### CSR Activity Report (Topics) 2017



#### **Editorial Policy**

The CSR Activity Report (Topics) introduces a number of CSR initiatives undertaken by the AGC Group. This report was formulated according to the GRI "Sustainability Reporting Guidelines" (4th edition). In order to better understand the AGC Group's social responsibility, please refer to both the CSR Homepage and the CSR Activity Report (Detailed) 2017.

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# Organizational Governance

#### [AGC Flat Glass (Thailand) Public] Providing CSR Expertise for Industry-wide CSR Initiatives in Thailand

AGC Flat Glass (Thailand) Public (AFT) received the CSR-DIW Award for the eighth consecutive year in 2016. The award is given to companies that implement good practices for CSR activities by the Department of Industrial Works (DIW) of Thailand's Ministry of Industry.

AFT has been continuously executing SET: "S" stands for Safe Products through Safe Processes, "E" is for Environment Preserving Products through Environmental Conservation Processes and "T" represents Transparent Products through Transparent Processes for Good Governance. In recognition of these efforts, the DIW granted CSR-DIW certification<sup>1</sup> to the company in 2009. AFT has also been selected to take part in a CSR-DIW network committee for CSR-DIW promotion. Through the committee, which includes representative members selected from 425 factories nationwide, the company has been contributing to the development of CSR in Thailand.



**CSR-DIW Continuous Award 2016** 

1 CSR-DIW certification is a system based on ISO 26000 standards established by the Department of Industrial Works of the Ministry of Industry in Thailand.

#### [AGC Group] Participation in the Green Building Consortium and Exhibition

Singapore-based AGC Asia Pacific (AAP) has been a member of the Pre-project Innovation Consortium (PPIC) since 2014. The consortium was initiated by the Singapore government for the purpose of developing energy efficient buildings and promoting collaboration among stakeholders in the building and construction industry in Singapore.

In addition, every year AAP participates in Build Eco Xpo (BEX) Asia, the largest green building exhibition in Southeast Asia. At the event, which is held annually in Singapore, AAP showcases a wide range of technical solutions and sustainable products—including Ecoglass, durable paint resin—that contribute to making buildings environmentally friendly.

From 2017, AAP became the founding regional partner of the Asia Pacific Regional Network of the World Green Building Council. AAP supports and participates in green building related activities in the region.



Members of AAP at BEX Asia

#### [AGC Group] Highest BCM Rating Acquired from the Development Bank of Japan

In 2013, the AGC Group received the highest rating of A for its business continuity management (BCM) from the Development Bank of Japan. Based on an original evaluation system developed by the bank, the BCM rating reflects a comprehensive assessment of a corporation's ability to continue operating during a disaster, including its disaster prevention measures as well as strategies and systems for dealing with the crisis aftermath. The AGC Group was highly evaluated for establishing business continuity planning (BCP) guidelines, conducting relevant audits of its operations, providing BCP training to managers and implementing BCM initiatives covering the supply chain. The Group also received the highest possible environmental rating and a special award from the Development Bank of Japan in 2009.



BCP training for managerial employees

# Human Rights and Labor

#### [AGC Group] Safety Initiatives that "Learn" from Past Failures Receive Good Risk Sense Award

The AGC Group has established an exhibition space within its human resources training facility—the AGC Monozukuri Training Center—that presents cases of past failures. Named Faites Hall based on a combination of the initial letters in the phrase, "failure teaches success," the space exhibits 13 examples of failures that resulted in occupational accidents, product defects and R&D failures. The purpose of Faites Hall is to prevent failures from occurring in the future by analyzing the causes of past incidents, and proactively sharing the lessons learned across the entire AGC Group.

Occupational accidents have been used proactively in group-wide training programs intended to raise employees' safety awareness levels and reduce the risk of work-related accidents and injuries. In recognition of this initiative, AGC Asahi Glass received a Good Risk Sense Award from The *Chemical Daily*, a Japanese chemical industry newspaper, at the 2014 Risk Sense Forum held by the Japanese non-profit organization Risk Sense Research Society.





The Good Risk Sense Award plaque

#### [Chemicals Company] Responsible Care Award Received for Expanding Practical Safety Training Throughout Asia

The Chemicals Company has extended its practical safety skills training program conducted at major plants in Japan to the rest of Asia. In one case, practical safety skills originally developed at the Chiba Plant in Japan were adopted by Asahimas Chemical (ASC), which is making a major contribution to the creation of its own culture of safety in Indonesia.

