



✓ Third party verified
Environmental Product Declaration

In conformance with
ISO14025 | ISO14040 | ISO14044



Yamasa Mokuzai Co., Ltd.

Cross Laminated Timber (Ceder & Cypress)



Registration number

SuMPO-EPD-2603-74-1

Verification date

2026/3/17

Publication date

2026/3/30

Expiration date

2031/3/16

EPD type

Multiple Products EPD

* First publication date

Additional standards in conformance

ISO21930:2017

EPD can be updated or withdrawn during the validity period. To confirm the validity of this EPD, check the following website:
<https://ecoleaf-label.jp/epd/search>

● General Information

> Programme

Programme name	SuMPO EPD Japan
Programme operator	Sustainable Management Promotion Organization (SuMPO)
Address	KANDA SQUARE GATE 4F, 14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo, 101-0047, Japan
Website	https://ecoleaf-label.jp

> GPI and PCR

GPI	SuMPO EPD Japan General Program Instructions v.2.1.1
PCR name	Core-PCR for Construction products v.2.0.1
PCR registration number	SuMPO-PCR-01000-2-0-1
PCR publication date	2025/3/31
PCR review panel chair	Toshiharu Ikaga
PCR valid until	2030/03/30
PCR issuer	Sustainable Management Promotion Organization (SuMPO)

> Verification

Verification Type	Third-party verification in conformance with ISO14025 and ISO21930:2017		
	<input type="checkbox"/> Internal	<input checked="" type="checkbox"/> External	
	<input type="checkbox"/> Third-party verification by individual verifier	<input checked="" type="checkbox"/> Third-party verification by verification body	<input type="checkbox"/> Third-party verification by system certification
Verifier	Ui Shohei (KAKEN TEST CENTER General Incorporated Foundation)		

> Standards

Standards in conformance with;	<input checked="" type="checkbox"/> ISO14040:2006	<input checked="" type="checkbox"/> ISO14044:2006	<input type="checkbox"/> ISO14067:2018
	<input checked="" type="checkbox"/> ISO14025:2006	<input type="checkbox"/> ISO21930:2007	<input checked="" type="checkbox"/> ISO21930:2017
	<input type="checkbox"/> EN15804+A2	<input type="checkbox"/> EN50693:2019	<input type="checkbox"/> ISO/IEC63366:2025

EPD owner is responsible for the information contained in the EPD and for environmental claims related to the information. For any inquiries or requests regarding the content of the EPD, please contact the EPD owner.

EPDs are comparable only if they comply with the same standards, use the same sub-PCR where applicable, include all relevant information modules and are based on equivalent scenarios with respect to the context of construction works. Comparability of EPDs is limited to those applying a functional unit.

The LCIA results are relative expressions and do not predict impacts on category endpoints, the exceedance of thresholds, safety margins or risks.

When using weighted averages for calculation, the life cycle impact assessment results, life cycle inventory analysis-related information, waste-related information, and environmental information on output flows do not correspond to information about a specific product.

● EPD Owner's Information

Name of company and dept.	Production Department, Yamasa Mokuzai Co.,Ltd.
Address	2090 Maeda, Kimotsuki-cho, Kimotsuki-gun, Kagoshima, Japan
Contact	+81-994-31-4141
LCA practitioner	Woonerf Inc.
Company description	Manufacturing and processing of sawn timber, glulam, and CLT, as well as the design and construction of large-scale timber structures.

● Product Information

Product name	Cross Laminated Timber (Cedar & Cypress)		
Product /model number	JAS-certified Cross Laminated Timber 3-layer 3-ply, 3-layer 4-ply, 5-layer 5-ply, 5-layer 7-ply, 7-layer 7-ply, 9-layer 9-ply		
Product specification	Function	Engineered wood products for construction	
	Mass	388.17 kg/m ³ <small>*Calculated value based on production during the reporting period</small>	Conversion factor 388.17 kg/m ³ (Cedar, Cypress)
	Applications	Planer structural components for walls, floors, roofs, and other building elements	
	TS*	Wood-based building materials compliant with the JAS standard	
Service life	Service life	Based on the service life of the building	
	In-use conditions	Based on the in-use conditions of the building	
	reference	-	
Manufacturing site(s)	Shimoju Factory (Kimotsuki-cho, Kagoshima), Ronji Factory (Kimotsuki-cho, Kagoshima)		
Product description	Mainly sourced from domestic Cedar and Cypress, the product is manufactured under strict quality standards—including sawing, drying, and finishing—for use as planar structural elements in timber buildings.		
Website	http://www.woodist.co.jp		

