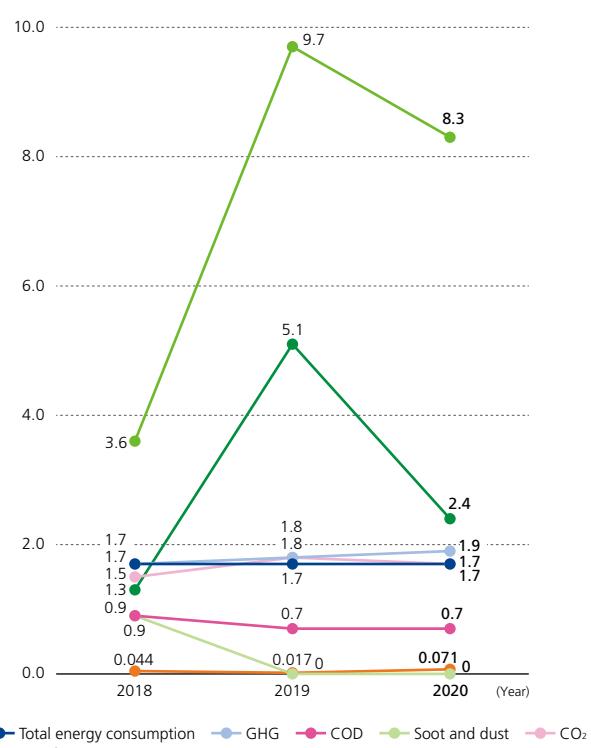
\* Economic contribution is calculated on a u.s.dollar basis for both AGC Group sales and global GDP.

### ● AGC Environmental Indicator (AGC Group)



\* For details on GHG, please see "Climate Change Initiatives" on page 45.

### ● AGC Environmental Indicator (AGC Inc.)



\* Total energy consumption is calculated using heat quantity against total electricity consumption at a rate of 3.6MJ/kWh.

## Conservation of Natural Capital and Biodiversity

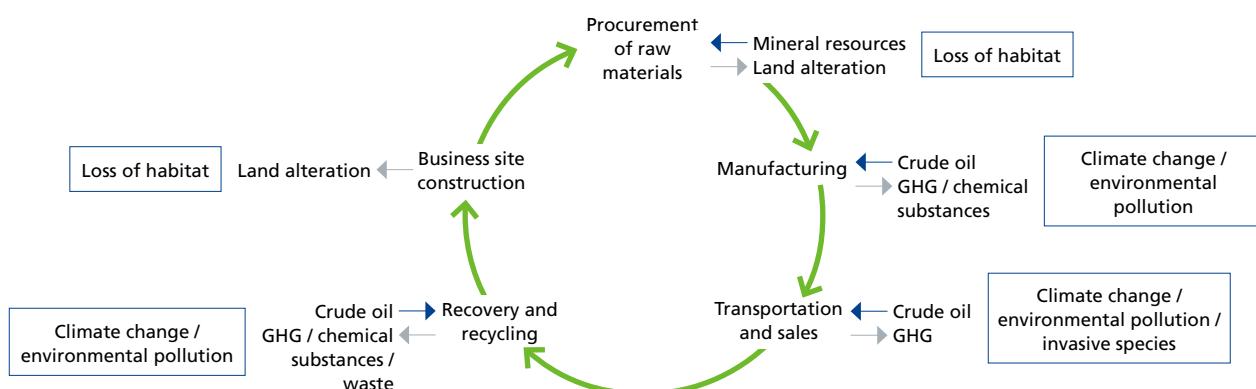
### Fundamental Approach

The AGC Group believes that conserving biodiversity is synonymous with conserving natural capital, which serves as the foundation for human life and business activities. We believe this because the loss of natural capital and biodiversity directly affects the continuity of our lifestyles and business activities. In other words, we view biodiversity conservation as a fundamental reason for implementing environmental activities, not as a means for carrying out a diverse range of environmental activities or as simply one facet of our activities.

In addition, the Group believes that minimizing all of its environmental impacts directly affects the conservation of biodiversity, given that all global environmental problems, such as climate change, water risks, resource depletion, and

environmental pollution, have a negative impact on biodiversity. It is our belief that the conservation of biodiversity can be achieved by carrying out environmental activities at a range of levels.

Moreover, to ensure that all AGC Group employees are aware of biodiversity conservation and reflect it in their activities, the AGC Group Environment Policy declares that the Group shall contribute to the creation of a sustainable society as an outstanding global materials and components company by giving due consideration to its impact on the natural environment, including with regard to climate change and biodiversity. We have also formulated our own Consideration respect to biodiversity.



### Management Structure

We believe that the strong involvement of senior management is essential to realizing highly effective and practicable activities for the conservation of biodiversity. We have therefore established a system of organization in which the CTO oversees and promotes environmental activities, taking charge of environmental management and overseeing biodiversity conservation activities.

Going forward, we are looking to strengthen our biodiversity and environmental conservation activities by working in collaboration with stakeholders beyond the AGC Group.

### Biodiversity Conservation Activities

#### ■ Participation in the Partnership for Promoting the Keidanren (Japan Business Federation) Declaration of Biodiversity

AGC endorses the goals of the seven principles of the Declaration of Biodiversity by Keidanren and Action Policy (revised version) and takes part in the Japan Business and Biodiversity Partnership.

### Targets Relating to Biodiversity Conservation

The AGC Group has established the AGC Environmental Indicator for monitoring biodiversity targets. Using this indicator, the AGC Group quantifies the environmental impacts resulting from its production activities on an annual basis and conducts a self-evaluation. We evaluate in relative terms the level of environmental impacts that we create to achieve certain economic outcomes and work to reduce these impacts.

Setting the AGC Environmental Indicator allows the AGC Group's position to be evaluated both in terms of sales and individual types of environmental impacts, making it possible to determine AGC Group businesses that have relatively high environmental impacts. (For details of the results, please see page 29.)

## Prevention of Environmental Pollution and Accidents

### Fundamental Approach

The AGC Group acknowledges that reducing air pollution, soil and water contamination, noise, vibration, and other pollution, environmental accidents, inappropriate waste disposal, and environmental impacts is a fundamental obligation for companies, and it actively tackles these themes, which are set out as important items in ISO 26001. Based on this understanding, we have established the AGC Group Environment Policy, adopted a slogan in which we commit to contributing to environmental activities as good global citizens, and stipulated five action guidelines focused on pollution prevention, including environmental compliance.

### Environmental Compliance Initiatives

The AGC Group has declared its compliance with the law in the AGC Group Charter of Corporate Behavior and ensures environmental compliance through the operation of its environmental management system. Since January 2020, we have been operating under the AGC Group Environmental Management Working Rule, which bolsters our system for embedding identification and compliance with legal requirements more firmly throughout the Group as we endeavor to further reduce risks. In order to ensure compliance with applicable legal standards at each of our sites, we have established even stricter voluntary standards and monitor the outcomes of these efforts.

Since 2019, we have been striving to reduce legal compliance risks and build an appropriate environmental management system by implementing legal compliance reviews of manufacturing sites in China—where risks have become prominent due to recent environmental regulations—with a focus on compliance with environment- and health and safety-related laws and regulations. From 2021, we will steadily carry out environmental reviews globally to strengthen initiatives for preventing accidents.

### Record of Environmental Law Violations and Serious Spills

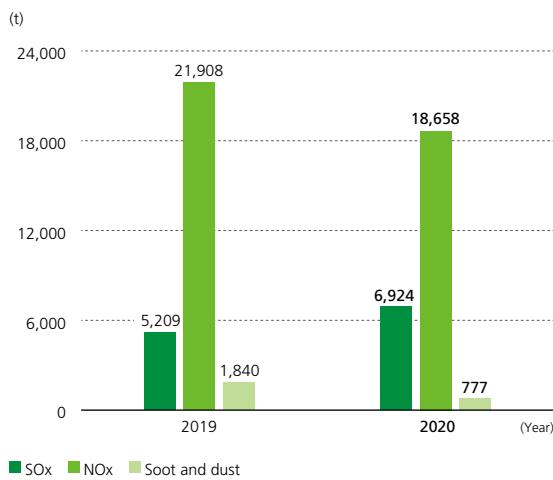
During 2020, there were no environment-related legal violations, sanctions, or cases raised in dispute resolution mechanisms that had a significant impact on the AGC Group's financial results or corporate reputation. Moreover, there were no serious spills that affected the environment, neighboring communities, or other stakeholders.

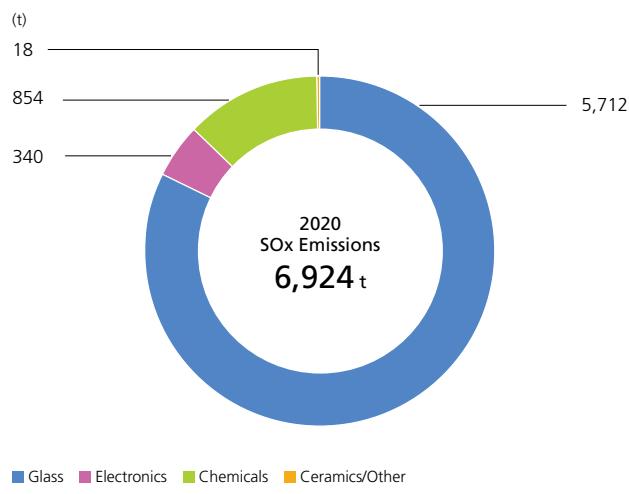
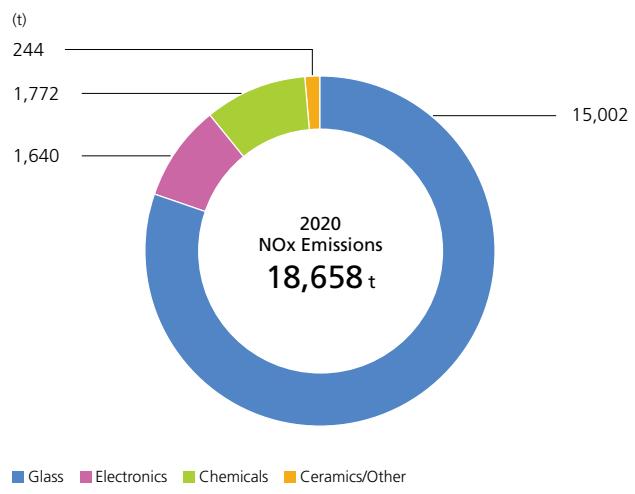
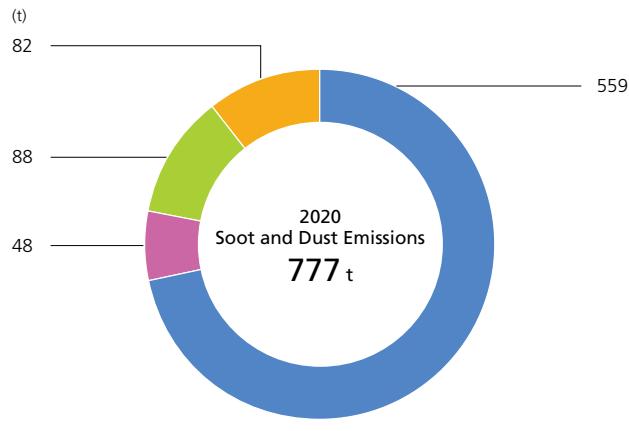
### Initiatives to Prevent Air Pollution

The AGC Group releases air pollutants such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), and soot and dust when it burns fossil fuels during the glass manufacturing process. To address the problem of global air pollution created by economic activities, the AGC Group works to reduce its air pollutant emissions by operating voluntary standards at its manufacturing sites that are stricter than legal standards.

Specifically, we promote the installation and enhancement of facilities for treating exhaust gas and the upgrading of measurement and analysis technologies at sites. In addition, to further promote reduction activities, we calculate our air pollutant emissions on an annual basis and horizontally deploy improvements and methods for curtailing emissions to serve as best practice within the AGC Group. In addition to reducing the emissions that we create through our business activities, we sell ACLESYA, a highly reactive neutralizing agent for exhaust gas treatment, which is our own product.

#### ● SO<sub>x</sub>, NO<sub>x</sub>, and Soot and Dust Emissions (AGC Group)



**● SOx Emissions by Business Segment****● NOx Emissions by Business Segment****● Soot and Dust Emissions by Business Segment**

## Initiatives for Preventing Soil and Groundwater Contamination

Soil and groundwater contamination not only greatly impacts the environment, ecosystems, and the health of local residents over a long period, but assessing the situation and rectifying it also requires incredible time and expense for all parties involved.

Accordingly, the AGC Group has gone beyond measures required by law, establishing the AGC Group Guidelines Regarding Measures For Soil and Groundwater Control to prevent all forms of soil and groundwater contamination.

These guidelines stipulate methods for disclosing information on standards for the storage and handling of hazardous substances, storage tank management, wastewater and rainwater management, and countermeasures in the event of soil or groundwater contamination.

In addition, the Group implements measures for preventing the spread of known pollutants and decontaminating polluted sites, and it reports relevant progress to administrative agencies as well as disclosing relevant reports on its website and elsewhere.

### ■ Status of Known Contamination Incidents

With respect to known pollutants in Japan, past leakages of regulated substances that were found to exceed regulated values were discovered subsequent to the enactment of the Soil Contamination Countermeasures Act at plants that had been in operation prior to the Act. The AGC Group currently works to prevent contamination by implementing strict leakage prevention measures at its sites throughout the world in accordance with the AGC Group Guidelines Regarding Measures For Soil and Groundwater Control.

### ■ Case study: Chiba Plant

Volatile organic compounds (VOCs, 1,2-dichloroethane, tetrachloroethylene, trichlorethylene, dichloromethane, and carbon tetrachloride) were detected in a groundwater survey conducted at the Chiba Plant in 2001. 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.

### ■ Case study: Kashima Plant

Dichloromethane and carbon tetrachloride were detected in a groundwater survey in 2006 at the Kashima 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. Also, fluorine and arsenic surface soil contamination was discovered, so the soil was replaced and the surface re-covered.

□ Details on water are presented on pages 39 to 41.

□ Details on waste are presented on pages 42 to 44.

□ Details on ozone-depleting substances and VOCs are presented on page 36.

# Appropriate Management of Chemical Substances

## Fundamental Approach

The AGC Group provides a diverse range of products that are essential to a variety of industries, such as various types of glass used in construction, automobiles, and displays, parts for electronic devices, chemicals, and ceramics. We also use chemicals in the manufacturing processes for these products. The AGC Group has an obligation to appropriately manage the chemical substances it uses so as not to harm the environment, public safety, or human health throughout the life cycle of its products, from development, procurement, manufacturing, transportation, use, and final consumption to disposal and recycling.

In the Chemicals Business in particular, we believe that communicating with society by publicizing our chemical substance management activities is essential, and we are actively engaged in Responsible Care®, the chemical industry's voluntary initiative. We are also signatories to the Responsible Care® Global Charter and are carrying out appropriate management of chemical substances with a view to achieving the World Summit on Sustainable Development goal of minimizing the adverse effects of chemical substances on people and the environment.



Responsible Care®



## Groupwide Initiatives

### ■ Development Stage Initiatives

The AGC Group actively works to reduce the use of harmful and hazardous chemical substances right from the research and development stage of products and manufacturing methods. Specifically, we give careful thought to reducing harmful chemical substances used in manufacturing processes and contained in products at each stage of development. In particular, we view reducing the amount of chemical substances contained in products as an important aspect of product design given their impact during the use and recycling stages.

### ■ Safety for Users—Development of Low-Irritant Refractory Products

AGC Plibrico Co., Ltd. used sodium aluminate, a highly irritant chemical, in flocculating and accelerating agents contained in monolithic refractory\* products used at customer worksites. However, following a revision of the Poisonous and Deleterious Substances Control Act (a Japanese law) in 2018, sodium aluminate was designated as a deleterious substance. As a result, we developed and launched sales of refractory

products without sodium aluminate that are safer for those who use them at worksites. AGC Plibrico created THERVEK™, a new brand of monolithic refractories, and operates a safety-conscious business that helps reduce the risk of chemical burns to those who pour monolithic refractory products into molds at worksites.

\* Refractory: material used for lining equipment that melts and heats raw materials in industries using high temperatures



THERVEK™, a monolithic refractory product

**THERVEK**

THERVEK™, a new brand of monolithic refractories

## ■ AMOLEA™ Series of Low GWP Refrigerant and Solvent Products Receives the Minister of the Environment Award at the 19th GSC Awards

In recent years, the need to balance realizing low global warming potential (GWP) and maintaining the energy-conservation performance of refrigerants for air conditioners, and the strong cleaning performance of solvents and detergents for precision instruments has become a priority. In response, the AGC Group has developed AMOLEA™, which significantly reduces GWP without affecting its performance as a refrigerant or solvent, based on the unique technologies it has cultivated in its Fluorochemicals Business. The Group is selling AMOLEA™ products for three applications (see chart below). The contribution of AMOLEA™ to reducing overall

environmental impacts has been highly rated, and it received the Minister of the Environment Award at the Japan Association for Chemical Innovation's Green and Sustainable Chemistry (GSC) Awards (2020).

\* GWP:Global Warming Potential



AMOLEA™ solvent

## ● AMOLEA™ Series Products and Applications in Three Fields

Generic name	Product name	Main applications
New environmentally friendly fluoropolymer refrigerant	AMOLEA™ 1234yf	Refrigerant for automobile air conditioners
New environmentally friendly fluoropolymer refrigerant	AMOLEA™ 1224yd	Refrigerant for centrifugal chillers, foaming agent
New environmentally friendly fluoropolymer fluorinated solvent	AMOLEA™ AS-300	Various detergents and solvents

## ■ Procurement Stage Initiatives

The AGC Group has established Green Procurement Guidelines for each of its business divisions based on the AGC Group Integrated Green Procurement Guideline to promote cooperation with business partners in efforts including chemical substance management and environmental impact reduction. Specifically, the Group requests that its partners report on the content of controlled chemical substances, submit declarations of non-inclusion of substances with environmental impacts and reduce the environmental impacts of chemical substances used in the manufacturing process. In addition, the AGC Group regularly checks the management status of chemical substances based on the contents of reports provided by its business partners.

## ■ Initiatives at the Manufacturing Phase

The AGC Group observes laws and regulations related to the management of chemical substances and has established the AGC Group Chemical Substance Management Regulation Guidelines. The Group also voluntarily carries out activities at each AGC Group site, including the management of chemicals used, appointment of chemical substance managers, and appropriate implementation of chemical substance risk

assessments. Moreover, as chemical substances that are not regulated by laws and regulation may also cause environmental pollution or adverse health effects, we have established our own Chemical Substance Registration System for all the chemical substances we use, including those that are not regulated by law.

In addition to these initiatives, the Group's sites in Japan are working to accurately identify and reduce emissions of any substances targeted by the Pollutant Release and Transfer Register (PRTR) Law that are used in our manufacturing processes. Substances targeted by the law are those deemed harmful to ecosystems and human health, including ozone-depleting substances, which humans may be exposed to due to the widespread presence of such substances in the atmosphere. With the objective of ensuring a proper understanding of PRTR requirements and calculation methods for reporting values, the 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 targeted by the PRTR Law.

## ■ Achievement of Zero Hydrochlorofluorocarbon (HCFC) Emissions by Switching to Fluorocarbon-Free Solvents

AGC Si-Tech Co., Ltd had been using HCFC-based solvents, which are ozone-depleting substances, in the manufacturing process of its mainstay M.S. GEL and SUNSPHERE products since 1985. However, in anticipation of the complete abolition of HCFCs in 2020, AGC Si-Tech began process development for switching to fluorocarbon-free solvents and embarked on their commercial application in 1998. As a result, AGC Si-Tech completely switched to using fluorocarbon-free solvents in the manufacture of M.S. GEL in 2014, and is working to achieve zero HCFC emissions in the manufacture of SUNSPHERE as it makes progress with commercial application and customer product switches.

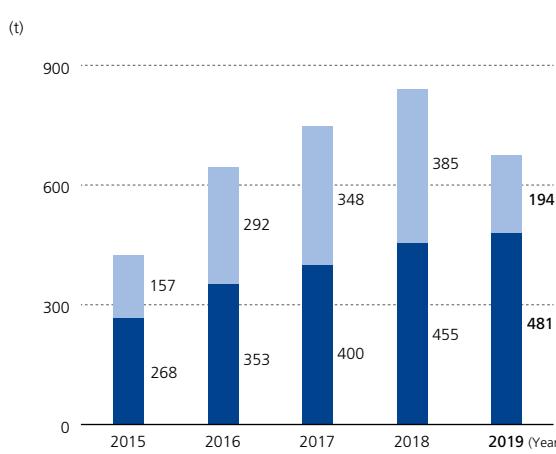


AGC Si-Tech Co., Ltd.



