Environmental product declaration

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Siparila Soft Wood for Interiors

EPD HUB, HUB-3823 | Published on 23.08.2025, last updated on 23.08.2025, valid until 22.08.2030 | Created with One Click LCA
Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804,
EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1

General information

MANUFACTURER

Manufacturer: Siparila Oy
Address: Varaslahdentie 1, 40800 Vaajakoski
Contact details: info@siparila.fi
Website: https://www.siparila.com/en/

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator: EPD Hub, hub@epdhub.com
Reference standard: EN 15804+A2:2019 and ISO 14025
PCR: EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector: Construction product
Category of EPD: Third party verified EPD
Scope of the EPD: Cradle to gate with modules C1-C4, D
EPD author: Jori Jokela, Macon Oy
EPD verification: Independent verification of this EPD and data,
according to ISO 14025: ☐ Internal certification ☒ External verification
EPD verifier: Haiha Nguyen, as an authorized verifier acting for EPD Hub Limited

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name: Siparila Soft Wood for Interiors
Place of production: Parkano, Finland
Place(s) of installation and use: Global, Indoor environments
Period for data: Year 2023
Type of grouping: Multiple products
A1-A3 Specific data (%): 36,7

ENVIRONMENTAL DATA SUMMARY

Environmental Data summary	
Declared unit	1 m^2
Declared unit mass	6,1 kg
GWP-fossil, A1-A3 (kgCO2e)	1,07
GWP-total, A1-A3 (kgCO2e)	-9,92
Secondary material, inputs (%)	0,18
Secondary material, outputs (%)	75,9
Total energy use, A1-A3 (kWh)	52,9
Net freshwater use, A1-A3 (m^3)	0,01

Product and manufacturer

ABOUT THE MANUFACTURER

Siparila is a leader in wood surface treatment. We are dedicated to creating high-quality and durable homes that blend the beauty of nature with modern construction. At Siparila, we believe that quality in living means not only aesthetic appeal but also sustainable and safe solutions. This is a core value for us.

Wood holds a unique place in construction – it is a renewable and sustainable material. At Siparila, we combine our deep knowledge of wood with modern surface treatment techniques, which not only highlight the beauty of wood but also make it more durable and practical. Our building solutions accelerate construction processes and improve their quality, helping projects move forward more smoothly and with more sustainable outcomes.

We are committed to lifelong learning and development. Collaboration, innovation, and sustainability guide everything we do. Our ambitious mission is to be part of creating a construction culture that guarantees a healthy and safe living environment for future generations.

PRODUCT DESCRIPTION

Softwood for indoor use includes various planed and processed profiles with surface treatment. The product is installed using tongue and groove joints on a wall equipped with furring strips. Thickness ranges from 12 mm to 32 mm, widths from 40 mm to 170 mm, and lengths up to 6,0 meters

Calculations have been made using 15 mm x 90 mm softwood product data.

Further information can be found at https://siparila.com/siparila.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	-	-
Minerals	-	-
Fossil materials	0,02	Finland
Bio-based materials	99,9	Finland

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate
Biogenic carbon content in product, kg C: 3
Biogenic carbon content in packaging, kg C: 0,002

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit: 1 m^2
Mass per declared unit: 6,1 kg

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

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Product life-cycle

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	MND	MND	MND							x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

A market-based approach is used in modelling the electricity mix utilized in the factory.

Core manufacturing processes are sawing, planning, surface treatment (primer or wood preservative) and packaging.

The environmental impacts of raw material supply (A1) include emissions generated when raw materials are taken from nature, transported to industrial units for processing and processed, along with waste handling from the various production processes. All major upstream processes are taken into consideration, including infrastructure. This stage includes all the aforementioned for the raw materials which end up in the final product (i.e. wood, surface treatment and packaging) as well as the electricity and heat production which are consumed during the manufacturing at the plant.

TRANSPORT AND INSTALLATION (A4-A5)

This EPD does not cover the transportation impacts occurred from final products delivery to construction site (A4) or installation (A5). Installation contains only packaging waste impacts and has been declared in C-phase. Installation waste is handled by customer. Installation materials and energy consumption were not taken into account because installation situations vary case by case and are not managed by Siparila Oy. Wooden and plastic packing materials will be recycled as materials or used for energy recovery.

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase. Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Demolition is assumed to have only small effects due to easy dismantling. It is conservatively assumed that energy consumption could be 0,01 kWh/kg. It is assumed that 100 % of the wooden products are collected (C1). Distance for transportation to treatment or landfilling is assumed as 50 to 250 km and the transportation method is assumed to be lorry (C2) (Eurostat & BuildLCA 2020). 76 % of wooden products are assumed to be recycled or chipped (C3). There is a 24 % conservative rate of rejects that is assumed to be sent to landfill (C4) (Eurostat & BuildLCA 2020). Later on, wooden materials are reused or chipped wood is incinerated with energy recovery by utilizer of the recycled wood or chips (D).

