SuMPO EPD
Type III Environmental Declaration (EPD)
Registration number : JR-BW-25001E-A

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

Nippon Electric Glass Co., Ltd.

Heat-resistant crystallized glass for fire door
FireLite®

Functional unit

1m^2

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. 5mm

Weigt per square meter ; apporox. 11kg

Processing method ; Crystallization method

Main application ; Architectural

Registration#	JR-BW-25001E-A
PCR number	PA-171190-BW-02
PCR name	Processd glass
Publication date	1 April 2025
Verification date	30 January 2025
Verification method	Product-by-product
Verification#	JV-BW-25001
Expiration date	29-Jan-30

PCR review was conducted by:

Approval date	1-Sep-23
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

☐internal ■external

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

Company Information

Nippon Electric glass Co., Ltd.
Consumer Glass Prodaucts Division, Production Quality Assurance Deparment
https://www.neg.co.jp/en/inquiry/

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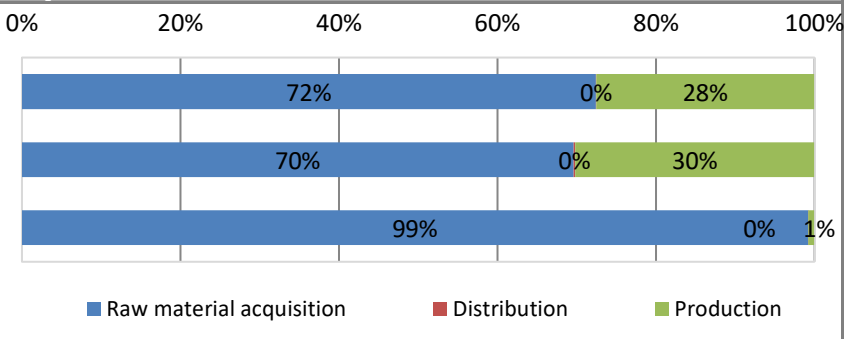
1. Results of life cycle impact assessment (LCIA)

Global warming IPCC2013 GWP100a	43.0	kg-CO2eq
Acidification	0.031	kg-SO2eq
Resources consumption	0.0098	kg-Sbeq



stage	Unit	Total	Raw material acquisition	Distribution	Production		
Global warming IPCC2013 GWP100a	kg-CO_2eq	4.3E+01	3.1E+01	2.1E-02	1.2E+01		
Ozone layer destruction	kg-CFC-11eq	3.4E-05	2.6E-05	2.8E-13	7.9E-06		
Acidification	kg-SO_2eq	3.1E-02	2.1E-02	6.9E-05	9.2E-03		
Urban area air pollution	kg-SO_2eq	1.9E-02	1.3E-02	2.6E-05	5.3E-03		
Photochemical ozone	kg-C_2H_4eq	5.3E-04	3.9E-04	1.5E-07	1.4E-04		
Toxic chemicals(cancer)	kg-C_6H_6eq	2.1E-02	2.1E-02	1.0E-07	3.2E-04		
Toxic chemicals(chronic disease)	kg-C_6H_6eq	6.9E-03	6.9E-03	6.7E-08	4.3E-05		
Aquatic toxicity	kg-C_6H_6eq	9.6E+00	9.6E+00	3.3E-09	1.3E-02		
Biological toxity	kg-C_6H_6eq	2.4E+02	2.4E+02	5.5E-08	2.7E-01		
Eutrophication	kg-PO_4^{3-}eq	8.2E-05	8.1E-05	2.1E-13	7.7E-07		
Land use(Occupation)	m^2/year	9.8E-01	8.8E-01	1.7E-03	9.7E-02		
Land use(Transformation)	m^2	6.1E-03	4.0E-03	3.5E-05	2.1E-03		
Resources consumption	kg-Sbeq	9.8E-03	9.7E-03	8.7E-08	7.7E-05		

2. Life cycle inventory analysis (LCI)

Parameter		Unit
Non-renewable material resources	6.8E+00	kg
Non-renewable energy resources	1.6E+01	kg
Non-renewable energy resources	7.3E+02	MJ
Renewable material resources	2.9E+00	kg
Renewable primary energy	1.0E+02	MJ
Consumption of freshwater	7.8E-01	m^3

3. Material composition

Material		Unit
SiO_2, Al_2O_3, Li_2O	58	%
Others (including glass cullet)	40	%
Packing material	2	%

4. Waste to disposal

Parameter		Unit
Hazardous waste	0.0E+00	kg
Non-hazardous waste.	9.2E+00	kg
Treated MSW for landfill	1.4E-10	kg
Treated industrial waste for landfill	9.2E+00	kg

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

5. Additional explanation

The total energy use is 838 MJ.

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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/)