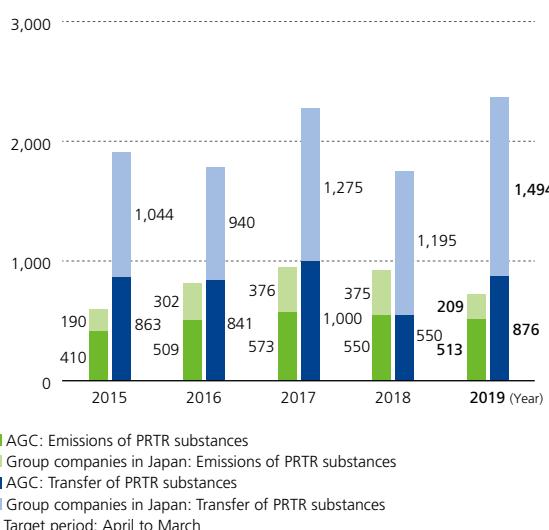
SUNSPHERE

## ● Changes in Volatile Organic Compound (VOC) Emissions (AGC Group in Japan)



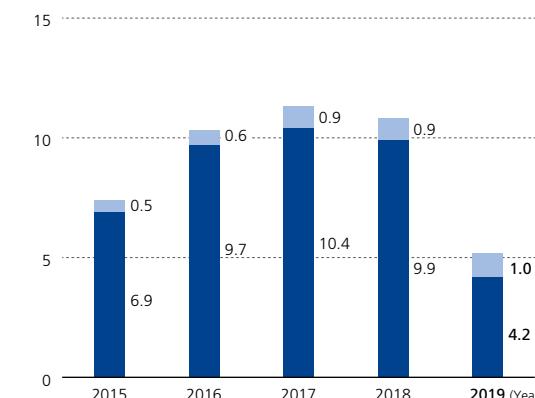
## ● Emissions and Transfer Volume of Substances Regulated by the PRTR Law

(t)



## ● Atmospheric Emissions of Ozone-Depleting Substances among Substances Subject to Reporting under PRTR

(t-CFC11e)



■ AGC ■ Group companies in Japan

t-CFC11e: ozone-depleting substances (t) x ODP

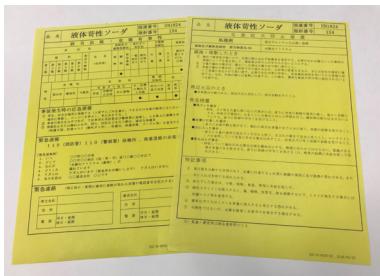
ODP: Ozone Depletion Potential (A coefficient that represents the destructive effect of the unit weight of mass of substance emitted into the atmosphere, as compared with the potential of chlorofluorocarbon-11 (CFC-11) which is assigned a reference value of 1. Period covered: April to March

The emission of ozone-depleting substances by the AGC Group in Japan decreased from 10.8 t-CFC11e to 5.1t-CFC11e in 2019.

## ■ Transportation Stage Initiatives

AGC Group sites in Japan utilize a "Yellow Card" in accordance with the characteristics of chemical substances and products loaded on trucks and other modes of transportation to share emergency measures with all involved parties. Cards have been prepared for each product and product type, with 143 types of card issued as of March 31, 2021. When transporting low volumes of dangerous goods along with other dangerous goods, we attach a label called a Container Yellow Card to the containers and packing of the dangerous goods to identify the chemical substances within.

In addition, we outsource the collection, transportation, and treatment of industrial waste to qualified contractors, including that of harmful substances created during manufacturing processes. At the same time, we use Waste Data Sheets (WDS) to provide information to contractors on, for example, the characteristics of the industrial waste.



Yellow Cards used by the AGC Group

## ■ Initiatives at the Use/Disposal Phase

The AGC Group issues Safety Data Sheets (SDS)\*1 for each of its products. In addition to Japanese, they are created in English, Chinese, Korean, and Malay for customers using the Group's products internationally. They provide information on how to use and dispose of products correctly, along with any potential environmental and health impacts. The Group is also developing an SDS operation and management system in countries and regions other than Japan, and related work has already started in Europe, China, and the United States.

In addition, a Globally Harmonized System of Classification and Labeling of Chemicals (GHS)\*2 indication label is created in Japanese, English, and Chinese. The Group is also developing labels in other languages according to the specifications of the export destination country.

Meanwhile, using responses to environmental surveys of customers, we report on initiatives such as those to manage substances with environmental impacts to reduce regulated chemical substances, packaging materials, waste materials, CO<sub>2</sub> emissions in manufacturing processes and logistics, and consumption of water resources.

\*1. A sheet with information regarding a chemical's characteristics and handling methods, provided to a recipient of chemicals before receipt of the chemicals themselves.

\*2. A system for global harmonization in classification and labeling of chemical products.

## ● Number of SDS Issued

	March 2020	March 2021
Japanese version	1,999 types	2,064 types
English version	1,224 types	1,271 types
Chinese version	233 types	247 types

## ■ Product Initiatives

As a member of the supply chain, the materials industry is responsible for the safe management, or product stewardship, of chemical substances throughout the life cycle of a product, from product development to manufacturing, distribution, use, final consumption, disposal, and recycling. The AGC Group observes laws and regulations in each country and region while voluntarily managing chemical substances to promote product stewardship.

## ■ Registration of Chemical Substances Present in Products

Chemical substances present in our products must be registered in accordance with laws and regulations not only in Japan, but also in the countries to which the products will be exported. The Group takes appropriate measures to register chemical substances as required in each of its countries of operation, such as acting in accordance with the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulations in the European Union.

## ■ Management of Chemical Substances Present in Products

The AGC Group promotes the provision of information on chemical substances present in its products in a format tailored to customer needs.

## ■ Initiatives for Buildings and Equipment

The AGC Group uses a wide variety of chemical substances in the buildings and equipment that it uses in its business activities. The Group complies with the laws and regulations of each country in respect to these chemical substances and works to voluntarily manage chemical substances.

## ■ Proper Management and Treatment of Asbestos

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.

## ■ 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 in each country 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 low-concentration PCBs (Sagami Plant)

## ■ Management of Mercury

In response to the Minamata Convention on Mercury, which came into effect in 2017, the AGC Group conducted a survey to understand the current state of inclusion and use of mercury, not only in its own manufacturing processes, but across its entire supply chain. The results show that mercury is still used to some extent in measurement such as, in porosimeters and other measuring equipment. However, the use of such devices is allowed under proper controls, even though the above convention has come into effect. Accordingly, although substitute products are unavailable, no operational risks are posed by the use of such devices. Additionally, products in which the use of mercury has been approved are used in compliance with laws and regulations, and they are being replaced with substitutes wherever possible.

## ■ Management of Fluorocarbons

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. In fiscal 2018, AGC's estimated fluorocarbon leakages amounted to 42,580t-CO<sub>2</sub>, reflecting efforts to replenish refrigerants through planned maintenance, whereby shortages that had built up over time were replenished, and these amounts were included in the total. However, AGC reduced its leakages to 12,721t-CO<sub>2</sub> in fiscal 2019 by strengthening the operation and management of refrigeration units as well as improving the recovery of refrigerants and optimization of replenishment amounts during maintenance. 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.



Storage area for PCB waste (YTC)



Storage warehouse for PCB waste (Kansai Plant,  
Amagasaki Factory)

## Effective Use of Water Resources and Water Risks

### Fundamental Approach

The AGC Group implements measures regarding water based on its view that the effective use of water resources and the management of water risks are important activities for promoting the sustainable use of resources and maintaining business continuity. Moreover, we aim to contribute to communities through technologies and newly developed products that help in water use and purification.

As water is ubiquitous and imperative in all regions, we must understand water risk conditions in each region and promote corresponding measures.

Accordingly, the AGC Group has identified sites that are exposed to high water risks and has established targets regarding water volume use and water pollution. As a result, in 2019 AGC was recognized for its water risk initiatives and named on the Water Security A List, the highest rank, of the Carbon Disclosure Project (CDP) for the first time. Looking ahead, we will formulate new medium-term targets and promote water risk management that also takes into account climate change.

### Groupwide Initiatives

#### ■ Water Risk Assessment Evaluation According to Regional Characteristics

The AGC Group conducts comprehensive evaluations of water risks, which are present in all regions, by considering the results of evaluations performed at each site using Aqueduct™,\* the series of tools developed by the World Resources Institute. Information on any past disasters or difficulties related to water, the availability of emergency response equipment, and BCP settings are also considered. Based on evaluation results, the Group implements countermeasures according to the characteristics of the area in question. These include installing reservoirs at sites with high risk of drought, relocating emergency power generation facilities from basements to the second floor or higher at sites with high flood risk, and installing drain pumps at sites with high tide risk.

Going forward, we are devising plans to implement countermeasures addressing the respective risks over the long term, in addition to providing future predictions using climate change scenario analyses to the abovementioned evaluations.

\* A series of tools that indicates region-specific water risk

#### ■ Disclosure of Water Use through Product Recycling

The AGC Group takes in approximately 900 million m<sup>3</sup> of water for use in cleaning and cooling activities in its production processes. Approximately 93% of this water intake is

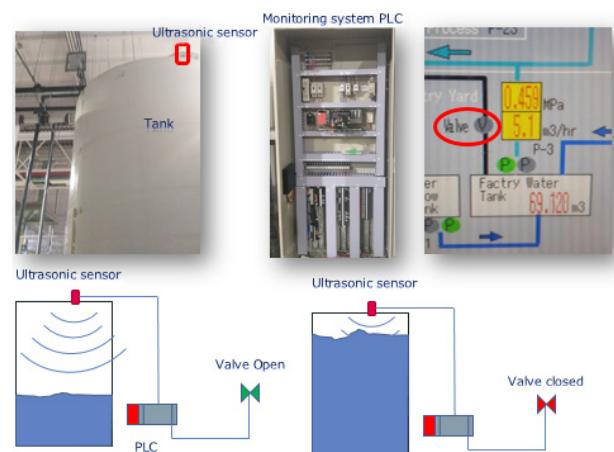
seawater used for indirect cooling<sup>1</sup> and approximately 7% is freshwater (water other than seawater that does not contain salt). Taking into consideration the effective use of water resources, the AGC Group as a whole works to reuse and recycle water, reduce the amount of water it uses, and lower water intake and wastewater generation amounts in its production processes. The amount of freshwater recycled or cascaded<sup>2</sup> in production processes is equivalent to about 16 times the amount of freshwater used.

\*1. A cooling method in which water does not come into direct contact with the object to be cooled and therefore generates relatively little pollution

\*2. A method of repeatedly using water according to changes in water quality rather than discarding it after a single use

#### ■ Effective Use of Water at AGC Automotive Mexico

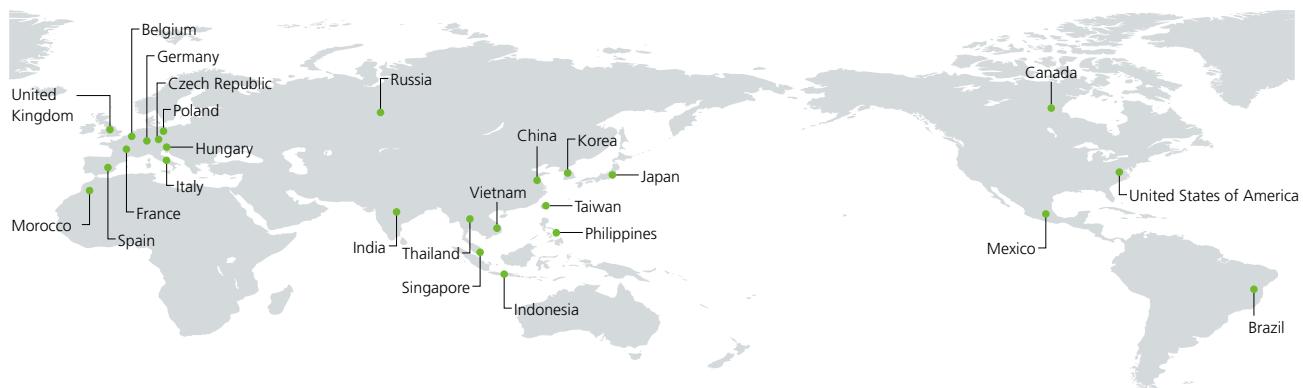
AGC Automotive Mexico S. de R.L. de C.V. uses a large amount of reverse osmosis water (clean water with a high degree of purity) in its production processes. The reverse osmosis of water, a treatment process, generates a certain amount of unusable surplus water. In 2020, the initial phase of a plan targeting the effective use of water delivered an annual water saving of 162 m<sup>3</sup> (0.4% of water intake) through the use of this surplus water for toilets, sprinkling, and cleaning, which do not require water that is pure or subject to strict sanitation management. In addition, as it came to light when ascertaining the feasibility of this plan that some usable water was being discharged into sewers without being recovered, sensors were added to a water storage tank, and the appropriate opening and closing of valves was carried out, resulting in annual water savings of 30,000 m<sup>3</sup> (42% of water intake). The second phase of the plan aims to add filters and install an automatic water supply system to more extensively utilize the surplus water from reverse osmosis water.



AGC Automotive Mexico has saved water by adding sensors to its water storage tank and carrying out valve operations automatically.

## ■ Preventing Water Pollution According to the Characteristics of Each Business Site

The AGC Group has established wastewater control targets that are tailored to the characteristics of each site and makes global efforts to prevent water pollution. The map shows countries where we have relatively large manufacturing sites.



## ■ Products Contributing to Effective Use of Water

By manufacturing and selling sodium hypochlorite, the AGC Group helps provide safe and secure drinking water to people all over the world and contributes to the environmental conservation of rivers and other waterways where water is discharged through the use of proper sewage treatment. In addition, through the production of ion exchange membranes and the sale and licensing of technology in processes that utilize them, we are able to create drinking water from water containing salt and reuse wastewater by purifying it through small-scale installations in developing countries. Through these initiatives, the AGC Group is making effective use of water resources and contributing to the health of local residents.

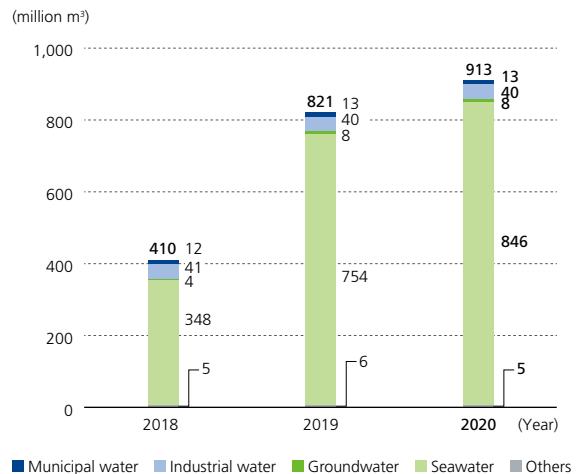
## ■ Disclosure of Water Use throughout the Life Cycle of Products

An increasing number of consumers are interested in purchasing products that consider environmental impacts. In an effort to give consumers and end users information on a product's environmental burden throughout its life cycle, AGC Glass Europe S.A. has voluntarily issued Environmental Product Declaration labels for some products. In 2015, AGC Glass Europe received high praise for its float glass, which was assigned silver level in the Water Stewardship category of the Cradle to Cradle Certified™ program offered by MBDC, a management consultancy firm. Between 1998 and 2019, this product achieved 73% reduction in water use.

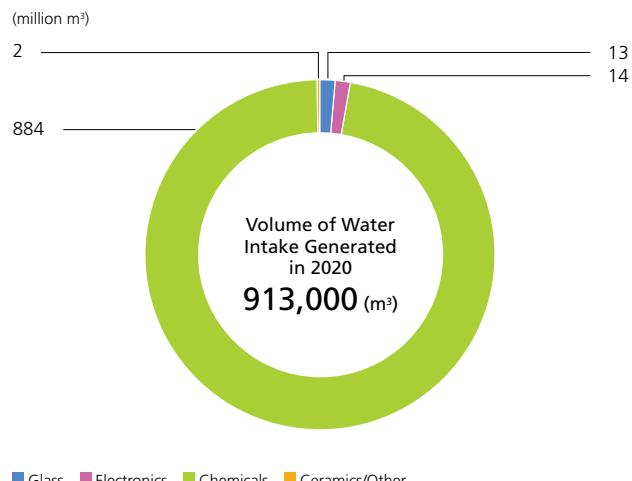
\* Levels are assigned across five categories, including Material Health and Water Stewardship.

\* The Cradle to Cradle (C2C) Certified™ program certifies products made using and reusing safe and non-harmful raw materials, utilizing renewable energy, and managing water appropriately.

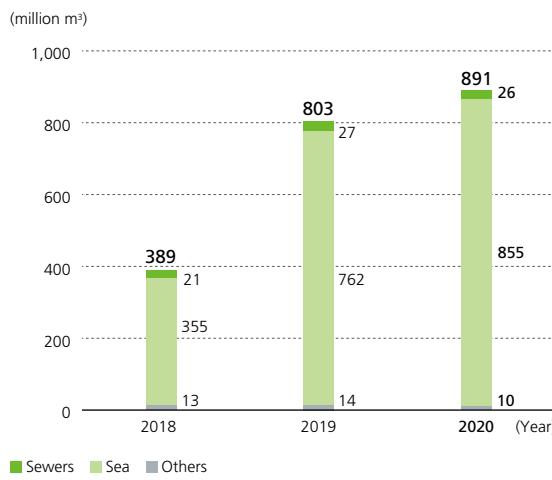
## ● Trends in Water Intake by Water Quality Type (AGC Group)



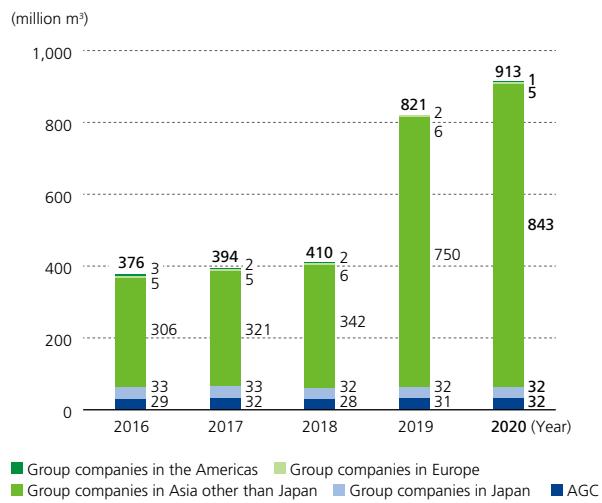
## ● Water Intake by Business



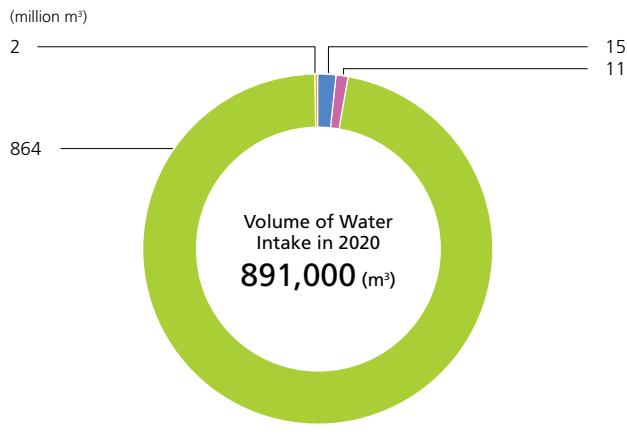
### ► Trends in Total Wastewater Volume by Destination (AGC Group)



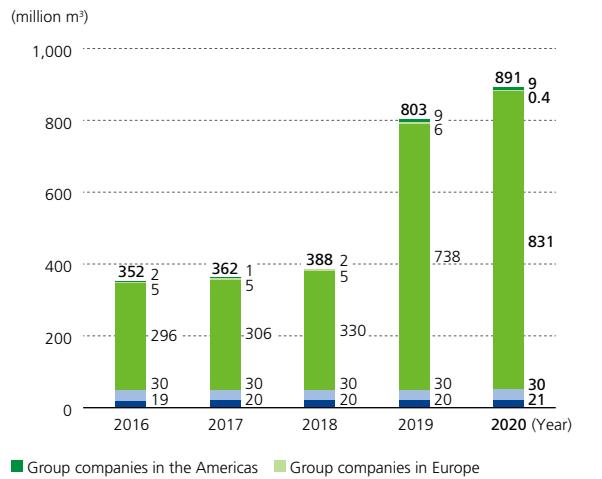
### ► Trends in Total Water Intake by Region (AGC Group)



### ► Water Intake by Business



### ► Trends in Total Wastewater Discharge by Region (AGC Group)



### ► Trends in COD Discharge (AGC Group)



## Sustainable Use of Resources

### Fundamental Approach

To contribute to the achievement of a sustainable global environment, the AGC Group endeavors to reduce the new use of resources by using finite resources effectively and advancing the utilization of recycled resources. We are also striving to improve resource productivity,\* including packing materials, and recycle resources to the maximum possible extent. We will strengthen our efforts to reduce, reuse, and recycle (3Rs) waste, efforts we have long promoted as part of our fundamental environmental activities, with the aim of building resource circulation loops at every phase of our business activities.

\* 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.

### Groupwide Initiatives

#### ■ Promotion of Recycled Resources

The AGC Group uses natural resources, such as silica sand, and industrial materials, including ethylene, to manufacture products. To effectively utilize the planet's finite resources and achieve sustainable growth, we have established utilization ratio targets\*<sup>1</sup> for recycled resources\*<sup>2</sup> and are focusing efforts on initiatives for utilizing used products that we have recovered as recycled resources.

\*1. Used products and waste that are useful and can be used as raw materials

\*2. The ratio of raw materials used in products accounted for by recycled resources

### Use of Glass Cullet (Refuse Glass)

In the glass manufacturing process, the AGC Group uses glass cullet as a substitute for raw materials such as silica sand. We reduce our use of natural resources by using glass ends generated during the manufacturing process and refuse glass from urban centers for reuse as a raw material as much as possible. In addition, we are carrying out an initiative aimed at recycling glass cullet by examining ways to separate parts used from not only single sheets but also laminated glass.

### Utilization of Glass Cullet in the Manufacture of Display Glass

We utilize glass cullet as a raw material in the manufacture of display glass, for which quality requirements are particularly high. Most display glass products are given a coating. As the coating material affects quality, utilizing glass cullet from coated glass as a recycled resource is generally a challenge. Despite these circumstances, AGC also utilizes glass cullet from coated glass as a recycled resource under strict quality control. In addition, we indicate the ratio of recycled materials present in products in compliance with ISO 14021 and have obtained third-party certification.

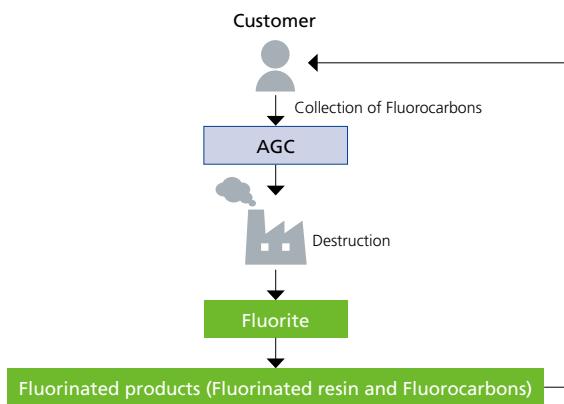
### Recovery and Recycling of Fluorocarbons and Calcium Fluoride

In the Chemicals Segment, the AGC Group manufactures various fluorinated products such as alternatives for chlorofluorocarbons (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, largely depend on imports from China.