* TS: technical specifications,

● Product Content

Product components	Proportion (%)	Mass (unit)
Wood	98.0	380.17 kg
Adhesive	2.0	7.93 kg
Packaging materials	Proportion (%)	Mass (unit)
Polyethylene protective sheeting	100.0	0.07 kg

● Biogenic Carbon Content

Item	Content (kg-C)	Content (kg-CO ₂ eq)
Biogenic carbon content per product	165.37	606.36
Biogenic carbon content in packaging	0.00	0.00

● LCA-related Information

> EPD Type Information

EPD type	Product type	<input type="checkbox"/> Single product EPD	<input checked="" type="checkbox"/> Multiple products EPD	<input type="checkbox"/> Industry-wide EPD
	Site type	<input checked="" type="checkbox"/> Single site		<input type="checkbox"/> Multiple sites
	Value	<input type="checkbox"/> Specific	<input checked="" type="checkbox"/> Average	<input type="checkbox"/> Representative <input type="checkbox"/> Worst case
Geographical coverage		Global		
Description of representativeness for multiple-products/sites EPD		It is considered that representativeness is ensured, as the raw materials used per cubic meter are identical for each product and manufacturing takes place at the same site in Japan. Furthermore, the assessment is calculated using primary data collected for all raw material inputs and energy consumption.		
Description of variation for multiple-products/sites EPD		All products are manufactured at the same site. The inputs for energy and various materials (excluding wood species and adhesives) per declared unit of 1m ³ are identical. Furthermore, any variation in the calculated results caused by differences in adhesive input and difference in wood species per 1m ³ falls within ±10% for the applicable disclosure items.		
Description of products covered in the multiple products EPD		This EPD discloses data converted to a per 1m ³ basis for products with different number of layers that are manufactured using the same materials and processes at the same site.		

> LCA Information

Declared unit	per 1m ³ of product		
Mass per declared unit (Conversion factor to mass)	388.17kg/m ³ *Calculated value based on production during the reporting period		
Reference flow (number of products required to fulfil the function)	-		
System boundary	<input checked="" type="checkbox"/> Cradle-to-Gate	<input type="checkbox"/> Cradle-to-Gate with options	<input type="checkbox"/> Cradle-to-Grave
LCA software	MilCA ver 1.2.1.13		
LCI database	IDEA v3.4		
Characterization model	GWP IPCC2021 100a, LIME2		
Use of other background data	-		
Secondary data quality	Calculations were performed using data that meets the secondary data quality requirements specified in the GPI. The data quality assessment was conducted in accordance with Section 4.2.3.6 of ISO 14044:2006 (Environmental management – Life cycle assessment – Requirements and guidelines).		
Primary data collection sites	Shimoju Factory, Ronchi Factory		
Primary data collection period	From May 2024 to April 2025		
Biogenic carbon	<input type="checkbox"/> 0/0 approach	<input checked="" type="checkbox"/> -1/+1 approach	
Information about electricity	Use	<input checked="" type="checkbox"/> Average consumption mix	<input type="checkbox"/> Others
	Type	-	
	Purchase date	-	
	Issuing body	-	

> Modules

Production stage			Construction stage		Use stage							End-of-life stage				Suppl. info
A1	A2	A3	A4	A5	Use			Operation				stage				
					B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Extraction and upstream production	Transport to factory	Manufacturing	Transport to site	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction / Demolition	Transport to waste processing or disposal	Waste processing	Disposal of waste	Potential net benefits
■	■	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-

■ : declared module - : module not declared

> Allocation

In this assessment, process subdivision and allocation were considered in accordance with the procedures specified in the GPI. Regarding the allocation of fuel, electricity, steam for drying, and adhesives in the manufacturing stage, since there are no variations in processes or time requirements between targeted and non-targeted products in the calculation due to their nature, allocation to the targeted products was performed based on the production output (physical quantity) ratio. For other raw materials, such as black bands and protective PE sheeting, allocation based on production output ratio was not applied.