Employees of ASC became progressively more aware of safety and changed their work approach as the training was adopted. A center used for the training was also made available to neighboring companies and the local community, which greatly improved ASC's relations with them. In recognition of those efforts, the Chemicals Company was presented with a Responsible Care Award by the Japan Chemical Industry Association at its ninth annual awards ceremony in May 2015.



The Japan Chemical Industry Association awards ceremony

#### [AGC Group (China)] Safety and Health Management Activities Continue to Make Progress in China

The AGC Group has been promoting safety and health management at its workplaces in China through cross-divisional networking activities.

Since commencing in 2014, employees in charge of safety management in the glass, electronics and ceramics divisions of each group company in China have been participating. Specifically, employees have been hosting group discussions, making collaborative efforts to eliminate serious accidents at each company and sharing information on the issues they face, including cases of successful initiatives.



Commemorative photo of all participants

#### [AGC Automotive Europe] Proactively Carrying Out a Program for Helping Employees Manage Stress

AGC Automotive Europe (AAEU) began implementing Well-Being @AGC in 2013 as a program to give managers the skills to support employees suffering from stress. The program is based on training provided by a professional counselor.

A survey of over 350 employees has also been conducted with assistance from academic psychologists in order to identify mental health risks in the workplace. Because the program has been very effective, it is now being widely adopted at factories and group companies in Europe.

Furthermore, AAEU has created a management charter related to workplace well-being, and set up committees responsible for implementing activities based on the charter.



#### [AGC Automotive (Thailand)] Thailand's Best Practice Workplace on Labor Relations and Labor Welfare Award Won for 13th Consecutive Year

AGC Automotive Thailand (AATH) received a Best Practice Workplace on Labor Relations and Labor Welfare Award in 2016. This marked the 13th consecutive year for the company to win the award, which is given by the Thai Ministry of Labor to companies that have established exemplary labor relations and welfare frameworks.

Over 1,000 companies across Thailand submit entries each year. Government officials serve as judges, visiting each company and conducting interviews of both managers and employees. AATH won the award in 2016 after being highly evaluated for promoting solidarity in the workplace while maintaining positive relations between management and labor. In the province of Chonburi, where the company is based, AATH is one of only two companies that have received the award for 13 consecutive years.



Former AATH President Katsufumi Yajima (center) receiving the award with AATH employee representative Wattanapol Taothong (left)

#### [AGC Group] Establishing a Chemical Substance Management System

The AGC Group has been working to improve the management of chemical substances at all worksites that use them.

Accordingly, when conducting risk assessments of chemical substances, the Group uses its own globally applicable standardized assessment method, which is based on the Globally Harmonized System of Classification and Labeling of Chemicals.

Furthermore, it provides regular training to relevant managers, and implements measures for improving the capabilities of management across the entire Group, starting with each production plant.



**Chemical Substance Risk Assessment training** 

#### [AGC Group (Thailand)] Sharing Plant Engineering Skills in Thailand as Part of Skills Networking Activities

The AGC Group has been expanding cross-divisional networking activities globally. As part of these activities, the sharing of plant engineering skills has been promoted in Thailand since 2015, following a safety and health management meeting in China.

Today, workshops are held regularly to bring together employees with common skills from group companies in Thailand involved in glass, electronics and chemicals, allowing them to work together to enhance their knowledge and skills. As employees meet with those outside of their divisions, the workshops are leading participants to find new issues and solve them.



Commemorative photo at the workshop

#### [AGC Flat Glass Czech A.S.] AGC Flat Glass Czech Recognized for Social Responsibility Initiatives

In the Czech Republic, AGC Flat Glass Czech A.S. (AFCZ) first acquired SA8000 certification<sup>1</sup> in May 2011, and then renewed the certification in 2014. As an international accountability standard for the protection of the rights of workers, SA8000 prohibits child labor and forced labor, and sets requirements for the health, safety and remuneration of workers. Based on these standards, AFCZ is aiming to ensure sound management practices.

In 2015, AFCZ was selected for a Social Responsibility Award by the Regional office of Ústí, together with the Economic and Social Council of the Ústí Region and the Quality Council of the Czech Republic.

The award is given to companies that take care of their employees beyond legal requirements and contribute to regional development. AFCZ has also been awarded Best Employer of the Ústí Region, and designated as the third best employer in the Czech Republic.