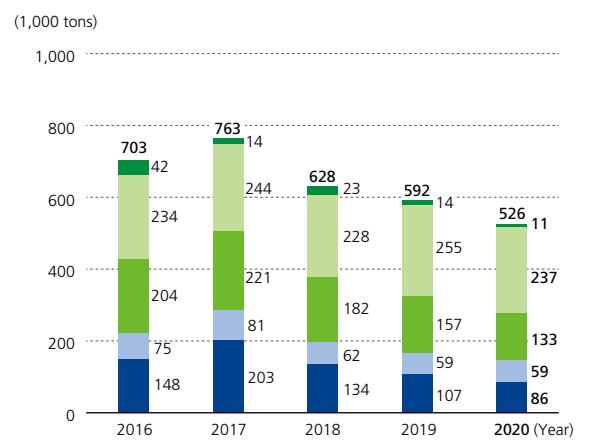
Since 1997, the AGC Group in Japan has been recovering used fluorocarbon products from customers and then destroying and recycling them at the AGC Chiba Plant. In recognition of these activities, the Group received the Minister of Economy, Trade and Industry Award in the Awards for Resources Recirculation Technologies and Systems in 2014 in Japan. In 2019, fluorocarbons equivalent to approximately 1.34 million tons of CO<sub>2</sub> (approximately 1.40 million tons in 2018) 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



## ● Total Volume of Waste Generated by Region (AGC Group)



■ Group companies in the Americas ■ Group companies in Europe  
 ■ Group companies in Asia other than Japan ■ Group companies in Japan ■ AGC  
 \* Figures do not include volumes of valuable materials.

## Returnable Glass Pallets Used for Transporting Glass Products

We use glass pallets utilizing returnable carriers made of iron when 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.

## Treatment of By-Product Oil in the Manufacturing Process

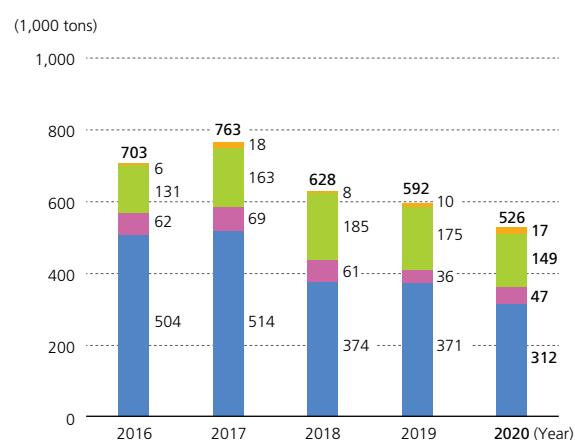
A large amount of by-product oil is generated during the manufacturing process for chemical products. As this oil contains hazardous substances, such as chlorine and fluorine, AGC treats it using dedicated equipment, some of which includes incinerators that incorporate special boilers to recover heat in the treatment process, contributing to energy-saving initiatives. In accordance with the Waste Management and Public Cleansing Act in Japan, AGC obtains legal permission for its industrial waste oil treatment facilities, appropriately managing and inspecting them under guidance from administrative authorities, as well as disclosing their status.

## Global Promotion of Zero-Emission Waste

The AGC Group promotes zero-emission waste\* globally by advancing waste recycling based on the laws and regulations of each country and region, reducing waste generation, and separating and collecting waste thoroughly.

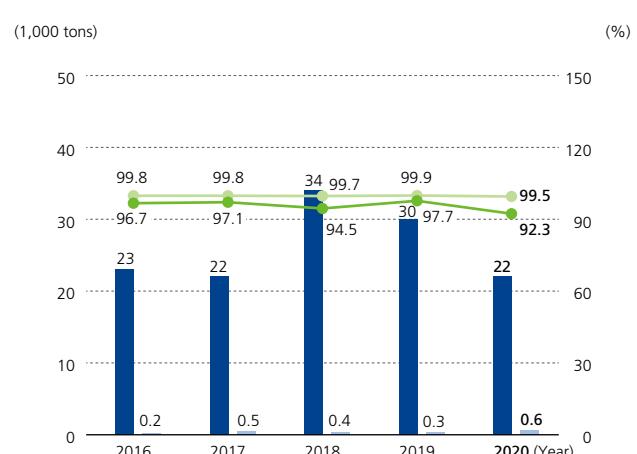
\* Zero-emission waste is defined as the recycling of more than 99% or more of the total volume of waste generated (waste materials + valuable materials) is recycled.

## ● Total Volume of Waste Generated by Business (AGC Group)



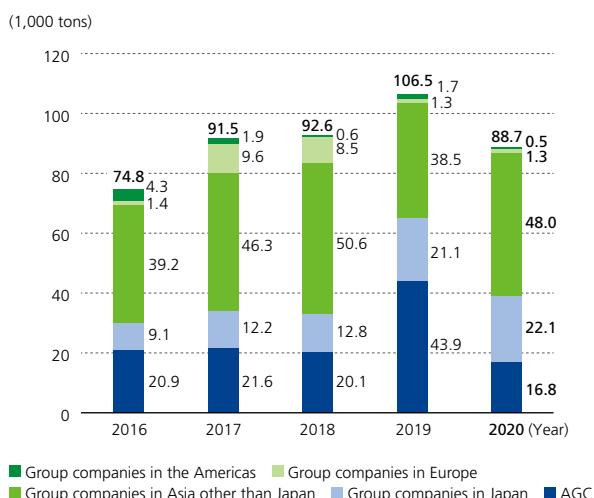
■ Glass ■ Electronics ■ Chemicals ■ Ceramics/Other  
 \* Figures do not include volumes of valuable materials.

## ● Waste Landfill and Recycling Rates

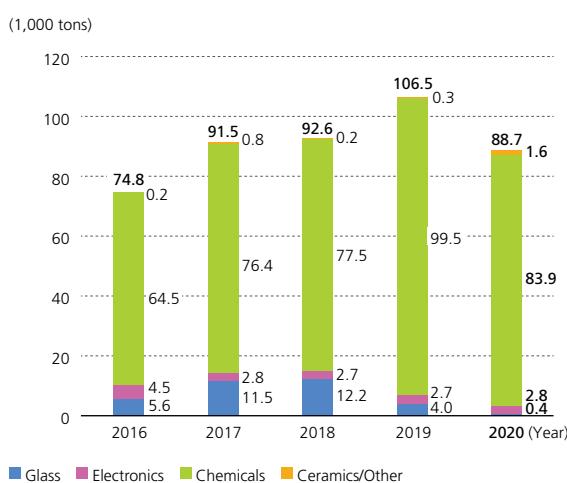


■ AGC Group Landfill Waste Volume ■ AGC Landfill Waste Volume  
 ■ AGC Group Recycling Rate ■ AGC Recycling Rate

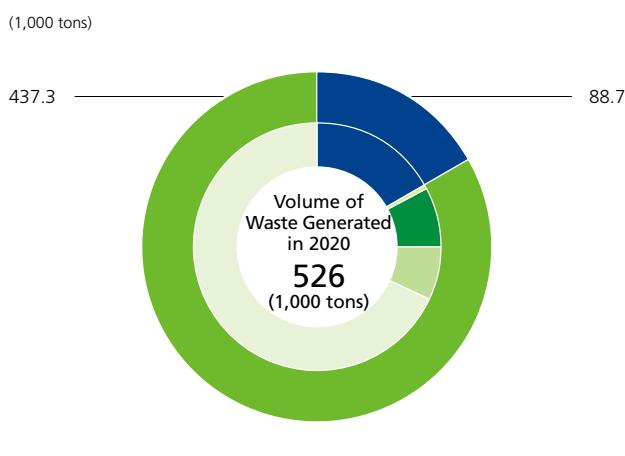
## Amount of Hazardous Waste Generation by Region (AGC Group)



## Amount of Hazardous Waste Generation by Business Segment (AGC Group)



## Types of Waste



■ Hazardous waste ■ Non-hazardous waste

Breakdown of non-hazardous waste

■ Waste plastic 0.6% ■ Sludge 9.2%

■ Waste oils 8.5% □ Other waste materials 81.7%

## Reuse of Used Refractories as an Aggregate Raw Material for Monolithic

### Refractories (AGC Plibrico)

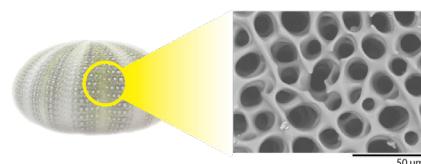
AGC Plibrico Co., Ltd., promotes an initiative for recycling refractories (bricks and other materials) used in blast furnaces and other applications at steelworks—its major customer—for reuse as raw materials for refractories. In cooperation with its customers, AGC Plibrico is working to reuse refractories as an aggregate raw material for monolithic refractories by removing impurities from refractories soon to be disposed of that are used at steelworks and by recovering a granular material after crushing and pulverizing them. Previously, used refractories would be buried as waste or diverted to another use; however, by reusing them as a raw material for refractories, we are not only contributing to waste reduction but also helping reduce disposal and raw material procurement costs. In 2013, our shipment volume of products utilizing recycled materials stood at 20 times that of its 2002 level. We will continue to proactively contribute to the creation of a recycling society by recycling used products.

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

In March 2020, AGC Group company Hokkaido Soda Co., Ltd., began sales of a product called “uniporous,” a biological filter material 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.

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 was recognized for its high level of recyclability as a Hokkaido Certified Recycled Product in November 2019.



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

# Climate Change Initiatives

## Fundamental Approach

In response to the ever-more serious issue of global warming, momentum is increasing around the world for realizing carbon neutrality that would eliminate all greenhouse gas (GHG) emissions by 2050 in order to keep the global temperature increase to within 1.5 °C of pre-industrial levels. The signing of the 2015 Paris Agreement sparked rising interest in climate change around the world at the national and governmental levels. As a result, stakeholders also have heightened expectations toward the roles companies should play and the initiatives they should invest in regarding climate change.

Against this backdrop, in February 2021 the AGC Group set forth its long-term goals for 2050 of aiming to achieve net zero GHG emissions resulting from its business activities and contributing to the realization of net zero carbon emissions globally by leveraging its products and technologies.

### ■ Reducing GHG Emissions and Actively Developing Energy-Saving and Energy-Creating Products

The AGC Group has long been proactively carrying out a wide range of energy-related initiatives, such as promoting energy conservation in manufacturing processes, introducing cogeneration systems that comprehensively increase energy efficiency by using waste heat effectively, converting fuels, and reducing its fluorocarbon emissions while expanding the introduction of renewable energy at the business sites of its Group companies. In addition, by providing products and solutions that contribute to energy savings and energy generation—including eco-glass that enhances the cooling and heating of buildings and houses, refrigerants with extremely low global warming potential (GWP), and solar power generation systems—the Group is contributing to mitigating climate change.

### ■ Initiatives Related to the TCFD\* Recommendations

The AGC Group announced its support for the TCFD recommendations in May 2019. The following introduces our initiatives to tackle climate change in line with the TCFD framework.

\* TCFD: Task Force on Climate-Related Financial Disclosures

## Governance

In January 2021, as part of our efforts to advance sustainability management from a long-term perspective, we established the Sustainability Committee, which further develops the functions of what had been the CSR Committee. The Sustainability Committee is chaired by the Group CEO, and its meetings are attended by senior management and all business division heads. As a decision-making body for initiatives related to sustainability, including climate change, the committee's functions include determining related policies, monitoring the progress of sustainability targets, and deliberating on measures for achieving such targets. In its discussions, the committee focuses on climate change as a particularly important issue (materiality) concerning sustainability and proactively examines policies to guide the AGC Group's business activities in a low-carbon and decarbonized direction. The committee reports to the Board of Directors twice a year on the details of the matters on which it has reported and determined, with the Board involved in activities aimed at achieving GHG emission reduction targets.

## Strategy

Regarding the impact of climate change, an important factor in formulating management and business strategies, the AGC Group has identified and evaluated risks and opportunities that could materialize, while keeping in mind that the world is likely to change significantly, to achieve the target of net zero carbon emissions by 2050. Specifically, we have identified the risks and opportunities that may bring about substantial changes to our business activities, earnings, expenses, and other aspects of our operations and are approaching these risks and opportunities from the perspectives of both mitigation and adaptation.

Meanwhile, to analyze the risks and opportunities associated with climate change in more detail, we implemented a scenario analysis utilizing the TCFD framework. The results confirmed that the impact of carbon pricing—one of our major risk items—would be particularly significant. Accordingly, we have proceeded with the formulation of long-term targets aimed at reducing GHG emissions (announced in February 2021), the establishment of emission reduction targets in each business division, the development of production technologies and processes, the exploration and trial of carbon capture and utilization technology, the introduction of internal carbon pricing, and the promotion of low-carbon investment by incorporating climate change risk investment benchmarks.

## ● Specific Examples of Climate Change Risks and Opportunities

Strategy	Content	
Accompanying risks	Policies, laws, and regulations	Cost increases due to carbon pricing, such as a carbon tax, and other expanded regulations on GHG emissions
	Technology	Increased costs to realize the transition to low-carbon technology, such as establishment of manufacturing methods that do not require fossil fuels
	Markets	Decrease in demand for existing products due to changes in consumer preferences
Physical risks	Short-term	Effects on operations and logistics due to natural disasters such as heavy rainfall, floods, and droughts
	Long-term	Effects on operations and logistics due to inundations caused by long-term rising sea levels, greater frequency of storms, and typhoons stemming from an average global temperature increase
		Heatstroke in hot workplaces during the summer due to the rise in average global temperature
Opportunities	Resource efficiency	Cost reductions through more efficient use of mineral and water resources
		Diversification of raw material options by utilizing recycled resources such as glass cullet and recovered fluorite
	Products	Development and sales promotion of products that contribute to the alleviation of and adaptation to climate change, such as low-E double-glazing glass, alternative fluorocarbons with low global warming potential, and ion exchange membranes that contribute to the production of drinking water and water reuse
	Markets	Access to new markets leveraging the strengths of the Group's technologies

### Risk Management

The AGC Group believes that addressing climate change poses the greatest challenge of the five major long-term risks (materiality) it has identified. To address this risk, the Group has established targets for reducing the impact of climate change as part of Groupwide sustainability targets and applies the plan-do-check-act cycle by carrying out periodic progress reports on related activities at meeting bodies, such as the Sustainability Committee. The AGC Group extensively collects and analyzes information on a continuous basis regarding risk factors that may have a major impact on its business, including climate change-related policies and regulations, such as carbon taxes and emissions trading, as well as trends in low-carbon technologies, while examining necessary measures to be implemented.

### Indicators and Goals (Through 2020)

As achievement indicators through 2020, the AGC Group set a Groupwide GHG emissions value (AGC environmental indicator) of 1.3 and a CO<sub>2</sub> emissions reduction of 175,000t-CO<sub>2</sub> (60,000t-CO<sub>2</sub> of which to be accounted for by AGC) through the use of glass cullet\*1 as Group targets. At the same time, the Group carried out GHG emissions reduction activities under a CO<sub>2</sub> emissions reduction slogan pledging to reduce CO<sub>2</sub> emissions by a cumulative amount six times the volume of its total

GHG emissions in 2020 through energy-saving and energy-creating products. Compared with the target under this slogan, we achieved an amount 5.6 times the volume of our total CO<sub>2</sub> emissions in 2019.\*2 Among the reasons we fell short of our target was the lowering of the CO<sub>2</sub> emission coefficient of electricity due to the rapid switch to renewable energy in Europe, which resulted in a decline in the reduction contribution of heat-insulating and thermal-shielding glass in Europe.

\*1. Excludes those generated in glass-melting processes

\*2. Fiscal 2019 figure used as fiscal 2020 was an irregular year marked by the significant impact of COVID-19

### Future Indicators and Targets

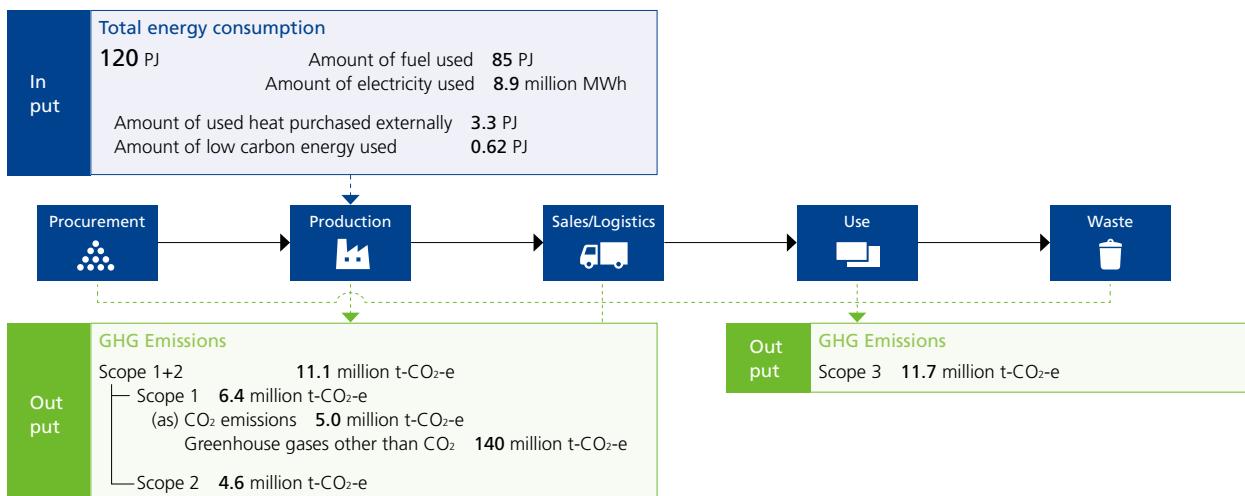
In its new Medium-Term Management Plan, which started in 2021, the AGC Group introduced sustainability targets for the creation of social value, an important issue for the Group. Established in a wide range of domains where the Group can harness its strengths, these sustainability targets serve as a fulcrum for further promoting sustainability management that balances the continuous development of societies and the world with the continuous development of the Group. Based on our belief that the reduction of GHG emissions is an issue of particular importance for the promotion of sustainability management, we have formulated targets for 2030 in the following four domains.

1. Reduction of GHG emissions from our business activities (Scope 1 + Scope 2)
  - Total GHG emissions: Reduce by 30% compared with 2019
  - Total GHG emissions per unit of sales: Reduce by 50% compared with 2019
2. Reduction of GHG emissions generated from our supply business activities
  - Expand diverse examples of collaborative projects with major suppliers
3. Products and technologies contributing to reducing GHG emissions

- Popularize and expand range of products and technologies contributing to the achievement of net zero carbon emissions
- 4. Business models contributing to reducing GHG emissions
  - Expand diverse practical examples that leverage business assets

The Group is making concerted efforts to strengthen initiatives aimed at ensuring their achievement while examining raising the targets and implementing concrete measures for them. Specifically, we have embarked on efforts that include formulating an action plan to achieve the targets by 2030 and developing key technologies for reducing GHG emissions.

#### ► 2020 Energy-Related Material Balance (AGC Group)



### Reducing GHG Emissions

#### ■ Reducing Natural Resource Use for Further Energy Savings

Mixing glass cullet with glass raw materials allows glass to be manufactured with less energy than it would be when using only natural raw materials, such as silica sand. To reduce CO<sub>2</sub> emissions produced in the manufacturing process, the AGC Group set a goal of reducing CO<sub>2</sub> emissions by 175,000t-CO<sub>2</sub> (60,000t-CO<sub>2</sub> of which to be accounted for by AGC) by 2020 through the use of glass cullet.\*

\* Excludes glass cullet generated in glass-melting processes

#### ► Reductions in CO<sub>2</sub> Emissions Through Use of Glass Cullet

Year	AGC Group	AGC
2020	277 million t-CO <sub>2</sub>	99 million t-CO <sub>2</sub>

## Scope 3 GHG Emissions (AGC Group)

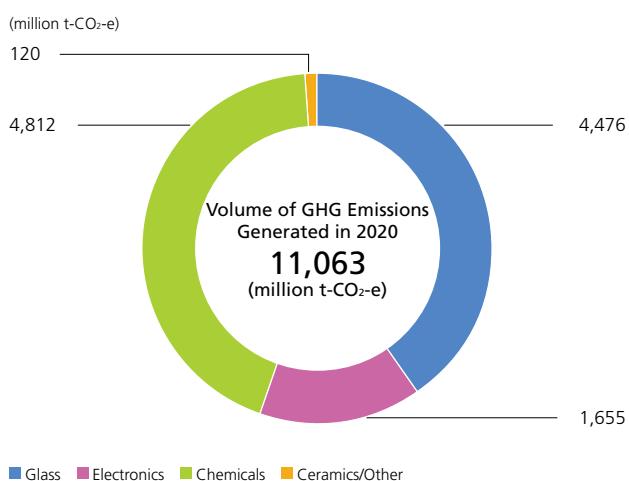
Output	2019	2020
GHG emissions (Scope 1)	6.2 million t-CO <sub>2</sub> -e	6.4 million t-CO <sub>2</sub> -e
GHG emissions (Scope 2)	5.3 million t-CO <sub>2</sub> -e	4.6 million t-CO <sub>2</sub> -e

Note: Thermal units and the emission factor are calculated as GHG emissions in accordance with the Act on the Rational Use of Energy (Energy Saving Act), the Act on Promotion of Global Warming Countermeasures, and the EPA Greenhouse Gas Reporting Program. The electricity emission factor is based on the electricity supplier-specific factor or the factor of the IEA (International Energy Agency) / China National Carbon Emissions Trading Scheme (the IEA factor was used for bases in China in 2018\*<sup>1</sup>). For the global warming potential of greenhouse gases other than CO<sub>2</sub>, the values from the IPCC's Fourth Assessment Report are used\*<sup>2</sup>. The total for 2019 includes chlorofluorocarbon gases that have a greenhouse effect and are not specified by the Act on Promotion of Global Warming Countermeasures. The emission factor has the value set by AGC with reference to the technical literature.

