



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Air Curtain AC LINEA M/G
FläktGroup AB



EPD HUB, HUB-6851

Published on 03.07.2026, last updated on 07.07.2026, valid until 02.07.2031

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

FläktGroup

GENERAL INFORMATION

MANUFACTURER

Manufacturer	FläktGroup AB
Address	Viale della Repubblica, 81 /A 20835 Muggiò MB, Italy
Contact details	info.it@flaktgroup.com
Website	https://www.flaktgroup.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, B6, and modules C1-C4, D
EPD author	Zulnasree Binadam, FläktGroup
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☒ External verification
EPD verifier	Afzal khan Peerukhan 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	Air Curtain AC LINEA M/G
Additional labels	AC Linea
Product reference	-
Place(s) of raw material origin	Asia, Europe
Place of production	Italy, Muggiò
Place(s) of installation and use	Global
Period for data	Calendar year 2025
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	0
A1-A3 Specific data (%)	5,26

ENVIRONMENTAL DATA SUMMARY

Declared unit	Air Curtain AC LINEA M/G
Declared unit mass	67 kg
Mass of packaging	32,41 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	352
GWP-total, A1-A3 (kgCO ₂ e)	299
Secondary material, inputs (%)	5,21
Total energy use, A1-A3 (kWh)	1280
Net freshwater use, A1-A3 (m ³)	60,3

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

ABOUT FLÄKTGROUP

FläktGroup designs and manufactures ventilation and air treatment products for use in commercial and industrial buildings. The company is headquartered in Germany and operates production facilities in Europe, Asia and the United States.

FOR WELLBEING, SAFETY, AND ENVIRONMENT

Today, we spend more than 90% of our time indoors, and the air we breathe has a big impact on our performance, well-being, and comfort. Our buildings need mechanical ventilation and air treatment to deliver safe and comfortable building spaces. At the same time, buildings account for up to 40% the energy consumption, where ventilation systems play a big part. With this in mind, FläktGroup aims to approach ventilation and air treatment with consideration for indoor environments, energy use, and environmental aspects throughout the building lifecycle.

PRODUCT DESCRIPTION

Designed for both horizontal installation above the door and vertical mounting at the side, the “AC Linea M-G” air curtain offers easy installation and simplified maintenance thanks to the micro-perforated metal grille on the air intake. Suitable for installation heights of up to 3.8 meters, has a max airflow of 7.600 mc/h and max heating power up to 49 kW which make possible to use it in a wide range of commercial applications. Choose from electric, hot water, or ambient heating options and make full use of this flexible and stable solution – regardless of present requirements.

Further information can be found at:
<https://www.flaktgroup.com/>

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	95,6	Europe, Asia
Minerals	-	-
Fossil materials	4,4	Europe
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	-
Biogenic carbon content in packaging, kg C	15,09

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	Air Curtain AC LINEA M/G
Mass per declared unit	67 kg
Functional unit	Function of Air Curtains is reducing energy losses when doors are frequently opened in applications like shops, storehouse, Shopping center, hotels or industrial applications. Therefore contribute to reduce energy waste in all situations where for different purposes doors between internal heated building and outdoor need to be frequently opened.
Reference service life	15 years

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	x	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	Recycling

Not declared = ND.

MANUFACTURING AND PACKAGING (A1-A3)

All required components are sourced from various qualified suppliers. These include powder-coated sheet metal parts, fans, heating coils, insulation materials, and additional auxiliary components.

The manufacturing process begins with the assembly of the sheet metal parts using rivets and selected fasteners to form the complete unit casing. During this stage, acoustic insulation is installed where required, typically secured using spray adhesive.

Subsequently, the fans are mounted and fixed with screws, followed by the installation of heating coils, which are secured using rivets. Electrical

installation is then carried out, including placement of plastic conduits and routing of cabling from the motors to the electronic control board, where all connections are completed.

After assembly, each unit undergoes End-of-Line (EOL) testing to verify functionality and ensure compliance with performance requirements. The final stage consists of packaging. The finished units are wrapped in protective plastic bubble wrap and placed into wooden boxes to ensure safe transportation and handling.

