SuMPO EPD Japan

Third party verified

Environmental Product Declaration

In conformance with

ISO14025 | ISO14040 | ISO14044

株式会社サイプレス・スナダヤ

Cypress Sunadaya CO., Ltd.

Dimension Lumber（Cedar）



Registration number	Verification date	Publication date	Expiration date	EPD type
SuMPO-EPD-2611-282-1	2026/11/10	2026/11/20 * First publication date	2031/11/9	Multiple Products EPD

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EPD can be updated or withdrawn during the validity period.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.2.2.0
PCR name	Engineered wood products for construction
PCR registration number	SuMPO-PCR-01002-2-0-0
PCR publication date	2026/04/17
PCR review panel chair	Nobuharu Hattori（Tokyo University of Agriculture and Technology）
PCR valid until	2031/04/16
PCR issuer	Sustainable Management Promotion Organization (SuMPO)

＞Verification

Verification Type	Third-party verification in conformance with ISO14025 and ISO21930:2017		
	☐ Internal	■ External	
	☐ Third-party verification by individual verifier	■ Third-party verification by verification body	☐ Third-party verification by system certification
Verification body	KAKEN TEST CENTER (Mio Ito)		

＞Standards

Standards in conformance with;	■ ISO14040:2006	■ ISO14044:2006	☐ ISO14067:2018
	■ ISO14025:2006	☐ ISO21930:2007	■ ISO21930:2017
	☐ EN15804+A2	☐ EN50693:2019	☐ 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 Division, Cypress Sunadaya Co., Ltd.
Address	1171-1, Kou-Shinyashiki, Komatsu-cho, Saijo-shi, Ehime, Japan
Contact	+81-898-72-2421
LCA practitioner	Woonerf Inc.
Company description	Manufacturing, processing, and sales of sawn timber, glued laminated timber (glulam), and CLT (Cross-Laminated Timber).

Environmental Product Declaration for Dimension Lumber（Cedar）

●Product Information

Product name		Dimension Lumber（Cedar）		
Product /model number		Dimension Lumber: 2×4/2×6		
Product specification	Function	Wood-based materials used in wood-frame construction		
	Mass	380.7kg ※Calculated value based on production during the target period	Conversion factor	380.7kg/m³
	Applications	Structural members used in the primary load-bearing components of buildings constructed using the wood-frame construction method		
	TS*	Wood-based construction material compliant with the JAS standard (structural lumber for wood-frame construction)		
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)		Head Office Factory (Komatsu-cho, Saijo City, Ehime, Japan) Toyo Industrial Park Factory (Hojo, Saijo City, Ehime, Japan)		
Product description		Stud products manufactured from solid wood and finger-jointed lumber in 2×4 (38 mm × 89 mm) and 2×6 (38 mm × 140 mm) sizes using Japanese cedar (Sugi), the most abundant domestic softwood resource in Japan. These products are used as structural building materials for platform frame construction.		
Website		https://www.sunadaya.co.jp/		

* TS: technical specifications,

●Product Content

Product components	Proportion (%)	Mass (unit)	
Wood	99.9	380.00	kg
Adhesive (isocyanate-based)	0.1	0.46	kg
Packaging materials	**Proportion (%)**	**Mass (unit)**	
Polypropylene (PP) strapping	25.3	0.07	kg
PE packaging sheet	74.7	0.20	kg

●Biogenic Carbon Content

Item	Content (kg-C)	Content (kg-CO_2 eq)
Biogenic carbon content per product	165.30	606.10
Biogenic carbon content in packaging	0.00	0.00

●LCA-related Information

＞EPD Type Information

EPD type	Product type	☐ Single product EPD	■ Multiple products EPD	☐ Industry-wide EPD
	Site type	■ Single site	☐ Multiple sites	
Geographical coverage		Global		
Description of representativeness for multiple-products/sites EPD		Representativeness is considered ensured because the raw materials used per 1 m³ are the same for each product, manufacturing takes place at the same site in Japan, and the assessment is calculated using primary data collected for all raw material inputs and energy and other consumption.		
Description of variation for multiple-products/sites EPD		All products are manufactured at the same site, and the material inputs (excluding adhesives), energy inputs, and other manufacturing inputs per declared unit of 1 m³ are the same. Differences in the assessment results resulting from variations in adhesive consumption per 1 m³ are within ±10% for the relevant reported indicators.		
Description of products covered in the multiple products EPD		This EPD discloses data converted to a per 1m³ basis for products of varying cross-sectional dimensions that are manufactured using the same materials and processes at the same site.		