\*1. Excludes GHG emissions from energy sold externally

\*2. The scope of the data disclosed includes AGC and 122 Group companies worldwide.

## Scope 1 + Scope 2 GHG Emissions by Business



## 2020 Scope 3 GHG Emissions

Category	Overview	Calculation method	GHG emissions
1	Purchased goods and services	Emissions calculated by multiplying resource input volume of product production by the emissions intensity* per material	3,716 thousand t-CO <sub>2</sub>
2	Capital goods	Calculated by multiplying the amount of capital investment related to capital goods by the emissions intensity* corresponding to the investment amount	684 thousand t-CO <sub>2</sub>
3	Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	Calculated by multiplying the fuel and energy input amount at AGC Group offices / plants by the emissions intensity* for individual fuels / energy sources	1,102 thousand t-CO <sub>2</sub>
4	Upstream transportation and distribution	Calculated based on the amount of resource input during product production and the ton-kilometer data for product transportation, whereby (1) the amount of emissions related to the procurement of materials and parts and (2) the amount of emissions from transportation at the time of shipping the product are multiplied by the emissions intensity*	1,007 thousand t-CO <sub>2</sub>
5	Waste generated in operations	Calculated by multiplying the amount of externally disposed waste by the emissions intensity per treatment method*	182 thousand t-CO <sub>2</sub>
6	Business travel	Global emissions calculated through an estimation based on employee makeup ratios, considering the result calculated by multiplying the travel expenses for AGC by the emissions intensity per transportation method*	43 thousand t-CO <sub>2</sub>
7	Employee commuting	Global emissions calculated through an estimation based on employee makeup ratios, considering the result calculated by multiplying commuting expenses for AGC by emissions intensity per transportation method*	51 thousand t-CO <sub>2</sub>
8	Lease assets (upstream)	Emissions when using leased properties calculated in Scope 1 and Scope 2	Not applicable
9	Transportation and distribution (downstream)	Emissions from AGC Group products not calculated as they are intermediate products, such as components and materials that do not consume energy when being used	Not applicable
10	Processing of sold products	Emissions calculated by multiplying weight of sold products by the basic unit of processing by product and the electricity emission factor	269 thousand t-CO <sub>2</sub>
11	Use of sold products	Calculated by multiplying the GHGs emitted directly through use of sold products at sales outlets by emissions intensity per product,* based on assumed use conditions	1,945 thousand t-CO <sub>2</sub> e
12	End-of-life treatment of sold products	Calculated by multiplying the weight of sold products by waste intensity. For a portion of products, it is calculated by working out the volume of leakage from the weight sold and multiplying the figure by the GWP.	2,581 thousand t-CO <sub>2</sub>
13	Lease assets (downstream)	Emissions calculated by multiplying leased floor space in a building by the basic unit of floor space and emissions intensity	167 thousand t-CO <sub>2</sub>
15	Investments	Emissions not calculated as the investments the AGC Group makes are not for investment purposes	Not applicable
	Total		11,747 thousand t-CO <sub>2</sub> e

Note: 1. For our calculation of GHG emissions (Scope 3) in 2020, we reviewed our calculation method and improved its accuracy, which resulted in a discrepancy with the 2019 calculation results. Consequently, we plan to recalculate our 2019 GHG emissions (Scope 3) and disclose them in the future.

\* Emissions intensity primarily references the Sustainable Management Promotion Organization's life cycle assessment inventory database (Inventory Database for Environmental Analysis).

## Initiatives at Individual Companies

### ■ Installation of Solar Panels (Europe)

The AGC Glass Europe Group has installed solar panels on plants and office buildings to promote the use of renewable energy. In 2020, 5,050,000 kWh of power was generated, equivalent to approximately 1% of the AGC Group's total power use.

### ■ Investment in Solar Power Projects

To effectively use Group-owned land and realize energy conservation and energy creation through its products, the AGC Group has installed solar panels at three business sites in Japan and has invested in a Photovoltaic Power Generation Project. As a result of these efforts, our annual generation of power in 2020 came to 247,000 kWh.

# Reducing Environmental Impacts throughout Product Life Cycles

## Fundamental Approach

The AGC Group evaluates its environmental impacts not only the product manufacturing stage but also each stage of a product's life, including raw material procurement, sales, logistics, use, and disposal, with the aim of reducing the environmental impacts of products throughout their life cycles. In particular, the Group promotes the development and provision of products that help reduce environmental impacts during use and products with longer life spans.

## Groupwide Initiatives

### ■ Third-Party Certification for Environmental Products

Providing information on the environmental impacts of products throughout their life cycles allows customers to select and preferentially purchase environmental-friendly products. To provide customers with highly reliable information, the AGC Group acquires third-party certification for its environmental products. For example, in 2010 AGC Glass Europe S.A. became the first company in Europe to see its flat glass and coated glass become Cradle to Cradle Certified™ and has subsequently acquired and renewed the following such certifications. Cradle to Cradle Certified™ products also earn Leadership in Energy and Environmental Design (LEED) (green-building rating system) credits, thereby contributing to customers' environmental ratings.

2013: Renewal of Silver certification for flat glass and coated glass and acquisition of Bronze certification for decorative glass  
 2014: Acquisition of Bronze certification for two types of laminated glass  
 2017: Acquisition of Bronze certification for insulating glass  
 2018: Acquisition of Silver certification for decorative glass, painted glass, acid-etched glass, and lead-free mirrors  
 2019: Acquisition of Silver certification for fire-resistant glass  
 2020: Acquisition of Silver certification for several laminated glass products and renewal of Silver certification for decorative glass



Cradle to Cradle Certification

### ■ Initiatives Aimed at Reducing GHG Emissions

#### in the Product Life Cycle

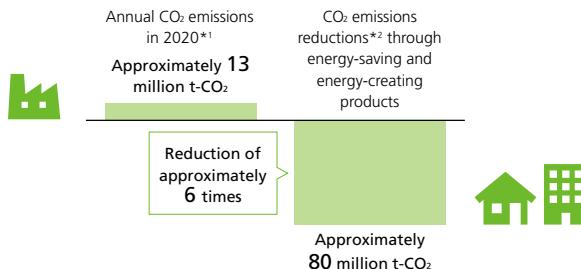
The AGC Group has established the provision of more products that reduce GHG emissions throughout the entire product life cycle, particularly during use, as a key target and is

promoting the development and provision of energy-saving and energy-creating products. Alongside the provision of many energy-saving and energy-creating products, we are striving to further enhance their functionality and performance. Examples of such products include Ecology glass, an energy-saving glass for architectural use that reduces GHG emissions during heating or air-conditioning through its outstanding thermal-insulating properties; Cool verre™, an automotive glass that blocks infrared and ultraviolet rays; SUNJOULE™, a light-collecting, solar power generation module; AMOLEA™, a fluoropolymer refrigerant with a global warming potential of less than one; and the FORBLUE™ i-Series, a fluorinated electrolyte polymer solution for fuel cells.

### GHG Emissions Reduction Slogan

As part of our efforts to promote the development and provision of energy-saving and energy-creating products, in 2014 we created a slogan outlining our aim to reduce our GHG emissions in 2020 by an amount six times that of our emissions in that year through energy-saving and energy-creating products. We set as the indicator the total amount of CO<sub>2</sub> emissions reduction contributions attained during the use periods\*1 of energy-saving and energy-creating products sold by the AGC Group in a given year, compared with our annual CO<sub>2</sub> emissions (Scope 1 + Scope 2), and aimed to increase the ratio between the two amounts. We calculated CO<sub>2</sub> emissions reduction contributions as the amount of CO<sub>2</sub> emissions reduced through the use of energy-saving and energy-creating products during the product use period, in comparison with the amount of CO<sub>2</sub> emissions generated when using our conventional products.

$$\text{Assessment indicator} = \frac{\text{Total amount of CO}_2\text{ emissions reduction contributions attained during the use periods*1 of energy-saving and energy-creating products sold by the AGC Group in a given year}}{\text{Annual GHG emissions (Scope 1 + Scope 2) for the AGC Group in a given year}}$$

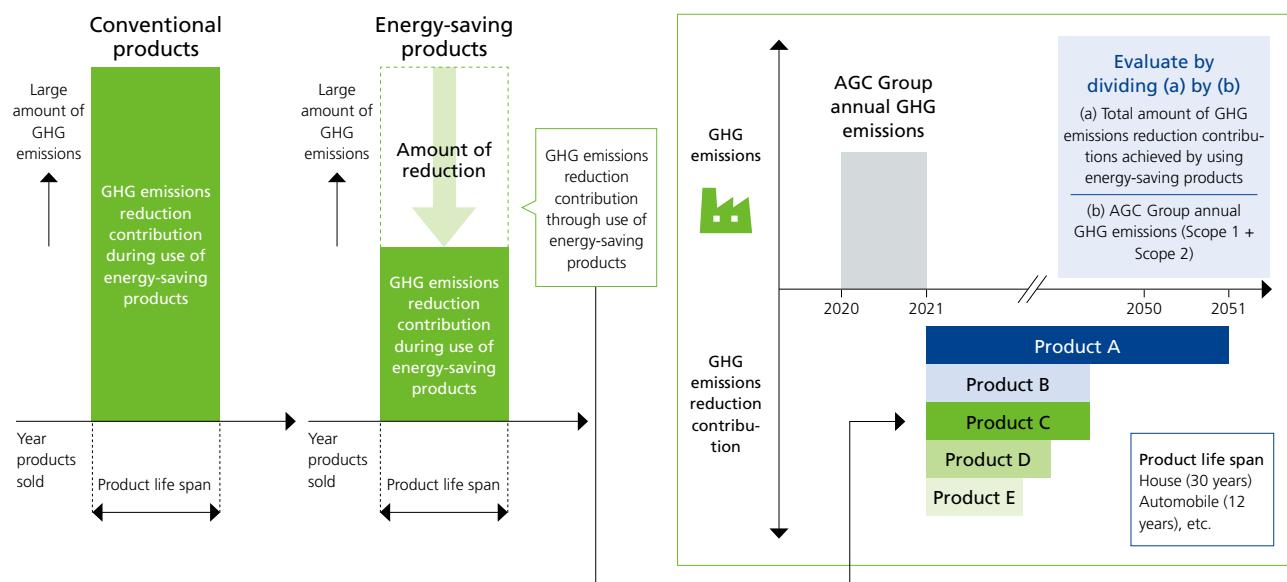


The AGC Group will aim to reduce its CO<sub>2</sub> emissions in 2020 by an amount six times that of its emissions in that year through energy-saving and energy-creating products. (2014)

\*1. Annual CO<sub>2</sub> emissions for the AGC Group in 2020 (as projected in 2014)

\*2. CO<sub>2</sub> emissions reduction amount in the event that the energy-saving and energy-creating manufactured are used through to the end of their useful lives (as projected in 2014)

● Amount of GHG Emissions Reduction Contributions During the Use Stage of Energy-Saving Products and Assessment of the Level of Achievement of Our GHG Emissions Reduction Slogan



In 2019, the total GHG emissions reduction contribution achieved through energy-saving and energy-creating products sold in that year stood at 63.7 million ton-CO<sub>2</sub>e, which comes to 5.6 times the AGC Group's annual GHG emissions for that year (Scope 1 and Scope 2) of 11.37 million ton-CO<sub>2</sub>e.

We calculated the GHG emissions reduction contribution of energy-saving products, such as for example, the energy-saving architectural glass as Ecology glass, as follows.

- Calculation of annual heating and air-conditioning load for a model residence<sup>\*2</sup> (taking into account the climate classification of the region where the products are used)
- Calculation of annual heating and air-conditioning load reduction versus the standard for glass<sup>\*3</sup>

- Calculation of GHG emissions reduction contribution per unit area during product use period (taking into account GHG emission factors for each country<sup>\*4</sup> and product life span): (a)
- Product sales volumes for each country (m<sup>2</sup>): (b)

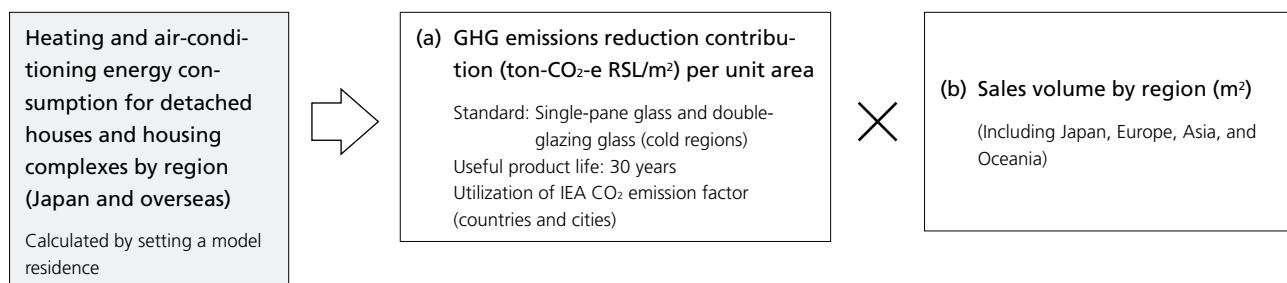
For product sales regions globally, GHG emissions reduction contributions achieved through sales of energy-saving glass for architectural use are calculated by multiplying (a) by (b).

\*1. Product use periods defined as the product life spans stipulated for each product

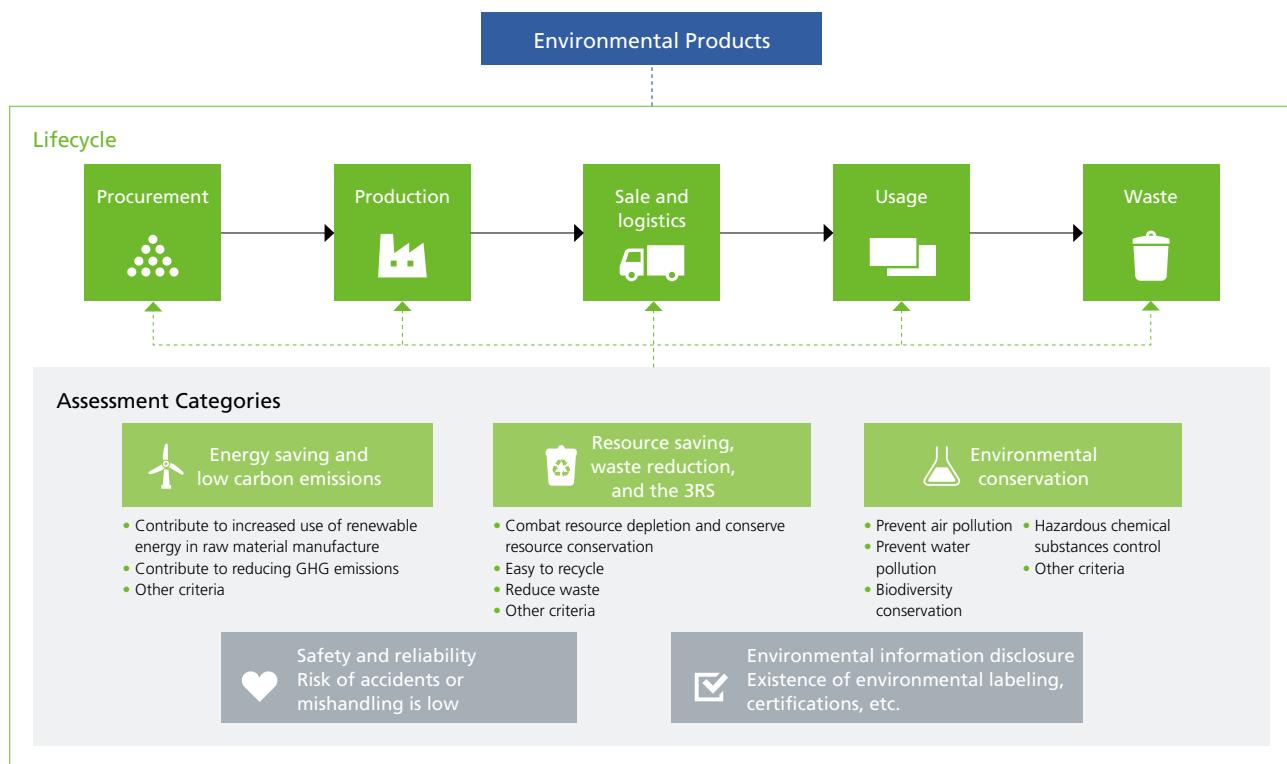
\*2. Calculated using technical information in an AGC flat glass comprehensive building materials catalog (11th edition, 3-6, pages 23 to 26) and EnergyPlus, a U.S. energy-saving software

\*3. Sets double-glazing glass as the standard glass for region 1 and Europe and single-pane glass (FL3) as the standard glass for other regions according to the energy-saving standard regional categories

\*4. International Energy Agency (IEA): CO<sub>2</sub> Emissions from Fuel Combustion 2019



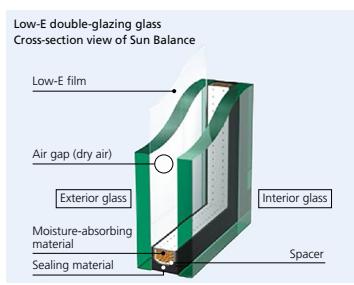
## ► The Environmental Product Selection Process



## ■ Products That Contribute to the Environment throughout Their Entire Life Cycle

### Energy-Saving Architectural Glass

- Energy-saving products: Addressing global warming
- Ecology glass (Low-E Double-Glazing Glass)
  - Energy-saving glass with excellent heat insulation and thermal shielding that raises the efficiency of heating and air-conditioning
  - Helps improve the energy efficiency of buildings and reduces CO<sub>2</sub> emissions generated through the use of heating and air-conditioning
  - Cradle to Cradle Certified™ (C2C): Magnetron Coated Glass (Silver), insulating glass (Bronze)

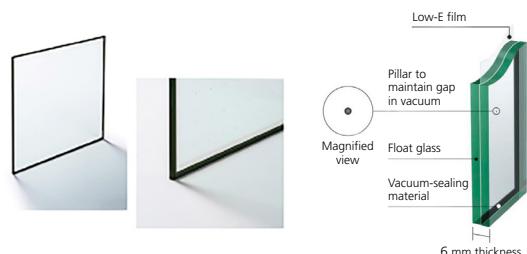


Low-E Double Glazing Glass

### • Energy-saving glass for renovations

- **PairPlus™**  
High-performance Low-E double-glazing glass for use in renovations
- **Madomado™**  
Double-glazing window (enhanced window functionality by adding another pane of glass to the interior while maintaining the existing sash and glass)
- **ATTOCH™**  
Site-fabricated Low-E glass for retrofitting
- **FINEO—vacuum-insulating glass**  
Vacuum-insulating glass that balances\* outstanding heat-insulating properties with a slimline profile (total thickness of 6.7 mm and up) by vacuum sealing two panes of glass

\* Equivalent to an approximately 4 mm-thick triple glass with argon gas and developed in collaboration with Panasonic Corporation



## Energy-Saving Glass for Industrial Use

- **WINDOOR™—Glass door for refrigerator and freezer display cabinets**
- ▶ **Energy-saving product: Response to global warming**  
Glass door delivering significant power savings effects for refrigerator and freezer display cabinets through its high thermal-insulating properties

## Solar Power Generation System

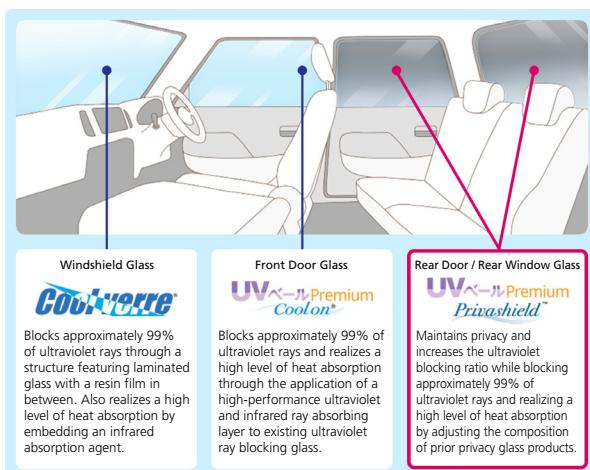
- **SUNJOULE™—Light-collecting, solar power generation module**
- ▶ **Energy-saving product: Response to global warming**  
Solar power generation system using a light-collecting, large-scale module primarily composed of laminated glass



JR Takanawa Gateway Station  
Designed by JR East Design Corporation

## Automotive Glass

- ▶ **Energy-Saving Product: Response to Global Warming**
- • Cool verre™—Energy-saving glass for automobiles
- • UV Verre Premium Cool on™
- • UV Verre Premium Privashield™



Automotive glass that blocks infrared and ultraviolet rays to the benefit of vehicle drivers and the global environment

## Fluorochemicals (Refrigerants and Solvents)

- ▶ **Low global warming potential (GWP) product: Response to global warming**
- AMOLEA™ Series—Environment-friendly, next-generation refrigerants and solvents
- Low-environmental impacts hydrofluoroolefin refrigerants and solvents used as refrigerants in airconditioners and detergents for precision instruments
- AMOLEA™ received the Minister of the Environment Award at the Japan Association for Chemical Innovation's Green and Sustainable Chemistry Awards (2020)
- • 1234yf  
An extremely low-environmental impacts refrigerant with GWP of less than one and zero ozone depleting potential (ODP)
- • 1224yd  
An extremely low-environmental impacts refrigerant with GWP of less than one and zero ODP

## Fluorochemicals (Coatings) Energy-saving product:

### Response to global warming

- • LUMIFLON™—Fluoropolymer resin for coatings  
Fluoropolymer resin for coatings that helps bring down life cycle CO<sub>2</sub> emissions by reducing the number of coating applications required thanks to its weather-resistant properties
- • Bonnlon SUNBARRIER GT™—Fluorinated resin coating  
Near-infrared reflective coating

## Fluorochemicals (Films)

- • F-CLEAN™—Fluoropolymer film for use in greenhouses  
A fluoropolymer film replete with functions needed for greenhouses (including anti-dripping and ultraviolet ray-blocking properties) that helps limit plastic waste due to its long life span and combines high light transmittance and weather resistance



F-CLEAN™ in use at agricultural greenhouses

## Fuel Cell Materials

### ► Energy-saving and energy-creating product:

#### Response to global warming

##### FORBLUE™ i-Series

A fluorinated electrolyte polymer solution for fuel cell materials for use in the power generation systems of fuel cell vehicles

## Ion-Exchange Membranes

### ► Renewable-energy related and energy-saving product: Response to global warming

#### • ● FORBLUE™ Flemon™

Fluoropolymer ion-exchange membrane with high energy-saving effects for manufacturing caustic soda

#### • ● FORBLUE™ S-SERIES

Fluoropolymer ion-exchange membranes for water electrolysis (hydrogen manufacture), redox flow batteries, and various types of electrolysis

#### • ● FORBLUE™ Selemion™—Hydrocarbon-based ion exchange (membrane dialysis and membranes)

Ion-exchange membranes used in ion desalination and concentration, such as wastewater treatment, groundwater reclamation (desalination), and acid recovery

#### • ● FORBLUE™ sunsep™—Fluorine-based hollow-fiber gas dehumidifier and humidifier modules

Gas dehumidifier and humidifier modules equipped with moisture selective permeable hollow fibers

## Other Chemical Products

#### • ● ACLESYA—Highly reactive neutralizing agent for exhaust gas fumes treatment

Neutralizes hydrogen chloride and sulfur oxide in exhaust gases at waste incinerators, thereby significantly eliminating a cause of air pollution in addition to showing promise in terms of limiting the amount of fly ash generated and reducing the environmental impacts of final disposal

#### • ● EXCENOL™—Urethane Materials

#### Energy-saving and low GWP product: Response to climate change

Urethane foam material that provides superior thermal insulation without using chlorofluorocarbons, which have a high GWP

## Ceramics

### ► Energy-saving product: Response to global warming

#### • THERMOTECT™—Ceramic furnace material with high thermal insulation and heat resistance

Ceramic furnace material delivering high thermal insulation and heat resistance up to 1,600 °C, the maximum resistance temperature for ceramic furnace materials. It maintains its high thermal insulation and heat resistance performance even if used at high temperatures for long periods.