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 (A4) is calculated to be from Viale della Repubblica 81/A, 20835 Muggiò (MB), Italy where the factory is located to the capitol of Finland, the transportation method is by truck and ferry where the total distance for truck is 1380km and 1100km for ferry. It is assumed that the product is installed by using a hammer drill for half an hour. The recycling percentages for the packaging waste is the following: For wood 32% is recycled, 30% is incinerated and 38% goes to landfill. For plastic 40% is recycled, 37% is incinerated and 23% goes to landfill.

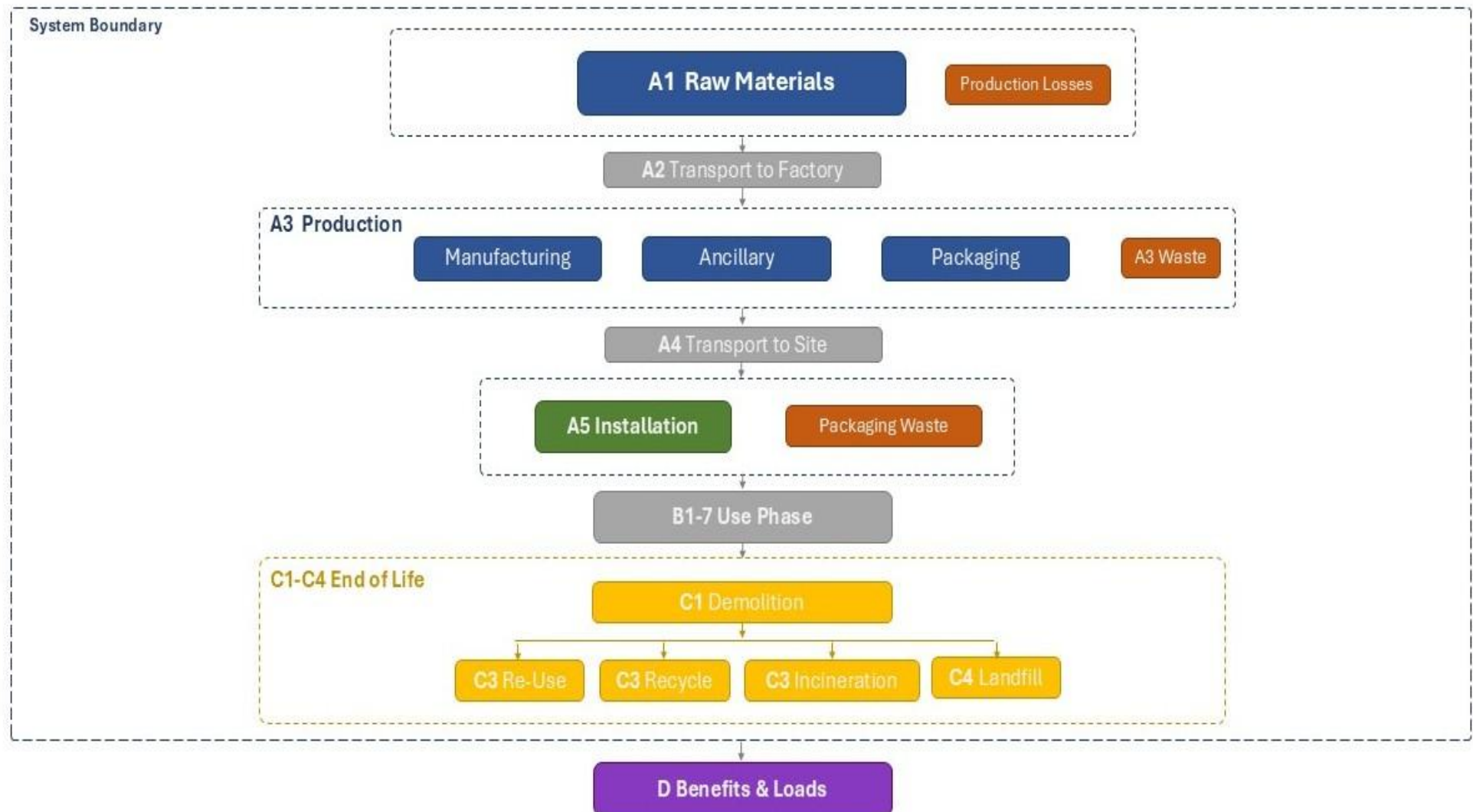
PRODUCT USE AND MAINTENANCE (B1-B7)

