ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Kronobuild® Oriented Strand Board 3 (OSB 3)
SIA Kronospan Riga

EPD HUB, HUB-5200
Published on 30.01.2026, last updated on 30.01.2026, valid until 30.01.2031

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	SIA Kronospan Riga
Address	Daugavgrivas soseja 7B, Riga, LV-1007, Latvia
Contact details	office@kronospan-riga.lv
Website	https://kronospan.com/lv_LV/

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 16485 Round and sawn timber
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	Wei-Li Hung
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Magaly Gonzalez Vazquez as an authorized verifier for EPD Hub

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	Kronobuild® Oriented Strand Board 3 (OSB 3)
Additional labels	-
Product reference	-
Place(s) of raw material origin	Latvia
Place of production	Riga, Latvia
Place(s) of installation and use	USA, UK, and European countries
Period for data	01.10.2023 – 30.09.2024
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 (%)	55.6

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m3
Declared unit mass	592 kg
Mass of packaging	15.73 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	187
GWP-total, A1-A3 ($kgCO_2e$)	-858
Secondary material, inputs (%)	0.02
Secondary material, outputs (%)	93.8
Total energy use, A1-A3 (kWh)	2530
Net freshwater use, A1-A3 (m^3)	17

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

SIA Kronospan Riga (Kronospan Riga) is one of the leading manufacturer of wood-based panel products. We produce oriented strand board (OSB), particleboard (PB), and melamine-faced (MF) products. Our products are used in construction and furniture manufacture industry.

PRODUCT DESCRIPTION

Kronobuild® Oriented Strand Board 3 (OSB 3) is a wooden panel made from oriented wood strands bonded with resin. It is designed for use in applications requiring a high-performance board that provides dimensional stability and load-bearing capability in both dry and humid conditions.
Its applications include structural uses (walls, floors, roofs, staircases), interior uses (furniture elements, door panels, claddings, partition walls), as well as packaging, retail, and exhibition structures. It is available in a range of thicknesses from 9 to 25 mm and meets the standards EN 300 (Type OSB 3), EN 13501-1 (Class D-s1, d0), and EN 13986:2004+A1:2015.
Further information can be found at: https://kronospan.com/lv_LV/

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	-	-
Minerals	-	-
Fossil materials	3-4 %	Latvia
Bio-based materials	96-97%	Latvia

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	288.71
Biogenic carbon content in packaging, kg C	6.59

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m3
Mass per declared unit	592 kg
Functional unit	-
Reference service life	-

The mass conversion factor is 0.00169 m3 per 1 kg of the product.

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 utilised in the factory.

Raw material/energy supply (A1):
Extraction and processing of raw materials including: roundwood and chemicals. Production loss is considered at this stage.

Transportation to manufacturing site (A2):
- Transportation of roundwood to the Riga site.
- Transportation of chemicals and packaging from manufacturer/supplier to the Riga site.

Manufacturing (A3):
Ancillary water is sourced from and returned to the local water network in accordance with local standards and agreement. Electricity is sourced from the local grid network, while heat is provided by natural gas and biomass. Packaging materials include PET banding, PE film, cardboard, paper label, steel banding, and lath made from reject board.
The proper manufacturing of the boards and treatment of waste generated from the manufacturing process up to the end-of waste state during manufacturing is included in module A3.
Manufacturing waste includes wood waste, which is incinerated on-site for energy recovery; and boiler ash, which is landfilled.

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.

Module A4:
This module considers 5174 km sea and road transport to site (diesel driven, EURO 6, 24 tonnes total load, 61% utilisation) from average delivery distance within the timeframe.

Module A5:
Installation has been excluded as a factor because, typically, this product undergoes reprocessing by our customers to make final construction products. There are boundless variations in processing methods, auxiliary materials, energy consumption, wastage, etc.

Packaging materials:
Wood, paper, plastic, and steel packaging are assumed to follow the EU scenario based on Ecoinvent v3.10.

PRODUCT USE AND MAINTENANCE (B1-B7)

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

PRODUCT END OF LIFE (C1-C4, D)

With 93.8% of waste wood recycled in Latvia according to Eurostat 2020, this recycling rate is applied as the most likely end-of-life scenario in the EPD.

Module C1:
Manual dismantling → no loads in C1 have been generated.

Module C2:
Transport to waste treatment site after dismantling using EURO 6 truck average (50 km assumed).

