ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Planed and painted sawn timber
Koskisen Oyj

EPD HUB, HUB-4864
Published on 16.01.2026, last updated on 16.01.2026, valid until 16.01.2031

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.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Koskisen Oyj
Address	Tehdastie 2, 16600 Järvelä, Finland
Contact details	info@koskisen.com
Website	www.koskisen.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector	Construction product
Category of EPD	Third party verified EPD
Parent EPD number	-
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Olivia Kuronen, Sitowise Oy
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Yazan Badour, as authorized verifier acting for EPD HUB Limited

This EPD is intended for business-to-business and/or business-to-consumer communication. 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	Planed and painted sawn timber
Additional labels	Not applicable
Product reference	Not applicable
Place(s) of raw material origin	Finland
Place of production	Järvelä, Finland
Place(s) of installation and use	Finland, Australia, Germany, Denmark
Period for data	01/01/2024-31/12/2024
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	22,4

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m2 of planed and painted sawn timber
Declared unit mass	9,14 kg
Mass of packaging	0,0393 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	0,97
GWP-total, A1-A3 ($kgCO_2e$)	-9,06
Secondary material, inputs (%)	0
Secondary material, outputs (%)	100
Total energy use, A1-A3 (kWh)	15,4
Net freshwater use, A1-A3 (m^3)	0,02

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Koskisen is an international specialist in wood processing, known for its agility and ability to listen to customers. We utilize valuable wood raw material precisely, down to the last chip. At the same time, we are realizing the best carbon story: we manufacture high-quality and durable products in which carbon is stored for decades. The Group's turnover in 2024 was 282 million euros.

PRODUCT DESCRIPTION

Planed and painted timebr products are, as their name suggests, products planed from Finnish sawn timber and painted with various coating paints. Primed, top-coated, and fire-protected timber can be utilized to exterior walls and eaves of residential buildings, utility buildings, recreational buildings, and outbuildings. Mould-protected timber can be used in roof and wall structures of buildings.

Standard EN 14915:2013+A2:2020 solid wood internal and external cladding and panelling products.

Further information can be found at:
www.koskisen.com

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	-
Minerals	0	-
Fossil materials	2	EU
Bio-based materials	98	Finland

BIOGENIC CARBON CONTENT

Product’s biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	4,48
Biogenic carbon content in packaging, kg C	0,001

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m2 of planed and painted sawn timber
Mass per declared unit	9,14 kg
Functional unit	Not appilcable
Reference service life	

SUBSTANCES, REACH - VERY HIGH CONCERN

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

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	x	x	ND	ND	ND	ND	ND	ND	ND	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 = ND. 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.
Sawlogs are felled in the forest, transported to a roadside with a forwarder, and brought to the sawmill with logging trucks. At the sawmill, the logs are received at the log sorting line, where they are sorted for the saw line. On the saw line, the logs are sawn according to orders, after which they are stick-stacked and moved to kilns for drying. The dry lumber is then sorted and packaged in the trimming and grading department. The above-mentioned steps are covered in the EPD report of the Finnish Sawmill Industry Association, which was used as input data. After this, the dry lumber is further processed by planing and painting. This stages are Koskisen specific.

The manufacturing process needs electricity which is sourced from the local grid network (nuclear energy) while heat is provided from Koskinen's own power plant from wood chips.
The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

A4: The products are sold in four countries: Finland, Australia, Germany and Denmark. The distance is an average distance for Finland. Transportation is modeled by considering the average distance to each country weighted by sales volumes.
A5: The transporting of the packing material after usage (waste) is assumed to be 113 km. Packing materials are partly recycled and partly incinerated.

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)

The product's End-of-Life is modelled according to the Finnish scenario.

C1: Deconstruction is assumed to be manual, thus no environmental impacts are modeled for this stage.

C2: Transportation to a waste treatment facility is modeled using an average Finnish distance of 113 km for waste transportations.