The operational energy use (B6) is calculated based on the required kWh for the fans in the product. The scenario used is 10 working hours per day, where 5 hours is at max speed (5) and 5 hours is at the lowest speed (1). This is calculated based on the lifetime of the unit, this comes out to 1238 kWh * 15 years = 18570 kWh during its lifetime. Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

The air curtain is assumed to be dismantled with electrical tools, and these are then transported 50km to the local recycling site by truck (C2). 50km is used because the real-life scenario is unknown and very dependent on which city that the unit is placed in. At the recycling site the product is dismantled into different categories where each raw material is divided into each category such as different kinds of metals and plastics, depending on material the average recovery of material differs. (C3). The remaining that is not recycled is then taken to landfill for disposal (C4). The recycling percentages come from different sources where for steel 85% goes to recycling and 15% goes to landfill. The source used for this is <https://worldsteel.org/wp-content/uploads/Life-cycle-inventory-LCI-study-2020-data-release.pdf>. The aluminium used in the product has a 90% recycling rate and 10% goes to landfill. For the PVC used in the product, 34% goes to recycling, 41% goes to incineration and 25% goes to landfills. For the copper used 60% goes to recycling and 40% goes to landfills. For plastic for instance HDPE 24% goes to recycling, 49% incineration and 27% goes to landfill. The recycled materials are then credited in module D. This is the most likely scenario for the handling of the product at its end of life.

LIFE CYCLE FLOW 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	No allocation
Packaging material	No allocation
Ancillary materials	No allocation
Manufacturing energy and waste	Physical Properties

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	0

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 Process Certification v3.2.5. 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'.