Module C3:
The scenario at the end of life assumes 93.8% recycling of the product based on Eurostat 2020, where the OSB is returned to the system as post-consumer waste wood. The end-of-waste status for the wood board is achieved at the waste treatment site where the material is recycled.

Module C4:
6.2% of the products are assumed to be sent for disposal in landfills based on Eurostat 2020.

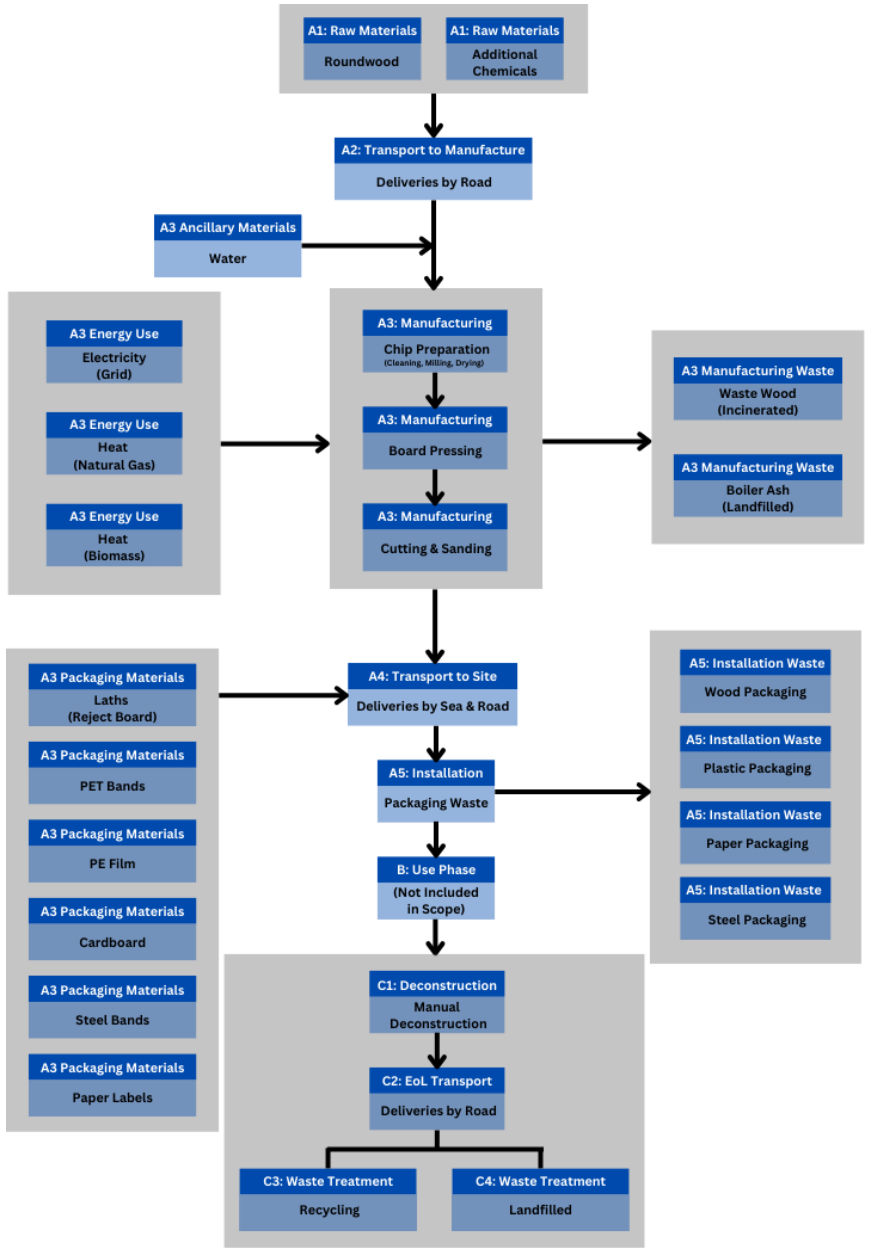
Module D:
The benefits from recycling OSB are calculated in Module D. It is modelled as a substitution of virgin timber, and the scenario is based on Ecoinvent v3.10 (2020 EU data from Eurostat & BuildLCA).
All end-of-life burdens associated with deconstruction, transport, sorting, and preparation for recycling are included in C1–C3, and Module D reports only the net benefits and loads from the avoided production of virgin timber.