Packaging components can be recycled as materials or utilized in energy production (plastic 77%, cardboard 91% and metal materials 81%) (Eurostat: https://ec.europa.eu/eurostat/web/main/home). Later on, reusable metals and packaging materials are utilized to manufacture new products or are utilized as energy (D).

Manufacturing process

Raw materials are transported into the manufacturing facility by truck transport.

In the manufacturing process raw materials go first to the quality check. Next raw boards go into machine processing. Product thickness is selected to be 15 mm – 32 mm, widths from 40 mm – 220 mm. After machine processing primer/wood preservative is added in the painting line if needed.

In the end (after primer/wood preservative has dried, if added) the product is cut to the desired length (lengths up to 6,0 m) and packed. Packaging contains recyclable wood pallets, metal straps and plastic film.

Readymade products are packed for transport to customers. Product transport to our customers is carried out by truck transportation.

Sawdust and wood chips are generated as waste materials from the production process and are utilized for own energy production.

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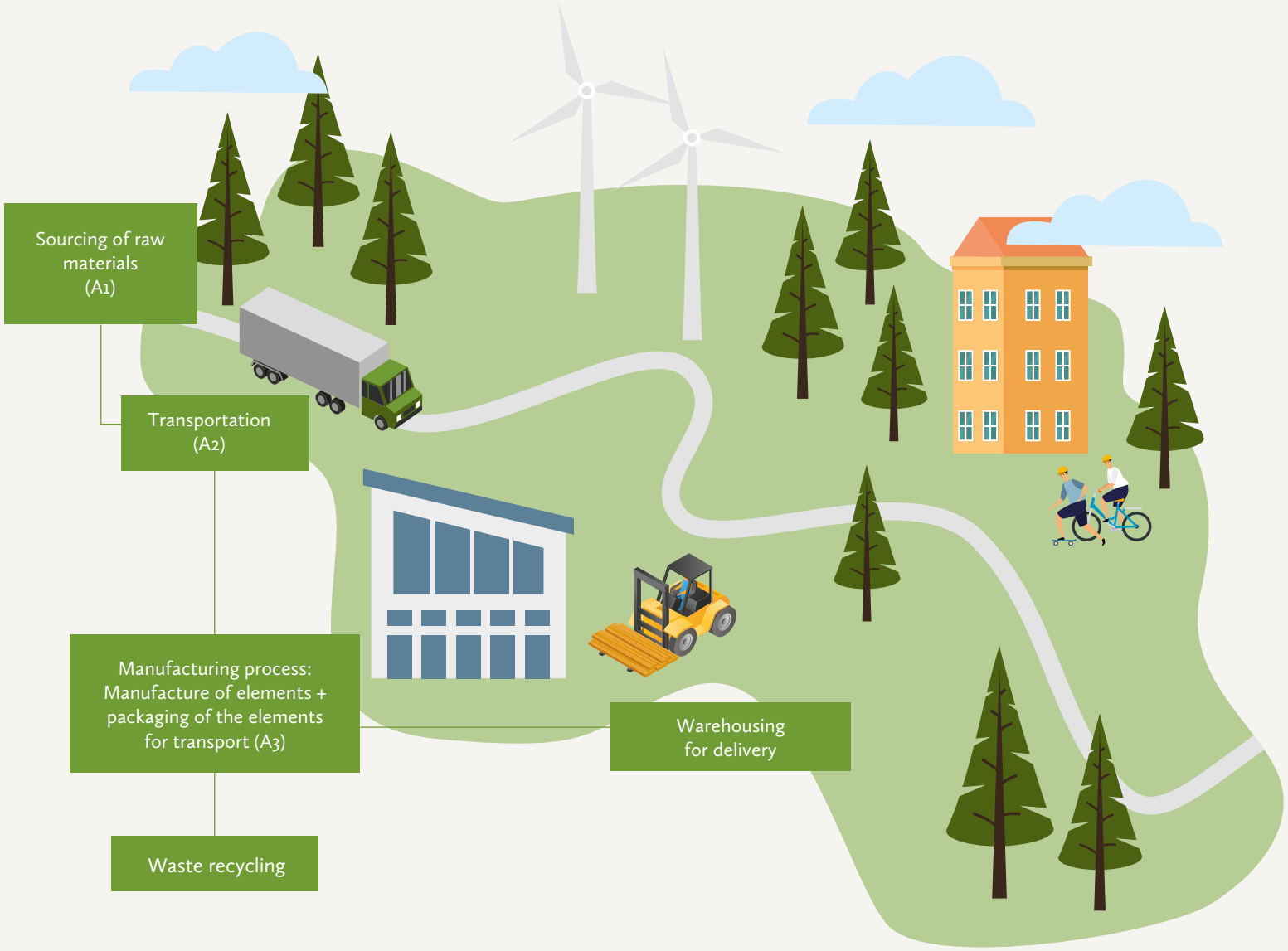
Manufacturing process