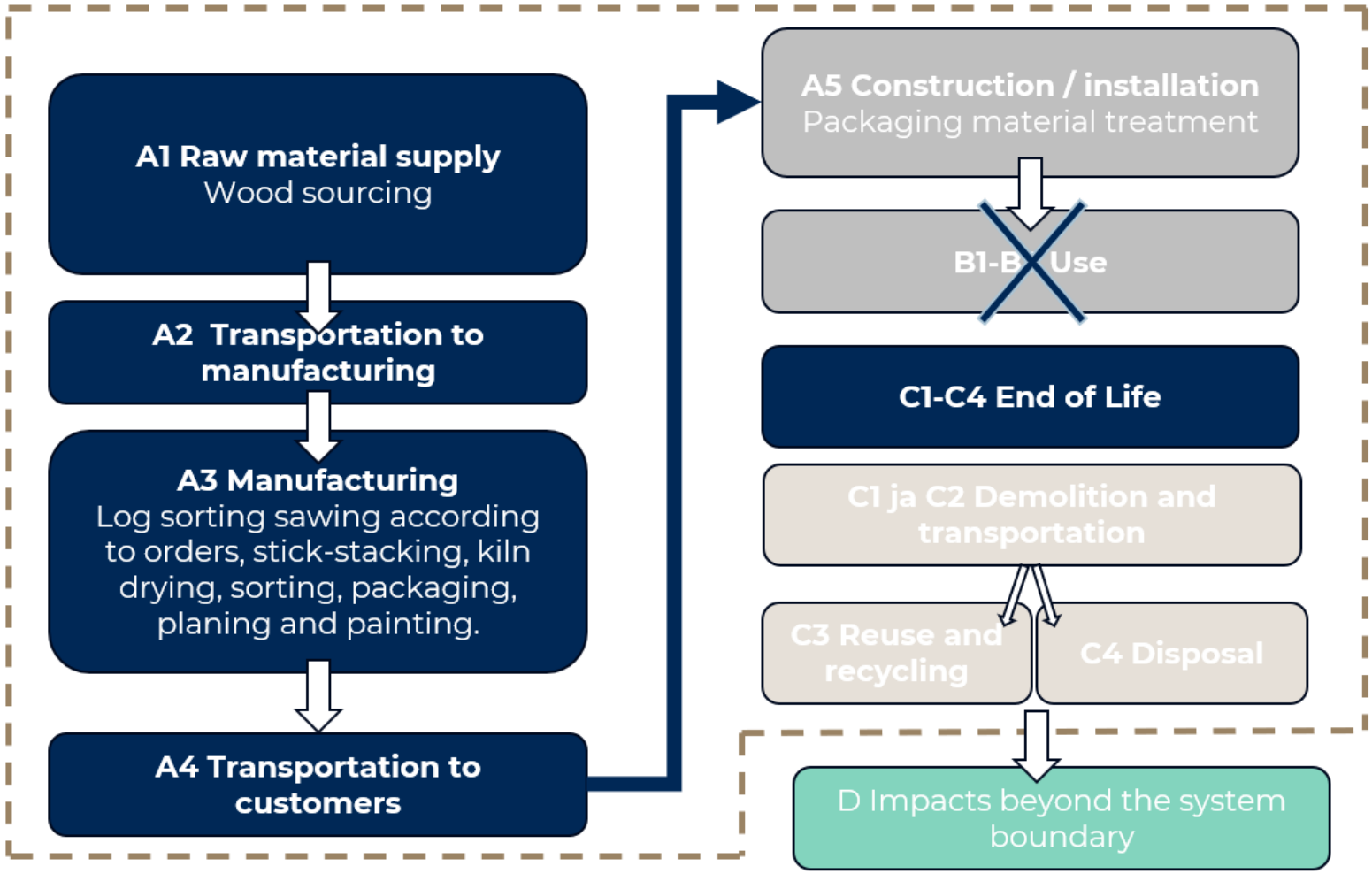
C3: Based on a Finnish legislation, the product, as a construction and demolition waste material, is subject to separate collection efforts. Based on national statistics, a recycling rate of 55 % is assumed for the wood. Of this separately collected wood, 60 % is recycled into wood chips, and 40 % is sent to energy recovery. The remaining 45% of the wood is collected as mixed waste and is fully incinerated for energy recovery. The End of Life state for the wood is reached once it has been processed into wood chips.