Packaging materials:
Wood, paper, plastic, and steel packaging are assumed to follow the EU scenario based on Ecoinvent v3.10.

MANUFACTURING PROCESS

Timber is cleaned and milled into various sized flakes in the pre-production stage. The timber flakes are then sent to a dryer for moisture removal before further sorting and grading in preparation for the press. Chemicals are added and the material enters the press where the raw board is formed, before being sanded and cut to size.

Thermal energy and electricity are sourced from biomass, natural gas, and the regional grid, and are used in the drying and pressing processes. Residues are incinerated on-site for energy recovery. Finished products are then transported by road to customers.



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	Allocated by mass or volume
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, %	-

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'.

The EPD primarily uses Ecoinvent 3.10 data, with supplementary EPD data from other Kronospan sites. The end-of-life scenario is based on Eurostat data for 2020.

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	-9.82E+02	1.23E+01	1.11E+02	-8.58E+02	3.22E+01	2.52E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.19E+00	9.76E+02	6.43E+01	6.34E+00
GWP – fossil	kg CO_2e	7.57E+01	1.23E+01	9.85E+01	1.87E+02	3.22E+01	1.06E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.19E+00	9.57E+00	3.99E-01	-5.04E+00
GWP – biogenic	kg CO_2e	-1.06E+03	1.37E-03	1.28E+01	-1.05E+03	5.02E-03	2.42E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	9.67E+02	6.39E+01	1.14E+01
GWP – LULUC	kg CO_2e	8.63E-01	5.52E-03	4.79E-02	9.16E-01	1.74E-02	8.00E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.43E-03	1.37E-02	2.39E-04	-1.31E-02
Ozone depletion pot.	kg $CFC\text{-}_{11}$e	5.64E-07	1.82E-07	7.20E-06	7.95E-06	4.62E-07	8.78E-09	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.70E-08	1.76E-07	1.01E-08	-1.44E-07
Acidification potential	mol H^+e	1.60E-01	4.21E-02	2.57E-01	4.59E-01	9.47E-01	3.00E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.09E-02	4.59E-02	2.78E-03	2.51E-02
EP-freshwater[2)]	kg Pe	1.85E-02	9.61E-04	3.55E-02	5.50E-02	1.01E-03	1.42E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.48E-04	3.76E-03	3.16E-04	-4.26E-03
EP-marine	kg Ne	4.89E-02	1.38E-02	7.89E-02	1.42E-01	2.36E-01	3.18E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.57E-03	1.37E-02	1.30E-02	2.17E-02
EP-terrestrial	mol Ne	4.78E-01	1.50E-01	6.50E-01	1.28E+00	2.62E+00	1.22E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.88E-02	1.43E-01	1.17E-02	2.46E-01
POCP ("smog")[3)]	kg NMVOCe	4.80E-01	6.20E-02	2.17E-01	7.58E-01	7.09E-01	3.99E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.60E-02	4.97E-02	4.82E-03	5.77E-02
ADP-minerals & metals[4)]	kg Sbe	1.33E-04	3.44E-05	1.54E-04	3.22E-04	3.13E-05	1.61E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	8.89E-06	2.84E-05	7.57E-07	-4.75E-05
ADP-fossil resources	MJ	2.14E+03	1.79E+02	1.46E+03	3.78E+03	3.94E+02	7.59E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.62E+01	1.69E+02	8.90E+00	-1.23E+02
Water use[5)]	m^3e depr.	-8.67E+01	8.85E-01	1.52E+01	-7.06E+01	1.10E+00	2.13E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.28E-01	2.81E+00	3.91E-01	-2.82E+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	1.34E-06	1.24E-06	1.08E-06	3.66E-06	9.50E-07	5.24E-08	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.19E-07	6.42E-07	6.45E-08	1.61E-06
Ionizing radiation[6]	kBq U235e	1.88E+00	1.56E-01	1.03E+01	1.24E+01	1.77E-01	2.06E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.03E-02	2.52E+00	7.17E-03	-2.59E+00
Ecotoxicity (freshwater)	CTUe	5.68E+02	2.53E+01	1.96E+03	2.55E+03	2.90E+01	3.05E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	6.54E+00	2.15E+01	1.23E+01	-2.61E+01
Human toxicity, cancer	CTUh	3.80E-08	2.04E-09	9.92E-09	4.99E-08	6.83E-09	2.87E-10	ND	ND	ND	ND	ND	ND	ND	0.00E+00	5.26E-10	3.88E-09	1.01E-10	-4.35E-09