Life-cycle assessment

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1 % of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5 % of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocatiom
Raw materials	No allocation
Packaging materials	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping: Multiple products
Grouping method: Based on a representative product

Primary data represents the manufacturing site in Parkano, Finland. Different product thicknesses with similar material composition but different weights are covered by scaling. The kg-based results for products and packaging can be scaled to the weight of each thickness. The different thicknesses are listed in Annex I. The data of 15 mm x 90 mm board (1 m2) was used to calculate the impacts of the product. The primary data has calculated the 15 mm x 90 mm product's consumption of raw materials and energy, and production of waste.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

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Environmental impact data

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP – total [1]	kg CO_2e	-1,36E+01	1,82E-01	3,47E+00	-9,92E+00	2,16E-02	9,96E-02	8,43E+00	2,67E+00	-3,51E-01
GWP – fossil	kg CO_2e	9,35E-01	1,82E-01	-4,48E-02	1,07E+00	2,16E-02	9,96E-02	6,71E-02	3,13E-02	-5,89E-01
GWP – biogenic	kg CO_2e	-1,45E+01	0,00E+00	3,51E+00	-1,10E+01	0,00E+00	1,47E-08	8,37E+00	2,64E+00	2,40E-01
GWP – LULUC	kg CO_2e	1,41E-02	7,08E-05	-4,05E-04	1,38E-02	2,22E-06	4,45E-05	4,56E-05	1,12E-05	-2,16E-03
Ozone depletion pot.	kg CFC_{-11}e	1,77E-08	3,79E-09	7,71E-09	2,92E-08	3,31E-10	1,47E-09	7,14E-10	4,96E-10	-1,66E-08
Acidification potential	mol H+e	6,43E-03	4,29E-04	-1,04E-04	6,75E-03	1,95E-04	3,39E-04	5,47E-04	1,26E-04	-3,71E-03
EP-freshwater [2]	kg Pe	4,69E-04	1,27E-05	-3,81E-05	4,43E-04	6,24E-07	7,75E-06	2,99E-05	1,28E-05	-5,07E-04
EP-marine	kg Ne	2,50E-03	1,13E-04	3,19E-05	2,64E-03	9,06E-05	1,12E-04	2,71E-04	5,39E-04	-8,98E-04
EP-terrestrial	mol Ne	2,65E-02	1,22E-03	1,80E-04	2,79E-02	9,92E-04	1,21E-03	2,59E-03	4,96E-04	-8,86E-03
POCP ("smog") [3]	kg NMVOCe	1,15E-02	7,46E-04	-1,49E-04	1,21E-02	2,96E-04	5,00E-04	6,59E-04	2,06E-04	-2,69E-03
ADP-minerals & metals [4]	kg Sbe	2,53E-06	5,20E-07	-2,61E-07	2,79E-06	7,76E-09	2,78E-07	1,27E-07	4,21E-08	-1,47E-06
ADP-fossil resources	MJ	1,49E+01	2,73E+00	-8,64E-01	1,67E+01	2,83E-01	1,44E+00	6,70E-01	4,28E-01	-1,36E+01
Water use [5]	m^3e depr.	4,66E-01	1,40E-02	-7,50E-02	4,05E-01	7,07E-04	7,14E-03	1,06E-01	1,98E-03	-3,66E-01

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
Particulate matter	Incidence	3,42E-07	1,77E-08	-1,40E-08	3,46E-07	5,55E-09	9,97E-09	5,75E-09	2,75E-09	-9,15E-08
Ionizing radiation [6]	kBq U235e	1,57E-01	3,29E-03	-1,53E-02	1,45E-01	1,25E-04	1,26E-03	7,28E-03	3,81E-04	-3,67E-01
Ecotoxicity (freshwater)	CTUe	3,77E+00	3,22E-01	4,78E-02	4,14E+00	1,56E-02	2,04E-01	3,53E-01	1,97E-01	-1,67E+00
Human toxicity, cancer	CTUh	6,87E-10	3,03E-11	-3,79E-10	3,38E-10	2,22E-12	1,64E-11	9,13E-11	3,25E-11	-2,10E-10
Human tox. non-cancer	CTUh	1,17E-08	1,76E-09	-6,42E-10	1,28E-08	3,52E-11	9,36E-10	6,03E-09	4,37E-10	-7,75E-09
SQP [7]	-	1,52E+03	2,75E+00	-6,40E+01	1,46E+03	1,98E-02	1,45E+00	1,66E-01	8,52E-01	-1,60E+01