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	3,27E+02	1,22E+01	-4,03E+01	2,99E+02	4,59E+01	5,71E+01	ND	ND	ND	ND	ND	5,69E+03	ND	0,00E+00	8,02E-01	4,53E+00	1,71E+00	-1,54E+02
GWP – fossil	kg CO ₂ e	3,25E+02	1,22E+01	1,50E+01	3,52E+02	4,59E+01	1,78E+00	ND	ND	ND	ND	ND	5,69E+03	ND	0,00E+00	8,02E-01	4,53E+00	1,71E+00	-1,37E+02
GWP – biogenic	kg CO ₂ e	1,72E+00	2,36E-03	-5,53E+01	-5,36E+01	8,25E-03	5,53E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	1,56E-04	-3,03E-03	7,04E-05	-1,70E+01
GWP – LULUC	kg CO ₂ e	5,54E-01	4,09E-03	4,57E-02	6,04E-01	1,74E-02	1,92E-03	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	2,69E-04	1,54E-03	1,11E-04	-8,43E-01
Ozone depletion pot.	kg CFC-11e	1,10E-05	2,44E-07	4,26E-07	1,17E-05	8,45E-07	2,15E-08	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	1,60E-08	1,80E-08	3,34E-09	-8,50E-07
Acidification potential	mol H ⁺ e	3,58E+00	2,39E-02	5,91E-02	3,66E+00	4,51E-01	6,59E-03	ND	ND	ND	ND	ND	7,28E+00	ND	0,00E+00	1,57E-03	1,64E-02	1,12E-03	-1,26E+00
EP-freshwater ²⁾	kg Pe	9,50E+00	7,95E-04	4,61E-03	9,51E+00	2,52E-03	4,17E-04	ND	ND	ND	ND	ND	4,64E+00	ND	0,00E+00	5,23E-05	7,88E-04	2,16E-05	-4,95E-01
EP-marine	kg Ne	3,65E-01	5,64E-03	2,27E-02	3,94E-01	1,13E-01	6,51E-03	ND	ND	ND	ND	ND	1,42E+00	ND	0,00E+00	3,71E-04	5,30E-03	5,84E-03	-2,95E-01
EP-terrestrial	mol Ne	9,64E+00	6,09E-02	1,89E-01	9,89E+00	1,25E+00	2,43E-02	ND	ND	ND	ND	ND	1,56E+01	ND	0,00E+00	4,00E-03	4,66E-02	4,66E-03	-3,87E+00
POCP (“smog”) ³⁾	kg NMVOCe	1,15E+00	4,04E-02	8,55E-02	1,28E+00	4,02E-01	8,27E-03	ND	ND	ND	ND	ND	4,48E+00	ND	0,00E+00	2,66E-03	1,32E-02	1,47E-03	-9,30E-01
ADP-minerals & metals ⁴⁾	kg Sbe	4,16E+01	4,00E-05	6,15E-05	4,16E+01	1,19E-04	4,66E-06	ND	ND	ND	ND	ND	1,14E-10	ND	0,00E+00	2,63E-06	8,54E-05	4,05E-07	-1,23E-02
ADP-fossil resources	MJ	3,43E+03	1,70E+02	2,63E+02	3,86E+03	6,18E+02	1,92E+01	ND	ND	ND	ND	ND	8,76E+04	ND	0,00E+00	1,12E+01	1,74E+01	2,71E+00	-1,37E+03
Water use ⁵⁾	m ³ e depr.	2,11E+02	8,28E-01	6,24E+01	2,75E+02	2,64E+00	4,86E-01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	5,45E-02	5,12E-01	1,19E-01	-5,87E+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	2,60E-05	7,57E-07	9,35E-07	2,76E-05	2,42E-06	1,11E-07	ND	ND	ND	ND	ND	5,18E-05	ND	0,00E+00	4,98E-08	2,26E-07	1,65E-08	-1,42E-05
Ionizing radiation ⁶⁾	kBq 11235e	2,44E+01	2,60E-01	1,65E+00	2,63E+01	7,65E-01	1,05E-01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	1,71E-02	1,27E-01	4,17E-03	-4,44E+00
Ecotoxicity (freshwater)	CTUe	6,93E+03	2,44E+01	5,32E+01	7,01E+03	7,71E+01	5,97E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	1,61E+00	1,68E+01	9,07E+01	-6,54E+03
Human toxicity, cancer	CTUh	7,46E-07	1,89E-09	5,36E-08	8,01E-07	7,80E-09	6,00E-10	ND	ND	ND	ND	ND	3,36E-08	ND	0,00E+00	1,25E-10	1,53E-09	3,15E-10	-9,09E-08
Human tox. non-cancer	CTUh	1,53E-05	9,95E-08	1,22E-07	1,55E-05	3,06E-07	3,24E-08	ND	ND	ND	ND	ND	3,36E-08	ND	0,00E+00	6,55E-09	8,34E-08	1,49E-08	-2,27E-06
SQP ⁷⁾	-	1,01E+03	8,78E+01	4,43E+03	5,53E+03	2,49E+02	1,54E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	5,78E+00	3,17E+01	4,14E+00	-8,17E+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	4,56E+02	3,33E+00	3,36E+02	7,95E+02	1,01E+01	-4,70E+02	ND	ND	ND	ND	ND	2,54E+04	ND	0,00E+00	2,19E-01	2,98E+00	6,94E-02	-3,75E+02
Renew. PER as material	MJ	0,00E+00	0,00E+00	4,84E+02	4,84E+02	0,00E+00	-4,84E+02	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,27E+02
Total use of renew. PER	MJ	4,56E+02	3,33E+00	8,20E+02	1,28E+03	1,01E+01	-9,54E+02	ND	ND	ND	ND	ND	2,54E+04	ND	0,00E+00	2,19E-01	2,98E+00	6,94E-02	-2,48E+02
Non-re. PER as energy	MJ	3,42E+03	1,70E+02	2,12E+02	3,80E+03	6,18E+02	2,85E+00	ND	ND	ND	ND	ND	8,78E+04	ND	0,00E+00	1,12E+01	-2,88E+01	-3,24E+01	-1,38E+03
Non-re. PER as material	MJ	6,68E-01	0,00E+00	4,94E+01	5,01E+01	0,00E+00	-4,94E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	-4,87E-01	-1,80E-01	6,94E+00
Total use of non-re. PER	MJ	3,42E+03	1,70E+02	2,61E+02	3,85E+03	6,18E+02	-4,65E+01	ND	ND	ND	ND	ND	8,78E+04	ND	0,00E+00	1,12E+01	-2,92E+01	-3,26E+01	-1,37E+03
Secondary materials	kg	3,49E+00	7,46E-02	1,83E+00	5,39E+00	2,71E-01	1,17E-02	ND	ND	ND	ND	ND	1,04E+01	ND	0,00E+00	4,91E-03	2,03E-02	9,01E-04	4,97E+01
Renew. secondary fuels	MJ	1,07E-01	7,58E-04	1,64E+01	1,65E+01	2,20E-03	1,12E-04	ND	ND	ND	ND	ND	7,04E-02	ND	0,00E+00	4,99E-05	9,33E-04	3,50E-05	-2,01E-02
Non-ren. secondary fuels	MJ	3,83E-02	0,00E+00	4,83E-05	3,83E-02	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	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	4,29E+00	2,33E-02	5,60E+01	6,03E+01	7,30E-02	-3,88E-02	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	1,54E-03	1,25E-02	-2,31E-04	-1,36E+00

