EcoLeaf Type III Environmental Declaration (EPD)

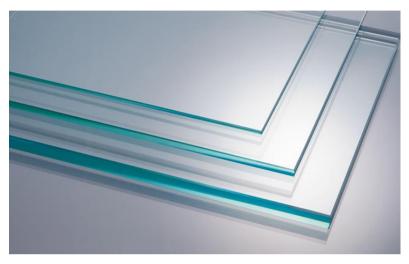
Registration number: JR-BS-22001E-A

Japan EPD Program by SuMPO

Sustainable Management Promotion Organization 14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan https://ecoleaf-label.jp/



Asia General Division, Architectural Glass Asia Pacific Company, Flat Glass AGC Inc.





Functional unit

1ton

System boundary

☐ final products ■ intermediate products

Raw material acquisition-Distribution-Production

Main specifications of the product

Products (Clear glass, Tinted glass)

Production sites:

Cikampek Factory, Sidoarjo Factory (PT Asamimas Flat Glass Tbk)

Samut Prakan Factory, Chon Buri Factory (AGC Flat Glass Thailand)

Main thickness(unit : mm, t=thickness) t= $2\sim$ 12mm

Area:33.3~200m²

Company Information

Sustainable Management Initiatives Group, Architectural Glass Asia Pacific Company, AGC Inc.

Tel: +81-3-5808-6604

https://agc-glassasia.com/

Registration#	JR-BS-22001E-A		
PCR number	PA-171100-BS-01		
PCR name	Flat glass		
Publication date	9/27/2022		
Verification date	9/20/2022		
Verification method	Product-by-product		
Verification#	JV-BS-22001		
Expiration date	9/19/2027		
PCR review was conducted by:			
Approval date	19/8/2022		
PCR review	Ken Yamagishi		
panel chair	Sustainable Management Promotion Organization		

Third party verifier*

Yuki Sakamoto

Independent verification of data & declaration in accordance with ISO14025 and ISO21930

□internal	■external	

Registration number: JR-BS-22001E-A

^{*}Auditor's name is stated if system certification has been performed.

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1. Results of life cycle impact assessment (LCIA) 20% 40% 60% 80% 100% 1100 Global warming IPCC2013 GWP100a kg-CO2eq 0.0024 Ozone layer destruction g-CFC-11eq Acidification 4.2 kg-SO2eq Photochemical ozone 0.036 kg-C2H4eq Eutrophication 0.0038 kg-PO43-eq Raw material acquisition ■ Production ■ Distribution

stage Parameter	Unit	Total	Raw material acquisition	Distribution	Production
Global warming IPCC2013 GWP100a	kg-CO ₂ eq	1.1E+03	2.3E+02	6.7E+01	7.7E+02
Ozone layer destruction	g-CFC-11eq	2.4E-03	1.7E-03	4.8E-07	6.1E-04
Acidification	kg-SO₂eq	4.2E+00	4.2E-01	1.4E-01	3.7E+00
Photochemical ozone	kg-C₂H₄eq	3.6E-02	1.0E-03	1.5E-03	3.4E-02
Eutrophication	kg-PO4 ³⁻ eq	3.8E-03	3.8E-03	4.4E-13	4.6E-07

2. Life cycle inventory analysis (LCI)		
Parameter		Unit
Non-renewable material resources	1.2E+03	kg
Non-renewable energy resources	1.5E+04	MJ
Renewable material resources	2.4E+02	kg
Renewable primary energy	3.5E+02	MJ
Consumption of freshwater	2.6E+00	m3

3. Material composition		
Material		Unit
Silica sand	45.3	%
Soda ash	13.7	%
Dolomite	13.7	%
Cullet	23.2	%
Others	4.2	%

4. Waste to disposal		
Parameter		Unit
Hazardous waste	0.00E+00	kg
Non-hazardous waste.	3.2E+00	kg

^{*}Data derived from LCA and not assigned to the impact categories of LCIA

5. Additional explanation

These data are an average of clear and tinted glass, and do not represent data for individual products. The products do not include pyrolytic(on-line CVD) coated glass.



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6-1. Supplementary environmental information

The Products are manufactured in ISO14001 certified factories.

6-2. Regulated hazardous substances		
Substance	CAS No.	Reference to standards or regulations
Sulfur dioxide	7446-09-5	Industrial Safety and Health Act
Cobalt monoxide	1307-96-6	Industrial Safety and Health Act
Nickel monoxide	1313-99-1	Industrial Safety and Health Act

7. Assumptions of secondary data used

We use the IDEA v2.1.3 data

8. Remarks

Changes from the previous version (registration number: JR-BS-22001E) are as follows.

Date of change: February 24, 2023

Reason for change

- (1) Change in the organization name and contact information
- (2) Add ISO21930 in independent verification of data & declaration as ISO accordace
- (3) Correct unit errors in LCIA and LCI information
- For data quantification, please refer to PCR and Rules on quantification and declaration.
- Comparative assertion is permitted only when Rules on quantification and declaration are satisfied. (Reference URL: https://ecoleaf-label.jp/regulation/)

Registration number: JR-BS-22001E-A