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
Renew. PER as energy[8]	MJ	1,66E+02	4,44E-02	7,60E+00	1,74E+02	1,79E-03	1,98E-02	-5,14E+01	-2,47E+01	5,68E+00
Renew. PER as material	MJ	1,16E+02	0,00E+00	-2,81E+01	8,80E+01	0,00E+00	0,00E+00	-6,69E+01	-2,11E+01	3,80E+00
Total use of renew. PER	MJ	2,82E+02	4,44E-02	-2,05E+01	2,62E+02	1,79E-03	1,98E-02	-1,18E+02	-4,58E+01	9,48E+00
Non-re. PER as energy	MJ	1,49E+01	2,73E+00	-1,07E+00	1,65E+01	2,83E-01	1,45E+00	4,41E-01	2,82E-01	-1,36E+01
Non-re. PER as material	MJ	1,41E-02	0,00E+00	2,09E-01	2,23E-01	0,00E+00	0,00E+00	-1,72E-01	-5,15E-02	9,70E-02
Total use of non-re. PER	MJ	1,49E+01	2,73E+00	-8,63E-01	1,68E+01	2,83E-01	1,45E+00	2,69E-01	2,31E-01	-1,35E+01
Secondary materials	kg	1,08E-02	1,18E-03	1,95E+00	1,96E+00	1,18E-04	6,15E-04	1,10E-03	1,57E-04	1,37E-03
Renew. secondary fuels	MJ	2,73E-04	1,49E-05	-3,29E-02	-3,26E-02	3,07E-07	7,81E-06	2,60E-06	2,50E-06	-1,16E-05
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	6,89E-03	6,89E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	8,08E-03	4,03E-04	-1,87E-03	6,61E-03	1,87E-05	2,14E-04	8,18E-04	-5,40E-03	-1,11E-02

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
Hazardous waste	kg	4,21E-02	3,95E-03	-2,68E-03	4,34E-02	3,15E-04	2,45E-03	2,05E-02	7,98E-04	-3,24E-02
Non-hazardous waste	kg	1,67E+00	7,91E-02	1,78E-01	1,93E+00	4,29E-03	4,53E-02	3,17E+00	7,27E+00	-2,60E+00
Radioactive waste	kg	4,01E-05	8,14E-07	-4,55E-06	3,63E-05	3,07E-08	3,08E-07	1,87E-06	9,32E-08	-9,42E-05

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	3,00E-01	3,00E-01	0,00E+00	0,00E+00	1,59E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	1,94E+00	1,94E+00	0,00E+00	0,00E+00	3,04E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,43E+01	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,03E+00	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,29E+00	0,00E+00	0,00E+00

SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity, Finland, residual mix 2023 (One Click LCA)
Electricity CO2e / kWh	0,57
District heating data source and quality	Own heat production, wood chips from own production
District heating CO2e / kWh	0,02124

SCENARIO DOCUMENTATION

End of life scenario documentation

Scenario information	Value
Collection process – kg collected separately	6,07
Collection process – kg collected with mixed waste	-
Recovery process –% for re-use	26% (Eurostat & BuildLCA 2020)
Recovery process – % for recycling	
Recovery process – % for energy recovery	50% (Eurostat & BuildLCA 2020)
Disposal (total) – % for final deposition	24% (Eurostat & BuildLCA 2020)
Scenario assumptions e.g. transportation	See end-of-life description

Third-party verification statement

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15802+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

Verified tools: www.epdhub.com/pre-verified-tools

Tool verifier: Magaly Gonzalez Vazquez
Tool verification validity: 27 March 2025 - 26 March 2028

HaiHa Nguyen, as an authorized verifier
acting for EPD Hub Limited
23.08.2025

EPD Hub
VERIFIED ISO 14025

ANNEX 1. ARTICLES COVERED BY THIS EPD

Article	Thickness	Net weight kg	GWP-fossil, A1-A3 (kg CO2e/ item)
Siparila Soft Wood for Interiors	12 mm	4,9	0,86
Siparila Soft Wood for Interiors	13 mm	5,3	0,93
Siparila Soft Wood for Interiors	15 mm	6,1	1,07
Siparila Soft Wood for Interiors	18 mm	7,3	1,28
Siparila Soft Wood for Interiors	20 mm	8,1	1,42

Article	Thickness	Net weight kg	GWP-fossil, A1-A3 (kg CO2e/ item)
Siparila Soft Wood for Interiors	21 mm	8,5	1,49
Siparila Soft Wood for Interiors	23 mm	9,3	1,63
Siparila Soft Wood for Interiors	28 mm	11,4	2
Siparila Soft Wood for Interiors	32 mm	13	2,28

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