Sub-products such as sawdust, chips, planer shavings, and offcuts (used as boiler fuel or collected by third-party contractors) are generated during the sawing and lamina-cutting processes. As these sub-products are not the primary objective of manufacturing, no allocation of energy, water, or other resources was assigned to them; instead, the target products bear the entire environmental load within the system boundary.

> Cut-off rules

Processes with negligible environmental impacts for which data collection was challenging were excluded by applying the 5% cut-off criteria specified in the PCR. Regarding the application of JAS certification stickers, requirements vary by manufacturer, making it difficult to establish representative or specific data. Since these stickers account for less than 1% of the total weight and pose no hazardous concerns, they were excluded from the assessment as a cut-off item.

> System Boundary

The system boundaries were established in accordance with the PCR. Modules A4 through C, as well as Module D—defined as outside-boundary processes in the GPI and PCR—are excluded from the assessment. The temporal system boundary is set at 100 years.

The assessment scope is 'Cradle-to-Gate,' covering Modules A1, A2, and A3.

Based on PCR Section 4.4.5, the following items were excluded from the scope of calculation as being outside the system boundaries:

- Processes related to employee work activities and commuting.
- Processes related to research and development (R&D) and administrative office operations.
- Processes related to the manufacturing and construction of capital goods, such as manufacturing facilities and equipment (excluding power plants and power generation equipment).
- Processes related to the manufacturing of transport vehicles, such as trucks and ships.
- Processes related to general-purpose materials (e.g., work clothes, gloves) that are used for purposes other than the manufacturing of the target product.

