ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Puustamo Exterior Door with window

Puustamo Oy

EPD HUB, EPD number HUB-4530

Published on 24.11.2025, last updated on 24.11.2030

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	Puustamo Oy
Address	Sossonniementie 20, 93600 Kuusamo, Finland
Contact details	toimisto@puustamo.fi
Website	www.puustamo.fi

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 EN 17213 Windows and doors
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Akseli Romppainen, LCA Point
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Sarah Curpen, as an authorised 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	Puustamo Exterior door with window
Additional labels	-
Product reference	-
Place(s) of raw material origin	Finland
Place of production	Finland
Place(s) of installation and use	Finland
Period for data	Calendar Year 2024
Averaging in EPD	Representative product
Variation in GWP-fossil for A1-A3 (%)	+7%/-0%
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	13,3

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m^2 of Puustamo exterior door with window
Declared unit mass	39,415 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	61,9
GWP-total, A1-A3 ($kgCO_2e$)	48,8
Secondary material, inputs (%)	2,06
Secondary material, outputs (%)	15,6
Total energy use, A1-A3 (kWh)	632
Net freshwater use, A1-A3 (m^3)	0,99

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Puustamo, a Finnish manufacturer, produces high-quality wooden doors. Combining traditional craftsmanship with sustainable practices, Puustamo ensures durable, eco-friendly products.

PRODUCT DESCRIPTION

A glass exterior door made of pine works well both as a main entrance and as a side door. The wooden glass door brings light and visibility into the space. A pine door is durable and offers a good price-to-quality ratio. Solid pine frames and casings, tempered glass, and hinges with a burglary guard also make the door secure. The door's U-value is 0.90. All doors are custom-made.

Further information can be found at:
www.puustamo.fi

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	2	Finland
Minerals	44,5	Finland
Fossil materials	4,5	Finland
Bio-based materials	49	Finland

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	5,64
Biogenic carbon content in packaging, kg C	1,90

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m^2 of Puustamo exterior door with window
Mass per declared unit	39,415 kg
Functional unit	-
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 = NR

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.

The raw material for Puustamo's pine door is slow-grown Finnish pine from the north, delivered to the factory as pre-processed blanks. At the factory, these blanks are crafted into door frames. Insulation material is used inside the door to meet the required U-value standards. Prefabricated triple-glass insulating units, which arrive at the factory ready as complete elements, are used for the openings. Wood waste and sawdust generated from cutting and processing the wooden components are utilized for heat production. The energy used in processing is certified fossil-free, derived from a mix of hydropower and nuclear energy. The product is packaged on pallets, with wooden supports ensuring the doors remain upright, and protected with plastic film.
The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs), 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.

The Puustamo manufacturing plant is located in Kuusamo. As each product can be delivered to any location, with Finland being the primary market, a conservative transportation scenario to Helsinki was selected to cover most cases. The transportation method is assumed to be by lorry. A5 installation resources are considered negligible. No installation losses are accounted for, as the product is supplied as a complete unit and cannot be installed partially. Packaging waste has been included in the calculations using a European-wide scenario for wood and plastics (Eurostat 2020).