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	4,23E+01	2,22E-01	7,48E-01	4,33E+01	7,91E-01	1,10E-01	ND	ND	ND	ND	ND	4,39E+02	ND	0,00E+00	1,46E-02	1,67E-01	8,34E-02	-3,99E+01
Non-hazardous waste	kg	1,01E+03	5,22E+00	2,59E+01	1,04E+03	1,67E+01	7,24E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	3,43E-01	5,32E+00	6,31E+00	-2,57E+02
Radioactive waste	kg	9,23E-03	6,50E-05	3,13E-04	9,60E-03	1,91E-04	2,75E-05	ND	ND	ND	ND	ND	2,41E-01	ND	0,00E+00	4,28E-06	3,24E-05	1,03E-06	-9,86E-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	0,00E+00	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	4,10E-04	0,00E+00	1,24E-03	1,65E-03	0,00E+00	1,04E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	5,32E+01	0,00E+00	0,00E+00
Materials for energy rec	kg	3,72E-05	0,00E+00	2,43E-02	2,43E-02	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	2,36E-01	0,00E+00	1,25E-03	2,37E-01	0,00E+00	5,33E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	1,53E+01	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,25E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	6,43E+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	3,09E+01	ND	ND	ND	ND	ND	0,00E+00	ND	0,00E+00	0,00E+00	8,86E+00	0,00E+00	0,00E+00
ADP-fossil	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	ND	ND	ND	0,00E+00	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 ₂ e	3,26E+02	1,22E+01	1,50E+01	3,53E+02	4,59E+01	1,78E+00	ND	ND	ND	ND	ND	5,69E+03	ND	0,00E+00	8,02E-01	4,54E+00	1,71E+00	-1,37E+02

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 , Italy, BAFU, 0.57 kgCO₂e/kWh
2. Market for heat, district or industrial, natural gas, Albania, Ecoinvent, 0.0564 kgCO₂e/MJ

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry 7.5-16 metric ton, EURO6, 1380 km
2. Market for transport, freight, sea, ferry, 1100 km

Transport to the building site (A4) - Scenario documentation

Scenario parameter	Value
Capacity utilization (including empty return) %	50
Bulk density of transported products	207
Volume capacity utilization factor	1

Installation at the building site (A5) - Scenario documentation

Scenario parameter	Value
Energy: type and consumption (MJ or kWh)	Market group for electricity, low voltage 0.3 kWh via hammer drill operating for 30 minutes.
Water use (m ³)	-
Ancillary materials: type and mass (kg)	-
Waste materials: type and mass (kg)	32 kg of wooden pallet and 0.4 kg of plastic wrapping film.
Waste materials: output routes	Pallet: 10.24 kg recycled, 9.6 kg incinerated and 12.16 kg landfilled. Plastic: 0.16 kg recycled, 0.1 kg incinerated and 0.094 kg landfilled.
Direct emissions (kg)	-

Use stages scenario documentation - B6-B7 Use of energy and use of water

Scenario information	Value
Type of energy, consumption (kWh)	Electricity Italy = 18570 kWh
Freshwater consumption (m3)	-
Performance characteristics, E.g, Power rating, efficiency, capacity	-

End of life (C1-C4) - Scenario documentation

Scenario information	Value
Collection process: collected separately (kg)	-
Collection process: Mixed waste (kg)	-
Recovery: re-use (kg)	0
Recovery: recycling (kg)	53,2
Recovery: energy recovery (kg)	1.3
Disposal (kg)	12.5
Scenario assumptions e.g. transportation (mode, km) & other	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

Afzal khan Peerukhan as an authorized verifier for EPD Hub Limited 03.07.2026