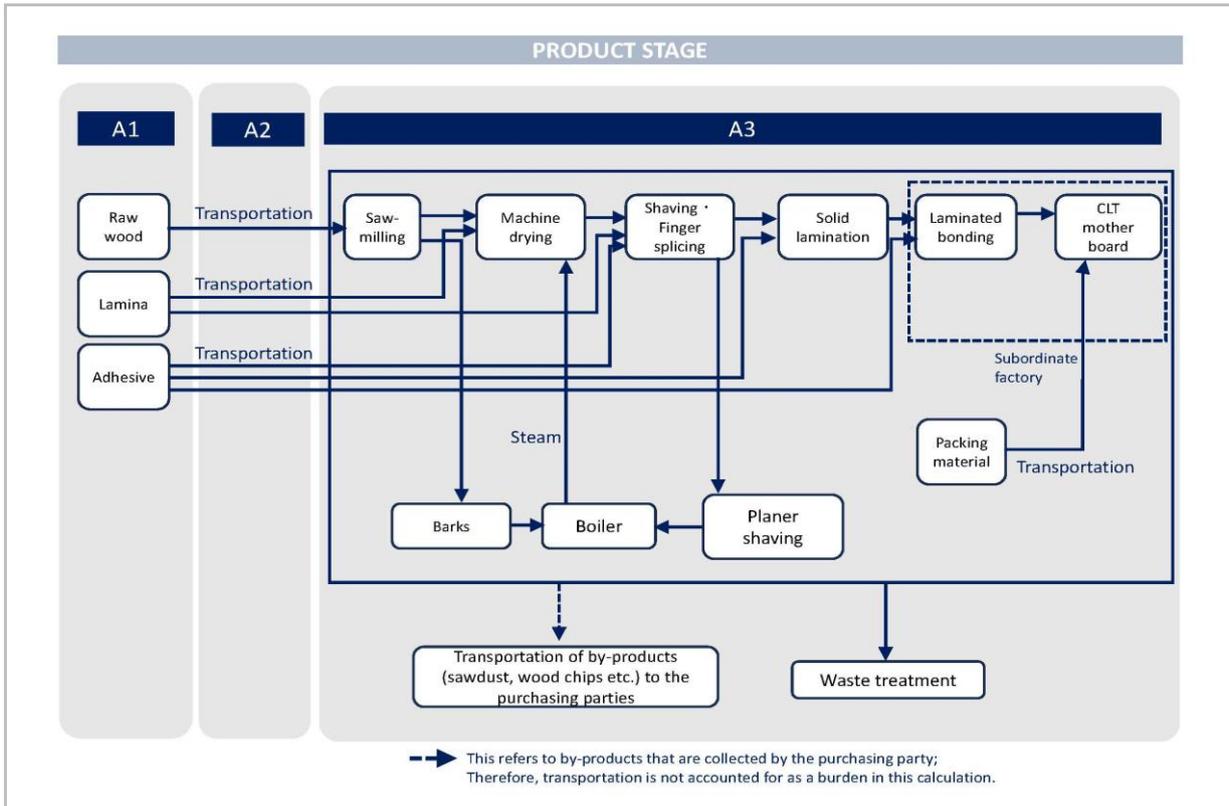
> Scenario

Modules	Description
A2	The scenarios specified in the PCR were applied for transport vehicles and loading rates.
A3	The scenarios specified in the PCR were applied for transport vehicles and loading rates.

> Electricity Modelling

For all life cycle stages within the scope, the calculation was conducted using the Japanese national average grid electricity data for the year 2021.

> Life Cycle System Diagram



Environmental Product Declaration for Cross Laminated Timber (Cedar & Cypress)

> Description of LCA Results

- This declaration presents the assessment results for the production stage (Modules A1: Raw material supply, A2: Transport to the manufacturer, and A3: Manufacturing).
- The biogenic carbon content stored in the product per declared unit is 606 kg-CO₂. (CO₂ equivalent)
This figure was calculated based on the formula provided in the Japanese Forestry Agency's "Guidelines for Indication of Carbon Storage of Wood Used in Buildings."
- The assessment results for the target products may vary depending on the data collection year, as the volume and mix of products ordered are subject to annual fluctuations.

● Additional Environmental Information

> Additional Environmental Information not related to LCA

- All logs utilized in the production of this product are compliant with the Japan's Clean Wood Act. We are registered as both a "Type 1" Wood-related Business Entity for log handling and a "Type 2" Wood-related Business Entity for processed wood products.
- This product is forest-certified. Chain of Custody (CoC) certification, which ensures that the timber is properly managed throughout the processing and distribution stages, can be provided upon request at the time of order.

> Information on Hazardous Substances

Hazardous materials name	CAS No.	Standards or regulations
Polymethylene polyphenyl polyisocyanate	9016-87-9	Act on the Regulation of Manufacture and Evaluation of Chemical Substances Law concerning Pollutant Release and Transfer Register / PRTR
Phenol	108-95-2	Act on the Regulation of Manufacture and Evaluation of Chemical Substances Law concerning Pollutant Release and Transfer Register / PRTR
Ethylene glycol	107-21-1	Act on the Regulation of Manufacture and Evaluation of Chemical Substances
Resorcinol	108-46-3	Industrial Safety and Health Act
Methanol	67-56-1	Industrial Safety and Health Act
Formaldehyde	50-00-0	Law concerning Pollutant Release and Transfer Register / PRTR Industrial Safety and Health Act
Basic aluminum chloride (or Aluminum chlorohydrate)	1327-41-9	Industrial Safety and Health Act
Alkali metal salts	Undisclosed	Industrial Safety and Health Act
Alkaline earth metal salts	Undisclosed	Industrial Safety and Health Act
Inorganic silicates	N/A	Industrial Safety and Health Act

Release of dangerous substances from construction products

This product is certified as F☆☆☆☆ (F-Four Star), which represents the lowest level of formaldehyde emission among the four categories defined by the Japanese Agricultural Standards (JAS) (*).

(*) Certification Date and Category: June 30, 2014, Low-formaldehyde Cross-Laminated Panel / Certifying Body: Japan Plywood Inspection Corporation

● Definitions of Terms

N/A

● References

- ISO14025:2006 Environmental labels and declarations - Type III environmental declarations - Principles and procedures
- ISO14040:2006 Environmental management - Life Cycle Assessment - Principles and framework
- ISO14044:2006 Environmental management - Life Cycle Assessment - Requirements and guidelines
- ISO21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products and services
- Forestry Agency "Guidelines on the Disclosure of Carbon Storage Quantities for Wood Used in Buildings"

● Version History

-