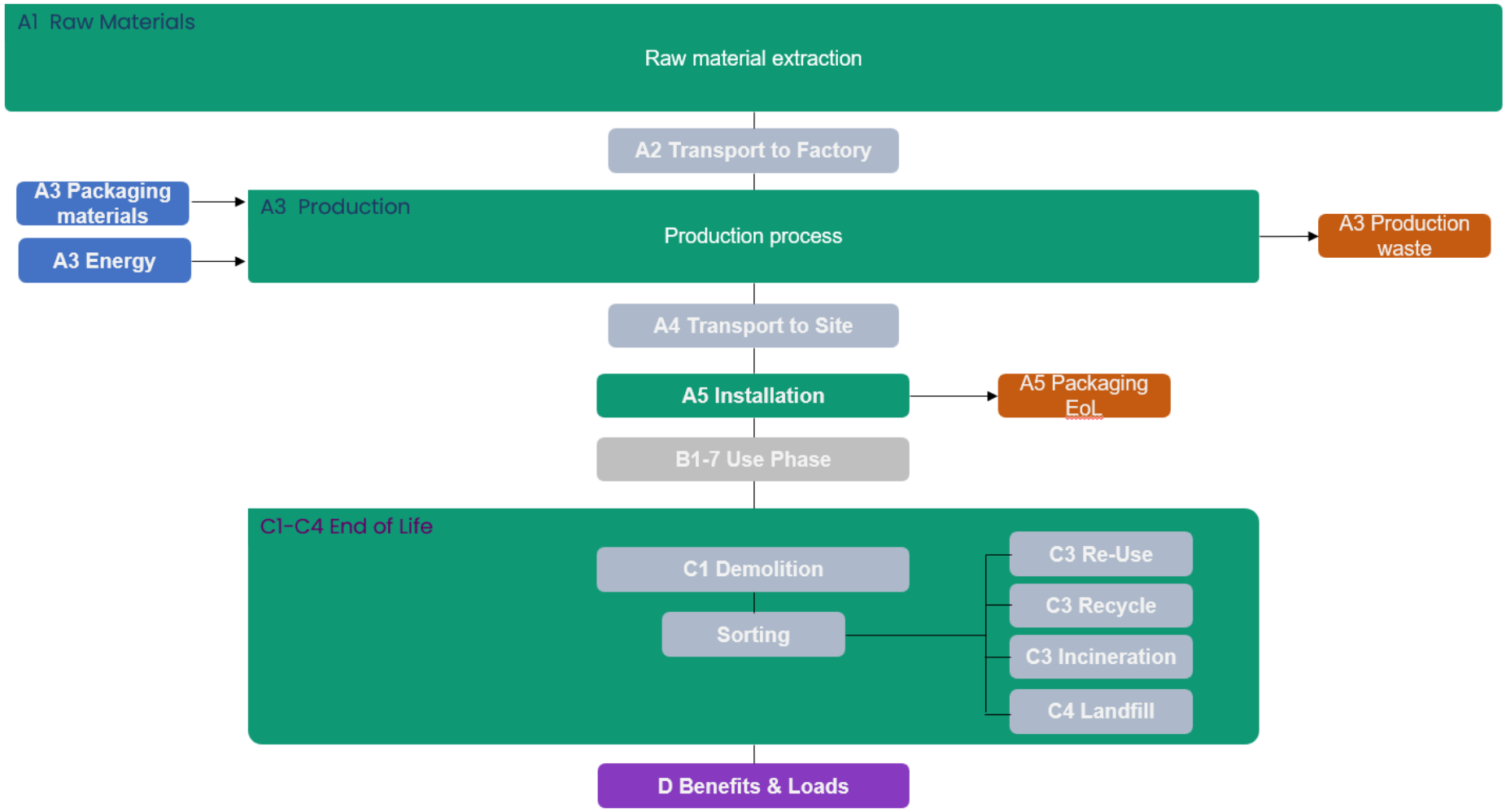
PRODUCT USE AND MAINTENANCE (B1-B7)

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 doors are considered to be dismantled by hand, resulting in negligible environmental impact from demolition. The doors can be collected as whole units. A transportation distance of 50 km is assumed for further processing. For wood-based materials, a 100% incineration end-of-life (EoL) scenario has been applied, as it is the most common and documented practice in Finland. For other components, Eurostat 2020 scenarios have been used.

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.

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	No allocation
Ancillary materials	Not applicable
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Representative product
Variation in GWP-fossil for A1-A3, %	+7%/-0%

This EPD is product and factory specific.

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'.