C4: No landfill impacts are included in the disposal stage, as all non-recycled wood is assumed to be incinerated.

D: The net benefits from the energy recovered via incineration in a co-generation (CHP) plant are included. The recovered energy outputs are modeled to substitute for Finland’s average grid electricity and district heat.

No benefits from the wood recycling process and the wood chips are modelled.

SYSTEM DIAGRAM



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.

All inputs and outputs of the unit processes for which data is available are included in the calculation, except two paint related chemicals. These materials are additional colourants which are added to the actual paint. There was no supplier specific EPD data nor any other LCA data available for these paint materials. However, all the actual paints are included, and the datasets also cover the coloured paints. The mass of the cutt-off materials is 0,002 % of the total mass of the product. The tinting pastes are studied to not be hazardous.
There is no neglected unit process more than 1% of total mass and energy flows. The total excluded input and output flows do not exceed 5% of energy usage or mass.

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	Allocation
Raw materials	Allocated by mass or volume
Packaging material	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

For the sawn timber material, general EPD data from Finnish Sawmills Association is utilized. Koskinen Oyj has been part of conducting this EPD. Koskinen Oyj will update this EPD according to their own production data in 2026, after the Finnish Sawmills Association's EPD is no longer valid.

In addition to sawn timber, different types of paints from Finnish company called Teknos are utilized. Teknos has conducted several different EPDs which are utilized in this study. However, no specific EPD data could be found for every paint product and some assumptions were made. The paints have been studied to be similar enough so that existing EPDs can be utilized for the paints that do not have specific EPDs.

Truck transport was assumed to be EURO5 truck in all transportation modules (A2, A4 and C3).

Treatment of the waste flows, both in A3 and A5 are modelled according to Statistics Finland's 2023 municipal waste treatment statistics (Statistics Finland 2023a). According to the statistics, 95 % plastic was recycled and 5 % was incinerated. Metal waste was 100 % recycled. Paint waste was assumed to be incinerated. According to Koskinen Oy, wood waste is modelled to be 100 % incinerated. No benefits are calculated for these treatments in module D because of the small amount of waste flows.

Similar assumptions for the waste treatment are followed in the end of life stage of the product:

According to Finnish legislation (Ministry of Environment 2025), wood must be separately collected from construction and demolition waste. However, the recycling rate for such waste is currently around 50–60 %. Therefore, in this model, 55 % of the wood is assumed to be separately collected. This fraction is then processed based on the municipal waste treatment statistics for 2023 (Statistics Finland 2023a), where 60 % of the separately collected wood goes to recycling (chipping into wood chips) and the remaining 40% is used for energy recovery (incineration). The remaining 45 % of the wood is assumed to be collected as mixed construction waste. This mixed waste fraction is then directed to energy recovery (incineration) as a whole, without further sorting or recycling.

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	

This EPD is product and factory specific.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD System Verification v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11 environmental data sources follow the methodology ‘allocation, Cut-off, EN 15804+A2‘.

Statistics Finland. 2023b. Road freight transport / 117i - Domestic lorry transport performance by goods category (NST 2007), 2011-2023. Available at: Kotimaan kuorma-autoliikenteen suoritteet tavararyhmän (NST 2007) mukaan muuttujina NST2007 tavararyhmä, Vuosi ja Tiedot. PxWeb

Ministry of the Environment. 2025. Jätelaki ja asetuksen – Mikä muuttui, miten toimin? [Waste legislation – what is different, how I proceed?]. Available: Jätelaki - Ympäristöministeriö

ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	-9,23E+00	2,45E-03	1,64E-01	-9,06E+00	1,91E+00	1,65E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,11E-01	1,03E+01	0,00E+00	-9,23E-01
GWP – fossil	kg CO_2e	8,03E-01	2,45E-03	1,69E-01	9,75E-01	1,91E+00	1,09E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,11E-01	2,42E-01	0,00E+00	-9,05E-01
GWP – biogenic	kg CO_2e	-1,00E+01	0,00E+00	-5,56E-03	-1,00E+01	0,00E+00	5,56E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	1,00E+01	0,00E+00	0,00E+00
GWP – LULUC	kg CO_2e	9,93E-03	1,09E-06	1,47E-04	1,01E-02	9,52E-04	3,50E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,98E-05	4,47E-04	0,00E+00	-1,76E-02
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	1,57E-07	3,61E-11	5,16E-09	1,62E-07	2,77E-08	2,50E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,64E-09	3,04E-09	0,00E+00	-1,75E-08
Acidification potential	mol H^+e	1,13E-02	8,34E-06	9,50E-04	1,23E-02	3,39E-02	1,24E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,80E-04	1,75E-03	0,00E+00	-4,68E-03
EP-freshwater[2)]	kg Pe	4,06E-05	1,90E-07	4,03E-05	8,11E-05	9,95E-05	6,68E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,67E-06	7,07E-05	0,00E+00	-3,49E-04
EP-marine	kg Ne	4,91E-03	2,74E-06	3,57E-04	5,27E-03	8,68E-03	7,29E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,25E-04	7,80E-04	0,00E+00	-8,18E-04
EP-terrestrial	mol Ne	5,16E-02	2,98E-05	3,58E-03	5,52E-02	9,62E-02	4,22E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,36E-03	7,77E-03	0,00E+00	-8,77E-03
POCP ("smog")[3)]	kg NMVOCe	1,29E-02	1,23E-05	1,32E-03	1,42E-02	2,75E-02	1,30E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,59E-04	2,15E-03	0,00E+00	-2,61E-03
ADP-minerals & metals[4)]	kg Sbe	2,20E-06	6,82E-09	7,77E-07	2,98E-06	3,40E-06	2,30E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,11E-07	5,85E-07	0,00E+00	-2,42E-05
ADP-fossil resources	MJ	1,93E+01	3,55E-02	9,71E+00	2,91E+01	2,53E+01	2,61E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,62E+00	2,88E+00	0,00E+00	-4,00E+01
Water use[5)]	m^3e depr.	9,65E-01	1,75E-04	1,21E-01	1,09E+00	9,71E-02	1,24E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,98E-03	2,20E-01	0,00E+00	-1,11E+00

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	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	1,69E-08	2,45E-10	2,05E-08	3,77E-08	1,16E-07	2,07E-10	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,11E-08	2,41E-08	0,00E+00	-3,10E-08
Ionizing radiation[6)]	kBq U235e	2,07E-02	3,09E-05	5,58E-01	5,79E-01	1,66E-02	1,62E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,41E-03	9,96E-03	0,00E+00	-2,29E+00
Ecotoxicity (freshwater)	CTUe	3,48E+00	5,02E-03	6,62E-01	4,14E+00	2,70E+00	3,02E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,29E-01	1,28E+00	0,00E+00	-4,49E+00
Human toxicity, cancer	CTUh	9,71E-11	4,04E-13	5,49E-11	1,52E-10	3,65E-10	3,38E-12	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,84E-11	2,24E-10	0,00E+00	-4,82E-10
Human tox. non-cancer	CTUh	3,51E-09	2,30E-11	1,17E-09	4,70E-09	1,11E-08	7,26E-11	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,05E-09	1,33E-08	0,00E+00	-2,46E-08
SQP[7)]	-	2,73E+00	3,57E-02	2,77E+00	5,54E+00	1,34E+01	4,12E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,63E+00	1,57E+00	0,00E+00	-1,33E+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	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	2,77E+01	4,86E-04	2,17E-01	2,80E+01	2,68E-01	-2,15E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,21E-02	-1,34E+02	0,00E+00	-1,43E+01
Renew. PER as material	MJ	1,51E+02	0,00E+00	5,05E-02	1,52E+02	0,00E+00	-5,05E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-1,51E+02	0,00E+00	0,00E+00
Total use of renew. PER	MJ	1,79E+02	4,86E-04	2,68E-01	1,80E+02	2,68E-01	-7,20E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,21E-02	-2,85E+02	0,00E+00	-1,43E+01
Non-re. PER as energy	MJ	1,94E+01	3,55E-02	8,02E+00	2,75E+01	2,53E+01	-1,55E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,62E+00	2,88E+00	0,00E+00	-4,00E+01
Non-re. PER as material	MJ	1,53E+00	0,00E+00	1,54E+00	3,07E+00	0,00E+00	-1,54E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-1,53E+00	0,00E+00	0,00E+00
Total use of non-re. PER	MJ	2,10E+01	3,55E-02	9,56E+00	3,06E+01	2,53E+01	-3,09E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,62E+00	1,35E+00	0,00E+00	-4,00E+01
Secondary materials	kg	0,00E+00	1,51E-05	1,77E-02	1,77E-02	1,14E-02	1,22E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,88E-04	3,20E-03	0,00E+00	-6,11E-03
Renew. secondary fuels	MJ	0,00E+00	1,92E-07	5,11E-03	5,11E-03	8,02E-05	1,03E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,73E-06	2,00E-05	0,00E+00	-2,33E-05
Non-ren. secondary fuels	MJ	2,53E-02	0,00E+00	0,00E+00	2,53E-02	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	1,41E-02	5,25E-06	2,91E-03	1,70E-02	2,70E-03	1,97E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,39E-04	1,79E-03	0,00E+00	-3,51E-02