SA 8000 certification form

<sup>1</sup> SA8000 certification is a standard overseen by Social Accountability International, an accreditation agency in the United States. Companies can acquire the certification if they meet the standard of inspections by thirdparty organizations.

# Society

#### [AGC Asahi Glass] Contributing to Community Safety Measures through the "Glass Power Campaign"

Since 2005, AGC Asahi Glass has been donating safety glass to local governments and promoting safety measures in communities under its Glass Power Campaign. Safety glass is designed to withstand natural disasters, including typhoons, strong winds and earthquakes. To date, AGC Asahi Glass has donated the glass to 36 local governments, which have used it for improving the safety of school gymnasiums and other places that serve as evacuation shelters during times of disaster.

In fiscal 2016, in an effort to support the city of Kochi amid concerns of a major earthquake in the Nankai Trough off the Pacific coast of Japan, the windows of the Yokohama Junior High School gymnasium in Kochi City were replaced with 365 panes of safety glass, amounting to a total area of about 250 square meters. The glass also improved the safety of the gymnasium during typhoons, tornados and sudden storms.



Kochi Mayor Seiya Okazaki (right) and Daikichi Arai (left), General manager of Japan Division, Asia Pacific General Division, AGC Asahi Glass Building & Industrial Glass Company

#### [AGC Flat Glass Klin and AGC Bor Glassworks] Supporting Local Children and Residents through Community Activities

For the past five years, AGC Flat Glass Klin has supported events in which Santa Claus pays visits to hospitals and schools in the city of Klin, Russia, where the company is based. Over 20,000 people from Klin and the surrounding area take part in the events every year, which also feature a New Year masquerade.

Before the event last year, the company donated insulated glazing glass to three kindergartens and one school in the Klin district on the eve of September 1, known as Knowledge Day in Russia. A soccer team comprising employees from both AGC Bor Glassworks and AGC Flat Glass Klin also plays matches to raise money as part of the event.



Children from Klin at the residence of Ded Moroz<sup>1</sup>

1 Ded Moroz means Santa Claus in many Slavic languages



AGC football team in Russia

#### [AGC Flat Glass (Thailand) Public] AFT Supports Students with AGC Homeland Development Project

AGC Flat Glass (Thailand) Public (AFT) provides support to economically disadvantaged art students through skilldeveloping activities involving art, Thai massage and music. In addition to offering educational opportunities and assistance from volunteers (including Federation of Thai Industries, Local Wisdom Communities, general volunteers who are kind and helpful in supporting society and AGC Employees, whom we call AGC G-Ambassadors—G meaning good), AFT helps the students sell artwork, give massages and hold music performances to earn money for their education.

Since 2015, AFT has been carrying out new support activities through its Successor Development Project, allowing the first generation to develop the next generation and expand educational opportunities, building on first generation talent within Thailand. In addition, together with AGC Chemicals (Thailand), AGC Automotive (Thailand) and AGC Technology Solutions (Thailand), AFT not only fosters the artistic, massage and musical ability of talented students, but also helps them gain practical skills through initiatives that develop leadership and entrepreneurial aptitude.



The Art Successor Project develops skills for future generations

#### [AGC Display Glass Taiwan] Promoting Activities for Supporting the Development of Local Children and Students

AGC Display Glass Taiwan (ADT) is engaged in various initiatives for supporting the development of children and students in Taiwan. For example, since its 10th anniversary in 2010, ADT has been organizing employee volunteer activities and providing funding for an orphanage in Yunlin County, where the company is based.

ADT has also been holding the AGC Japanese Presentation Contest for Taiwanese university students since 2014, with the goal of developing the skills they need for succeeding at companies doing business in both Japan and Taiwan. Each year, students participating in the contest hone their presentation and Japanese language abilities by giving a presentation in Japanese on a common topic.

In addition, ADT held a picture-painting contest for elementary school students in Yunlin County in 2015 as part of its local social contribution activities and in commemoration of its 15th anniversary. Owing to the popularity of the event, ADT held it again in 2016 in an effort to deepen its ties with the local community.



Children participating in the picture-painting contest in Yunlin County

#### [Asahi Glass Fine Techno Korea/Hanwook Techno Glass/Asahi PD Glass Korea] Three Group Companies Continue to Jointly Contribute to Elementary School Children and Senior Citizens

In South Korea, various social contribution activities have been jointly carried out by Asahi Glass Fine Techno Korea, Hanwook Techno Glass and Asahi PD Glass Korea.