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	2,62E+01	2,94E+00	1,97E+01	4,88E+01	3,85E+00	8,08E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,90E-01	5,33E+01	1,36E-01	-9,89E+00
GWP – fossil	kg CO_2e	5,52E+01	2,94E+00	3,81E+00	6,19E+01	3,85E+00	4,71E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,90E-01	8,37E-01	1,37E-01	-1,05E+01
GWP – biogenic	kg CO_2e	-2,90E+01	3,20E-04	1,59E+01	-1,32E+01	8,11E-04	7,61E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,33E-04	5,25E+01	-7,68E-04	6,56E-01
GWP – LULUC	kg CO_2e	5,90E-02	1,32E-03	9,81E-03	7,01E-02	1,45E-03	2,85E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,64E-04	1,49E-04	8,48E-05	-2,40E-02
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	5,10E-06	4,42E-08	8,65E-08	5,23E-06	7,75E-08	3,12E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,67E-09	4,99E-09	3,54E-09	-2,47E-07
Acidification potential	mol H^+e	3,14E-01	1,28E-02	1,76E-02	3,45E-01	1,24E-02	1,07E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,01E-03	3,95E-03	9,51E-04	-7,12E-02
EP-freshwater[2)]	kg Pe	7,82E-03	2,23E-04	1,20E-03	9,24E-03	2,60E-04	5,01E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,59E-05	1,77E-04	1,35E-05	-6,60E-03
EP-marine	kg Ne	8,53E-02	3,97E-03	9,37E-03	9,86E-02	4,22E-03	1,12E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,59E-04	1,97E-03	3,64E-04	-1,60E-02
EP-terrestrial	mol Ne	6,53E-01	4,34E-02	5,77E-02	7,54E-01	4,59E-02	4,37E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,17E-03	1,91E-02	3,94E-03	-1,70E-01
POCP ("smog")[3)]	kg NMVOCe	2,11E-01	1,67E-02	2,29E-02	2,51E-01	2,03E-02	1,42E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,95E-03	4,91E-03	1,37E-03	-4,92E-02
ADP-minerals & metals[4)]	kg Sbe	9,02E-04	8,01E-06	2,49E-05	9,35E-04	1,06E-05	5,57E-07	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,67E-06	2,29E-06	3,07E-07	-1,33E-04
ADP-fossil resources	MJ	6,88E+02	4,25E+01	1,30E+03	2,03E+03	5,58E+01	2,69E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,54E+00	3,95E+00	3,02E+00	-1,86E+02
Water use[5)]	m^3e depr.	3,52E+02	2,07E-01	1,36E+01	3,66E+02	2,86E-01	7,76E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,20E-02	7,20E-01	1,43E-02	-5,36E+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	3,03E-06	2,87E-07	5,15E-07	3,83E-06	3,83E-07	1,86E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,81E-08	4,57E-08	2,19E-08	-1,24E-06
Ionizing radiation[6]	kBq U235e	2,96E+00	3,71E-02	1,05E+02	1,08E+02	6,73E-02	7,17E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,40E-03	1,05E-02	2,72E-03	-4,16E+00
Ecotoxicity (freshwater)	CTUe	1,88E+03	5,87E+00	1,79E+01	1,90E+03	6,58E+00	9,80E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,22E+00	3,45E+00	7,65E-01	-4,07E+01
Human toxicity, cancer	CTUh	5,96E-08	4,91E-10	8,81E-09	6,89E-08	6,34E-10	1,03E-10	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,75E-11	6,72E-10	3,39E-11	-4,88E-09
Human tox. non-cancer	CTUh	8,76E-07	2,70E-08	8,20E-08	9,84E-07	3,63E-08	5,41E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,51E-09	4,37E-08	7,58E-10	-1,32E-07
SQP[7]	-	4,68E+02	4,15E+01	8,17E+02	1,33E+03	5,62E+01	2,54E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,35E+00	2,25E+00	7,11E+00	-1,51E+02

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	1,79E+02	5,79E-01	4,43E+00	1,84E+02	9,09E-01	-7,78E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,17E-01	-3,52E+02	4,39E-02	-8,72E+01
Renew. PER as material	MJ	4,21E+02	0,00E+00	-2,29E+01	3,98E+02	0,00E+00	-8,19E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-3,16E+02	0,00E+00	4,36E+00
Total use of renew. PER	MJ	5,99E+02	5,79E-01	-1,85E+01	5,81E+02	9,09E-01	-1,60E+02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,17E-01	-6,68E+02	4,39E-02	-8,29E+01
Non-re. PER as energy	MJ	7,75E+02	4,25E+01	1,27E+03	2,09E+03	5,58E+01	-6,74E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,54E+00	-2,96E+00	2,45E+00	-1,86E+02
Non-re. PER as material	MJ	2,86E+01	0,00E+00	7,17E+00	3,57E+01	0,00E+00	-1,43E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-2,14E+01	0,00E+00	5,39E+00
Total use of non-re. PER	MJ	8,04E+02	4,25E+01	1,28E+03	2,13E+03	5,58E+01	-2,10E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,54E+00	-2,44E+01	2,45E+00	-1,80E+02
Secondary materials	kg	8,11E-01	1,82E-02	2,82E-01	1,11E+00	2,41E-02	2,08E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,65E-03	7,39E-03	1,10E-03	3,57E+00
Renew. secondary fuels	MJ	2,35E-03	2,24E-04	2,26E+00	2,26E+00	3,05E-04	2,03E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,63E-05	3,71E-05	2,07E-05	3,07E-02
Non-ren. secondary fuels	MJ	6,57E-02	0,00E+00	0,00E+00	6,57E-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	6,72E-01	6,17E-03	3,11E-01	9,90E-01	8,24E-03	-6,82E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,25E-03	2,44E-03	-4,53E-02	-1,65E-01