Human tox. non-cancer	CTUh	8.34E-07	1.16E-07	4.11E-07	1.36E-06	9.57E-08	1.52E-08	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.99E-08	9.74E-08	7.47E-09	-1.43E-07
SQP[7]	-	2.27E+04	1.80E+02	1.76E+02	2.31E+04	3.03E+01	7.17E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.66E+01	8.04E+01	2.11E+01	-1.69E+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	5.94E+03	2.45E+00	8.44E+01	6.03E+03	3.00E+00	-2.23E+02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	6.34E-01	-5.53E+03	-6.22E+02	5.52E+03
Renew. PER as material	MJ	5.80E+03	0.00E+00	-8.47E+00	5.79E+03	0.00E+00	-1.46E+02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	-5.30E+03	-3.50E+02	0.00E+00
Total use of renew. PER	MJ	1.17E+04	2.45E+00	7.59E+01	1.18E+04	3.00E+00	-3.69E+02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	6.34E-01	-1.08E+04	-9.72E+02	5.52E+03
Non-re. PER as energy	MJ	1.44E+03	1.79E+02	1.44E+03	3.05E+03	3.94E+02	-9.65E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.62E+01	1.69E+02	8.90E+00	-1.23E+02
Non-re. PER as material	MJ	6.97E+02	0.00E+00	-1.85E+00	6.95E+02	0.00E+00	-1.67E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	-6.36E+02	-4.21E+01	0.00E+00
Total use of non-re. PER	MJ	2.13E+03	1.79E+02	1.44E+03	3.75E+03	3.94E+02	-2.64E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.62E+01	-4.67E+02	-3.31E+01	-1.23E+02
Secondary materials	kg	1.43E-01	7.62E-02	1.23E+01	1.26E+01	1.88E-01	5.69E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.97E-02	9.25E-02	3.06E-03	3.79E-01
Renew. secondary fuels	MJ	9.09E-04	9.68E-04	7.85E+00	7.86E+00	4.06E-04	5.72E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.50E-04	1.34E-03	6.16E-05	-1.68E-03
Non-ren. secondary fuels	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
Use of net fresh water	m^3	1.66E+01	2.65E-02	3.38E-01	1.70E+01	2.67E-02	-1.91E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	6.84E-03	8.59E-02	-1.36E-01	-8.74E-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	8.94E-01	3.03E-01	6.94E+00	8.14E+00	5.21E-01	5.36E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.83E-02	4.22E-01	1.46E-02	-4.42E-01
Non-hazardous waste	kg	3.38E+01	5.62E+00	3.48E+02	3.88E+02	7.03E+00	3.40E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.45E+00	4.20E+01	9.70E+01	-4.68E+01
Radioactive waste	kg	5.51E-04	3.82E-05	2.79E-03	3.38E-03	4.31E-05	5.14E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	9.86E-06	6.47E-04	1.75E-06	-6.64E-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	8.95E-11	0.00E+00	2.00E-06	2.00E-06	0.00E+00	5.29E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	5.55E+02	0.00E+00	0.00E+00
Materials for energy rec	kg	4.68E-19	0.00E+00	3.62E-01	3.62E-01	0.00E+00	4.65E+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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E+01	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	1.11E+01	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E+01	ND	ND	ND	ND	ND	ND	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_2e	7.40E+01	1.23E+01	9.81E+01	1.84E+02	3.20E+01	1.42E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.17E+00	9.54E+00	2.50E+00	-5.01E+00
Ozone depletion Pot.	kg CFC_{-11}e	4.57E-07	1.45E-07	5.20E-06	5.81E-06	3.67E-07	7.07E-09	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.75E-08	1.42E-07	8.11E-09	-1.17E-07
Acidification	kg SO_2e	1.28E-01	3.21E-02	2.06E-01	3.66E-01	7.56E-01	2.23E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	8.30E-03	3.59E-02	2.05E-03	1.29E-02
Eutrophication	kg PO_4^3e	8.90E-02	7.83E-03	4.93E-02	1.46E-01	8.30E-02	8.43E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.02E-03	7.29E-03	1.47E-03	3.48E-03
POCP (“smog”)	kg C_2H_4e	8.70E-02	2.86E-03	1.45E-02	1.04E-01	3.75E-02	2.59E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.39E-04	2.64E-03	6.25E-04	6.67E-04
ADP-elements	kg Sbe	1.32E-04	3.36E-05	1.49E-04	3.15E-04	3.09E-05	1.55E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	8.67E-06	2.77E-05	7.32E-07	-4.65E-05
ADP-fossil	MJ	2.12E+03	1.77E+02	1.28E+03	3.58E+03	3.91E+02	7.25E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.56E+01	1.25E+02	8.79E+00	-7.77E+01

