

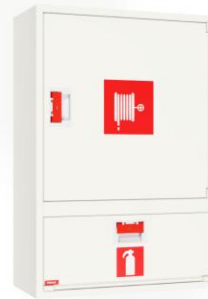


ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Fire hydrant cabinets

Pivaset Oy



EPD HUB, HUB-4071

Published on 01.10.2025, last updated on 01.10.2025, valid until 01.10.2030

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1, 5 Dec 2023 and JRC characterization factors EF 3.1.



Created with One Click LCA

Pivaset

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Pivaset Oy
Address	Patruunapolku 5, 79100 Leppävirta, Finland
Contact details	info@pivaset.fi
Website	https://www.pivaset.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 1.1, 5 Dec 2023
Sector	Manufactured 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	Niina Nevalainen Pivaset Oy
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☒ External verification
EPD verifier	Imane Uald Lamkaddam 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	Fire hydrant cabinets
Additional labels	
Product reference	PV-10, PV-102, PV-202
Place(s) of raw material origin	Nordics
Place of production	Finland, Leppävirta
Place(s) of installation and use	Finland
Period for data	Calendar year 2024
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	-4,7%/+6,2%
A1-A3 Specific data (%)	46,6

ENVIRONMENTAL DATA SUMMARY

Declared unit	1kg
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	4,66E+00
GWP-total, A1-A3 (kgCO ₂ e)	4,46E+00
Secondary material, inputs (%)	14,6
Secondary material, outputs (%)	75,4
Total energy use, A1-A3 (kWh)	17,4
Net freshwater use, A1-A3 (m ³)	0,05

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Pivaset is a company specialized in the production of fire extinguishing products. Our clear mission is to build safety – to create safer environments in which to live and operate. Fire extinguishing products are an important part of our safety and everyday life. We continuously develop products to meet the needs of an ever-evolving and changing world. Pivaset's manufacturing and operations are located in Leppävirta. We are the leading Finnish operator in our field and our products have the Key Flag symbol. Pivaset has both ISO 9001- and 14001-certificates.

PRODUCT DESCRIPTION

Fire hydrant cabinet approved according to EN 671-1:2012, featuring a fire hydrant hose reel inside. Designed for indoor installation either as a surface-mounted unit or partially recessed to a preferred depth using a separate flush-mounting frame. Our fire hydrants are produced in Finland in accordance with standard EN 671-1:2012. Pivaset's basic model fire hydrant cabinets and hose reels, up to 30 meters, are CE-marked. These cabinets and reels are made of epoxy powder-coated steel sheeting, 1.25 mm thick for the fire hydrant cabinets and 1 mm thick for the hose reels. The reels are consistently painted red. All cabinets feature a welded structural back wall and reinforced doors with adjustable steel hinges. The door is equipped with a special lock including a breakable lock protector. Doors open 180 degrees to allow free functioning of a hose reel installed on the door. The reel hubs are specially brass-molded and tested. Fire hydrant hoses comply with standard EN 694 and feature lightweight polyester weave reinforcement. The lightweight hoses operate at 1.2 MPa with a burst pressure of 9 MPa (+20C). While lightweight, the hose is not recommended for continuous use in cleaning heavily worn floor surfaces. A hose/nozzle holder prevents the hose from getting caught between the door. All cabinet models come with a spring-reinforced feed hose and include a direct/fog nozzle and 1 shut-off valve for fire hydrant cabinets.

Further information can be found at:
<https://www.pivaset.fi/>

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	85	Finland, (Germany, Asia)
Minerals	0	
Fossil materials	15	Nordics
Bio-based materials	0	

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0,065

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1kg
Mass per declared unit	1 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	MND	MND	MND	MND	MND	MND	MND	X	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 = MND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

A market-based approach is used in modelling the electricity mix utilized in the factory.

