



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

ELT-KRAFT Insulation baffle
Eltete TPM Oy



EPD HUB, HUB-5819

Published on 22.03.2026, last updated on 22.03.2026, valid until 21.03.2031

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	Eltete TPM Oy
Address	Pietarintie 11, 07955 Loviisa, FI
Contact details	info1@eltete.com
Website	www.Eltete.com

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.

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 16783 Thermal insulation products
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	Jenny Suuronen / Eltete TPM Oy
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	Vera Durão, as an authorised verifier acting for EPD Hub Limited

PRODUCT

Product name	ELT-KRAFT Insulation baffle
Additional labels	-
Product reference	50500
Place(s) of raw material origin	EU
Place of production	Tesjoki, Loviisa, Finland
Place(s) of installation and use	EU
Period for data	Calendar year 2024
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	-
GTIN (Global Trade Item Number)	6419544505003
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	1,23

ENVIRONMENTAL DATA SUMMARY

Declared unit	1m ² of insulation baffle
Declared unit mass	0,760 kg
Mass of packaging	0,035827 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	0,38
GWP-total, A1-A3 (kgCO ₂ e)	-0,82
Secondary material, inputs (%)	31
Secondary material, outputs (%)	80,9
Total energy use, A1-A3 (kWh)	2,98
Net freshwater use, A1-A3 (m ³)	0,01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

We are one of Finland’s leading manufacturers of sustainable building papers and protective materials. With over 50 years of experience and innovative product development, our product range is designed to meet the continuously evolving requirements of the construction industry.

From insulation baffles, barrier paper and aluminum insulation paper to different types of carton-based protective materials, we are committed to producing 100% recyclable products with excellent quality standards and a very competitive price. Multiple industries have found that our fiber-based solutions meet today’s criteria in terms of sustainability, strength and responsibility.

We operate in Tesjoki, about 90 km east of Helsinki, with good transport connections.

PRODUCT DESCRIPTION

The insulation baffle is a recyclable building material that helps to improve the thermal insulation of the building and thus also reduces the carbon footprint of the building. Elt-Kraft insulation plates has been developed and manufactured in Finland, from high-quality, durable, laminated cardboard.

In addition to improving the thermal insulation of the upper fundament, the insulation baffle enhances the ventilation of the lower surface of a condensation-proof underlayment as well as prevents the accumulation of insulation material and evaporates moisture into the ventilation air.

The insulation baffle is installed on the rim area of the eaves on the upper fundament before the installation of the blown wool.

The insulation baffle effectively directs the airflows over the insulation to

the middle parts of the upper fundament to prevent the wind from penetrating the insulation. The insulation capacity of the thermal insulation is improved because the ventilation air can not cool down or humidify the top fundament of the thermal insulation.

When the insulation baffle is mounted at an inclined angle parallel to the underlay, it effectively prevents blizzard snow from entering the insulation and ensures that the ventilation of the upper fundament is not impaired when installing the thermal insulation.

The insulation baffle is installed between the rafters by turning the edges of the plate at a 90 – degree angle and by riveting or nailing the board to the ceiling chair. The plate is pre-blunted at the edges, which makes it easy to bend the edges. The product is suitable for k900 and k1200 roof chair divisions.

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

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	-
Minerals	0	-
Fossil materials	2,6	EU
Bio-based materials	97,4	EU

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0,37
Biogenic carbon content in packaging, kg C	0,01777

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1m2 of insulation baffle
Mass per declared unit	0,760 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

Not declared = ND.

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 ELT-Kraft insulation baffle is manufactured using cardboard sheets that are laminated, cut, punched, and folded to form wind baffles. The production process is primarily mechanical and does not involve significant chemical treatments or water-intensive steps. Energy consumption during manufacturing is electricity, and emissions are minimal due to the dry process and low material complexity.

Raw materials are delivered by truck from suppliers. Glue granulates used in lamination are transported 90km while cardboard transport is based on average distance from suppliers, calculated based on incoming orders. Used raw material for cardboard is partly recycled/scrap materials but due to lack of exact percentage, this EPD is calculated with virgin raw material and no BMB or recycled content allocation approach is used. Based on calculations of incoming raw material and waste, by allocation by production volumes, approximately 5% of raw material becomes production loss. Both materials are recycled; waste delivery is assumed as truck and distance is based on nearest recycling centers for respective materials.

