



EcoLeaf

Type III Environmental Declaration (EPD)

Registration number : JR-BC-20003E

Ecoleaf Environmental Labeling Program

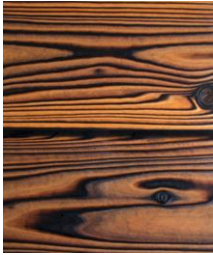
Sustainable Management Promotion Organization

2-1, Kaji-cho 2 chome, Chiyoda-ku, Tokyo Japan

https://ecoleaf-label.jp/

Nakamoto Zourin Co.,Ltd

Yakisugi 『Shou Sugi Ban』 / Pika-Pika



浮造

(Pika-Pika)



Pika-Pika施工例 (米国)



浮造施工例 (日本)

Functional unit

1 m² (15mm thick)

System boundary

final products intermediate products

- Inclusive of: A1 Raw Material Supply, A2 Transport, A3 Manufacturing

- Exclusive of: A4 Transport, A5 Construction, B1 Use, B2 Maintenance, B3 Repair, B4 Replacement, B5 Refurbishment, B6 Operational energy use, B7 Operational water use, C1 Demolition, C2 Transport, C3 Waste processing, C4 Disposal

Main specifications of the product

- Weight: 6.1kg/m²
- No paint applied
- Production sites: Hiroshima and Tokushima

Company Information

Nakamotozourin Co.,Ltd
<https://nakamotozourin.co.jp>
 Nakamoto Forestry North America
<https://nakamotoforestry.com>
 Nakamoto Forestry Europe
<https://nakamotoforestry.eu>

Registration#	JR-BC-20003E
PCR number	PA-120000-BC-01
PCR name	Wood, WoodMaterials
Publication date	04/06/2020
Verification date	03/12/2020
Verification method	Product-by-product
Verification#	JR-BC-20003
Expiration date	03/12/2025
PCR review was conducted by:	
Approval date	12/25/2019
PCR review panel chair	Masayuki Kanzaki (Sustainable Management Promotion Organization)

Third party verifier*

Tomoko Fuchigami

Independent verification of data & declaration in accordance with ISO14025

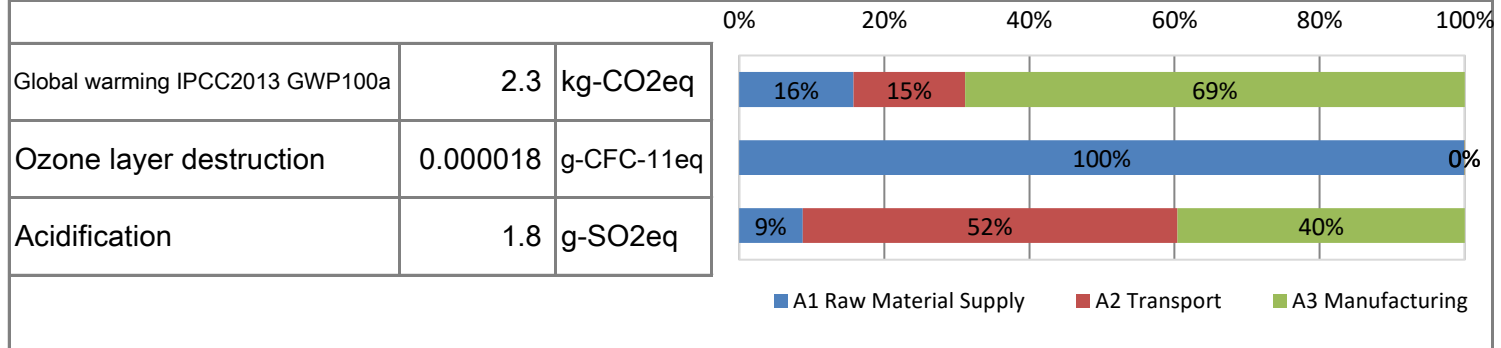
internal external

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

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1. Results of life cycle impact assessment (LCIA)



Parameter	stage	Unit	Total	A1 Raw Material Supply	A2 Transport	A3 Manufacturing
Global warming IPCC2013 GWP100a		kg-CO ₂ eq	2.3E+00	3.6E-01	3.6E-01	1.6E+00
Ozone layer destruction		g-CFC-11eq	1.8E-08	1.8E-08	2.9E-12	9.2E-12
Acidification		kg-SO ₂ eq	1.8E-03	1.6E-04	9.2E-04	7.1E-04
Photochemical ozone		kg-C ₂ H ₄ eq	3.3E-05	1.3E-06	9.3E-06	2.2E-05
Eutrophication		kg-PO ₄ ³⁻ eq	5.8E-06	5.8E-06	2.5E-15	1.0E-14

2. Life cycle inventory analysis (LCI)

Parameter	Unit
Non-renewable material resources	1.3E-02 kg
Non-renewable energy resources	8.1E-01 kg
Non-renewable energy resources	3.5E+01 MJ
Renewable material resources	8.3E+00 kg
Renewable primary energy	5.3E-01 MJ
Consumption of freshwater	7.8E-04 m ³

3. Material composition

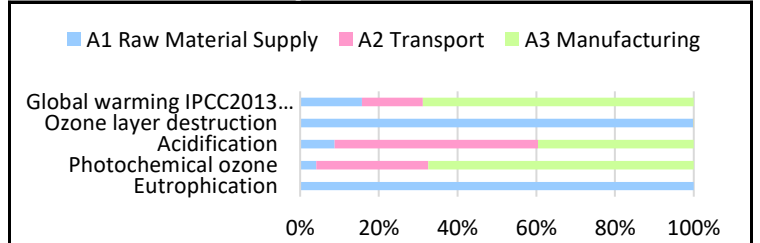
Material	Unit
Shou sugi ban	100 %
Package (film)	0.021 %
Hotmelt	0.090 %

4. Waste to disposal

Parameter	Unit
Hazardous waste	0.0E+00 kg
Non-hazardous waste.	5.9E-04 kg

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

5. Additional explanation



For the analysis, a set of foreground data was first prepared based on the foreground data collected for one year (October 2017 to September 2018) and then they were multiplied by the pertinent background data to estimate environmental loads. Transportation was calculated by collecting actual data over one year. As the product is manufactured in the plants in Hiroshima and Tokushima Prefectures, the averages of data taken from the two plants were used to represent the product data.

The analysis revealed that dominant stages varied depending on the LCI parameters (see the graph above). Namely, Ozone layer destruction, Eutrophication were under the stronger influence of A1 Raw Material Supply, while Global warming, Photochemical ozone were predominantly affected by A3 Manufacturing.

The carbon storage was calculated based on Annex F of the PCR as follows:

$$\text{Carbon Storage (kg-C)} = 6.06 \text{ (kg-wood)} \times 0.5 = 3.03 \text{ (kg-C)} (=11.1\text{kg-CO}_2)$$

6-1. Supplementary environmental information

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6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
-		

7. Assumptions of secondary data used

Inventory Database: IDEA Ver.2.1.3

8. Remarks

- 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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