

#### **SuMPO EPD**

Type III Environmental Declaration (EPD)

Japan EPD Program by SuMPO

Sustainable Management Promotion Organization 14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan

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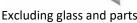
## FUJI SASH CO.,LTD. aluminium profile for building material



Registration number: JR-AD-25002E









#### **Functional unit**

Aluminum shapes for building materials: 1 kg in weight

### **System boundary**

☐ final products ■ intermediate products

Production stage (Procurement of raw materials, transportation of raw materials, production)

#### Main specifications of the product

Type: Aluminum profiles for building materials (in-house casting)

Products: Aluminum building and residential sashes, curtain walls, etc.

Weight range: 0.5 kg to 90.0 kg

Material: Aluminum

Main raw materials: Recycled aluminum materials, new aluminum ingots (Recycling rate = 70%)

Main manufacturing plant: Chiba Plant

#### **Company Information**

4-32-1 Nishigotanda, Shinagawa-ku, Tokyo, Japan FUJI SASH CO.,LTD. Sustainability Promotion Office

TEL: 03-6867-0755 URL: https://www.fujisash.co.jp/

PCR number PA-212300-AD-05 PCR name Windows Publication date 6/2/2025 Verification date 5/27/2025 Verification method Product-by-product Verification# JV-AD-25002
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PCR review Masayuki Kanzaki
panel chair (General Incorporated Association,
Sustainable Management Promotion Organization)

### Third party verifier\*

Tomoko Fuchigami

Independent verification of data & declaration in accordance with ISO14025

□internal	■ external
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<sup>\*</sup>Auditor's name is stated if system certification has been performed.



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Results of life cycle impact as	Results of life cycle impact assessment (LCIA)																	
Production stage 0			Construct	ion stage		Use stage						End-of-life stage						
		A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Core mandatory impact indicators																		
Global Warming Potential total (GWP-total)	kg CO₂eq	5.6E+00	2.8E-01	1.9E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ozone layer destruction	kg CFC11eq	4.5E-08	6.0E-12	9.4E-07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eutrophication	kg SO₂eq	1.6E-04	1.2E-09	1.7E-07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acidification	kg PO₄eq	2.2E-02	1.6E-04	1.5E-03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Photochemical ozone	kg C₂H₂eq	1.3E-05	1.0E-06	2.3E-05	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Life cycle inventory analys	is (LCI)																	
Indicators describing use of primary resources																		
Production stage				Construct	nstruction stage Use stage							End-of-						
		A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
RPR <sub>M</sub>	MJ	1.2E-02	2.5E-06	2.4E-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NRPR <sub>M</sub>	MJ	9.7E-01	6.6E-06	1.6E-02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RPR <sub>E</sub>	MJ	4.6E+01	7.2E-04	1.3E+01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NRPR <sub>E</sub>	MJ	9.2E+01	3.1E+00	4.8E+01	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RPRE = renewable primary resources used as an energy carrier (fuel)

RPRM = renewable primary resources with energy content used as material

NRPRE = non-renewable primary resources used as an energy carrier (fuel)

NRPRM = non-renewable primary resources with energy content used as material

ADPfossil, consumption of freshwa	ADPfossil, consumption of freshwater, and emissions and removals of CO2																	
		Pro	Production stage Construction stage		ion stage	Use stage							End-of-life stage					
		A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Consumption of freshwater	m³	1.2E-02	6.8E-06	5.6E-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Waste to disposal	Waste to disposal																	
		Production stage Construction stage			Use stage						End-of-life stage							
		A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Hazardous waste eisposed	kg	0.0E+00	0.0E+00	6.9E-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-hazardous waste disposed	kg	7.5E-01	1.4E-04	6.9E-03	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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#### Additional explanation

Since the application is for intermediate goods, the production stage (raw material procurement, raw material transportation, and production) was covered based on PCR.

For the transportation scenarios, primary data were used only for domestic transportation of aluminum-based raw materials; all other data were based on PCR scenarios.

All data were calculated as averages based on actual results in the production of aluminum products for building materials manufactured by extruding billets cast in-house. Although the extrusion process at this manufacturing plant uses purchased billets in addition to in-house cast billets, since the two can be distinguished according to the specifications (or designated shipments), the calculation was made without including purchased billets.

#### Supplementary environmental information

The products covered by this declaration are manufactured at the ISO 14001 certified plant.

Material composition									
Material		Unit							
Aluminum	Nore than 98 remainin	%							
Magnesium	0.45~0.9	%							
silicon	0.20~0.6	%							
Nickel	0.01~0.07	%							

Regulated hazardous substances									
Substance	CAS No.	Reference to standards or regulations							
Nickel sulfate	7786-81-4	Priority Assessment Chemical Substances (The Chemical Substances Control Law): Used in surface treatment processes at the plant							
Boric acid	10043-35-3	Class I designated chemical substances (PRTR): Used in surface treatment processes at the plant							

- 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/)
- This is a selfdeclared translation of EPD that can be accessed at [https://ecoleaf-label.jp/epd/2296] and is published for convenience purposes. Only the original EPD is valid and binding between parties.

Assumptions of	f secondary	data used
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IDEA ver. 3.4 was used.

Remark