

Nakamoto Zourin Co. , Ltd

Yakisugi『Shou Sugi Ban』/Suyaki

中本造林株式会社



素焼  
(Suyaki)



Suyaki施工例(米国)



Suyaki施工例(日本)

### Functional unit

1 m<sup>2</sup> (15mm thick)

### System boundary

final products       intermediate products

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

### Main specifications of the product

- Weight: 6.1kg/m<sup>2</sup>
- No paint applied
- Production sites: Hiroshima and Tokushima

### Company Information

Nakamotozourin Co.,Ltd  
<https://nakamotozourin.co.jp>  
NakamotoForestry North America  
<https://nakamotoforestry.com>  
NakamotoForestry Europa  
<https://nakamotoforestry.eu>

Registration#	JR-BC-20001E-A
PCR number	PA-120000-BC-03
PCR name	Wood, Wood Materials
Publication date	3/28/2025
Verification date	3/24/2025
Verification method	Product-by-product
Verification#	JV-BC-24001
Expiration date	3/23/2030

### PCR review was conducted by:

Approval date	17/Nov/2023
PCR review panel chair	Ken Yamagishi Sustainable Management Promotion Organization

### Third party verifier\*

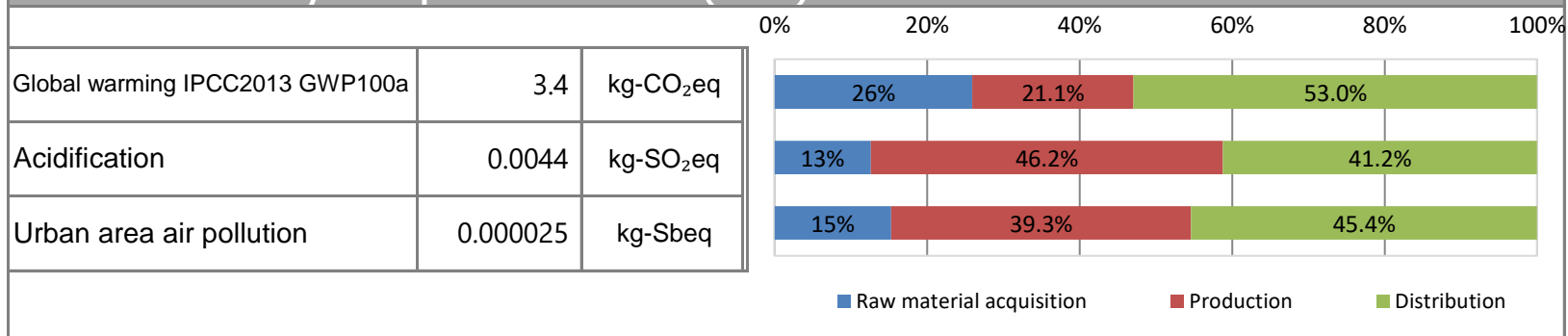
Yuki Sakamoto

Independent verification of data & declaration in accordance with ISO14025

internal       external

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

### 1. Results of life cycle impact assessment (LCIA)



Parameter	stage	Unit	Total	Raw material acquisition	Production	Distribution
Global warming IPCC2013 GWP100a		kg-CO <sub>2</sub> eq	3.4E+00	8.9E-01	7.3E-01	1.8E+00
Ozone layer destruction		kg-CFC-11eq	2.8E-07	8.0E-08	9.8E-12	2.0E-07
Acidification		kg-SO <sub>2</sub> eq	4.4E-03	5.5E-04	2.0E-03	1.8E-03
Urban area air pollution		kg-SO <sub>2</sub> eq	2.1E-03	3.2E-04	8.3E-04	9.5E-04
Photochemical ozone		kg-C <sub>2</sub> H <sub>4</sub> eq	4.3E-05	7.5E-06	1.6E-05	1.9E-05
Toxic chemicals(cancer)		kg-C <sub>6</sub> H <sub>6</sub> eq	2.1E-04	1.8E-04	3.6E-06	2.3E-05
Toxic chemicals(chronic disease)		kg-C <sub>6</sub> H <sub>6</sub> eq	4.8E-05	4.0E-05	2.3E-06	5.7E-06
Aquatic toxicity		kg-C <sub>6</sub> H <sub>6</sub> eq	2.1E-01	2.1E-01	1.2E-07	1.6E-03