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	1,13E+01	7,09E-02	6,69E-01	1,20E+01	8,08E-02	1,95E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,45E-02	1,45E-01	5,42E-03	-4,38E+00
Non-hazardous waste	kg	6,94E+01	1,31E+00	2,99E+01	1,01E+02	1,62E+00	1,22E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,68E-01	2,49E+01	6,09E+01	-3,33E+01
Radioactive waste	kg	3,30E-03	9,09E-06	2,17E-02	2,51E-02	1,66E-05	1,79E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,81E-06	2,67E-06	6,67E-07	-1,07E-03

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	2,12E-02	0,00E+00	0,00E+00	2,12E-02	0,00E+00	1,79E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	6,13E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	8,03E-03	0,00E+00	1,31E+01	1,31E+01	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	MJ	1,01E+09	0,00E+00	0,00E+00	1,01E+09	0,00E+00	9,80E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	1,00E+02	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	4,13E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	4,21E+01	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	5,68E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	5,78E+01	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	5,52E+01	2,94E+00	3,82E+00	6,20E+01	3,85E+00	4,72E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,90E-01	8,37E-01	1,37E-01	-1,05E+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

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity production, hydro, run-of-river (Reference product: electricity, high voltage); Electricity production, nuclear, boiling water reactor (Reference product: electricity, high voltage)
Electricity CO2e / kWh	0,0066
District heating data source and quality	-
District heating CO2e / kWh	-

Transport scenario documentation A4

Scenario parameter	Value
Fuel and vehicle type. Eg, electric truck, diesel powered truck	Diesel powered truck >32T
Average transport distance, km	800
Capacity utilization (including empty return) %	100
Bulk density of transported products	-
Volume capacity utilization factor	1

Installation scenario documentation - A5 (Installation waste)

The modelling includes recycling and incineration rates based on EUROSTAT data.

Waste treatment of PE-based packaging according to the average EU scenario.

Resource	Value
A5 x EoL Plastic packaging EU scenario	**0.233 kg**
Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling	0.093 kg
Treatment of waste polyethylene, municipal incineration, Ecoinvent	0.086 kg
Treatment of waste polyethylene, sanitary landfill, Ecoinvent	0.054 kg
Exported Energy: Electricity, Ecoinvent	0.58 MJ
Exported Energy: Thermal, Ecoinvent	0.81 MJ

Waste treatment of wood-based packaging according to the average EU scenario

Resource	Value
A5 x EoL Wood packaging EU scenario. One Click LCA - EI 3.10	**5.291**
Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling	1.6931 kg
Treatment of waste wood, untreated, municipal incineration, Ecoinvent	1.5873 kg
Treatment of waste wood, untreated, sanitary landfill, Ecoinvent	2.011 kg
Exported Energy: Electricity, Ecoinvent	3.545 MJ
Exported Energy: Thermal, Ecoinvent	4.87 MJ

End of life scenario documentation

Scenario information	Value
Collection process – kg collected separately	39,415
Collection process – kg collected with mixed construction waste	-
Recovery process – kg for re-use	-
Recovery process – kg for recycling	6,13
Recovery process – kg for energy recovery	20,99
Disposal (total) – kg for final deposition	12,298
Scenario assumptions e.g. transportation	For transportation, a distance of 50 km is assumed for landfill, 150 km for incineration, and 250 km for recycling.

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

Sarah Curpen, as an authorised verifier acting for EPD Hub Limited

24.11.2025