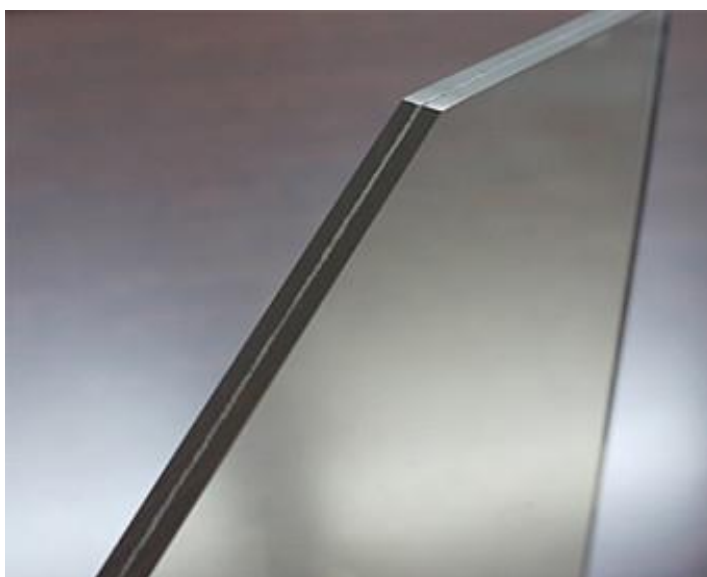




Nippon Electric Glass Co., Ltd.

Heat-resistant crystallized glass for fire door
FireLite Plus®



Functional unit

1m²

System boundary

☐ final products ☒ intermediate products

Raw material acquisition-Distribution-Production

Main specifications of the product

Production sites ; Otsu Plant, Shiga Takatsuki Plant

Specifications ;

Product thickness average : approx. 10mm

Weight per square meter ; approx. 23kg

Processing method ; Crystallization & Lamination
method

Main application ; Architectural

Registration#	JR-BW-25002E-A
PCR number	PA-171190-BW-02
PCR name	Processed glass
Publication date	1 April 2025
Verification date	30 January 2025
Verification method	Product-by-product
Verification#	JV-BW-25002
Expiration date	29 January 2030

PCR review was conducted by:

Approval date	1 September 2023
PCR review panel chair	Ken Yamagishi Sustainable Management Promotion Organization

Third party verifier*

Hiroyuki Nakamura

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

Company Information

Nippon Electric glass Co., Ltd.

Consumer Glass Products Division, Production

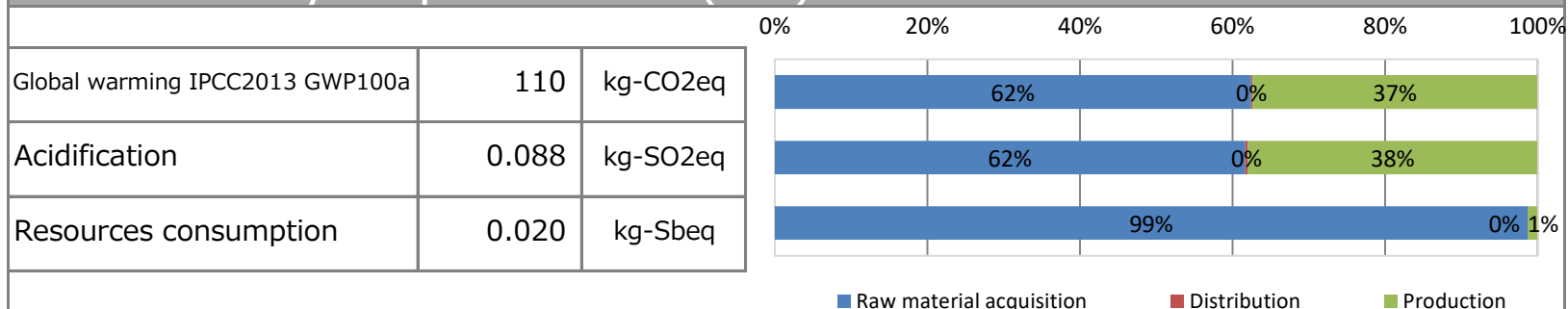
Quality Assurance Department

<https://www.neg.co.jp/en/inquiry/>

☐ internal ☒ external

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

1. Results of life cycle impact assessment (LCIA)



stage	Unit	Total	Raw material acquisition	Distribution	Production		
Global warming IPCC2013 GWP100a	kg-CO ₂ eq	1.1E+02	6.6E+01	2.3E-01	3.9E+01		
Ozone layer destruction	kg-CFC-11eq	7.3E-05	5.3E-05	3.1E-12	2.0E-05		
Acidification	kg-SO ₂ eq	8.8E-02	5.4E-02	2.9E-04	3.3E-02		
Urban area air pollution	kg-SO ₂ eq	5.4E-02	3.2E-02	1.1E-04	2.2E-02		
Photochemical ozone	kg-C ₂ H ₄ eq	1.5E-03	8.8E-04	8.3E-07	6.0E-04		
Toxic chemicals(cancer)	kg-C ₆ H ₆ eq	4.6E-02	4.5E-02	1.1E-06	1.1E-03		
Toxic chemicals(chronic disease)	kg-C ₆ H ₆ eq	1.4E-02	1.4E-02	7.5E-07	1.3E-04		
Aquatic toxicity	kg-C ₆ H ₆ eq	1.9E+01	1.9E+01	3.7E-08	5.8E-02		
Biological toxicity	kg-C ₆ H ₆ eq	4.8E+02	4.8E+02	6.1E-07	1.3E+00		
Eutrophication	kg-PO ₄ ³⁻ eq	2.4E-04	2.3E-04	2.4E-12	7.9E-06		
Land use(Occupation)	m ² /year	3.2E+00	2.9E+00	6.1E-03	2.5E-01		
Land use(Transformation)	m ²	1.9E-02	1.3E-02	1.2E-04	6.0E-03		
Resources consumption	kg-Sbeq	2.0E-02	2.0E-02	9.6E-07	2.6E-04		

2. Life cycle inventory analysis (LCI)

Parameter		Unit
Non-renewable material resources	1.4E+01	kg
Non-renewable energy resources	4.0E+01	kg
Non-renewable energy resources	1.8E+03	MJ
Renewable material resources	6.8E+00	kg
Renewable primary energy	3.2E+02	MJ
Consumption of freshwater	2.5E+00	m ³

3. Material composition

Material		Unit
SiO ₂ , Al ₂ O ₃ , Li ₂ O	55	%
Others (including glass cullet)	38	%
Interlayer	4	%
Packing material	4	%

4. Waste to disposal

Parameter		Unit
Hazardous waste	0.0E+00	kg
Non-hazardous waste.	1.1E+01	kg
Treated MSW for landfill	4.1E-10	kg
Treated industrial waste for landfill	1.1E+01	kg

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

5. Additional explanation

The total energy use is 2126 MJ.



SuMPO EPD

Type III Environmental Declaration (EPD)

Registration number : JR-BW-25002E-A

Japan EPD Program by SuMPO

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

6-1. Supplementary environmental information

We manufacture it at production sites that have received ISO 14001 certification (Otsu Plant and Takatsuki Plant in Shiga).

6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
None		

7. Assumptions of secondary data used

We used the IDEA ver.3.1.0 data.

8. Remarks

Updated on 2025/12/23: Added missing reference to ISO 21930 compliance in the English version.

- 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/resource/gpi/>)

Registration number : JR-BW-25002E-A