The environmental impacts examined at the product stage cover the manufacturing of raw materials used in production and packaging materials. The study also takes into account material losses occurring during the manufacturing processes and electricity use. Production consists of assembly work only, using tools, a lift and hose press. Therefore, production waste and energy requirements are very minimal. We follow strict quality criteria in all stages of our production and our quality system is certified according to ISO 9001 and ISO 14001. Cardboard boxes, wooden pallet, and packaging film are used as a packaging material for transporting the product from the factory gate.

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.

Considering a distance of 3 km to the nearest customer and 558 km to the furthest, as well as the average road transport value of the final product, an average value of 300,16 km has been used and the transportation method is lorry. Installation requires manual work and tools. The product is installed in or on the walls on the site. For this reason, the energy required for installation is expected to remain low. The packaging material is transported to a waste management site and are assumed to be incinerated. This is a conservative assumption as it is not known to Pivaset exactly how the waste generated in the installation is treated. The assumed transportation is by truck 50 km to a nearby incineration plant.

PRODUCT USE AND MAINTENANCE (B1-B7)

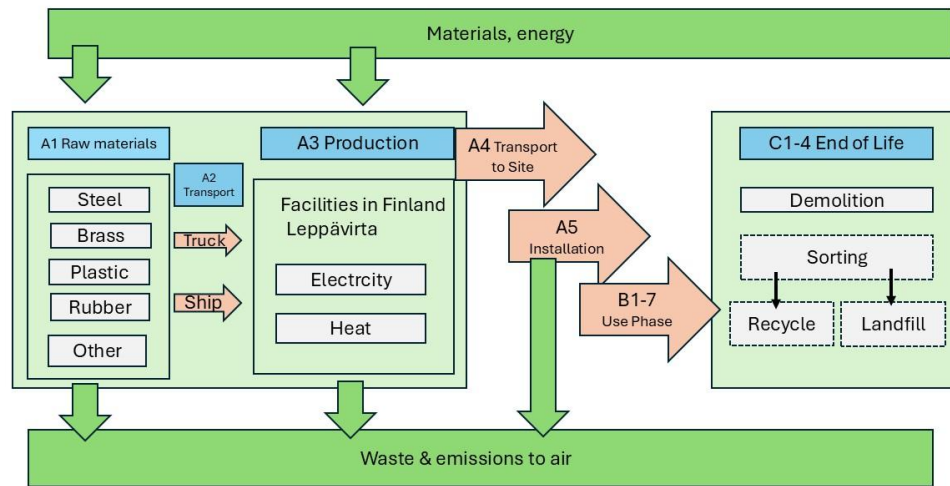
This EPD does not cover the use phase.

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

PRODUCT END OF LIFE (C1-C4, D)

Pivaset does not have any information on how the products are treated in the end-of-life. The assumption is that when a building is demolished, the product will be thrown in the building waste as a whole - without disassembling the product. As the product contains a large amount of steel, it can be assumed that some of it would be recycled, but due to the lack of information, a conservative approach is used. To keep a conservative approach, it was assumed a waste scenario that is equivalent to incineration as waste treatment.

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.

We apply a very small amount of Vaseline to the hose reels with a brush to improve their functionality. This has been excluded from the calculation due to its small amount.

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	Multiple products
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	-4,7%/+6,2%

All fire hydrant cabinets contain the same hose reel. The only variable factor is the frame of the fire hydrant cabinets and quantity of doors; one of the models has one door, two of the models have two doors. The materials are all exactly the same. The weight difference between the products is less than 10%.

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 v3.10.1/3.11 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'.