For example, the companies have been donating books to three elementary schools since 2010 with the goal of supporting the intellectual development of local children. They have also jointly held a book report contest since 2011. The book reports are judged by children's authors, and scholarships are awarded to children who receive top awards or awards of excellence.

In addition to these activities, since 2010, employees of the three companies have been distributing handmade winter kimchi (spicy fermented vegetables) to economically disadvantaged children and senior citizens living alone under a program called Heartfelt Kimchi.



The children who participated in the book report contest



The book report contest

#### [AGC Flat Glass (Thailand) Public] Tree Planting Initiatives Supported with Activities for Sustainability

Recognizing that it belongs to an energy-intensive industry, AGC Flat Glass (Thailand) Public (AFT) has been carrying out tree planting initiatives since 2003 to help protect biodiversity and address climate change. To encourage tree planting and biodiversity protection activities in local communities, AFT strives to raise awareness of the value of plants, and has created a book about herbs featuring species native to the Jumrung area in Rayong Province, where its factory is based.

In 2015-2016, AFT teamed up with three other group companies in the country—AGC Chemicals (Thailand), AGC Automotive (Thailand) and AGC Technology Solutions (Thailand)—to open 2 herb gardens at Suanpakhaochaang School in the province of Chonburi. In 2016-2017, AFT developed students' herb knowledge through study with university instructors as a basic foundation, and learned of the usefulness of herbs to the school community with philosopher villagers.



The herb garden

#### [PT Asahimas Flat Glass Tbk (AMG)] Working Together with Suppliers and the Local Community to Plant Trees in Indonesia

Reflecting its CSR policy of promoting environmental conservation and harmony with local communities, PT Asahimas Flat Glass Tbk (AMG) has established the Longan Tree Plantation Program in a mining village in Central Java, Indonesia. Through the program, AMG collaborates with its supplier of feldspar in the village to plant trees and teach local people about proper tree planting methods, both in theory and practice.

AMG will continue to help local people increase their income by harvesting and selling longan fruit from the trees, while contributing to environmental conservation in the region.



Participants in the tree planting event

#### [AGC Group (Japan)] Forest Volunteer Activities

In Japan, the AGC Group promotes volunteering by employees and their families in forest management and tree thinning<sup>1</sup> events, with the goal of raising awareness towards forest conservation and biodiversity.

For example, in 2011, employees and former members of the AGC Asahi Glass Chiba Plant formed the AGC Satoyama Group and registered it as a river conservation organization in the city of Ichihara, Chiba Prefecture.

In the same city, AGC Engineering has been carrying out woodland conservation activities since a declaration to contribute to the community and the environment on its 50th anniversary, in 2009. The company's employees and their family members volunteer in woodland conservation activities held four times annually in the city's Bunka no Mori forest. By clearing brush around commemorative trees in the forest, the volunteers forge friendships, help raise awareness of the natural environment and promote harmony between nature and the community.

1 Tree thinning involves cutting down crooked and weak trees among densely spaced trees in a forest, facilitating sound growth of the remaining trees by allowing more sunlight to enter.



Members of the AGC Satoyama Group, including AGC Group employees and their families



Volunteers at the Satoyama conservation event in Bunka no Mori forest

#### [AGC Asahi Glass] Assessing Business Partners' Satisfaction with the AGC Group through an Annual Survey

Since 2008, AGC Asahi Glass 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 producing 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 Asahi Glass.

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The survey sent to business partners

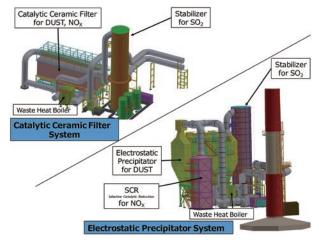
## Environmental

#### [AGC Group] Helping Reduce Air Pollution in China by Providing Denitrification Technology to Local Glass Manufacturers

In an effort to reduce air pollution, China's Ministry of Environmental Protection made it mandatory for glass manufacturing plants in Hebei Province and the cities of Beijing and Tianjin to install desulfurization, denitrification and dust filtration equipment, as well as online monitoring systems for those facilities, effective from April 2014.

