

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

LIXIL Corporation

aluminum profile[[]PremiAL R100]

LIXIL

廃材のない、新たな循環の未来へ。

循環型低炭素アルミ

Premial (R100 Recycled Low-Carbon Aluminum



Functional unit

1kg

System boundary

□ final products ■ intermediate products Raw material acquisition-Distribution-Production

Main specifications of the product

Products type:aluminum profile

aluminum window products

(Aluminum sash for buildings, Building

curtain wall, Aluminum sash for homes)

Mass range : $1 \sim 600$ kg

Material : aluminum

Production sites:Oyabe factory,Shimotsuma factory Thai factory

Company Information

LIXIL Corporation, Technical support "eDESK"

edesk@lixil.com

Registration#	JR-AD-23001E-A	
PCR number	PA-212300-AD-05	
PCR name	Windows	
Publication date	8/4/2023	
Verification date	1/24/2024	
Verification method	Product-by-product	
Verification#	JV-AD-24001	
Expiration date	1/23/2029	
PCR review was conducted by:		
Approval date	5/10/2023	
PCR review	Masayuki Kanzaki	
panel chair	(Sustainable Management Promotion Organization)	
Third party verifier*		
Tetsuya Okuyama		

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-AD-23001E-A



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1. Results of life cycle impact assessment (LCIA)							
			0%	20% 4	0% 60)% 80%	6 100%
Global warming IPCC2013 GWP100a	2. 9	kg-CO2eq	0. 17.7%	.9%	81.5	5%	
Acidification	0. 0012	kg-SO2eq	31.5	6.6%			
			0.4			61.9%	
Photochemical ozone	0. 037	g-C2H4eq	15.7%		83.9	%	
A1 Raw material acquisition A3 Production End-of-Life							
Stage	Unit	Total	A1 Raw material acquisition	A2 Raw material distribution	A3 Production	Use & maintenance	End-of-Life
Global warming IPCC2013 GWP100a	kg-CO ₂ eq	2.9E+00	5.0E-01	2.5E-02	2.3E+00	—	—
Ozone layer destruction	kg-CFC-11eq	6.6E-07	6.4E-07	2.0E-13	1.8E-08	_	_
Acidification	kg-SO ₂ eq	1.2E-03	3.9E-04	8.1E-05	7.6E-04		—
Photochemical ozone	g-C ₂ H ₄ eq	3.7E-05	5.8E-06	1.5E-07	3.1E-05	—	—
Eutrophication	kg-PO ₄ ³⁻ eq	4.9E-08	2.8E-08	1.7E-16	2.0E-08	—	_

2. Life cycle inventory analysis (LCI)			
項目		単位	
Non-renewable material resources	5.1E-02	kg	
Non-renewable energy resources	3.6E+01	MJ	
Renewable material resources	1.0E-01	kg	
Renewable primary energy	5.3E-01	MJ	
Consumption of freshwater	1.9E-03	m ³	

3. Material composition		
Material		Unit
aluminium	98 or more	%
magnesium	0.45~0.9	%
silicon	0.20~0.6	%
nickel	0.01~0.07	%

4. Waste to disposal			
Parameter		Unit	
Hazardous waste	3.81E-05	kg	
Non-hazardous waste.	8.3E-04	kg	
Treated MSW for landfill	0.0E+00	kg	
Treated industrial waste for landfill	8.3E-04	kg	

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

5. Additional explanation

Overview of transportation scenarios:For inter-country transport, the distance is calculated based on the actual data, and for others, the PCR scenario is used.



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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	
nickel sulfate	7786-81-4	Chemical Substances Control Law	
boric acid	10043-35-3	chemical control law	

7. Assumptions of secondary data used

We use the IDEA v2.1.3 data

8. Remarks

Change date: 9/10/2024 Change from the EcoLeaf mark to the SuMPO EPD mark.

Change date: 2/1/2024 Calculation details changed due to expansion of data acquisition range.

- 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/)

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