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	4,55E+00	5,18E-02	-1,46E-01	4,46E+00	6,75E-02	3,64E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,88E-02	2,15E-01	5,70E-03	-2,43E+00
GWP – fossil	kg CO ₂ e	4,51E+00	5,18E-02	1,01E-01	4,66E+00	6,75E-02	9,18E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,88E-02	2,15E-01	5,70E-03	-2,45E+00
GWP – biogenic	kg CO ₂ e	4,09E-02	1,15E-05	-2,48E-01	-2,07E-01	1,34E-05	2,72E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,48E-06	-5,88E-05	-2,82E-06	1,64E-02
GWP – LULUC	kg CO ₂ e	4,82E-03	2,29E-05	1,44E-03	6,28E-03	2,38E-05	1,62E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,72E-05	2,55E-05	7,84E-07	-2,32E-03
Ozone depletion pot.	kg CFC ₋₁₁ e	9,60E-07	7,76E-10	3,22E-09	9,64E-07	1,34E-09	1,25E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,44E-10	3,16E-10	3,64E-11	-1,81E-08
Acidification potential	mol H ⁺ e	8,12E-02	1,75E-04	6,58E-04	8,21E-02	2,11E-04	4,36E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,29E-04	2,35E-04	9,27E-06	-1,61E-02
EP-freshwater ²⁾	kg Pe	8,05E-02	4,00E-06	3,67E-05	8,05E-02	4,48E-06	5,79E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,01E-06	1,19E-05	1,18E-07	-1,55E-03
EP-marine	kg Ne	5,64E-03	5,72E-05	1,66E-04	5,87E-03	7,12E-05	1,09E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,20E-05	6,28E-05	1,30E-05	-2,40E-03
EP-terrestrial	mol Ne	2,73E-01	6,22E-04	1,98E-03	2,76E-01	7,74E-04	8,29E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,57E-04	6,57E-04	3,83E-05	-2,69E-02
POCP (“smog”) ³⁾	kg NMVOCe	1,49E-02	2,58E-04	5,43E-04	1,57E-02	3,31E-04	2,80E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,81E-04	1,90E-04	1,47E-05	-9,15E-03
ADP-minerals & metals ⁴⁾	kg Sbe	1,87E-03	1,46E-07	4,18E-07	1,87E-03	2,21E-07	8,83E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,26E-07	1,19E-06	2,38E-09	-1,58E-04
ADP-fossil resources	MJ	5,23E+01	7,50E-01	1,55E+00	5,46E+01	9,48E-01	1,53E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,45E-01	2,74E-01	3,10E-02	-2,64E+01
Water use ⁵⁾	m ³ e depr.	1,55E+00	3,70E-03	7,01E-02	1,63E+00	4,66E-03	4,16E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,54E-03	2,47E-02	1,10E-04	-6,39E-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	6,34E-07	5,13E-09	7,30E-09	6,46E-07	5,31E-09	4,03E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,13E-09	2,98E-09	2,11E-10	-1,59E-07
Ionizing radiation ⁶⁾	kBq 11235e	4,32E-01	6,67E-04	8,75E-03	4,42E-01	1,21E-03	3,05E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,43E-04	2,07E-03	2,32E-05	-2,43E-02
Ecotoxicity (freshwater)	CTUe	2,00E+02	1,06E-01	9,10E-01	2,01E+02	1,24E-01	3,46E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,56E-02	8,29E-01	1,68E-02	-2,91E+01
Human toxicity, cancer	CTUh	8,36E-09	8,55E-12	2,32E-10	8,60E-09	1,15E-11	6,12E-11	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,58E-12	2,64E-11	3,94E-13	-1,41E-09
Human tox. non-cancer	CTUh	2,67E-07	4,85E-10	9,63E-10	2,68E-07	5,95E-10	1,35E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,42E-10	1,35E-09	5,03E-11	-8,78E-08
SQP ⁷⁾	-	1,64E+01	7,42E-01	1,94E+01	3,65E+01	5,64E-01	4,69E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,40E-01	4,73E-01	6,47E-02	-9,29E+00