#### • ● THERMOTECT WALL™—High Thermal Insulation Furnace Wall

Furnace wall for industrial furnaces combining industry-leading, high thermal insulation performance and wear resistance.

Multilayered furnace wall that arranges a high thermal insulation grade of THERMOTECT™ on the furnace interior (high-temperature side) and a special thermal insulation board of THERMOTECT™ with low thermal conductivity on the furnace exterior (low-temperature side). This product won the Director-General's Prize (Business Model Category) at the 2015 Grand Prize for Excellence in Energy Efficiency and Conservation.

## Verification Statement

**SGS**  
25 October 2021  
Statement No : SGS21/053

**Yoshinori Hirai**  
Representative Director, President & CEO  
AGC Inc.

**Objective**  
SGS Japan Inc. (hereinafter referred to as "SGS") was commissioned by AGC Inc. (hereinafter referred to as "the Organization") to conduct independent verification based on Criteria of Verification (ISO14064-3: 2006 and the SGS verification protocol) regarding the data prepared by the Organization on the scope of verification (hereinafter referred to as "the assertion"). The objective of this verification is to confirm that the assertion in the Organization's applicable scope has been correctly calculated and reported in the assertion in conformance with the criteria, and to express our views as a third party.

**Scope**  
The scope of verification is Scope 1 and 2 emissions, energy consumption, Scope 3 emissions, amount of water intake, amount of water drainage and amount of waste generation.  
The period subject to report is from 1 January 2020 to 31 December 2020.  
Refer to the attached sheet for the detailed scope of verification.

**Procedure of Verification**  
The assertion was verified in accordance with Criteria of Verification, and the following processes were implemented at a limited level of assurance:

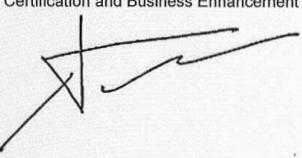
- Verification of the calculation system: Interviews on the measurement, tabulation, calculation and reporting methods employed by the Organization as well as review of related documents and records
- Verification of the assertion: On-site verification and review of vouchers conducted at Kashima Plant and Kansai Plant (Takasago Factory), and analytical procedures and interviews for other sites in the scope of verification carried out at the Head Office

The criteria for this review are based on the GHG protocol, the GHG Emissions Calculation and Reporting Manual Ver. 4.7, IPCC AR4, IEA2020, Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain Ver2.3, Emission Factor Database on the same Accounting Ver3.0, IDEA v.2.3 and the protocol specified by the Organization.

**Conclusion**  
Within the scope of the verification activities employing the methodologies mentioned above, nothing has come to our attention that caused us to believe that the Organization's assertion was not calculated and reported in conformance with the criteria.  
SGS Japan Inc. affirms our independence from the organization, being free from bias and conflicts of interest with the Organization.

**For and on behalf of SGS Japan Inc**  
Senior Executive & Director  
Certification and Business Enhancement

**Yuji Takeuchi**



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attached sheet

25 October 2021  
Statement No : SGS21/053**The details of the scope of verification**

The scope	The boundary	The assertion
1 The performance data Scope 1 and 2 include energy and non-energy related greenhouse gas emissions, CH <sub>4</sub> , N <sub>2</sub> O, HFC, PFC and SF <sub>6</sub> emissions. Energy consumption	<ul style="list-style-type: none"> <li>• energy related CO<sub>2</sub> emissions in 257 domestic and overseas Group production and non-production sites</li> <li>• non-energy related CO<sub>2</sub> emissions, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC and SF<sub>6</sub> emissions in 52 domestic and overseas Group production and non-production sites</li> </ul>	Scope1: 6,428,602t-CO <sub>2</sub> Scope2: 4,634,498t-CO <sub>2</sub>
2 Scope3 (category 1~7, 10~13) ※category 8 is included in Scope 1 and 2 ※categories 9 and 15 are not applicable	category 1: 200 sites for product-related procurement and 242 companies for other procurement including domestic and overseas groups category 2: 242 companies including domestic and overseas groups category 3: 257 sites including domestic and overseas groups category 4: 242 companies including domestic and overseas groups category 5: 217 sites including domestic and overseas groups category 6: 242 companies including domestic and overseas groups category 7: 242 companies including domestic and overseas groups category 10: the applicable products in this category of the Organization category 11: the applicable products in this category of the Organization category 12: the products sold by the Organization category 13: 8 companies including domestic groups	category 1: 3,716,208 category 2: 684,007 category 3: 1,102,111 category 4: 1,007,465 category 5: 181,553 category 6: 42,803 category 7: 51,073 category 10: 269,260 category 11: 1,945,208 category 12: 2,580,709 category 13: 167,009
		unit: t-CO <sub>2</sub>
3 amount of water intake and amount of water drainage	202 water intake and 113 water drainage sites, including domestic and overseas Group production and non-production sites	amount of water intake: 913,321 thousand m <sup>3</sup> amount of water drainage: 890,911 thousand m <sup>3</sup>
4 amount of waste generation (excluding valuable materials)	217 domestic and overseas Group production and non-production sites	526,330 t

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## ► Human Rights

# 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 to freedom of association and collective bargaining, the Group complies with the laws and regulations of each country or region and respects the relevant international norms.

## Management Structure

The AGC Group conducts human rights efforts in collaboration with relevant departments. The Human Resources Division is responsible for human rights issues within the Group. In addition, the Compliance Department plays a central role in conducting human rights training within the Group.

## 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 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 2019 and responded promptly to cases requiring rectification. The next assessment is scheduled in 2022 after the Group updates its checklist based on social trends and other factors.

Further, we are asking our business partners to fill out a Supplier CSR Survey to grasp the current situation of the Group’s supply chain and initiatives regarding human rights and labor practices. The contents of the survey are currently being reassessed.

### ■ 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.

### 🌐 Annual Statement on Slavery and Human Trafficking

### ⌚ 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 compul- sory 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

At AGC, the Human Rights Office and the Legal Division Compliance Group work together to provide employees with a work environment that is free from discrimination or harassment, providing compliance training programs and preventing harassment. For early detection of problems, AGC has set up internal and external contacts, including a helpline, for persons to seek advice. In the event a problem occurs at the workplace, the AGC Group addresses it not only by re-educating the individuals involved but also by treating it as an organizational issue for the workplace where the problem arose. Moreover, the helpline can be used not only by employees at AGC but also by employees of the entire Group. Regarding issues of harassment, such as sexual or power harassment, the Group holds rank-specific training and workplace dialogue meetings to prevent and stop such behavior. The Group also encourages employees in difficulty to seek advice as early as possible if they encounter any form of harassment so the issue can be resolved.

### ■ 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 Labor Union (AGC)

FY	Number of members*	Average age Average	length of service
2016	3,766	40.3	17 years and 4 months
2017	3,954	40.1	16 years and 4 months
2018	4,154	39.4	15 years and 1 months
2019	4,212	39.4	15 years and 3 months
2020	4,286	39.6	15 years and 2 months

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

## ► Human Rights

# Human Resource Management

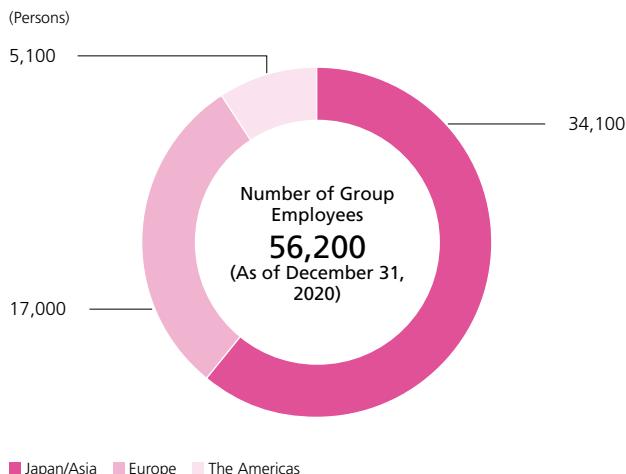
## Fundamental Approach

To continuously evolve as a truly global enterprise, the AGC Group has set out the 7 Key Principles for People, which is aimed at realizing progressive human resource (HR) 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 2020, 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, 2020, excluding those dispatched from other Group companies

Classification	Male	Female	Total	Percentage of female
Managers	2,981	177	3,158	6%
Non-managers	Career-track positions	804	191	995
	Shop-floor workers	3,250	135	3,385
	Clerical positions	14	522	536
	Subtotal	4,068	859	4,927
Total	7,049	1,036	8,095	13%

### ● Employee-Related Data for AGC

As of December 31, 2020

Item	Male	Female	Total
Average age	43.4	42.2	43.2
Average length of service	18.4 years	14.8 years	17.9 years
Average overtime working hours	17.0 hours/month (average for members of the labor union)		
Percentage of paid leave taken	85.9% (average for members of the labor union)		

### ● Number of Employee Retiring (AGC)

Period: April 2020 to March 2021

Excludes employees retiring upon reaching mandatory retirement age

	Number of people
Number of employees retiring	177

### ● Retention Rate of New Employees (AGC)

Year of recruitment	Number of people	Retained employees*	Retention rate
2017	73	63	86.3%

\*As of April 2021

### ● Percentage of Mid-Career Hires (AGC)

Year	Percentage of mid-career hires among regular employees
2018	68%
2019	50%
2020	51%

## Improving Employee Engagement

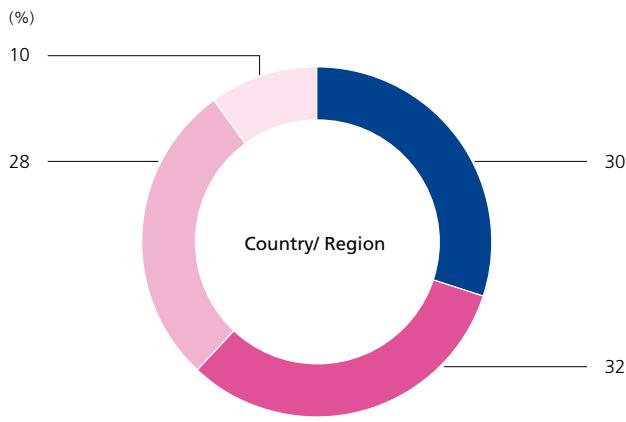
### Fundamental Approach

The AGC Group aims to realize the company with our people management slogan, "AGC People: the driver of our growth!," by ensuring that its employees are motivated to work and improving its corporate culture. In other words, we strive for higher employee engagement, and to this end, employees, management, and Group executives 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.

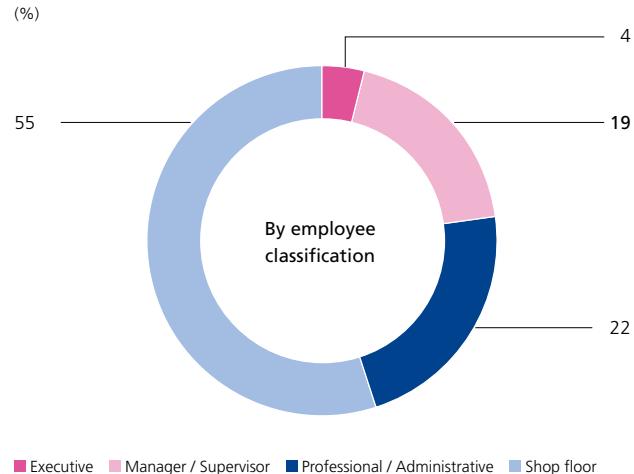
### Groupwide Initiatives

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 2019 the Group conducted a sixth survey in 22 languages targeting approximately 48,000 individuals. The positive response rate increased compared with the previous survey in 2016, and the effect of measures taken by each division and workplace was evident. Currently, based on the results of the 2019 survey, we are discussing workplace issues and developing additional measures to resolve them.

#### Engagement Survey Respondents by Region/Job



■ Japan ■ Asia other than Japan ■ 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%

#### Engagement Survey Topics

Employee Engagement	Employee Enablement	Change from Previous Iterations
1. Clear and Promising Direction 2. Leadership 3. Quality and Customer Focus 4. Respect and Recognition 5. Development Opportunities 6. Compensation	1. Performance Management and Compensation 2. Authority and Empowerment 3. Resource 4. Collaboration 5. Work Efficiency	Understanding and Practice of <b>"Look Beyond"</b>

## ■ 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 2020

Division	Number
Architectural and Industrial Glass	8
Automotive	8
Electronics	8
Chemicals	8
AGC Ceramics	2
CTO Office* <sup>1</sup>	5
CFO Office* <sup>2</sup> and Internal Auditing	2
Total 41	

\*1. Productivity Innovation Division, Business Development Division, Intellectual Property Division, Environment, Safety and Quality Division, Technology General Division

\*2. Management Planning Division, Administration, Public Relations and IR Division, Legal Affairs, Human Resources, Finance and Control, Purchase and Logistics and Information Systems Divisions

## ■ 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, the Group has been reviewing workstyles since 2016 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 re-employment 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 realize the company with our people management slogan, "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

The AGC Group has highlighted the importance of diversity, the source of the Group's competitiveness in the long term, in its Shared Values from the Group Vision "**Look Beyond**" and strives to achieve such diversity. "Diversity for Organizational Competitiveness" is addressed in the 7 Key Principles for People, which aims at realizing progressive human resource management. "Respect for People" is discussed in the AGC Group Charter of Corporate Behavior. Based on these guidelines, the Group strives to create fair and open work environments that are free of discrimination.

### Management Structure

In the AGC Group, the Human Resources Division is the main player in setting goals for achieving diversity. Concrete measures are devised in cooperation with Human Resources Division in each company and region.

### Groupwide Initiatives

#### ■ Hiring Diverse Personnel

To strengthen the Group's brand as a global employer, the AGC Group has created a standard recruiting website for Japan, Europe, and Thailand, featuring a consistent recruitment brand message for the Group.

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 foreign students graduating from Japanese universities.

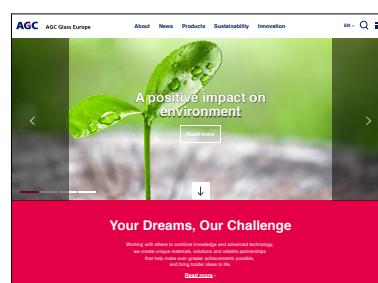
Also, the Asia Pacific region is an important location in AGC's business strategy. To accelerate new business and market development, the local holding company AGC Asia Pacific was established in Singapore in 2013, and, regardless of country of origin, the Group is hiring ambitious, highly capable talent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

#### ● Foreign Nationals Hired during New Graduate Recruitment for Career-Track Positions (AGC)

Year	Exchange students in Japan	Graduates of overseas universities
2016	4	0
2017	1	0
2018	1	1
2019	3	2
2020	2	6



The recruiting website for Japan



The recruiting website for Europe

#### ■ Women's Career Development

The AGC Group is promoting the career development of its female employees, in accordance with the principle of global management without regard to gender, as declared in the "Diversity" section of the Group Vision "**Look Beyond**". At present, women hold 3.6% of management positions (division manager or higher) and 5.9% of executive positions (senior supervisor or higher; excluding members over 60 years of age) at AGC.

Guided by the AGC Group Charter of Corporate Behavior, the Group is striving to create fair and open environments at its workplaces, free of discrimination based on gender or any other characteristic.

The AGC Group has appointed one female outside director and one female Audit & Supervisory Board member to its Board of Directors through internal assignment. The Company actively employs women and creates a workplace environment facilitating the career development of female employees.

## AGC Initiatives

### ■ Further Employment and Promotion of Female Employees

AGC aims to make the most of diversity in the workplace, and developing the talents of female employees is a top priority. The Group (1) assigns female staff to director and management positions and is actively expanding the hiring of skilled female staff and creating a workplace where they flourish, and (2) implements necessary systems and frameworks to create a workplace environment in which women can demonstrate their abilities.

With regard to recruitment, in 2011 AGC set a target specifying that at least 20% of new graduates hired for career-track positions be female; in 2020, 14.5% of the new graduates who joined AGC were female. Also, female staff members are being assigned to director positions and provided a workplace where they can thrive. To create a supportive environment, AGC created a waiting list rehiring system that registers employees who have left the Company but hope to return to work. This system prioritizes hires from the list over the external applicants. In addition, AGC introduced a mentoring system for female employees, through which senior female staff provide guidance to junior female staff. AGC also set up a daycare support system, establishing corporate contracts with daycare centers. This ensures support for employees who have difficulty starting or returning to work due to a lack of available nursery school spaces. As of 2016, AGC has concluded contracts with two daycare centers in Tokyo and Yokohama. This system is available to both male and female employees. Additionally, to realize more efficient and flexible workstyles, the potential applicants and applicable number of uses of the work-from-home system have been expanded.

### ■ Support for Raising Children

AGC provides support through a cross-departmental network of female employees for raising children, including the following: (1) the introduction of a Nursery Use Support System for external nurseries registered as AGC corporate bodies, (2) creation and distribution of handbooks for pregnant

employees or women raising children, both for employees and managers, (3) tri-party meetings between the Women's Activity Secretariat, female employees, and their managers (both before taking childcare leave and after returning), and (4) career design seminars after returning to work.



Women's career design seminar after returning to work

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

Year	Percentage of female employees
2016	2.6%
2017	2.7%
2018	3.3%
2019	3.5%
2020	3.6%

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

Year	Percentage of female employees
2016	4.6%
2017	4.7%
2018	5.2%
2019	5.7%
2020	5.9%

\* As of December 31, 2020 (excluding members over 60 years old)

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

Year	Number of new female graduates	Total new graduates	Percentage of female employees
2018	23	132	17.4%
2019	26	109	23.9%
2020	16	110	14.5%

## ■ Employment of Senior Citizens

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, technologies, and skills of retirees and reinforcing personnel ranks.

Since 2013, the AGC Group 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 2025.

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

### ● Transitions in the Number of Continuously Employed Individuals Aged 60 or More

Year	Number of reemployed retirees	Number of retirees	Continuous employment rate
2016	111	124	89.5%
2017	63	84	75.0%
2018	64	100	64.0%
2019	—	—	—
2020	41	71	58.0%

\* As shown in the table below, the age of retirement is gradually increasing, and there were no retirees in 2019.

### ● Reference: Retirement Age for Employees Based on Date of Turning 60 (up to 2021)

Year	Retirement age	Year of retirement
2016	62	2018
2017	63	2020
2018		2021
2019	64	2023
2020		2024
2021	65	2026

## ■ 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 Rate of People with Disabilities

FY	Number of people with disabilities (actual number)	Employment rate
2016	112	2.17%
2017	122	2.30%
2018	127	2.28%
2019	129	2.23%
2020	137	2.32%

## ■ Special Subsidiary, AGC Sunsmile

AGC Sunsmile 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 employees with high motivation. 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 (Takasago Factory), people with intellectual disabilities are put in charge of greening activities and janitorial work, and the factory is endeavoring to create even further opportunities. People with intellectual disabilities are also actively engaged in janitorial work at the Chiba Plant.

# 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 Group employees. Based on the laws and practices of each country and each region, 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 commute time 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 (2019 and 2020).

### ● Employees Taking Childcare/Family Care Leave

Year	Number of employees who took childcare leave	Number of employees who took family care leave
2016	87 (including 7 male employees)	4
2017	79 (including 14 male employees)	2
2018	95 (including 25 male employees)	7
2019	99 (including 30 male employees)	10
2020	109 (including 49 male employees)	2



AGC was selected as a NADESHIKO brand company in 2020



Next Generation Support Certification Mark "Kurumin"

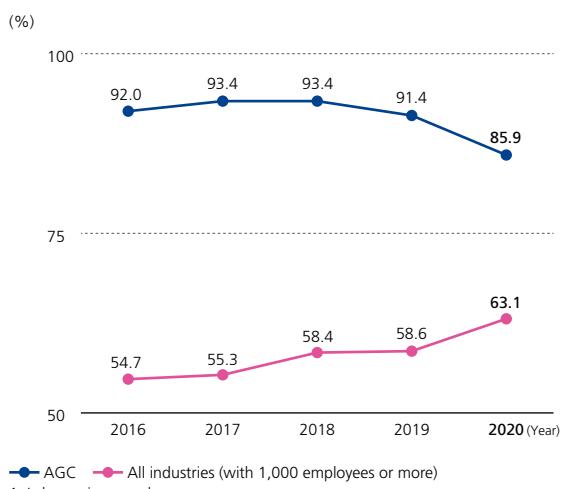
### ● Comparison between AGC's System and Legal Requirements

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 2.5 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)
Flextime	Flextime 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 re-employment of retirees	Registration for re-employment 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)

The percentage of leave taken came to 85.9% (labor union member average) at AGC in 2020. 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



● AGC ● All industries (with 1,000 employees or more)

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.