The manufacturing site operates in accordance with environmental management practices, and waste generated during production (e.g. cardboard offcuts) is recycled internally or externally. No hazardous substances are used in the process. Primary data for manufacturing were collected from the producer and modeled using One Click LCA's default datasets for cardboard processing and assembly.

The product is finally stacked on a wooden pallet which is wrapped in low density polyethylene film and sent to customer.

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 transportation distance is defined according to the PCR. Average distance of transportation from production plant to building site is marked according to average distances in the reporting year and the transportation method is assumed to be lorry. Vehicle capacity utilization volume factor is assumed to be 100% which means full load. In reality, it may vary but as role of transportation emissions in total results is small, the variety in load is assumed to be negligible. Empty returns are not taken into account as it is assumed that return trip is used by the transportation company to serve the needs of other clients. Transportation does not cause losses as product is packaged properly. Also, volume capacity utilization factor is assumed to be 100% for the nested packaged products. The product's low weight (approximately 0.76 kg/m²) results in minimal transport-related environmental impacts.

Product is installed by fastening to roof trusses to protect main thermal insulation material. Fastening material and amount is solely dependent on truss material and builder preference. Fasteners are excluded from this EPD's calculations as it's considered below cut-off percentage. Product is placed slightly over-lapping each other and insulation tape is commonly used to secure baffles to each other. For this EPD, datapoints used are representing one typical option based on it's manufacturer's EPD in A5 and related generic datapoints in modules C-D, however actual insulation tape material and amount are dependent on builder preferences.

The EPD for this product has been developed in accordance with EN 15804+A2 and the complementary PCR EN 16783:2024, which provides specific rules for thermal insulation products. While EN 16783 primarily addresses factory-made and in-situ formed insulation materials, the product covered by this EPD is an insulation accessory, not a primary insulation material. As product is manufactured to be used complete, with layering required rather than cut-offs, unlike insulation main products, waste

percentage mentioned in EN 16738:2024 does not apply, in accordance to variations allowed for accessories.

PRODUCT USE AND MAINTENANCE (B1-B7)

B1-7 is not included in the EPD.

The ELT-Kraft insulation baffle is designed for use in roof structures, specifically in the eaves area, to guide airflow and protect insulation materials. It is installed prior to the application of loose-fill insulation (e.g., blown-in wool) and contributes to improved ventilation and moisture control within the roof cavity. Due to all B1-B7 scenarios varying solely based on other roofing and insulation material used, B1-B7 is excluded in the EPD.

Use Phase:

The product does not require energy, water, or chemical inputs during its use phase. It functions passively by maintaining airflow and preventing insulation displacement. No emissions or environmental impacts are associated with its operation.

Maintenance:

The product is maintenance-free under normal conditions. It is protected within the roof structure and not exposed to mechanical wear or weathering. No cleaning, replacement, or servicing is required during its expected service life.

Durability:

The laminated cardboard construction ensures structural stability and resistance to deformation during installation and use. The product is expected to last for the full service life of the roof structure without degradation.

Air, soil, and water impacts during the use phase have not been studied.

