



株式会社 サイプレス・スナダヤ

Cypress Sunadaya CO., Ltd.

直交集成板 (CLT)

Cross Laminated Timber (CLT)



Functional unit

per 1m³ of product

*In accordance with PCR, the default unit is based on the state without pre-cutting.

System boundary

final products intermediate products

Product Stage (Cradle to Gate: A1-A3)

*Stage excluded (A4, A5, C1-C4)

*B1-B7 is out of scope

Main specifications of the product

Product: CLT (Cross Laminated Timber)

*Manufacturing dimensions are available on the website

Wood species and Product mass:

Japanese cypress and Japanese cedar, 399kg/m³

*Calculation values based on production during the target period

Adhesive: Melamine resin adhesive, urethane adhesive, resorcinol-based adhesive (Type A), isocyanate-based adhesive (Type B)

Production site: Toyo Industrial Park factory

Company Information

Cypress Sunadaya CO., Ltd Production Division

TEL: +81-898-72-2421 HP: <https://www.sunadaya.co.jp/>

Registration#	JR-CF-24004E
PCR number	PA-121000-CF-01
PCR name	Wood, Wood Material for Construction
Publication date	23 Dec 2024
Verification date	16 Dec 2024
Verification method	Product-by-product
Verification#	JV-CF-24004
Expiration date	15 Dec 2029
PCR review was conducted by:	
Approval date	17 Nov 2023
PCR review panel chair	Ken Yamagishi (Sustainable Management Promotion Organization)

Third party verifier*

Hiroyuki Nakamura

Independent verification of data & declaration in accordance with ISO14025 and ISO21930

internal external

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

1. Results of life cycle impact assessment (LCIA)

Parameter	Value	Unit	0% 20% 40% 60% 80% 100%		
Global warming IPCC2013 GWP100a	290	kg-CO ₂ eq	20.1%	16.0%	63.9%
Acidification	0.41	kg-SO ₂ eq	9.9%	33.3%	56.8%
Resources consumption	0.002	kg-Sbeq	30.4%	10.7%	58.9%

■ [A1]Raw material acquisition
 ■ [A2]Transport
 ■ [A3]Manufacturing

Parameter	stage	Unit	Total	[A1]Raw material acquisition	[A2]Transport	[A3]Manufacturing
Global warming IPCC2013 GWP100a		kg-CO ₂ eq	2.9E+02	5.8E+01	4.6E+01	1.8E+02
Ozone layer destruction		kg-CFC-11eq	4.7E-05	4.8E-06	1.3E-06	4.1E-05
Acidification		kg-SO ₂ eq	4.1E-01	4.1E-02	1.4E-01	2.3E-01
Photochemical ozone		kg-C ₂ H ₄ eq	4.5E-03	8.5E-04	3.5E-04	3.3E-03
Eutrophication		kg-PO ₄ ³⁻ eq	1.6E-02	1.5E-02	6.7E-04	2.6E-05
Land use(Transformation)		m ²	1.1E-01	2.0E-02	6.8E-02	2.4E-02
Resources consumption		kg-Sbeq	2.0E-03	6.2E-04	2.2E-04	1.2E-03

2. Life cycle inventory analysis (LCI)

Parameter	Value	Unit
Non-renewable material resources	4.5E+00	kg
Non-renewable energy resources	1.0E+02	kg
Non-renewable energy resources	4.4E+03	MJ
Renewable material resources	7.3E+02	kg
Renewable primary energy	1.1E+03	MJ
Consumption of freshwater	2.5E+03	m ³

3. Material composition

Material	Value	Unit
Wood	97	%
Adhesive	2.7	%
Epoxy resin	0.05	%
Packaging material	0.03	%

4. Waste to disposal

Parameter	Value	Unit
Hazardous waste	-	kg
Non-hazardous waste.	2.2E+01	kg

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

5. Additional explanation

- Primary data were obtained for domestic transportation distances for raw material procurement, and the scenarios in PCR Annex B were applied for the means of transportation.
- The A4 transport stage to A5 pre-cut/construction stage to C End-of-life stage are not included in the calculation because it is assumed that the scenarios may differ from those specified in the PCR depending on the project in which it is used.
- The B stage (Use stage) is out of scope.
- The amount of carbon stored per calculation unit of the product is 757 kg-CO₂ (CO₂ equivalent). The carbon storage amount was calculated based on PCR Appendix F.
- The primary data collection period is from April 2023 to March 2024.

6-1. Supplementary environmental information

- This product (cross-laminated timber) is certified as an F☆☆☆☆ (F Four Star) product, which corresponds to the category with the lowest formaldehyde emissions among the four classifications defined by the Japanese Agricultural Standard (JAS).
- *Certification date and classification: July 13, 2018, Low-formaldehyde cross-laminated timber
- *Certification body: Japan Plywood Inspection Corporation (JPIC)
- All logs used in the production of this product comply with the Clean Wood Act. The sawmill handling the logs has obtained "Type 1" certification, and the laminated wood processing plant handling the wood products has obtained "Type 2" certification.
- This product has obtained CoC certification for FSC and SGEN, which verifies that certified wood is properly managed throughout the processing and distribution stages.
- The URL of this product: <https://ecoleaf-label.jp/en/epd/1978>

6-2. Regulated hazardous substances

Substance	CAS No.	Reference to standards or regulations
Formaldehyde	50-00-0	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register / PRTR)
Formic acid	64-18-6	Act on the Regulation of Manufacture and Evaluation of Chemical Substances
4,4'-Diphenylmethane diisocyanate	101-68-8	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register / PRTR) Act on the Regulation of Manufacture and Evaluation of Chemical Substances
Phenol	108-95-2	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register / PRTR) Act on the Regulation of Manufacture and Evaluation of Chemical Substances
Aluminosilicate magnesium	12174-11-7	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register / PRTR)
Bisphenol A-type epoxy resin, etc.	25068-6, 25085-99-8, etc.	Act on the Regulation of Manufacture and Evaluation of Chemical Substances
Triethylenetetramine	112-24-3	Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (Law concerning Pollutant Release and Transfer Register / PRTR)

7. Assumptions of secondary data used

Used the IDEA v3.1.0

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/>)