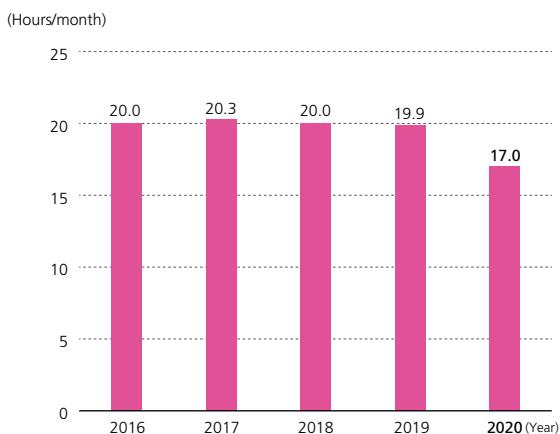
## ■ Reducing Overtime Working Hours

AGC strives for proper management of working hours. Currently, based on the idea that the Group will strive to reduce overtime and holiday work by finding ways to work more efficiently and to ensure that unpaid overtime is not worked, the Group (1) manages daily work through sufficient communication between administrators and their subordinates; (2) implements agreements with the labor union based on the Labor Standards Law; and (3) 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, sharing of case studies is promoted so that human resource managers at each Group company in Japan can discover activities that promote effective management of work hours.

### ⌚ Trends in Overtime Working Hours (AGC)



\* 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 aims at realizing progressive human resource management. The Group has established a variety of training programs, such as technology and skills training provided alongside rank-specific training. AGC aims to realize the company with its people 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 individual companies and personnel officers in each 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 practice, and it provides training on about 80 clerical and technical topics, principally for AGC Group employees in Japan. On the practice side, technical education is designed around the concept of "the site, the work, and the conditions." This building, equipped with the same machines and equipment 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 the plant, such as the structure of a melting furnace and relevant troubleshooting method. 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



Accommodation facility at the AGC  
*Monozukuri* Training Center

### ● Number of AGC *Monozukuri* Training Center Users

FY	Annual training hours (hours/person)
2018	29,952
2019	21,969
2020	3,676 (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 2020, 15 of 85 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 content as it strives to create an environment conducive to learning for its employees.

### ■ Promoting AGC Group Improvement & Innovation Activities

The AGC Group promotes AGC Group Improvement & 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, the Group has been working to raise the likelihood of success in its business ventures by incorporating productivity-boosting measures when constructing a new business or production line.

### Initiatives in Europe

At the Automotive Company, engineers from factories around the world periodically share best practices in web meetings and face-to-face talks, promoting the construction and

development of AGC's global standards. Particularly in Europe, the Automotive Company is promoting training and the implementation of improvement activities based on the Toyota Production System.

### Initiatives in Asia

In Asia, the Group holds seminars on improvement activities approximately five times a year at major bases in China and nurtures improvement theme leaders at each site. Moreover, the Group is working to improve productivity using IoT tools at model factories and deploying the results horizontally to other plants.

### ■ CNA: Cross-Divisional Network Activities

The AGC Group created Cross-Divisional Network Activities (CNAs) to enable employees possessing common skills to network with each other.

These activities would otherwise be impossible due to employees' day-to-day work being conducted in different organizations. Objectives of this initiative include building networks between employees with common skills and honing specialist skill sets while engaging in issue resolution.

CNAs take place in various guises, from information sharing to joint research. By discussing potential roadblocks and bringing together skills and knowledge, solutions to common issues and ideas for new technology 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.

### ■ 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 2020, approximately 8,000 employees were registered under the Skills Map in 28 technical categories and 12 sales and administrative categories. The database has been linked to the effective utilization of human resources and facilitating communication.

Introducing the Skills Map has enabled users to see which organization employees with certain skills belong to, encouraging strategic recruitment in accordance with the growth strategy. The database also facilitates the human resources search and "right person in the right place" personnel allocation. The Skill Map is also utilized in implementing CNAs.

## Individual Company Initiatives

### ■ Career Development Support (AGC)

AGC has introduced the Challenging 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 given by in-house organizations once a month (a total of 210 employees)
- 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 112 employees)

#### Professional System

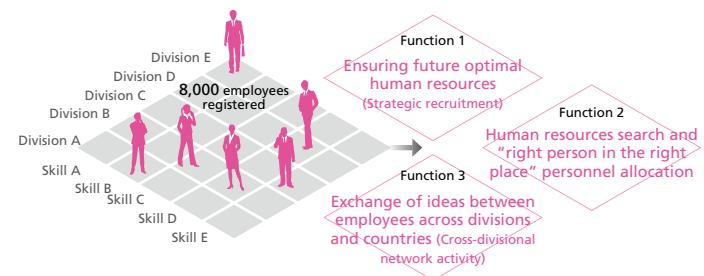
A system under which managers, who have extremely high practical knowledge, skills, or behavioral traits regarding technological skills and expertise vital to the AGC Group and can exercise them to a great extent, are certified as professionals, evaluated, and treated appropriately (52 managers)

#### 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, 2020. The number listed for the Challenging Career System is the total number of users since 1999.

### ● The Three Functions of the Skills Map



# Occupational Health & Safety

## Fundamental Approach

The AGC Group has formulated the AGC Group Basic Occupational Health & Safety Policy and promotes activities to create a safe and healthy work environment under the occupational health and safety policy of "No Production without Safety."

### AGC Group Basic Occupational Health & Safety Policy

(Established on February 9, 2001 and revised on March 29, 2013)

#### Basic Policy

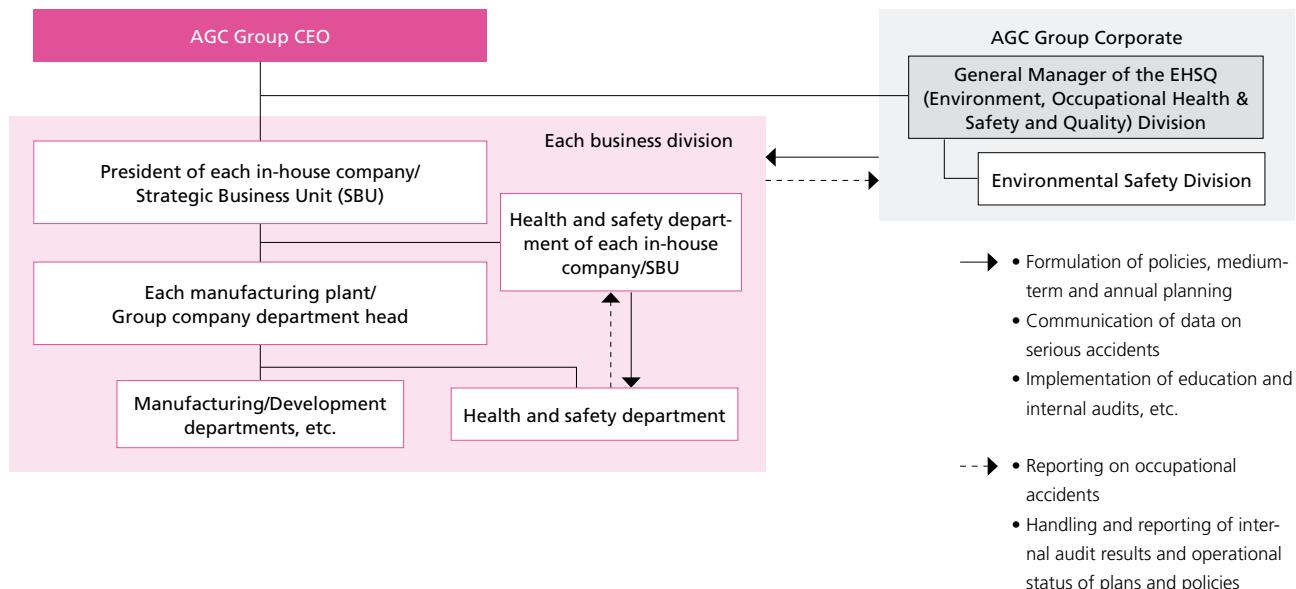
The AGC Group will manage its Occupational Health and Safety (hereinafter, "OH & S") under the policy of "No Production without Safety," and all managers will ensure that the OH & S policy should be clearly understood and permeated throughout the Group and that all of the employees should be actively involved in the promotion of OH & S activities.

#### Guidelines for Occupational Health and Safety Activities

We will actively implement OH & S activities by addressing any possible issues on occupational accidents and illnesses to achieve continual improvement in our OH & S performance, based on the following guidelines.

1. We will enhance the level of our Risk Assessments to promote effective use of our OHSMS.
2. We will continue our conventional on-site safety activities without making them mere repetitive routine.
3. Managers will treat their subordinates like a family member and ensure safety at workplaces.
4. We will promote intrinsic safety of equipment, and look for continual improvement in the workplace environment.  
We will implement OH & S activities as a part of production line activities. The departments in charge of OH & S will provide necessary support for line management.
5. We will comply with OH & S related laws and requirements.
6. We will encourage proactive employee participation in all OH & S activities through open, honest and fair interactions and communication at workplaces.

## ● The AGC Group's Health and Safety Management Initiatives



## 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 2013, the Group has been using the EHSQ (Environment, Occupational Health & Safety, and Quality) 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 Group company and SBU.

Additionally, each business site manages its own activities based on the OHSMS 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 (Organizations)

(As of December 31, 2020)

Coverage	Number of certified plants
Group companies in Japan	5
Group companies in Asia other than Japan	15
Group companies in Europe	52
Group companies in the America	2
Total	74

## Groupwide Initiatives

### Developing a System to Collect Global Occupational Accident Data

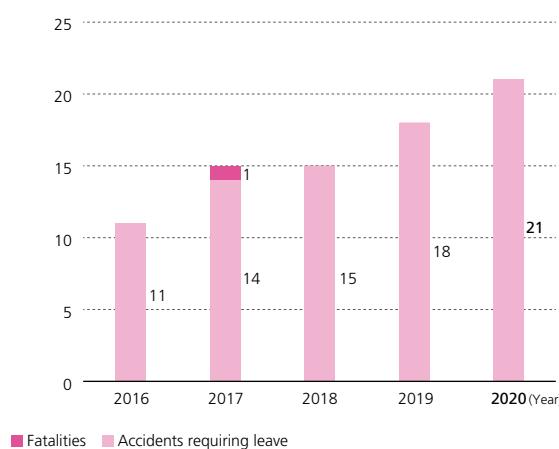
The AGC Group has developed a system for collecting the standardized occupational accident data of the Group globally, including that of its business partners at business sites, and for sharing this information laterally.

Due to these initiatives, 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.

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

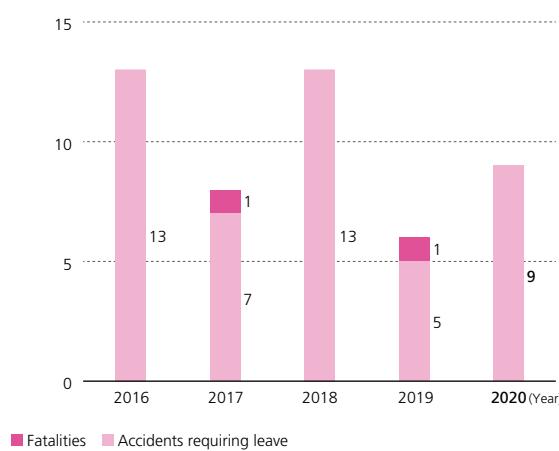
#### Japan

(Number of accidents)



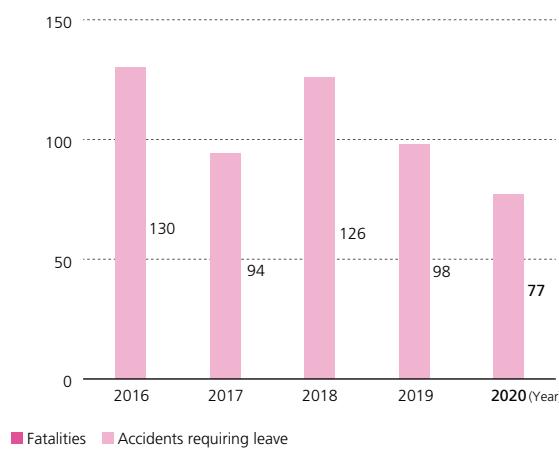
#### Asia other than Japan

(Number of accidents)



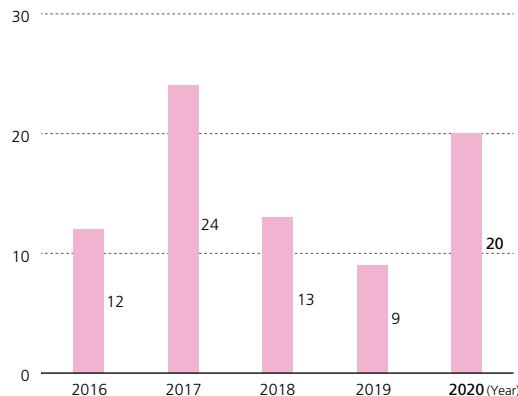
#### Europe

(Number of accidents)



**The Americas**

(Number of accidents)



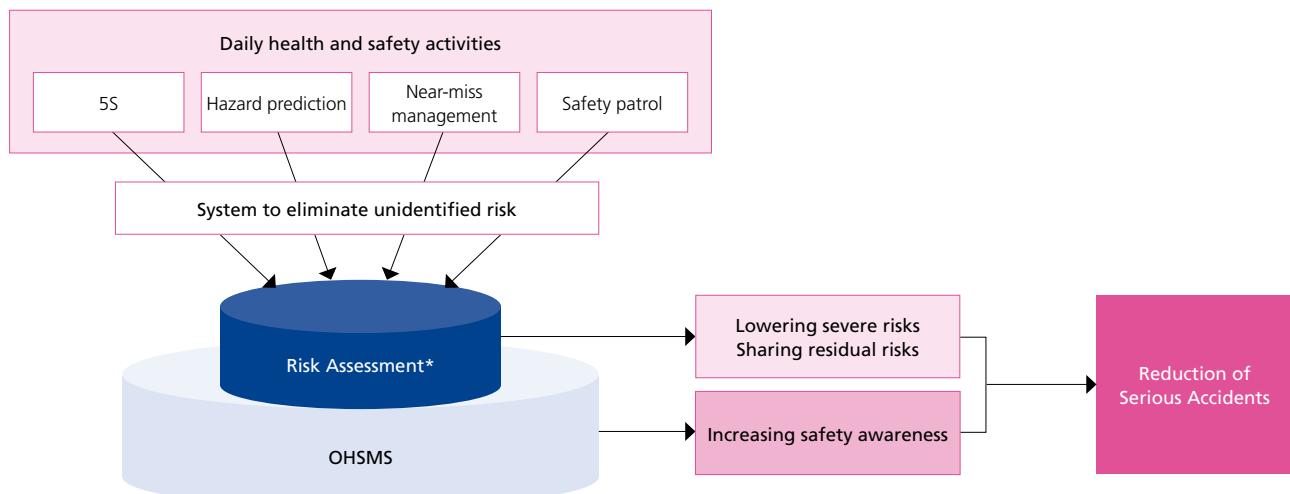
■ Fatalities ■ Accidents requiring leave

\* The assessment criteria for accidents requiring leave differ among Asia including Japan, Europe, and the Americas, which disables the simple comparison of the numbers of occupational accidents among each region. To improve accuracy, data has been traced back to previous years before adjusting figures.

**● Occupational Accidents in 2019 (Including AGC Group in Japan and Asia/Business Partners)**

Type	Japan		Asia other than Japan	Total
	Major sites	Others		
Death	0 (0)	0 (0)	0 (1)	0 (1)
Leave of absence	9 (11)	12 (7)	9 (5)	30 (23)
No leave of absence	12 (15)	2 (5)	7 (3)	21 (23)
Minor injuries	45 (42)	—	—	45 (42)
Total	66 (68)	14 (12)	16 (9)	96 (89)

\* The figures in parentheses represent the numbers of occupational accidents in 2019.

**● The AGC Group's Health and Safety Management Initiatives**

\* Activities to comprehensively identify risks associated with facilities and work processes, evaluate the risk levels, and implement safety measures by prioritizing serious risks

### ■ Promoting Safety Activity-Related Information Sharing That Eclipses National and Departmental Boundaries (Building and Industrial Glass Company/ Automotive Company)

Under normal circumstances, the AGC Group (Asia) holds meetings for employees in charge of safety from all relevant countries. However, in 2020, as business trips to meeting destinations were canceled due to restrictions arising from COVID-19, an online meeting format was adopted. 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.



Safety meeting at which employees in charge of safety at AGC Group companies assembled online for regular discussions

## ■ Continuing to Advance Risk Assessment

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.

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 assessment and daily safety activities.\* In 2020, 33 people completed the program, and these individuals now work as core safety personnel. There are currently over 350 core safety personnel operating across all business sites.

At the AGC Group in Asia, certain managers and engineers in each country and region are designated as Safety Key Persons. These individuals receive one week of group training in Japan focused on basic concepts of risk assessment and international standards for machine safety. Although restrictions arising from COVID-19 in 2020 created challenging conditions for holding training at the AGC *Monozukuri* Training Center and business trip destinations, the Group devised such methods as holding online seminars.

\* Health and safety conventional activities such as the 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 advance safety inspections.

In Europe, risk-reduced facilities were introduced based on the local law-enforced system of CE marking.\*<sup>1</sup> 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\*<sup>2</sup> 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 2018, with a particularly large increase in the number of employees from Asian Group companies obtaining Safety

Basic Assessor Certification, totaling over 100 individuals in Thailand, Indonesia, China, and elsewhere. The number of employees with safety assessor certification in Japan has also risen steadily. The certified individuals are assigned tasks as risk assessors and inspectors.

- \*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 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)

## ■ Establishing a Chemical Substance Management System

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, and implementing risk-reduction measures.

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.

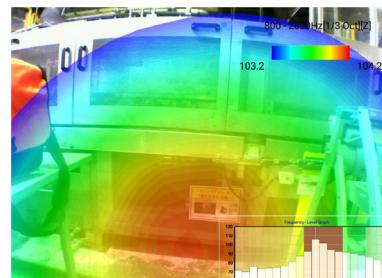


Chemical Substance Risk Assessment training

## ■ Improving Occupational Health Standards

With the goal of preventing adverse health effects associated with work processes, 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 first-hand experience in machinery safety fosters the ability to identify the risks caused by unsafe situations in facilities.

Since 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 Asahimas Flat Glass, 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 fall by the Purchase & Logistics Division of AGC and AGC Logistics (AGL). At the meeting, improvements to safety and quality regarding the distribution of goods by business partners (BP) and AGL are announced. To promote a common culture of safety between AGL and the BPs, a full circuit inspection and "finger-pointing and call" safety check are carried out at each BP company 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 electrical 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 Yokohama Technical Center (YTC) 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 chemical hazardous materials (Indonesia)



Instructor upskilling (Japan)



Instructor development (China)



Experience of getting caught in a revolving belt (YTC)



Simulation of how to hold glass safely (Japan)



Experience of getting caught in a chain (Yonezawa)



Experiencing the danger of a forklift crash through VR technology (Japan)



Experience of getting caught in machinery (China)



Experience of a robot crash (Japan)

## AGC Initiatives

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

At AGC, safety and health committees are established at each site based on collective labor agreements, while labor unions' advice and guidance regarding safety and health are considered. Business partners (BPs) working within the site also participate in the committee.

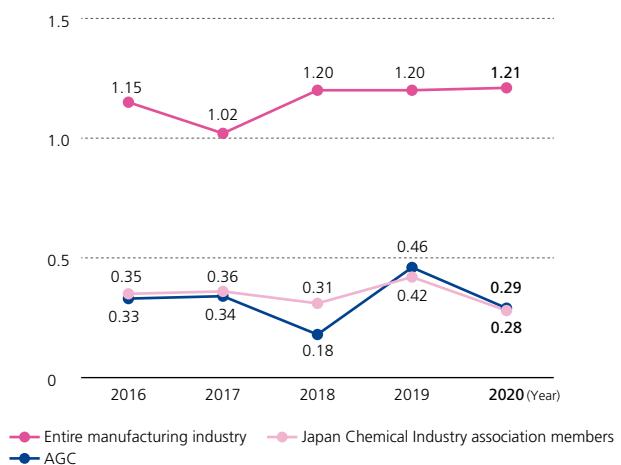
Safety officers and employee representatives are given regular opportunities to exchange opinions, which are then reflected into various safety and health measures.

### ● Trend in Severity Rate of Accidents Requiring Leave (AGC Including BPs)

	2018	2019	2020
Entire manufacturing industry	0.10	0.10	0.07
Japan Chemical Industry association members	0.026	0.01	0.145
AGC	0.007	0.031	0.235

### ● Trend in Frequency Rate of Accidents Requiring Leave (AGC, Including BPs)

(Frequency rate)



## 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 Basic Occupational Health & Safety Policy.

To clarify its position on employee health management, the Group has established the AGC Health Management Policy, which details its vision for the health management of all employees.

#### AGC Health Management Policy (Established on March 1, 2007)

The AGC Group has established the following health management policy to be followed by its employees in conducting their business operation, to continuously create value for the world under the Group Vision **"Look Beyond"**.

#### Health consciousness

Employees represent one of the most important assets for the AGC Group, and health is a key element in the daily lives of employees.

#### Corporate support for employee health

The AGC Group will actively implement measures to maintain and promote the physical and mental health of its employees, thereby supporting them in driving the growth of the Group by fully displaying their individual abilities, and in striving to lead meaningful lives.