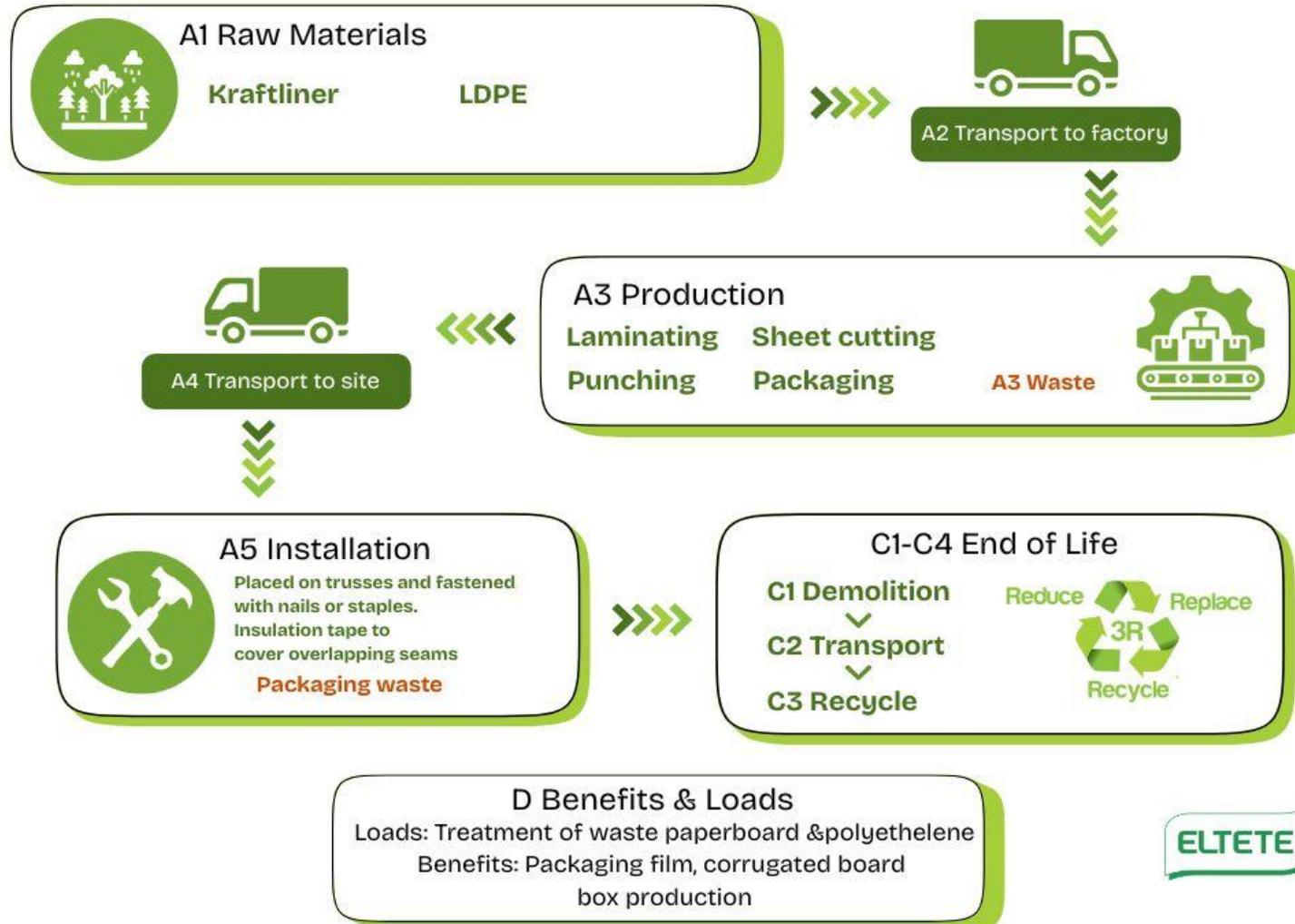
PRODUCT END OF LIFE (C1-C4, D)

The product is expected to be removed manually during roof renovation or demolition. No machinery or energy use is typically required for removal. Transport impacts depend on distance and vehicle type. Due to the product's low weight, transport-related environmental impacts are expected to be minimal. The product is fully recyclable, as laminated cardboard, which is the preferred EOL scenario (C3). It is assumed that the waste is collected as mixed construction waste and transported to the waste treatment center. Transportation distance to treatment is assumed as 50 km and the transportation method is assumed to be lorry (C2).

Product is 100% recyclable. According to industry data from 2022, paper and cardboard recovery rate is 94% in Finland. For a conservative estimation, it's assumed 90% of the product will be recycled at EOL and 10% will go to energy recovery. EU target for plastic recycling is 50% in 2025 based on stricter regulations, therefore it's been assumed that 50% of the insulation tape will be recycled and 50% will go to energy recovery.