Biological toxicity		kg-C <sub>6</sub> H <sub>6</sub> eq	1.3E+00	1.2E+00	1.9E-06	4.0E-02
Eutrophication		kg-PO <sub>4</sub> <sup>3-</sup> eq	1.3E-04	1.3E-04	7.5E-12	5.1E-08
Land use(Occupation)		m <sup>2</sup> /year	3.9E+01	3.8E+01	7.8E-02	1.2E-02
Land use(Transformation)		m <sup>2</sup>	2.1E-03	2.5E-04	1.6E-03	2.6E-04
Resources consumption		kg-Sbeq	2.5E-05	1.2E-05	3.0E-06	9.8E-06

### 2. Life cycle inventory analysis (LCI)

Parameter	Value	Unit
Non-renewable material resources	2.7E-02	kg
Non-renewable energy resources	1.1E+00	kg
Non-renewable energy resources	5.0E+01	MJ
Renewable material resources	9.8E+00	kg
Renewable primary energy	6.7E+00	MJ
Consumption of freshwater	3.8E+01	m <sup>3</sup>

### 3. Material composition

Material	Value	Unit
Yakisugi	6.1E+00	kg
Packing Material (Shrink Film)	5.6E-03	kg
Packing Material (PP Band)	4.4E-04	kg

### 4. Waste to disposal

Parameter	Value	Unit
Hazardous waste	-	kg
Non-hazardous waste.	3.68E-03	kg
Treated MSW for landfill	1.39E-11	kg
Treated industrial waste for landfill	3.68E-03	kg

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

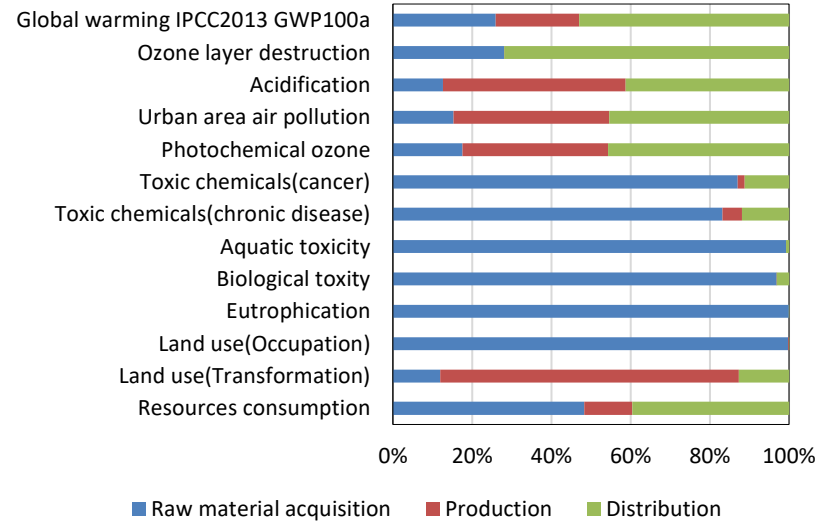
## 5. Additional explanation

For the analysis, a set of foreground data was first prepared based on the foreground data collected for one year (October 2023 to September 2024) 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.

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

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



## 6-1. Supplementary environmental information

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## 6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
-		
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## 7. Assumptions of secondary data used

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## 8. Remarks

Inventory Database: IDEA Ver.3.1.0

- 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 [[検証済みEPDへのリンクを追加してください](#)]  
and is published for convenience purposes. Only the original EPD is valid and binding between parties.