＞LCA Information

Declared unit		per 1m³ of product		
Mass per declared unit (Conversion factor to mass)		380.7kg/m³		
Reference flow (number of products required to fulfil the function)		—		
System boundary		■ Cradle-to-Gate	☐ Cradle-to-Gate with options	☐ Cradle-to-Grave
LCA software		MiLCA ver. 1.2.5.1		
LCI database		AIST-IDEA v3.5.1		
Characterization model		GWP: IPCC 2021 100-year; 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		Head Office Factory; Toyo Industrial Park Factory		
Primary data collection period		April 2025 – March 2026		
Biogenic carbon		☐ 0/0 approach	■ -1/+1 approach	
Information about electricity	Use	■ Average consumption mix	■ Others	
	Type	Part of the Toyo Industrial Park Factory uses a solar electricity supply service under an on-site PPA (Power Purchase Agreement).		
	Purchase date	Not applicable because the electricity is generated for on-site consumption and includes environmental attributes.		
	Issuing body	Not applicable because the electricity is generated for on-site consumption and includes environmental attributes.		

＞Modules

Production stage			Construction stage		Use stage							End-of-life stage				Suppl. info
					Use					Operation						
A1	A2	A3	A4	A5	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 described in the GPI.
In particular, fuel, electricity, and drying steam used in the manufacturing process were allocated to the declared products based on the proportion of production volume (physical output), since there are no differences in the manufacturing processes or processing times between the declared products and non-declared products.
By-products such as bark, sawdust, chips, planer shavings, and offcuts are generated during the sawing, dimensioning, and finishing processes. These by-products are either used as boiler fuel or collected by purchasers. As these by-products are not the intended products of the manufacturing process, no allocation of energy, water, or other inputs was made to them. Accordingly, all environmental burdens within the system boundary were assigned to the declared products.

＞Cut-off rules

The environmental burdens associated with consumables for manufacturing equipment and similar items were excluded from the assessment in accordance with the PCR cut-off rules.
Marking for JAS-certified products was also excluded because its application depends on customer requirements and representative data could not be established. It was confirmed to account for less than 1% of the product mass and to have no significant relevance from a hazardous substances perspective.
No other cut-offs were applied to raw materials, auxiliary materials, energy, water, or other inputs included in the assessment.

＞System Boundary

The system boundary was established in accordance with the PCR. Module D and modules A4 through C, which are defined as outside the system boundary in the GPI and PCR, are excluded. The temporal system boundary is 100 years.
The scope is cradle-to-gate and includes modules A1, A2, and A3.
The following items were excluded from the assessment boundary in accordance with PCR Section 4.4.6:
• Processes related to employees' work activities and travel
• Processes related to research and development and administrative activities
• Manufacture and construction of capital goods such as production facilities and equipment (excluding power plants and power generation equipment)
• Manufacture of trucks, ships, and other vehicles used for transport
• General-purpose supplies, such as work clothes and work gloves, that are also used for purposes other than manufacturing the assessed product