At end of life, the insulation tape used during installation can be separated from the ELT-Kraft baffle. Both components can therefore be recycled independently. Approximately 90% of the ELT-Kraft baffle is assumed to be collected and recycled as fiber material, replacing virgin fiber in paper production. The remaining 10% is assumed to be incinerated with energy recovery. For the plastic insulation tape, approximately 50% is assumed to be mechanically recycled, substituting virgin polyethylene in secondary applications, and the remaining 50% is assumed to be incinerated with energy recovery. Module D includes the net benefits from these processes, calculated according to EN 15804+A2, considering substitution of virgin fiber and energy generation.

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	Allocation
Raw materials	No allocation
Packaging material	No allocation
Ancillary materials	No allocation
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

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

No grouping

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.4. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

EN 15804+A2:2019 – Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

EN 16783:2024 – Thermal insulation products – EPD – Complementary PCR.

ISO 14025:2006 – Environmental labels and declarations – Type III environmental declarations.

ISO 14040/14044 – Life cycle assessment principles and requirements.

OneClick LCA, Construction LCA Database, 2025

Ecoinvent 3.10.1,3.11 databases

Manufacturer EPD: Kiilto Kerasafe Saumanauha

Metsäliitto Recycling rates for cardboard

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 ₂ e	-8,36E-01	4,43E-03	1,56E-02	-8,16E-01	1,73E-02	8,74E-02	ND	0,00E+00	4,69E-03	1,18E+00	1,59E-02	-7,80E-01						
GWP – fossil	kg CO ₂ e	3,58E-01	4,42E-03	1,24E-02	3,75E-01	1,72E-02	3,35E-02	ND	0,00E+00	4,69E-03	3,38E-02	1,59E-02	-7,68E-01						
GWP – biogenic	kg CO ₂ e	-1,20E+00	4,64E-08	3,11E-03	-1,20E+00	3,46E-06	5,39E-02	ND	0,00E+00	1,36E-07	1,14E+00	-7,05E-06	2,19E-03						
GWP – LULUC	kg CO ₂ e	5,93E-03	1,98E-06	5,16E-05	5,99E-03	6,19E-06	9,96E-05	ND	0,00E+00	2,10E-06	2,35E-05	1,58E-06	-1,47E-02						
Ozone depletion pot.	kg CFC ₋₁₁ e	8,39E-09	6,53E-11	2,94E-10	8,75E-09	3,43E-10	1,66E-09	ND	0,00E+00	6,93E-11	1,20E-10	6,64E-11	-2,12E-08						
Acidification potential	mol H ⁺ e	2,27E-03	1,51E-05	6,38E-05	2,35E-03	3,59E-05	1,81E-04	ND	0,00E+00	1,60E-05	1,04E-04	2,98E-05	-3,08E-03						
EP-freshwater ²⁾	kg Pe	3,18E-04	3,44E-07	3,40E-06	3,21E-04	1,16E-06	3,51E-06	ND	0,00E+00	3,65E-07	6,31E-06	4,58E-07	-1,01E-04						
EP-marine	kg Ne	8,50E-04	4,96E-06	2,03E-05	8,75E-04	8,62E-06	4,30E-05	ND	0,00E+00	5,26E-06	5,42E-05	4,04E-05	-1,01E-03						