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	8,28E-06	6,01E-05	1,13E-02	1,14E-02	3,80E-02	5,24E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,74E-03	4,69E-02	0,00E+00	-6,15E-02
Non-hazardous waste	kg	1,66E-04	1,11E-03	7,39E-01	7,40E-01	6,18E-01	1,56E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,07E-02	6,50E+00	0,00E+00	-1,76E+00
Radioactive waste	kg	1,41E-05	7,57E-09	1,16E-04	1,30E-04	4,05E-06	4,14E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,44E-07	2,49E-06	0,00E+00	-4,91E-04

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	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	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	8,16E-03	0,00E+00	3,47E-03	1,16E-02	0,00E+00	3,55E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	3,03E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	3,09E-03	0,00E+00	1,28E-02	1,59E-02	0,00E+00	3,38E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	6,12E+00	0,00E+00	0,00E+00
Exported energy	MJ	3,88E+08	0,00E+00	0,00E+00	3,88E+08	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	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	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+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	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[9)]	kg CO_2e	8,13E-01	2,45E-03	1,69E-01	9,85E-01	1,91E+00	1,09E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,11E-01	2,42E-01	0,00E+00	-9,23E-01

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH4 fossil, CH4 biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO2 is set to zero.

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

1. Electricity production, nuclear, boiling water reactor, Finland, Ecoinvent, 0.0077 kgCO2e/kWh
2. Diesel, burned in building machine, World, Ecoinvent, 0.10 kgCO2e/MJ
3. Heat and power co-generation, wood chips, 2000 kW, World, Ecoinvent, 0.0037 kgCO2e/MJ

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry >32 metric ton, EURO5, 167 km
2. Market for transport, freight, lorry >32 metric ton, EURO5, 1500 km
3. Market for transport, freight, sea, container ship, 21700 km
4. Market for transport, freight, lorry >32 metric ton, EURO5, 600 km
5. Market for transport, freight, sea, container ship, 1700 km
6. Market for transport, freight, lorry >32 metric ton, EURO5, 600 km
7. Market for transport, freight, sea, container ship, 1700 km

Installation scenario documentation - A5 (Installation waste)

1. Treatment of waste plastic, mixture, municipal incineration, Ecoinvent, Materials for energy recovery, 0.00187 kg
2. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.0355 kg
3. Treatment of waste packaging paper, municipal incineration, Ecoinvent, Materials for energy recovery, 0.00151 kg

End of life scenario documentation - C1-C4 (Data source)

1. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, Materials for energy recovery, 6.123 kg
2. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling, 3.03 kg

Scenario information	Value
Scenario assumptions e.g. transportation	Waste transportation of 113 km using Market for transport, freight, lorry >32 metric ton, EURO5

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 15804+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

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

Yazan Badour, as authorized verifier acting for EPD HUB Limited
16.01.2026