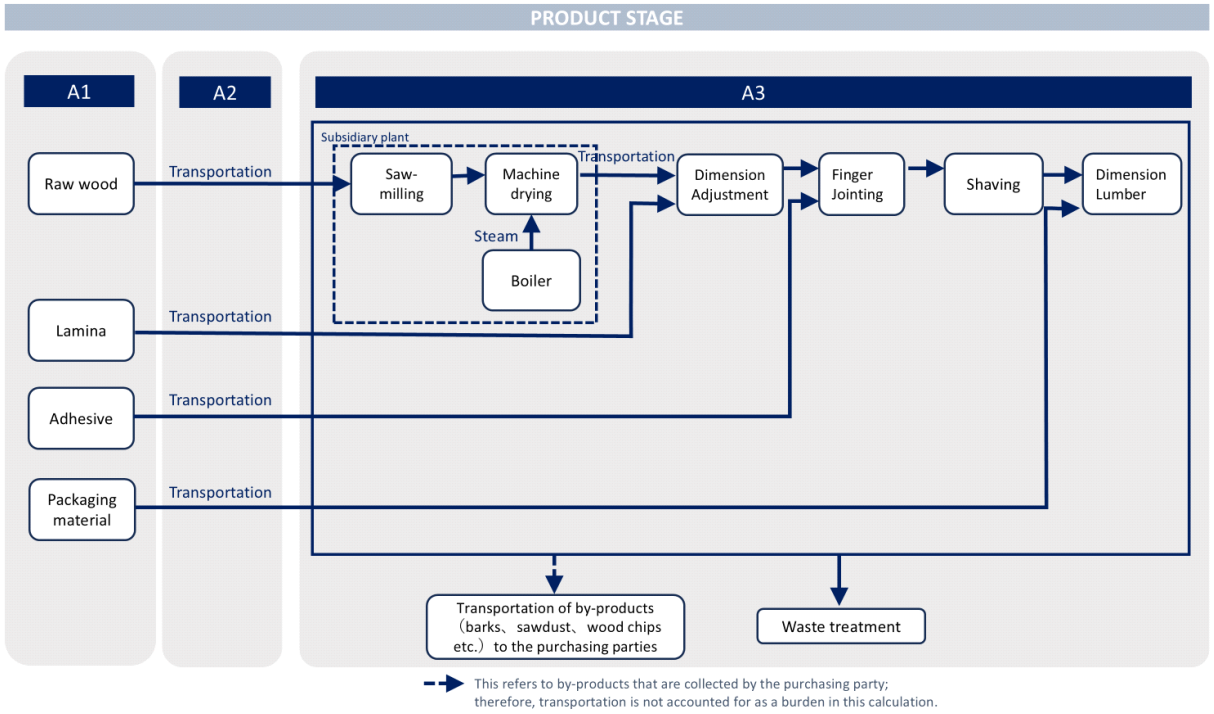
＞Scenario

Modules	Description
A2	The PCR scenario was applied to vehicle type and load factor during transport.
A3	The PCR scenario was applied to vehicle type and load factor during transport. However, where primary data on the transport method were available from manifests or similar records, the assessment used those primary data.

＞Electricity Modelling

For all life-cycle stages included in the assessment, data for the 2022 average Japanese grid electricity mix were used.
The Toyo Industrial Park Factory also utilizes an on-site Power Purchase Agreement (PPA) solar electricity supply service with environmental attributes. For this electricity, data representing the 2022 average Japanese solar photovoltaic power generation mix were used.

＞Life Cycle Sytem Diagram



●LCA Result

＞LCIA Indicators

		Production stage				Construction stage		Use stage							End-of-life stage					Supple. info
								Use					Operation							
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
GWP - total	kg-CO_2eq	-1.37E+03	4.04E+01	8.80E+02	-4.46E+02	-	-	-	-	-	-	-	-	-	-	-	-	-		-
GWP - fossil	kg-CO_2eq	7.70E+01	4.03E+01	4.21E+01	1.59E+02	-	-	-	-	-	-	-	-	-	-	-	-	-		-
GWP - biogenic	kg-CO_2eq	-1.44E+03	7.70E-03	8.38E+02	-6.06E+02	-	-	-	-	-	-	-	-	-	-	-	-	-		-
GWP - land use and land use change	kg-CO_2eq	1.84E-01	4.15E-02	4.77E-02	2.74E-01	-	-	-	-	-	-	-	-	-	-	-	-	-		-
ODP: Ozone depletion potential	kg-CFC-11eq	1.21E-06	4.87E-10	7.58E-08	1.29E-06	-	-	-	-	-	-	-	-	-	-	-	-	-		-
EP: Eutrophication potential	kg-PO_4^{3-}eq	9.59E-03	1.88E-07	1.10E-05	9.60E-03	-	-	-	-	-	-	-	-	-	-	-	-	-		-
AP: Acidification potential	kg-SO_2eq	6.21E-02	5.71E-02	1.47E-01	2.66E-01	-	-	-	-	-	-	-	-	-	-	-	-	-		-
POCP: Photochemical oxidant creation potential	kg-C_2H_4eq	5.19E-04	3.83E-04	4.14E-04	1.32E-03	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Optional indicators																				
ADP - elements	kg-Sbeq	4.44E-04	1.69E-07	2.76E-04	7.20E-04	-	-	-	-	-	-	-	-	-	-	-	-	-		-

＞LCI - Primary Resource Use

		Production stage				Construction stage		Use stage							End-of-life stage					Supple. info
								Use					Operation							
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
RPR_E*	MJ	1.54E+02	2.54E-01	5.99E+02	7.53E+02	-	-	-	-	-	-	-	-	-	-	-	-	-		-
RPR_M*	MJ	1.71E+04	3.82E-04	1.88E-02	1.71E+04	-	-	-	-	-	-	-	-	-	-	-	-	-		-
$NRPR_E$*	MJ	1.09E+03	4.44E+02	1.00E+03	2.53E+03	-	-	-	-	-	-	-	-	-	-	-	-	-		-
$NRPR_M$*	MJ	4.62E+01	1.69E-03	6.41E-01	4.68E+01	-	-	-	-	-	-	-	-	-	-	-	-	-		-

*RPRE: Renewable primary resources used as an energy carrier, RPRM: Renewable primary resources with energy content used as material, NRPRE: Non-renewable primary resources used as an energy carrier, NRPRM: Non-renewable primary resources with energy content used as material.