ENVIRONMENTAL IMPACTS – FRENCH NATIONAL COMPLEMENTS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-elements	kg Sbe	2.00E-04	3.36E-05	1.81E-05	2.52E-04	3.09E-05	1.55E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	8.67E-06	2.77E-05	0.00E+00	-4.65E-05
Hazardous waste disposed	kg	9.07E-01	3.03E-01	6.83E+00	8.04E+00	5.21E-01	5.36E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.83E-02	4.22E-01	1.46E-02	-4.42E-01
Non-haz. waste disposed	kg	3.38E+01	5.62E+00	3.46E+02	3.85E+02	7.03E+00	3.40E+01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.45E+00	4.20E+01	9.70E+01	-4.68E+01
Air pollution	m^3	1.22E+04	2.97E+03	1.53E+04	3.05E+04	6.02E+03	1.45E+02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.68E+02	2.35E+03	9.08E+01	-2.17E+03
Water pollution	m^3	2.63E+02	8.23E+01	9.52E+02	1.30E+03	1.94E+02	3.88E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.12E+01	1.17E+02	3.93E+00	-9.80E+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_2e	7.66E+01	1.23E+01	9.86E+01	1.88E+02	3.22E+01	1.06E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.19E+00	9.59E+00	3.99E-01	-5.05E+00

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, medium voltage, residual mix, Latvia, Ecoinvent, 0.69 kgCO2e/kWh
2. Heat production, natural gas, at boiler modulating >100kW, Albania, Ecoinvent, 0.0766 kgCO2e/MJ
3. Treatment of waste wood, untreated, municipal incineration FAE, Switzerland, Ecoinvent

Transport scenario documentation - A4 (Transport resources)

1. Transport, freight, sea, container ship, 5174.373 km

Transport scenario documentation A4

Scenario parameter	Value
Capacity utilization (including empty return) %	-
Bulk density of transported products	1.09E+00
Volume capacity utilization factor	

Installation scenario documentation - A5 (Installation waste)

1. Treatment of metal scrap, mixed, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.087 kg
2. Treatment of scrap steel, inert material landfill, Ecoinvent, 0.021 kg
3. Treatment of waste paper, unsorted, sorting, Ecoinvent, Materials for recycling, 0.27 kg
4. Treatment of waste packaging paper, municipal incineration, Ecoinvent, Materials for energy recovery, 0.026 kg
5. Exported Energy: Thermal, Ecoinvent, 0.083 MJ
6. Exported Energy: Thermal, Ecoinvent, 1.45 MJ
7. Exported Energy: Thermal, Ecoinvent, 13.68 MJ
8. Exported Energy: Electricity, Ecoinvent, 0.059 MJ
9. Exported Energy: Electricity, Ecoinvent, 1.0517 MJ
10. Exported Energy: Electricity, Ecoinvent, 9.96 MJ
11. Treatment of waste packaging paper, sanitary landfill, Ecoinvent, 0.03 kg
12. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, Materials for recycling, 0.17 kg
13. Treatment of waste polyethylene, municipal incineration, Ecoinvent, Materials for energy recovery, 0.16 kg
14. Treatment of waste polyethylene, sanitary landfill, Ecoinvent, 0.096 kg
15. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling, 4.76 kg
16. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, Materials for energy recovery, 4.461 kg
17. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 5.65 kg

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

1. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, Materials for recycling, 555.296 kg
2. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 36.704 kg

Scenario information	Value
Scenario assumptions e.g. transportation	Scenario: 93.8% of products are recycled, while 6.2% are sent to landfill. Transportation: Average EURO 6 truck, with a distance of 50 km.

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

Magaly Gonzalez Vazquez as an authorized verifier for EPD Hub Limited
30.01.2026