



Nippon Electric Glass Co., Ltd.

Heat-resistant crystallized glass for fire door

FireLite®



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. 5mm

Weight per square meter ; apporox. 11kg

Processing method ; Crystallization method

Main application ; Architectural

Company Information

Nippon Electric glass Co., Ltd.

Consumer Glass Prodaucts Division, Production

Quality Assurance Department

<https://www.neg.co.jp/en/inquiry/>
Registration# JR-BW-25001E

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 Ken Yamagishi

panel chair Sustainable Management Promotion Organization

Third party verifier*

Hiroyuki Nakamura

Independent verification of data & declaration in accordance with ISO14025

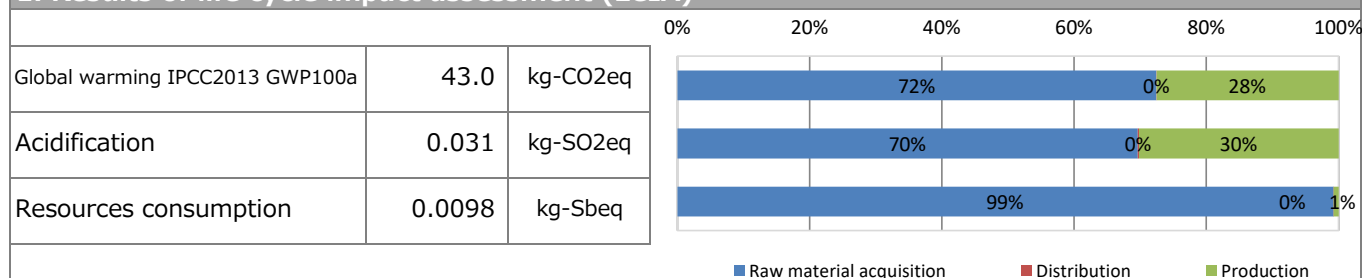
☐ internal

☒ external

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

Registration number : JR-BW-25001E

1. Results of life cycle impact assessment (LCIA)



stage	Unit	Total	Raw material acquisition	Distribution	Production		
Global warming IPCC2013 GWP100a	kg-CO ₂ eq	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 ₂ eq	3.1E-02	2.1E-02	6.9E-05	9.2E-03		
Urban area air pollution	kg-SO ₂ eq	1.9E-02	1.3E-02	2.6E-05	5.3E-03		
Photochemical ozone	kg-C ₂ H ₄ eq	5.3E-04	3.9E-04	1.5E-07	1.4E-04		
Toxic chemicals(cancer)	kg-C ₆ H ₆ eq	2.1E-02	2.1E-02	1.0E-07	3.2E-04		
Toxic chemicals(chronic disease)	kg-C ₆ H ₆ eq	6.9E-03	6.9E-03	6.7E-08	4.3E-05		
Aquatic toxicity	kg-C ₆ H ₆ eq	9.6E+00	9.6E+00	3.3E-09	1.3E-02		
Biological toxicity	kg-C ₆ H ₆ eq	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 ₂ O ₃ , Li ₂ O	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.



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

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- 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/>)