EP-terrestrial	mol Ne	7,38E-03	5,39E-05	2,17E-04	7,65E-03	9,30E-05	4,73E-04	ND	0,00E+00	5,72E-05	2,90E-04	1,31E-04	-7,31E-03						
POCP (“smog”) ³⁾	kg NMVOCe	2,29E-03	2,22E-05	9,24E-05	2,40E-03	5,97E-05	1,73E-04	ND	0,00E+00	2,36E-05	9,13E-05	3,97E-05	-4,70E-03						
ADP-minerals & metals ⁴⁾	kg Sbe	2,00E-06	1,23E-08	7,38E-08	2,09E-06	5,74E-08	1,67E-07	ND	0,00E+00	1,31E-08	2,23E-07	9,52E-09	-3,50E-06						
ADP-fossil resources	MJ	5,66E+00	6,42E-02	2,13E-01	5,94E+00	2,43E-01	8,87E-01	ND	0,00E+00	6,81E-02	1,77E-01	4,59E-02	-1,36E+01						
Water use ⁵⁾	m ³ e depr.	2,12E-01	3,17E-04	7,00E-03	2,20E-01	1,21E-03	1,55E-02	ND	0,00E+00	3,36E-04	5,43E-03	5,77E-03	2,23E-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	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	2,90E-08	4,43E-10	1,14E-09	3,06E-08	1,27E-09	2,08E-09	ND	0,00E+00	4,70E-10	5,11E-09	3,79E-10	-1,06E-07						
Ionizing radiation ⁶⁾	kBq I1235e	6,50E-02	5,59E-05	1,17E-03	6,63E-02	3,13E-04	1,69E-02	ND	0,00E+00	5,93E-05	1,10E-03	6,17E-05	4,67E-02						
Ecotoxicity (freshwater)	CTUe	2,13E+00	9,08E-03	2,86E-01	2,43E+00	3,23E-02	5,97E-01	ND	0,00E+00	9,63E-03	2,17E-01	2,12E-01	-3,57E+00						
Human toxicity, cancer	CTUh	2,11E-10	7,30E-13	5,90E-11	2,71E-10	2,89E-12	7,06E-11	ND	0,00E+00	7,74E-13	3,87E-11	6,84E-12	-6,92E-10						
Human tox. non-cancer	CTUh	6,28E-09	4,16E-11	1,42E-10	6,47E-09	1,53E-10	3,74E-10	ND	0,00E+00	4,41E-11	1,34E-09	3,77E-10	-1,59E-08						
SQP ⁷⁾	-	9,73E+01	6,47E-02	4,68E+00	1,02E+02	1,47E-01	4,77E+00	ND	0,00E+00	6,86E-02	1,95E-01	7,02E-02	-4,85E+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	5,93E+00	8,80E-04	-2,49E-01	5,68E+00	4,25E-03	3,94E-01	ND	0,00E+00	9,33E-04	-1,09E+01	-1,35E+00	-7,71E+00						
Renew. PER as material	MJ	1,24E+01	0,00E+00	-5,10E-02	1,23E+01	0,00E+00	-5,36E-01	ND	0,00E+00	0,00E+00	-1,06E+01	-1,18E+00	0,00E+00						
Total use of renew. PER	MJ	1,83E+01	8,80E-04	-3,00E-01	1,80E+01	4,25E-03	-1,42E-01	ND	0,00E+00	9,33E-04	-2,15E+01	-2,53E+00	-7,71E+00						
Non-re. PER as energy	MJ	4,80E+00	6,42E-02	1,65E-01	5,03E+00	2,43E-01	6,72E-01	ND	0,00E+00	6,81E-02	-4,57E+00	-4,33E+00	-1,37E+01						
Non-re. PER as material	MJ	8,92E-01	0,00E+00	5,11E-03	8,97E-01	0,00E+00	1,03E-01	ND	0,00E+00	0,00E+00	-8,40E-01	-1,60E-01	0,00E+00						
Total use of non-re. PER	MJ	5,69E+00	6,42E-02	1,71E-01	5,93E+00	2,43E-01	7,75E-01	ND	0,00E+00	6,81E-02	-5,41E+00	-4,49E+00	-1,37E+01						
Secondary materials	kg	2,36E-01	2,73E-05	2,04E-03	2,38E-01	1,13E-04	2,18E-03	ND	0,00E+00	2,90E-05	7,34E-04	3,64E-05	-2,69E-01						
Renew. secondary fuels	MJ	4,60E-03	3,47E-07	1,82E-02	2,28E-02	1,42E-06	1,82E-02	ND	0,00E+00	3,68E-07	4,49E-06	6,24E-07	-9,82E-02						
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						
Use of net fresh water	m ³	5,37E-03	9,49E-06	1,49E-04	5,52E-03	3,30E-05	4,55E-04	ND	0,00E+00	1,01E-05	1,07E-04	-3,26E-04	-1,25E-03						