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	6,14E+00	1,04E-02	1,21E+00	7,35E+00	1,64E-02	-2,06E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,47E-03	4,52E-02	3,60E-04	-2,56E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	2,37E+00	2,37E+00	0,00E+00	-2,37E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,04E-01
Total use of renew. PER	MJ	6,14E+00	1,04E-02	3,57E+00	9,72E+00	1,64E-02	-4,43E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,47E-03	4,52E-02	3,60E-04	-2,45E+00
Non-re. PER as energy	MJ	5,30E+01	7,50E-01	1,30E+00	5,51E+01	9,48E-01	1,42E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,45E-01	-4,09E+00	-1,56E+00	-2,68E+01
Non-re. PER as material	MJ	1,58E+00	0,00E+00	2,19E-01	1,80E+00	0,00E+00	-2,46E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-1,14E+00	-4,13E-01	1,64E+00
Total use of non-re. PER	MJ	5,46E+01	7,50E-01	1,52E+00	5,69E+01	9,48E-01	1,18E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,45E-01	-5,23E+00	-1,97E+00	-2,52E+01
Secondary materials	kg	1,46E-01	3,20E-04	3,71E-02	1,83E-01	4,34E-04	3,44E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,44E-04	4,25E-04	8,91E-06	1,23E+00
Renew. secondary fuels	MJ	2,85E-03	4,07E-06	6,97E-02	7,25E-02	5,48E-06	1,47E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,11E-06	1,54E-05	1,77E-07	-2,03E-04
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m ³	4,67E-02	1,10E-04	1,15E-03	4,79E-02	1,28E-04	9,38E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,27E-05	5,18E-04	-1,28E-04	-1,36E-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	4,95E-01	1,26E-03	6,31E-03	5,03E-01	1,36E-03	1,62E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,48E-04	6,89E-03	4,08E-05	-7,50E-01
Non-hazardous waste	kg	1,88E+01	2,35E-02	2,04E-01	1,91E+01	2,87E-02	7,27E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,78E-02	1,50E-01	2,02E-01	-8,53E+00
Radioactive waste	kg	3,19E-04	1,63E-07	2,75E-06	3,22E-04	3,00E-07	7,83E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,09E-07	5,29E-07	5,66E-09	-6,13E-06

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	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	1,02E-02	0,00E+00	0,00E+00	1,02E-02	0,00E+00	6,81E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	7,54E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	3,95E-03	0,00E+00	0,00E+00	3,95E-03	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	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	2,35E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	9,07E-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	9,86E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	3,80E-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	1,36E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	5,27E-01	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

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	4,49E+00	5,15E-02	1,03E-01	4,65E+00	6,71E-02	9,80E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,86E-02	2,15E-01	5,49E-03	-2,43E+00
Ozone depletion Pot.	kg CFC ₁₁ e	6,49E-07	6,19E-10	2,60E-09	6,53E-07	1,07E-09	1,06E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,34E-10	2,69E-10	2,90E-11	-1,75E-08
Acidification	kg SO ₂ e	5,35E-02	1,33E-04	4,89E-04	5,42E-02	1,60E-04	3,62E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,91E-05	1,86E-04	6,87E-06	-1,35E-02
Eutrophication	kg PO ₄ ³ e	1,35E-02	3,26E-05	1,90E-03	1,55E-02	4,08E-05	6,51E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,41E-05	3,11E-05	2,99E-06	-1,69E-03
POCP ("smog")	kg C ₂ H ₄ e	1,90E-03	1,19E-05	4,95E-05	1,96E-03	1,53E-05	3,00E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,87E-06	1,17E-05	1,32E-06	-1,36E-03
ADP-elements	kg Sbe	1,87E-03	1,42E-07	4,14E-07	1,87E-03	2,16E-07	8,77E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,23E-07	1,18E-06	2,32E-09	-1,57E-04
ADP-fossil	MJ	6,79E+03	7,40E-01	1,42E+00	6,80E+03	9,28E-01	9,97E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,38E-01	2,38E-01	3,06E-02	-2,61E+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	4,51E+00	5,18E-02	1,02E-01	4,67E+00	6,75E-02	9,20E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,88E-02	2,15E-01	5,70E-03	-2,45E+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

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity, Finland, 2022 (One Click LCA)
Electricity CO2e / kWh	0,28
District heating data source and quality	District Heat, Finland, 2022 (One Click LCA)
District heating CO2e / kWh	0,18

THIRD-PARTY VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited
01.10.2025