#### Self-discipline by employees

Employees themselves must be aware of the importance of their health, and they must maintain and promote their health through self-discipline, taking responsibility for their own health.

Note: The AGC Group plans to extend the AGC Health Management Policy to Group companies in and outside of Japan in the future.

### Management Structure

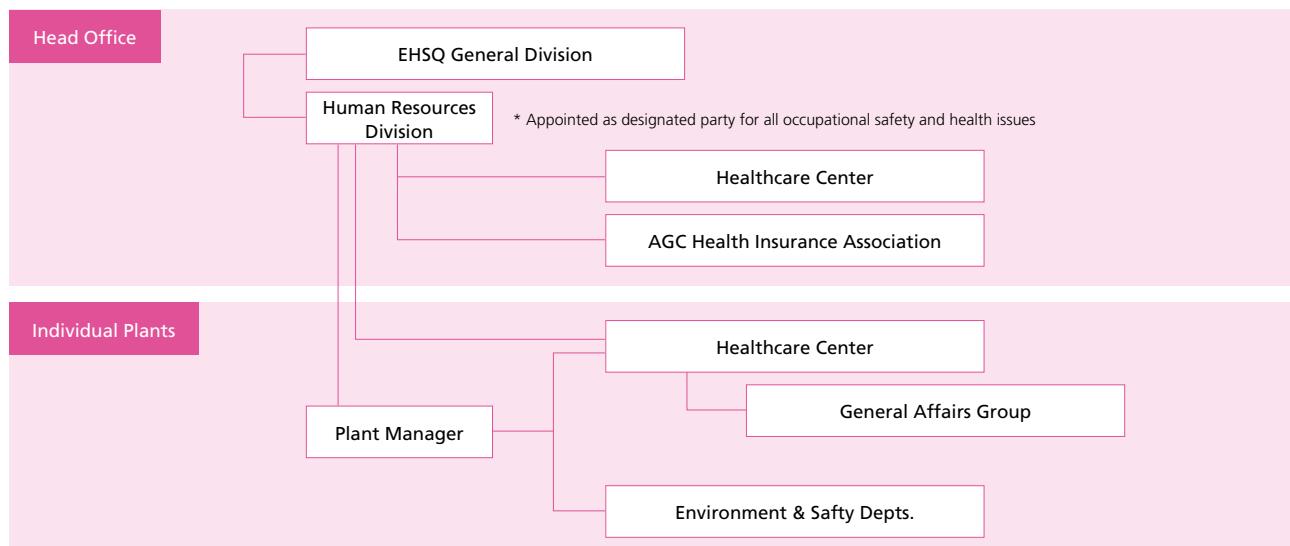
#### ■ Occupational Health Management through Divisional Cooperation

Based on the Basic Occupational Health & Safety Policy and the AGC Health Management Policy, the AGC Group promotes Health Management measures for creating a comfortable workplace environment in cooperation with related divisions. This is accomplished by placing the general manager of the Human Resources Division in charge of Health Management promotion and appointing and assigning a head industrial physician, with related divisions collaborating for extra support.

### ● The AGC Group's Health and Safety Management Initiatives

Chief Promotion Officer: Vice President

Promotion Officer: General Manager of the Human Resources Division



## AGC Groupwide Initiatives

### ■ AGC Group General Affairs Personnel Network Conference (AGC Group (Japan))

The AGC Group holds regular conferences for general affairs personnel from each Group company in Japan. Outside lecturers are invited to speak, providing a chance for the personnel to deepen their understanding on the latest trends in labor laws. Through discussion, the participants also review health management, work styles, and Group policies on matters including harassment prevention. In addition to the conferences, the Group regularly checks employee working hours and the status of response 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 AGC.

Furthermore, we expanded the scope of participation of the AGC Walk in 2020, a walking event launched in 2019, to Group companies in Japan, positioning it as a core event for us to unite as one group to promote health and productivity management.

## 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 be the company with our people 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 capacity.

### 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 age.
- Improving productivity and job satisfaction  
All AGC employees should be able to work productively by utilizing a number of work styles and improving their physical and mental condition.  
Employees should be able to make the most of their capacity 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 our motivated human resources can maximize their potential, the company becomes stronger as a whole.

### The Direction of AGC's Initiatives

The Group will establish key performance indicators (KPIs) based on health management activities under the AGC Health Management Policy and carry out the following health management activities while implementing the PDCA cycle:

- Improving the rate of secondary health checkups when necessary after a health check and the rate of participation in health guidance on lifestyle-related diseases and metabolic syndrome
- Enhancing mental health care, including stress checks, etc.
- Ensuring that employees are not exposed to secondhand smoke and reducing the employee smoking rate
- Establishing good exercise habits

AGC People: the driver of our growth!

Maximizing every employee's capacity

Improving vitality and productivity

Continuously maintaining and promoting health

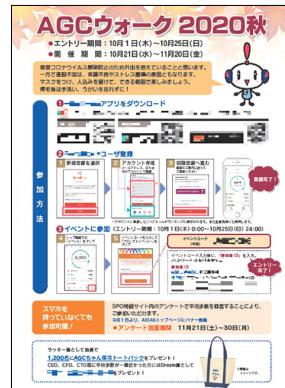
Improving productivity and job satisfaction

Enriching public and private life

Maintaining and improving the physical and mental health of every employee

## Health and Productivity Management Activity Status

- Follow-ups for those with abnormal findings during physical examinations
  - Regular health check rate  
2020: 100% → Continue as current
  - Secondary health check rate  
2019: 81% → 2020: 92% → Aim for 100%
- Preventing mental health problems
  - Stress check participation rate  
2019: 96% → 2020: 97% → Aim for 100%
- Conducting seminars on self-care and training for managers to look after the health of their employees
- Ensuring that employees are not exposed to secondhand smoke and reducing the employee smoking rate
  - Complete indoor smoking ban  
Achieved at some business establishments in 2019  
To be achieved Company-wide in 2021
  - Number of smoking areas  
2021: decrease of 60% compared with 2019
  - Banning tobacco sales at business sites (2019)
  - Smoking rate  
2019: 27% → 2020: 26%
- Establishing of exercise habits (walking)
  - 2020: 2,200 participants



Flyer of AGC walk



Certified as a White 500 Company in the 2020 Health & Productivity Outstanding Organizations Recognition Program

# 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, 2019)

At the AGC Group, we will pursue our Vision

**"Look Beyond"** with the strong belief that "actively engaging in security and disaster prevention activities is our fundamental obligation as a company developing business in the local community."

We commit to adhere to the following key principles:

1. Comply with relevant internal and external rules concerning industrial safety and security rules worldwide.
2. Develop and continuously improve management initiatives to prevent incidents associated with industrial safety and security.
3. 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 the Plan-Do-Check-Act (PDCA) cycle. Each business division promotes fire prevention, countermeasures for industrial safety accidents, and risk assessment for natural disasters based on action plans drawn up for that year by the corporate Environment, Safety and Quality 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.

## Groupwide Initiatives

### ■ Preventing Accidents through Pre-Assessment in Facility Development

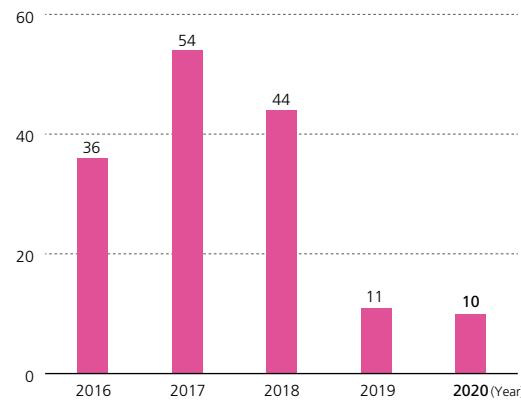
When constructing, expanding, or modifying facilities that are determined to be liable for risk, the Group conducts industrial safety and security-related risk assessment and confirms the intrinsic safety of the facility based on the Group's Prior Safety Assessment System. This occurs at the design stage and also during test operations when construction is completed. In addition, when safety assessment at a chemical plant indicates a high level of danger, a risk assessment is carried out using HAZOP or other means.

### ■ Prevention of Fire and Prevention of Reoccurrence

The AGC Group is working to continually improve fire prevention activities at domestic and overseas sites through environment, industrial safety, and security preservation audits conducted by each business division and the Environment, Safety and Quality Division. In 2020, 10 fires broke out at Group sites; however, through quick initial response measures, none affected local communities or led to fatal incidents.

### ● Trend in the Number of Fires\* (AGC Group)

(Incidents)



\* Fires included in the total figures are those that required extinguishing, from small fires put out with a single fire extinguisher to larger fires put out by a municipal fire department.

## ■ 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 the 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 questionnaire created by Professor Kenichi Takano of Keio University and Associate Professor Akira Tose of Niigata University) at medium-sized manufacturing plants in Japan and other countries in Asia; 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, each company and strategic business unit 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

The Japan Industrial Safety Competency Center carried out assessments at the Chiba and Kashima plants, the Kansai Plant (Takasago Factory), and AGC Ceramic (Takasago). 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 created 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 research assessments, under which it implements assessments of 30,000 employees at 49 worksites in Japan and other countries in Asia.

### ● 2020–2022 Assessment (Implementation) Plan

	Japan	Asia	Number of plants assessed (implemented)
2020	9	4	13
2021	7	17	24
2022	4	8	12

In respect to safety culture assessments, the Group implements improvement activities based on a three-year improvement plan that reflects the strengths and weaknesses confirmed in assessments and will monitor the effect of improvements by carrying out second assessments in about three years' time. From 2021, we plan to promote safety culture assessments and activities to improve organizational cultures in Europe and the Americas.

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 focusing 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, which has 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 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 (EMC) system (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)
- External education and training

### Plant contests

- Outdoor fire hydrant handling techniques contest
- Respirator application contest



Oil fence extension training at the Chiba Plant



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



Earthquake and tsunami preparedness training at the Chiba Plant



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



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



Fire prevention training at the Chiba 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, or 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 asks its business partners to understand and cooperate with this policy.

## Groupwide Initiatives

### ■ Point of Contact for Suppliers regarding 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 suppliers regarding procurement activities. The contact can be used by business partners to point out problems related to transactions with AGC Group employees by e-mail, telephone, or regular mail, and the issues raised are kept strictly confidential and resolved promptly.

### ■ Regular Review of the Content of Contracts

To promote 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)

AGC Group pursues values of the Group Vision

**"Look Beyond"** and the "AGC Group Charter of Corporate Behavior" and will regulate our performances on purchasing which are explicitly stated in the following "AGC Purchasing Policy".

#### 1. Basic Purchasing Principle

- 1 Fair & 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 & regulations, and behavior considering safety, environment & 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, 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, identifying conflict minerals (tin, tantalum, tungsten, 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 forces or injustice such as human rights violations.
- 3 Partnership with business partners AGC will establish a long-term, mutual prosperous partnership to produce a better product with our business partners. To this end, we will endeavor to keep close communication with our business partners to build and enhance our trusting relationship.
- 4 Protection of information, intellectual property, and other assets 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" below.

### 3. Request for Cooperation in Sustainable Procurement

AGC strives to be a company trusted by all its stakeholders, a company that meets the expectations of the world business community to grow and develop responsibility, and a company that significantly contributes to a healthier global society.

In order to fulfill our social responsibilities towards 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 to our business partners compliance and enforcement of the following points and would like to ask our partners' 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 politics and government, 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 abuse 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, 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 forces or 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 to 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.
- Products 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 positions.
- Do not engage in acts such as sexual harassment or power harassment that deny the personality of others or harm personal dignity.
- Do not allow forced labor, slave labor, child labor, unfair lowpaid 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 risk on 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 record, make appropriate information management so that confidential information of the parties such as customers, business partners and own companies including personal information will not be leaked.
  - Disclose information such as financial status, business results, and details of business activities appropriately to stakeholders as appropriate.
  - 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.

#### 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 2019, around 270 business partners from 140 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 AGC Group CEO (at that time), Takuya Shimamura gave a presentation on the Group's mid-term management plan. Following the meeting, a lively exchange of views took place among the business partners, AGC Group executives, and AGC Group division heads. (As the 2020 and 2021 policy briefings were cancelled, content shown here is from 2019.)



Business partners who were presented

#### ■ 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 the activities.

## ■ Promoting Green Procurement

In 2005, the Group formulated 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 were created to facilitate green procurement of raw materials and other materials suited to each business.

### The AGC Group Guide for CSR Implementation Survey

## ■ Initiatives Related to Conflict Minerals

Recognizing the conflict minerals issue as an important sustainability issue, the AGC Group improves transparency in the supply chain together with its business partners and ensures responsible mineral sourcing practices. By so doing, the AGC Group fulfills its social responsibility as a global enterprise.

With the passage of the financial reform bill in the United States in July 2010, targeted companies are now obligated to disclose use of designated minerals (so-called conflict minerals) mined in the Democratic Republic of the Congo and surrounding countries. For responsible sourcing, the AGC Group will take appropriate measures to work with its business partners in the event that there are concerns that any conflict minerals mined in the designated areas assist militant groups.

In addition, we have not only identified conflict minerals but also cobalt as a high-risk mineral. We ask our business partners to carry out responsible mineral procurement by using smelters and refineries that are certified as not using minerals that are suspected of benefitting armed forces or aiding injustices such as human rights violations.

## ■ Hosting CSR Workshops

AGC hosts CSR workshops for major business partners every other month. It also promotes sharing of information on each company's CSR activities, inspections of outstanding plants, and hosts lectures twice a year.

The Group prepares various training programs for its business partner with a view to promoting manufacturing and Human Resources Division throughout the 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.



The survey sent to business partners

## Fair Transactions

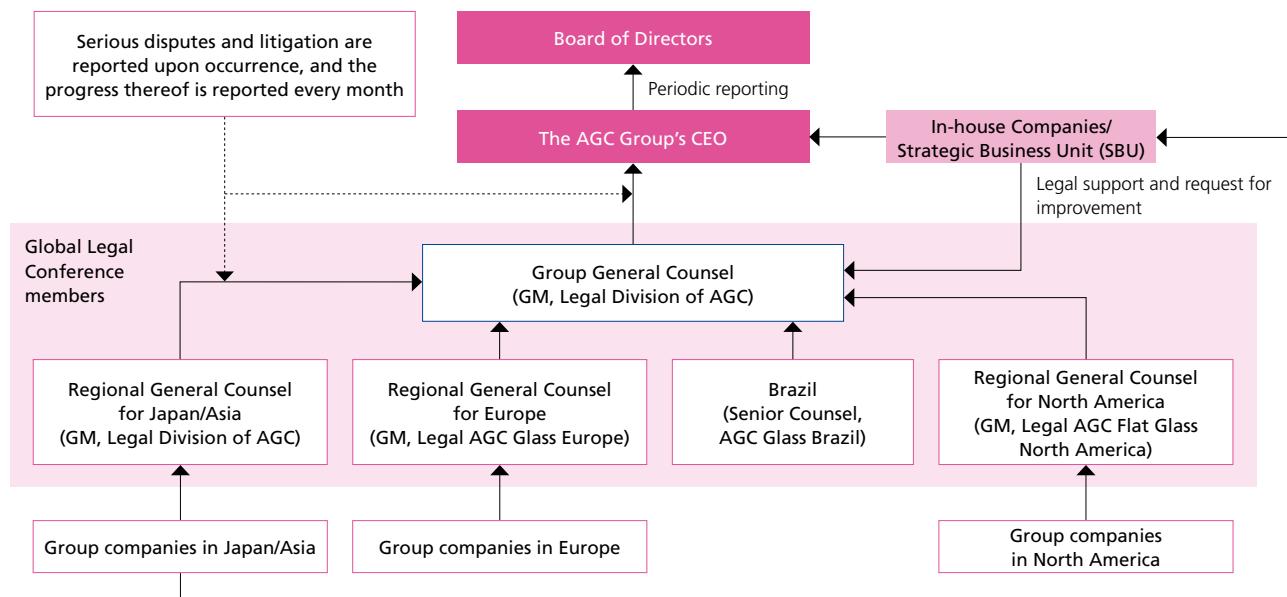
### Fundamental Approach

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, government, other organizations, and individuals and firmly confront antisocial 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 and monitoring on disputes faced by the Group, 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 the top management and 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 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.

### Global Legal Management System



### Groupwide Initiatives

#### Compliance with Antitrust Laws

In addition to the 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 audit is "Organization and procedure for compliance with antitrust law." Audits of the state of compliance with these global guidelines are also implemented.

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

	Number of participants in e-learning Number of internal audits	Number of internal audits
2020	Approx. 7,000	24

### ■ Preventative Measures for Anti-Corruption

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 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.

### ■ Compliance with Contracting Requirements and the Worker Dispatching Act

The AGC Group conducts business in collaboration with business partners involving contracting companies and temporary workers.

In addition, the Group annually conducts a survey on compliance with contracting requirements at AGC production plants and major Group companies in Japan, and it has confirmed that compliance-related rules were observed in 2020. The Group will continue to make efforts to disseminate and thoroughly comply with contract requirements and comply with the revised Worker Dispatching Act.

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

The AGC Group continually educates staff and managers to ensure compliance with the Act against Delay in Payment of Subcontract Proceeds, etc., to Subcontractors (hereafter, "the Act"). Since 2009, the Group has conducted e-learning initiatives for employees who are involved with transactions affected by the Act, including employees at Group companies in Japan.

In 2020, the Group conducted e-learning about the Act for approximately 8,200 employees and, in December 2020, shared information, including on matters requiring attention, with approximately 20 subcontracting and purchasing management supervisors from each business division.

### ■ 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, IR, etc.)

Furthermore, if an AGC Group director or employee has concerns as to whether buying or selling stock 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, 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

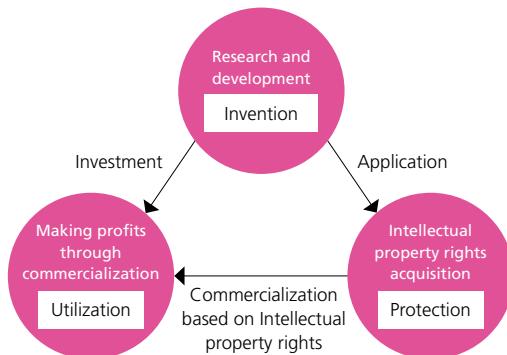
### ■ Protection and Utilization of Intellectual Property Rights Created within the Group

In addition to creating intellectual property rights as a vital business strategy resource, the Group works to protect and increase them 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 the 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 strategy 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.

### ● Cycle of Intellectual Property Creation



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

The AGC Group is creating a framework, including employee education, to prevent infringement on the intellectual property rights of others. The AGC Group continuously monitors the intellectual property rights of others and checks to make sure it will not be violating the rights of others 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 rights and respecting the rights of others.

In Japan, aside from hosting intellectual property training for new employees, 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

### ■ Rewarding the Inventions of Employees

AGC has a substantial reward system 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 locale's present condition into consideration.

### Award System for Inventors

# 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 across the entire Group, the Group appropriately stores, uses, and manages informational assets and protects personal information.

## Management Structure

Based on its global common initiative items, the AGC Group has formulated standards and guidelines, with additional items taking into account regional circumstances (Europe, North America, 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 a 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 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 global priority items for internal audits (see page 21).

## Initiatives at Individual Companies

### ■ Information Security Training

Information security training is implemented at The AGC Group as part of the training for new graduate employees and mid-career employees. We also provide training on a continuous basis for all employees.

## Social Contribution Activities

### AGC Group Social Contribution Basic Policy

Under the three pillars of the AGC Group Social Contribution Basic Policy—(1) support for the next generation, (2) harmony with local communities and (3) natural environment conservation—the AGC Group carries out social contribution activities in over 20 countries and regions throughout Japan/Asia, the Americas, and Europe.

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 to 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 solution of global environmental problems.

#### ● Total Financial Expenditure on Social Contribution Activities (AGC Group)

Year	Amount
2017	643 million yen
2018	543.5 million yen
2019	569.3 million Yen
2020	476.9 million yen

#### ● Total number of Employee Participation in Social Contribution Activities (AGC Group)

Year	Number of Employees
2019	23,914
2020	11,543

#### ● Total Expenditures by Field of Emphasis: 2020 (AGC Group)

Category	Amount	Rate
Support for the next generation	226.6 million yen	47%
Harmony with local communities	152.6 million yen	32%
Natural environment conservation	46.7 million yen	10%
Others	55.3 million yen	11%

#### ● Expenditures by Use: 2020 Results (AGC Group)

Purpose of Use	Amount	Rate
Donations, material donations	335.9 million yen	71%
Employee participation and dispatch	106.5 million	22%
Voluntary programs	23.0 million	5%
Opening of facilities, acceptance of tours	11.5 million yen	2%

# Quality Assurance

## Fundamental Approach

In line with the AGC Group Basic Quality Policy, the AGC Group strives to raise the quality of its products and services.

## Management Structure

Under the AGC Group Basic 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, and it continuously improves the effectiveness and efficiency of quality management systems.

In addition, since 2013, in accordance with the concept of EHSQ Management, the CSR Office (currently the EHSQ General Division) seeks to comprehensively understand the EHSQ (Environment, Occupational Health & Safety and Quality) initiatives of the entire Group. The office 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 2020, to minimize and prevent undesired effects caused by deviation from laws, regulations, and customer requirements regarding the AGC Group's products and services, the Group shared the results of a survey of its employees on quality, example cases of quality problems that have occurred within the Group, and its approach toward the automation of quality inspections.