Against that backdrop, the AGC Group cooperated with local engineering companies to provide local glass manufacturers with denitrification technology it had developed for processing glass melting furnace exhaust gas. By assisting the other companies, the Group has been helping to address China's air pollution problem.

The AGC Group's flue gas denitrification equipment has been used over many years at its manufacturing plants and is compatible with melting furnaces that use low-quality heavy oil, which contains many impurities. Combined with its remote data monitoring and after-sales service systems, the equipment has been evaluated highly, leading to increased installation.



Equipment fitted with catalytic ceramic filters

#### [AGC China] Support for Environmental Improvements in China

AGC China (AGCH) has been actively supporting initiatives for improving the natural environment in China. In 2015, it jointly held a seminar entitled "Green City, Better Life" together with the Shanghai Advanced Research Institute (SARI) of the Chinese Academy of Sciences and the Tongji Green Building Council (TGBC). At the event, AGCH showcased over 40 products from various AGC Group businesses through display panels.

Meanwhile, continuing from last year, AGCH participated in the annual Japan-China Energy Conservation and Environmental Research Forum, jointly held in Tokyo by Japan's Ministry of Economy, Trade and Industry, the Japan-China Economic Association, the National Development and Reform Commission in China and China's Ministry of Commerce. AGCH gave a presentation about power conservation projects in China's glass manufacturing industry, in which it described successful initiatives for conserving energy in glass production lines. Having declared its intention to cooperate in energy-conservation and environment projects in China, AGCH is committed to helping the country's glass industry save energy alongside its local partners.



The "Green City, Better Life" Seminar

#### [AGC Glass Brazil] Implementing New Technologies to Reduce Environmental Impact

In Brazil, consumption of energy and natural resources is expanding with economic growth, and coping with environmental problems has become an urgent issue. AGC Glass Brazil (AGBR) aims to reduce the environmental burden of production processes by introducing state-of-the-art technology to their glass production plant that began operation in 2013.

Specifically, AGBR equipped glass melting furnaces in South America with the latest fume treatment facility units, lowering particle emissions to less than 1/10th of regulation levels set by Brazil's National Environment Council (CONAMA). In addition, SOx and NOx emissions are also kept below these standards.

AGBR also uses glass melting furnaces to combust organic compound gases emitted in the coating process, reducing emissions of volatile organic compounds (VOCs). It has also installed a system for recycling and recirculating cooling water, reducing the amount of water consumed in the manufacturing process.

AGC Glass Brazil plant

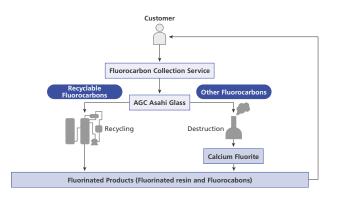
#### [Chemicals Company] Promoting the Reuse of Calcium Fluoride

The Chemicals Company has been actively engaged to collect and reuse of calcium fluoride (fluorite), which is a key raw material for fluorinated products. Since it is one of the natural resources distributed unevenly in the world, . Japan depends greatly on imports from China. For that reason, the Chemicals Company has been recovering and reusing the calcium fluoride, which is contained in waste water and gases generated at its own manufacturing processes, and which is recovered from its customers' wastewater treatment processes for hydrofluoric acid.<sup>1</sup>

Furthermore, the AGC Asahi Glass Chiba Plant acquires fluorocarbon products from customers via fluorocarbon collection services, extracts the calcium fluoride by destructing the products and reuses it as a raw material.

In 2016, the plant collected and destroyed fluorocarbon products equivalent to approximately 1.68 million tons of CO<sub>2</sub> (approximately 1.99 million tons in 2015).

1 The Chemicals Company was awarded the 2014 METI Minister Award, the highest prize in the Resource Recycling Technology and System Awards. The awards were created by the Japan Environmental Management Association for Industry, and are given annually to recognize projects and initiatives that apply advanced technologies and systems for controlling waste generation (reduce), reusing discarded materials (reuse) and effectively using reclaimed resources (recycle).



**Recovery and Recycling of Fluorocarbons** 

#### [AGC Group (Asia including Japan)] Using Returnable Pallets for Shipments Between Factories

In Asia, the AGC Group is using returnable steel pallets that can be used repeatedly for shipping unprocessed automotive glass sheets between factories. The Group replaced the wooden crates it had previously used for shipping with these packing materials, which it developed in-house, in order to reduce the amount of lumber it uses and help preserve biodiversity.