＞LCI- Secondary Resources Use

		Production stage				Construction stage		Use stage							End-of-life stage					Supple. info
								Use					Operation							
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
SM： Use of secondary material	kg	2.51E-01	1.66E-04	6.71E-02	3.19E-01	-	-	-	-	-	-	-	-	-	-	-	-	-		-
RSF： Renewable secondary fuels	MJ	6.84E-01	1.08E-04	4.38E-03	6.88E-01	-	-	-	-	-	-	-	-	-	-	-	-	-		-
NRSF： Non-renewable secondary fuels	MJ	2.12E-01	6.62E-04	1.30E-02	2.26E-01	-	-	-	-	-	-	-	-	-	-	-	-	-		-
RE： Use of recovered energy	MJ	2.72E+00	4.16E-03	6.05E+00	8.78E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-

＞LCI - ADP-fossil and Consumption of freshwater

		Production stage				Construction stage		Use stage							End-of-life stage					Supple. info
								Use					Operation							
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
ADP - fossil	MJ	1.11E+03	5.49E+02	5.73E+02	2.23E+03	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Consumption of freshwater resources	m^3	1.96E+03	2.09E-02	2.95E-02	1.96E+03	-	-	-	-	-	-	-	-	-	-	-	-	-		-

＞Waste Indicators

		Production stage				Construction stage		Use stage							End-of-life stage					Supple. info
								Use					Operation							
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-
non-hazardous waste disposed	kg	3.49E-01	3.61E-02	2.13E-01	5.98E-01	-	-	-	-	-	-	-	-	-	-	-	-	-		-
high-level radioactive waste	m³	3.68E-10	6.24E-13	8.17E-10	1.19E-09	-	-	-	-	-	-	-	-	-	-	-	-	-		-
intmd. and low-level radioactive waste	m³	3.75E-07	6.50E-10	8.31E-07	1.21E-06	-	-	-	-	-	-	-	-	-	-	-	-	-		-

＞Output Flow Indicators

			Production stage				Construction stage		Use stage							End-of-life stage					Supple. info
									Use					Operation							
			A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
Components for reuse		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Materials for recycling		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Material for energy recovery		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Exported energy from waste (energy recovery efficiency≧60%)		MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Incineration of waste (energy recovery efficiency＜60%)	Waste disposed	kg	0.00E+00	0.00E+00	7.36E-02	7.36E-02	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	Recovered energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-
Waste disposed in landfill and energy recovered from landfill gas	Waste disposed	kg	0.00E+00	0.00E+00	9.42E-02	9.42E-02	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	Recovered energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-		-

＞Description of LCA Results

• This declaration presents the assessment results for the production stage (A1: Raw material supply, A2: Transport of raw materials, and A3: Manufacturing).
• For the transport scenarios in modules A2 and A3, the vehicle type and load factor specified in the PCR were applied. However, where primary data on transport methods were available from manifests or similar records, the assessment was based on those primary data.
• Transport distances are all based on primary data.
• The assessment results for the product group may vary because the order quantities of individual products differ between data collection years.
• Precutting and installation processes are outside the scope of this assessment.

●Additional Environmental Information

＞Additional Environmental Information not related to LCA

• All logs used in the manufacture of this product are compliant with Japan's Clean Wood Act. The company is registered as a Type 1 Wood-Related Business Operator for log handling and as a Type 2 Wood-Related Business Operator for processed wood products.
• This product has obtained FSC® and SGEC Chain of Custody (CoC) certification, demonstrating that certified wood is properly managed throughout the processing and distribution chain.

＞Information on Hazardous Substances

Hazardous materials name	CAS No.	Standards or regulations
4,4'-Diphenylmethane diisocyanate	101-68-8	Industrial Safety and Health Act; PRTR Act Chemical Substances Control Act
Polymethylene polyphenyl polyisocyanate	9016-87-9	PRTR Act

Release of dangerous substances from construction products
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●Definitions of Terms

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●References

• ISO 14025:2006 Environmental labels and declarations — Type III environmental declarations — Principles and procedures
• ISO 14040:2006 Environmental management — Life cycle assessment — Principles and framework
• ISO 14044:2006 Environmental management — Life cycle assessment — Requirements and guidelines
• ISO 21930:2017 Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services
• Japanese Forestry Agency, "Guidelines for Indication of Carbon Storage of Wood Used in Buildings"

●Version History

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