## ● Acquisition of ISO 9001 and ISO/IATF 16949\* Certification

As of the end of December 2020

Location	Number of certified organizations
Japan	34
Asia other than Japan	30
Europe	61
North America / South America	16
Total	141

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

## AGC Group Basic Quality Policy

(Established on September 8, 2004 and revised on March 29, 2013)

### Basic Policy

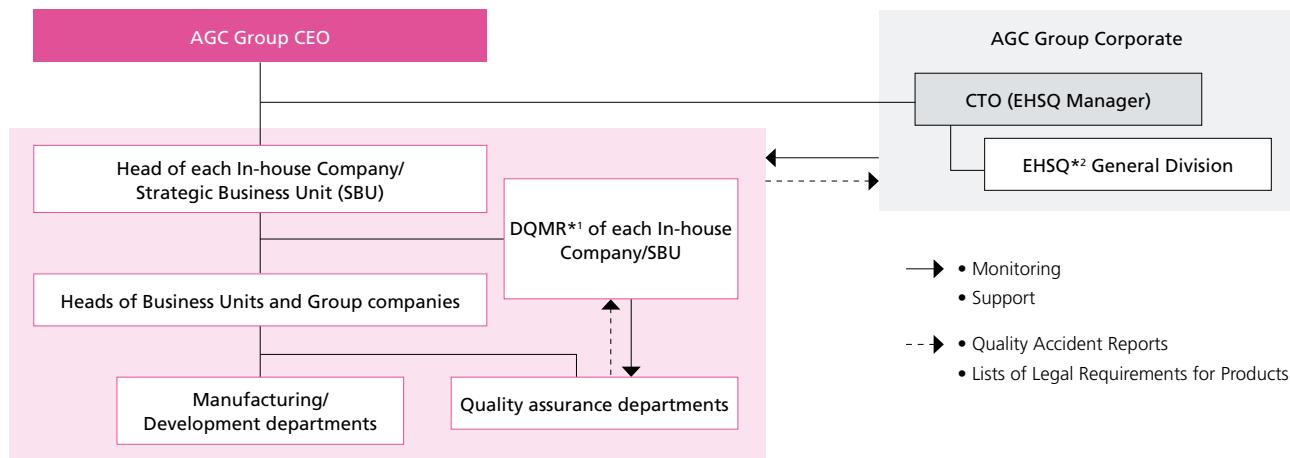
The AGC Group will continue to create the expected value by pursuing "Innovation & Operational Excellence" as one of the Shared Values in the Group Vision "**Look Beyond**".

### Guidelines for Quality Activities

Having "Incorporating the concept of CS into daily work processes" as the fundamental of our businesses, we will act to gain trust from our stakeholders including customers, based on the following guidelines.

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 to safety and environment.
3. We all will participate in the continual improvement of effectiveness and efficiency of our quality management, and each of us will individually strive to enhance the value of our work.
4. In order to ensure that the above points are materialized, each will establish individual policy and target, and implement the PDCA cycle.

## ● Quality Management System



\*1. DQMR: Division quality management representative

\*2. EHSQ Environment, occupational Health & Safety, and Quality

## Groupwide Initiatives

### ■ Compliance with Legal and Regulatory Requirements regarding Products

The AGC Group strictly complies with laws and regulations regarding products by creating a list of requirements for each business division and clarifying the legal and regulatory requirements that each product must meet.

## Initiatives at Individual Companies

### ■ Initiatives following the Discovery of Improper Acts Related to Quality at AGC Plibrico

In December 2019, it became apparent that from around 2005, AGC Plibrico Co., Ltd., an AGC affiliate company, had created material test reports for items purchased from an outsourcing company that were not based on actual test results and submitted them to customers. As a result, certain chemical components of inventory products deviated from standards. In response to this issue, we are carrying out the following initiatives.

AGC Plibrico has provided explanations on the details of this matter and the verification results to all domestic customers that were shipped this product after 2005 and continues to respond accordingly. This affiliate company is also endeavoring to thoroughly implement measures to prevent a recurrence, centered on educating employees, strengthening quality control systems, and improving the management of manufacturing subcontractors.

The AGC Group implemented a quality compliance survey in Japan to ascertain whether or not there were other similar cases, and none were identified. In addition, we conducted a fact-finding investigation in Japan, other countries in Asia, and of certain Group companies in Europe, with a focus on inspections that combined self-checks and remotely conducted surveys. None of these investigations confirmed any serious nonconformity problems.

## Product Safety Initiatives

### Fundamental Approach

Under the AGC Group's management policy of "increasing safety, security, and comfort around the world", 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.

The Group fully discloses appropriate information for the safe use of its products and has acquired Japan Industrial Standard (JIS) certification for some of its products. 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 and division 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 (revised 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.

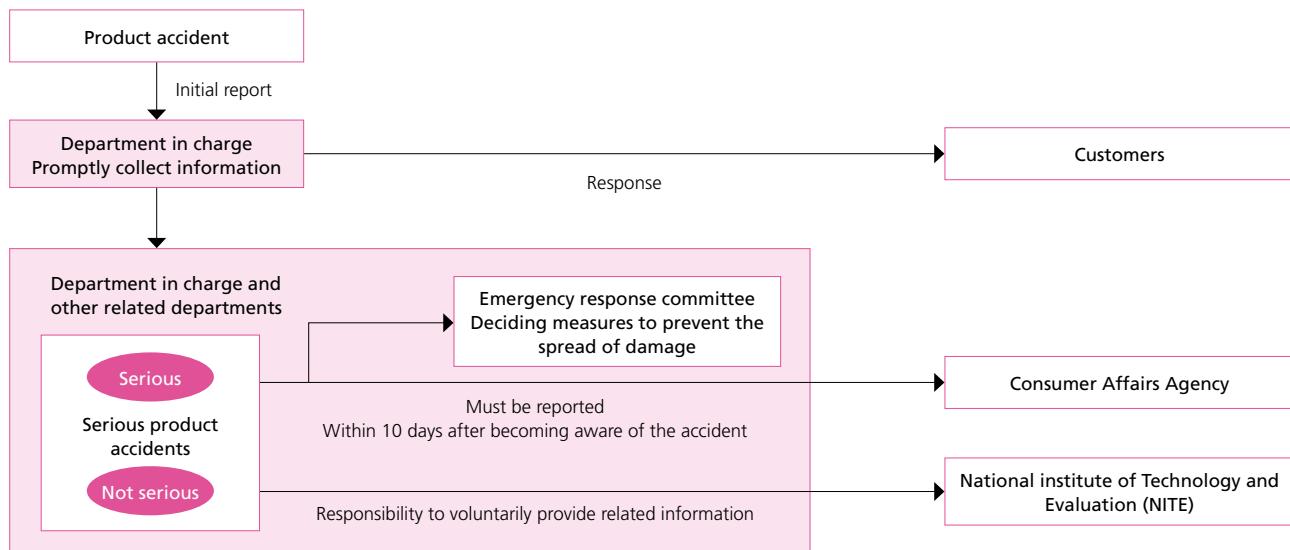
Study meetings are held to allow the employees in charge at related Group divisions to maintain and raise knowledge of product safety.

In 2020, the AGC Group had no serious incidents to report to the Consumer Affairs Agency.

#### ● Change in the Number of Reported Serious Product Accidents (AGC Group in Japan)

Year	Number of cases
2016	1
2017	0
2018	0
2019	1
2020	0

## ● Reporting Flow for Serious Product Accidents under the Consumer Product Safety Act



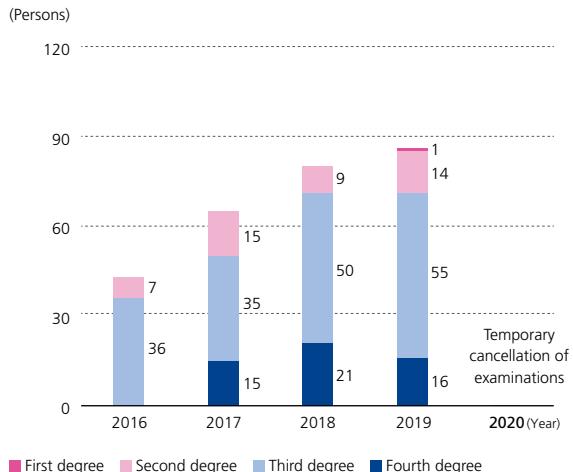
## Implementing Quality Training

The AGC Group provides quality training in each business division according to its 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 (QC).\* In 2020, the AGC Group (Japan) canceled QC examinations in light of COVID-19.

\* QC certificate: A certificate on quality control (QC) issued by the Japanese Society for Quality Control

## ● Number of Employees Who Passed the QC Certification Examination (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,” and as such the Group works toward CS of not only business customers but all Group members.

### Management Structure

Under the quality management system of the AGC Group, each company takes 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 bringing new value, functionality, and trust to Group customers and clients, 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, 2020, 8,128 employees have undergone CS training (excluding training provided by specific divisions).

#### Customer Service

The AGC Group seeks to provide CS by establishing customer centers and customer service windows for specific businesses.

The Building & Industrial Glass 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 Building & Industrial Glass 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 target business, product, and region of the sender, and a timely response is sent in return.

# GRI Standards Index

This Sustainability Data Book 2021 is a tool for non-financial information disclosure (sustainability reporting) and is based on the Core option of the GRI Standards.

## Core Option Criteria for the GRI Standards

- Disclosing all General Standard Disclosures, which are required for Core option
- Disclosing at least one Indicator related to each identified material aspect (material issue)

### ► General Standards Disclosures (Core)

Only General Standard Disclosures required for the Core option have been included.

#### 1. Organizational profile

GRI Standards	Requirements	Page listed
GRI 102: General Disclosures 2016	102-1 Name of the organization	AGC Integrated Report 2020–2021 (P.85) Sustainability Data Book 2021 (P.1) Company Overview Corporate Information
	102-2 Activities, brands, products, and services	AGC Integrated Report 2020–2021 (P.12–13, 44–59) Sustainability Data Book 2021 (P.3–4) Overview of the AGC Group Company Overview Products
	102-3 Location of headquarters	AGC Integrated Report 2020–2021 (P.85) Sustainability Data Book 2021 (P.1) Company Overview Corporate Information
	102-4 Location of operations	Our Network
	102-5 Ownership and legal form	AGC Integrated Report 2020–2021 (P.74) Corporate Governance Corporate Information
	102-6 Markets served	AGC Integrated Report 2020–2021 (P.12–13, 44–59) Company Overview Products
	102-7 Scale of the organization	AGC Integrated Report 2020–2021 (P.12–13) Sustainability Data Book 2021 (P.3–4) Overview of the AGC Group Financial Review 2020 (English only) Company Information
	102-8 Information on employees and other workers	Sustainability Data Book 2021 (P.59) Human Resources Management Sustainability Data Book 2021 (P.63) Global Promotion of Diversity
	102-9 Supply chain	Sustainability Data Book 2021 (P.81–83) Supply Chain Procurement Policy
	102-10 Significant changes to the organization and its supply chain	Not applicable
	102-11 Precautionary principle or approach	Sustainability Data Book 2021 (P.19–20) Risk Management Financial Review 2020 (English only) (P.8–11)

	102-12	External initiatives	AGC Integrated Report 2020–2021 (P.73) Sustainability Data Book 2021 (P.16) Local communities, NGOs/NPOs, Governments Sustainability Data Book 2021 (P.46) Climate Change Initiatives
	102-13	Membership in associations	AGC Integrated Report 2020–2021 (P.73) Sustainability Data Book 2021 (P.16) Local communities, NGOs/NPOs, Governments Sustainability Data Book 2021 (P.45) Climate Change Initiatives

## 2. Strategy

GRI Standards	Requirements		Page listed
GRI 102: General Disclosures 2016	102-14	Statement from senior decision maker	AGC Integrated Report 2020–2021 (P.16–21) Sustainability Data Book 2021 (P.2) A Message from the President & CEO Message from the President & CEO

## 3. Ethics and integrity

GRI Standards	Requirements		Page listed
GRI 102: General Disclosures 2016	102-16	Values, principles, standards, and norms of behavior	AGC Integrated Report 2020–2021 (P.4–7) Sustainability Data Book 2021(P.5–8) Sustainability at the AGC Group AGC's Group Vision

## 4. Governance

GRI Standards	Requirements		Page listed
GRI 102: General Disclosures 2016	102-18	Governance structure	AGC Integrated Report 2020–2021 (P.74–79) Sustainability Data Book 2021 (P.17–18) Corporate Governance Corporate Governance

## 5. Stakeholder engagement

GRI Standards	Requirements		Page listed
GRI 102: General Disclosures 2016	102-40	List of stakeholder groups	Sustainability Data Book 2021 (P.11) Stakeholders Sustainability Data Book 2021 (P.13) Customers Sustainability Data Book 2021 (P.14) Shareholders and Investors Sustainability Data Book 2021 (P.15) Employees Sustainability Data Book 2021 (P.16) Local communities, NGOs/NPOs, Governments
	102-41	Collective bargaining agreements	Sustainability Data Book 2021 (P.56) Respecting Human Rights
	102-42	Basis for identifying and selecting stakeholders with whom to engage.	Sustainability Data Book 2021 (P.11) Stakeholders Sustainability Data Book 2021 (P.13) Customers Sustainability Data Book 2021 (P.14) Shareholders and Investors Sustainability Data Book 2021 (P.15) Employees Sustainability Data Book 2021 (P.16) Local communities, NGOs/NPOs, Governments

	102-43	Approach to stakeholder engagement	Sustainability Data Book 2021 (P.11–12) Stakeholders Sustainability Data Book 2021 (P.13) Customers Sustainability Data Book 2021 (P.14) Shareholders and Investors Sustainability Data Book 2021 (P.15) Employees Sustainability Data Book 2021 (P.16) Local communities, NGOs/NPOs, Governments Corporate Governance Report
	102-44	Key topics and concerns raised	Sustainability Data Book 2021 (P.11) Stakeholders Sustainability Data Book 2021 (P.13) Customers Sustainability Data Book 2021 (P.14) Shareholders and Investors Sustainability Data Book 2021 (P.15) Employees Sustainability Data Book 2021 (P.16) Local communities, NGOs/NPOs, Governments

## 6. Reporting practice

GRI Standards	Requirements		Page listed
GRI 102: General Disclosures 2016	102-45	Entities included in the consolidated financial statements	Financial Review 2020 (English only) (P.64–65)
	102-46	Defining report content and topic boundaries	AGC Integrated Report 2020–2021 (P.2) Sustainability Data Book 2021 (P.1)
	102-47	List of material topics	AGC Integrated Report 2020–2021 (P.28) Sustainability Data Book 2021 (P.9) Sustainability at the AGC Group
	102-48	Restatements of information	Not applicable
	102-49	Changes in reporting	AGC Integrated Report 2020–2021 (P.26–28) Sustainability Data Book 2021 (P.9) Sustainability at the AGC Group
	102-50	Reporting period	AGC Integrated Report 2020–2021 (P.2) Sustainability Data Book 2021 (P.1)
	102-51	Date of most recent report	Sustainability Data Book 2021 (P.1)
	102-52	Reporting cycle	Sustainability Data Book 2021 (P.1)
	102-53	Contact point for questions regarding the report	Inquiries Regarding Corporate Social Responsibility
	102-54	Claims of reporting in accordance with the GRI Standards	i. Core ii. This table
	102-55	GRI content index	This table
	102-56	External assurance	Verification Statement (P.55–56) Financial Review 2020 (English only) (P.66–72)
GRI 103: Management Approach 2016	103-1	Explanation of the material topic and its boundary	AGC Integrated Report 2020–2021 (P.26–29) Sustainability Data Book 2021 (P.9) Sustainability at the AGC Group

## ► Material Topics

### Economic

GRI Standards	Requirements		Page listed
GRI 201: Economic Performance 2016	201-1	Direct economic value generated and distributed	Financial Review 2020 (English only)
	201-2	Financial implications and other risks and opportunities due to climate change	Sustainability Data Book 2021 (P.46, 49) Climate Change Initiatives
	201-3	Defined benefit plan obligations and other retirement plans	Financial Review 2020 (English only) (P.40)
	201-4	Financial assistance received from government	
GRI 203: Indirect Economic Impacts 2016	203-1	Infrastructure investments and services supported	
	203-2	Significant indirect economic impacts	AGC Integrated Report 2020–2021 (P.29) Sustainability Data Book 2021 (P.10) Sustainability at the AGC Group
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	Sustainability Data Book 2021 (P.85) Fair Transactions
	205-2	Communication and training about anti-corruption policies and procedures	Sustainability Data Book 2021 (P.85–86) Fair Transactions
	205-3	Confirmed incidents of corruption and actions taken	GRI 206: Anti-competitive Behavior 2016
GRI 206: Anti-competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Sustainability Data Book 2021 (P.85–86) Fair Transactions GRI 207: Tax 2019
GRI 207: Tax 2019	207-1	Approach to tax	AGC Tax Compliance Policy
	207-2	Tax governance, control, and risk management	
	207-3	Stakeholder engagement and management of concerns related to tax	AGC Tax Compliance Policy
	207-4	Country-by-country reporting	

### Environmental

GRI Standards	Requirements		Page listed
GRI 301: Materials 2016	301-1	Materials used by weight or volume	
	301-2	Recycled input materials used	Sustainability Data Book 2021 (P.43) Sustainable Use of Resources
	301-3	Reclaimed products and their packaging materials	
GRI 302: Energy 2016	302-1	Energy consumption within the organization	Sustainability Data Book 2021 (P.47) Climate Change Initiatives
	302-2	Energy consumption outside of the organization	
	302-3	Energy intensity	Sustainability Data Book 2021 (P.29) Environmental Management Sustainability Data Book 2021 (P.47) Climate Change Initiatives
	302-4	Reduction of energy consumption	
	302-5	Reductions in energy requirements of products and services	
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	
	303-2	Management of water discharge-related impacts	Sustainability Data Book 2021 (P.39–40) Effective Use of Water Resources and Water Risks
	303-3	Water withdrawal	Sustainability Data Book 2021 (P.40–41) Effective Use of Water Resources and Water Risks
	303-4	Water discharge	Sustainability Data Book 2021 (P.41) Effective Use of Water Resources and Water Risks Site Reports
	303-5	Water consumption	

GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	
	304-2	Significant impacts of activities, products, and services on biodiversity	Sustainability Data Book 2021 (P.30) Conservation of Natural Capital and Biodiversity
	304-3	Habitats protected or restored	
GRI 305: Emissions 2016	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	
	305-1	Direct (Scope 1) GHG emissions	Sustainability Data Book 2021 (P.47–48) Climate Change Initiatives
	305-2	Energy indirect (Scope 2) GHG emissions	Sustainability Data Book 2021 (P.47–48) Climate Change Initiatives
	305-3	Other indirect (Scope 3) GHG emissions	Sustainability Data Book 2021 (P.48) Climate Change Initiatives
	305-4	GHG emissions intensity	Sustainability Data Book 2021 (P.29) Environmental Management
	305-5	Reduction of GHG emissions	Sustainability Data Book 2021 (P.47) Climate Change Initiatives
	305-6	Emissions of ozone-depleting substances (ODS)	
GRI 306: Effluents and Waste 2016	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Sustainability Data Book 2021 (P.31–32) Prevention of Environmental Pollution and Accidents Site Reports
	306-1	Water discharge by quality and destination	
	306-2	Waste by type and disposal method	Sustainability Data Book 2021 (P.43–44) Sustainable Use of Resources Site Reports
	306-3	Significant spills	Sustainability Data Book 2021 (P.31) Prevention of Environmental Pollution and Accidents
	306-4	Transport of hazardous waste	
GRI 307: Environmental Compliance 2016	306-5	Water bodies affected by water discharges and / or runoff	
	307-1	Non-compliance with environmental laws and regulations	Sustainability Data Book 2021 (P.31) Prevention of Environmental Pollution and Accidents
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	
	308-2	Negative environmental impacts in the supply chain and actions taken	Sustainability Data Book 2021 (P.38) Chemical Substances Management Sustainability Data Book 2021 (P. 81–84) Supply Chain

## Social

GRI Standards	Requirements		Page listed
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	
	401-3	Parental leave	Sustainability Data Book 2021 (P.65–66) Work-Life Balance
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	Sustainability Data Book 2021 (P.69–71) Occupational Health & Safety
	403-2	Occupational health services	Sustainability Data Book 2021 (P.70–74) Occupational Health and Safety
	403-3	Workers with high incidence or high risk of diseases related to their occupation	Sustainability Data Book 2021 (P.70–74) Occupational Health and Safety
	403-4	Worker participation, consultation, and communication on occupational health and safety	Sustainability Data Book 2021 (P.74) Occupational Health & Safety

GRI 403: Occupational Health and Safety 2016	403-5	Worker training on occupational health and safety	Sustainability Data Book 2021 (P.72–73) Occupational Health & Safety
	403-6	Promotion of worker health	Sustainability Data Book 2021 (P.75–77) Creating a Comfortable Workplace
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	
	403-8	Workers covered by an occupational health and safety management system	Sustainability Data Book 2021 (P.70) Occupational Health & Safety
	403-9	Work-related injuries	Sustainability Data Book 2021 (P.71, 74) Occupational Health & Safety Site Reports
	403-10	Work-related ill health	
	404-1	Average hours of training per year per employee	
	404-2	Programs for upgrading employee skills and transition assistance programs	AGC Integrated Report 2020–2021 (P.68–69) Sustainability Data Book 2021 (P.67–68) Employee Education Human Resources Division Initiatives
	404-3	Percentage of employees receiving regular performance and career development reviews	
GRI 408: Child Labor 2016	408-1	Operations and suppliers at significant risk for incidents of child labor	Sustainability Data Book 2021 (P.54) Respecting Human Rights
GRI 409: Forced or Compulsory Labor 2016	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Sustainability Data Book 2021 (P.55) Respecting Human Rights
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	Sustainability Data Book 2021 (P.16) Local communities, NGOs/NPOs, Governments Site Reports
	413-2	Operations with significant actual and potential negative impacts on local communities	
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	
	414-2	Negative social impacts in the supply chain and actions taken	Sustainability Data Book 2021 (P.81–84) Supply Chain
GRI 416: Customer Health and Safety 2016	416-1	Assessment of the health and safety impacts of product and service categories	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Sustainability Data Book 2021 (P.91) Quality Assurance Sustainability Data Book 2021 (P.92) Product Safety Initiatives
GRI 417: Marketing and Labeling 2016	417-1	Requirements for product and service information and labeling	Sustainability Data Book 2021 (P.37) Chemical Substances Management
	417-2	Incidents of non-compliance concerning product and service information and labeling	
	417-3	Incidents of non-compliance concerning marketing communications	
GRI 419: Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	Sustainability Data Book 2021 (P.23–25) Compliance