Since first adopting the pallets in Japan in 2000, the Group has expanded their usage to its operations in China and across Southeast Asia. At present, the returnable pallets are being used for almost all of the Group's automotive glass products, with the exception of irregularly shaped items. In 2015, the pallets were used in approximately 98.5% of all shipments between Group companies to and from Japan.



The AGC Group's independently developed returnable pallets



Empty pallets compactly stacked together upon their return

#### [AGC Glass Europe] Reducing Environmental Impact by Switching to Railway Logistics

In order to reduce its environmental impact, AGC Glass Europe (AGEU) switched shipments of silica sand and soda ash, which are raw materials for making glass, from truck to rail. Specifically, AGEU built an unloading station at its Boussois Plant in France, enabling deliveries to be made by rail from February 2014.

Through these efforts, AGEU reduced 4,000 annual truck trips to 77 rail trips, reducing CO<sub>2</sub> emissions by about 250 tons. Furthermore, fewer fine dust particles were emitted by the plant, and surrounding roads became safer due to decreased traffic. In recognition of this initiative, the Boussois Plant received an environmental performance award in France in 2014.



Railway within the Boussois Plant

#### [AGC Group] Increasing Numbers of Plants Installing Photovoltaic Panels

AGC Glass Asahi Europe (AGEU) installs photovoltaic (PV) panels at its various plants and buildings. After the first photovoltaic (PV) panels were installed at the Osterweddingen Plant (Germany, 10 MWh produced per year) in 2009 and at the Cuneo Plant (Italy, 4,151 MWh/year) in 2010, other PV projects started at other sites such as Zeebrugge (Belgium, 507 MWh/year) in 2011 and Mol (Belgium, 260 MWh/year) in 2012. At Roccasecca (1,134 MWh/year) in Italy, Fleurus (250 MWh/year) and Moustier (233 MWh/year) in Belgium, PV panels were installed in 2013. The total output of AGEU's photovoltaic installations now averages 6,544 MWh per year.

Additionally, around 900 PV panels were installed on the roof of the new AGC Europe headquarters in Belgium in 2013. These produce 153 MWh/year, which offsets the energy consumed by heating, cooling and lighting.



Photovoltaic panels at the Cuneo Plant (Italy)

#### [AGC Glass Europe] Promoting Initiatives to Reduce Water Usage and Prevent Water Pollution

AGC Glass Europe (AGEU) has been working to reduce the amount of water used at its facilities and has implemented specific actions to reduce consumption, such as reusing and recycling water, along with efforts to combat leakages. These initiatives have brought a 71% decrease in water use since 1998, resulting in total water consumption of around 5.1 million m<sup>3</sup> in 2016.

Water used for industrial purposes at AGEU is drawn largely from surface water, not drinking water. Additionally, over 90% of the water is used in cooling systems that operate in a closed loop, drastically minimizing water use.

AGEU strives to reduce pollution of industrial wastewater during production through curbing emissions of metals and other means. The plants at AGEU are equipped with wastewater treatment equipment, and also limit and replace toxic substances used in Mirox New Generation Ecological mirror production, resulting in a 95% reduction in water pollution.



Storm water recovery system in Seingbouse, France.

#### [AGC Group (Japan)] Proactive Use of Paper that Contributes to Sound Forest Management by Thinning

The AGC Group actively uses paper made from the pulp of wood from thinned forests, based on its Basic Environmental Policy of considering the influence of its activities on the natural environment, including biodiversity. The price of the paper includes the cost of tree thinning in forests carried out by an environmental NPO in Japan called Mori no Chonai-Kai<sup>1</sup>. The Group purchases and uses the paper in an effort to support periodic tree thinning, which is needed for revitalizing healthy forests.

In 2016, about four tons of the paper were used, mainly for public relations publications—including the AGC Report as well as in-house pamphlets and employee business cards. To date, the Group has used a cumulative total of over 180 tons of the paper, equivalent to an area of about 13 hectares of thinned forest (or approximately three times the area of Tokyo Dome—a baseball stadium in Tokyo, Japan). 1 Neighborhood Forest Association



AGC Report 2017

#### [AGC Group (Japan)] The AGC ECO CLUB Supports the Ecological Activities of Employees and their Families

In 2011, the AGC Group launched the AGC ECO CLUB in Japan to provide opportunities for employees and their families to easily participate in environmental initiatives through volunteer and everyday activities.