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	2,72E-02	1,09E-04	8,80E-04	2,81E-02	3,53E-04	2,64E-03	ND	0,00E+00	1,15E-04	2,95E-03	1,49E-03	-4,43E-02						
Non-hazardous waste	kg	6,27E-01	2,01E-03	2,85E-02	6,58E-01	7,44E-03	4,20E-02	ND	0,00E+00	2,13E-03	7,54E-02	6,36E-01	4,67E+00						
Radioactive waste	kg	1,67E-05	1,37E-08	3,03E-07	1,70E-05	7,77E-08	4,01E-06	ND	0,00E+00	1,45E-08	2,75E-07	1,54E-08	1,45E-05						

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	3,55E-02	ND	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	0,00E+00	0,00E+00	0,00E+00	2,84E-04	ND	0,00E+00	0,00E+00	7,96E-01	0,00E+00	1,37E+00						
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,20E-06	ND	0,00E+00	0,00E+00	0,00E+00	1,88E-01	0,00E+00						
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO ₂ e	3,66E-01	4,40E-03	1,28E-02	3,84E-01	1,71E-02	1,11E-02	ND	0,00E+00	4,67E-03	5,21E-02	1,53E-02	-8,31E-01						
Ozone depletion Pot.	kg CFC ₁₁ e	6,95E-09	5,21E-11	2,40E-10	7,25E-09	2,73E-10	2,18E-10	ND	0,00E+00	5,53E-11	1,03E-10	5,64E-11	-2,70E-08						
Acidification	kg SO ₂ e	1,72E-03	1,15E-05	4,84E-05	1,78E-03	2,88E-05	4,41E-05	ND	0,00E+00	1,22E-05	8,20E-05	2,18E-05	-1,68E-03						
Eutrophication	kg PO ₄ ³ e	1,06E-03	2,81E-06	4,69E-04	1,53E-03	7,28E-06	4,56E-04	ND	0,00E+00	2,98E-06	2,91E-05	9,54E-06	-4,96E-03						
POCP (“smog”)	kg C ₂ H ₄ e	1,84E-04	1,03E-06	8,40E-06	1,94E-04	3,05E-06	7,58E-06	ND	0,00E+00	1,09E-06	1,60E-05	3,55E-06	-4,92E-04						
ADP-elements	kg Sbe	1,89E-06	1,20E-08	7,21E-08	1,97E-06	5,61E-08	5,88E-08	ND	0,00E+00	1,28E-08	2,21E-07	7,27E-09	-3,23E-06						
ADP-fossil	MJ	4,52E+00	6,33E-02	1,93E-01	4,77E+00	2,37E-01	1,69E-01	ND	0,00E+00	6,72E-02	1,59E-01	4,49E-02	-1,47E+01						

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 ₂ e	3,64E-01	4,43E-03	1,25E-02	3,81E-01	1,72E-02	3,36E-02	ND	0,00E+00	4,69E-03	3,38E-02	1,59E-02	-7,83E-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, Finland, residual mix, direct GWP only, 2023, Finland, One Click LCA

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry 16-32 metric ton, EURO6, 114,14 km

Transport scenario documentation A4

Scenario parameter	Value
Capacity utilization (including empty return) %	100
Bulk density of transported products	6,00E+02
Volume capacity utilization factor	1

Installation scenario documentation - A5 (Installation resources)

1. Waterproofing joint tape for sealing systems, Ecoinvent, 0.224 kg

Installation scenario documentation - A5 (Installation waste)

1. Market for EUR-flat pallet, Ecoinvent, Components for re-use, 0.035543 kg
2. Treatment of waste plastic, mixed, recycling, Ecoinvent, Materials for recycling, 2.84E-4 kg

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

1. Treatment of waste paperboard, unsorted, sorting, Ecoinvent, Materials for recycling, 0.684 kg
2. Treatment of waste paperboard, municipal incineration, Ecoinvent, Materials for energy recovery, 0.076 kg
3. Treatment of waste polyethylene, sanitary landfill, Ecoinvent, Materials for energy recovery, 0.111828 kg
4. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.111828 kg

Scenario information	Value
Scenario assumptions e.g. transportation	

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

Vera Durão, as an authorised verifier acting for EPD Hub Limited

22.03.2026