The AGC ECO CLUB invites employees involved in environmental activities to become members. It provides news about volunteer environmental events at workplaces where the activities are carried out, as well as information on household energy conservation initiatives on its website.

The Group also runs a matching gift program<sup>1</sup> using revenue collected from vending machines at Asahi Glass headquarters. The money is donated to NGOs that are working to replant coastal forests in the city of Natori, Miyagi Prefecture, which suffered catastrophic damage from the tsunami caused by the Great East Japan Earthquake in 2011. In addition, every year Group employees in Japan make a contribution to NGOs that support tree planting activities in developing countries by redeeming points collected through a charity program called Bellmark.



AGC Group receives special prize for actions against global warming in 2017

incorporating the everyday activities of employees and their families, Tokyo's Chiyoda Ward, where the Group's headquarters is located, awarded the company a special prize for actions against global warming in February 2017.

1 A program where companies and groups make donations or contributions to further a social cause, and the AGC Group makes a donation on top of their contributions

In recognition of these environmental initiatives

#### [AGC Glass Europe] AGC Glass Europe's Headquarters Receives BREEAM "Excellent" Rating

AGC Glass Europe's (AGEU) headquarters building in Belgium is a nearly-zero energy building, meaning it has very high energy performance. The energy that the building does require comes mostly from renewable sources.

The building features around 900 roof-mounted photovoltaic (PV) panels that provide additional electricity (around 200,000 kWh per year) to help cover the energy needs of the office, and emphasizes natural lighting to reduce energy consumed by lighting within the building. Geothermal energy is used to heat and cool the building, and rainwater is used for sanitary purposes, outdoor cleaning and gardening activities. All wood used in construction is certified by PEFC (Program for the Endorsement of Forest Certification). Plants used in landscaping are local varieties, and biodiversity initiatives to be carried out in the garden are currently under review.

In light of the above features, the AGEU building has also acquired BREEAM (Building Research Establishment Environmental Assessment Method) certification. BREEAM is a system of certification established to assess buildings in terms of efficient utilization of energy, water and other resources. In 2015, the AGEU building passed a post-construction review resulting in a final certificate with a rating of "Excellent."



AGC Glass Europe's new headquarters

#### [AGC Glass Europe] AGC Float Glass Certified Under the Cradle to Cradle Product Standard

AGC Glass Europe (AGEU) acquired the Cradle to Cradle (C2C) Certified<sup>™</sup> Silver certificate for its float glass in 2015. The certification recognizes the company's excellent water stewardship, one of five categories covered by the C2C Certified Product Standard.

AGEU was highly commended for formulating rules and guidelines to protect water through excellent water stewardship, and for implementing measures to mitigate risks to local ecosystems, such as water shortages.



The Cradle to Cradle certification acquired by AGEU

#### [AGC Glass Europe] AGEU's laminated Glass Products Acquire Silver-level Cradle to Cradle Certification

In 2013, the AGC Glass Europe (AGEU) laminated glass products Stratobel and Stratophone earned the Cradle to Cradle (C2C) CertifiedTM Silver certificate. The Cradle to Cradle CertifiedTM product standard recognizes achievements in the use and re-use of safe and healthy materials, renewable energy, water stewardship, and evaluation and certification of products that contribute to social responsibility. When AGEU first obtained C2C certification in 2010 for its float glass and coated glass products, it was the first glass manufacturer in Europe to do so. In 2013, the Silver level certificates for float glass, coated glass and decorative glass were also successfully renewed.

Certified products are also eligible for certification credits under the Leadership in Energy and Environmental Design (LEED) green building rating system, and thus can help customers looking to improve the environmental rating of their buildings.



Cradle to Cradle Certificate for Stratobel and Stratophone

#### [AGC Asia Pacific] AGC Products Certified as Singapore Green Building Products—a First for a Glass Manufacturer in Singapore

In 2013, AGC Asia Pacific became the first glass manufacturer to receive SGBP product certification under the labeling scheme of the Singapore Green Building Council. The interior glass certification was renewed in 2017 and received an even better SGBP rating.

This certification evaluates the environmental performance of building materials in the fields of energy efficiency, water efficiency, resource efficiency, health and environmental protection and other green features. Moreover, buildings that use products with SGBP labels can earn points through Singapore's Green Mark building rating system.



Singapore Green Building Council certificates for AGC products