ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

RST balcony pipe system and Roof drains
Vesivek Tuotteet Oy

EPD HUB, HUB-5814
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

VESIVEK
Takuulla vastataan.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Vesivek Tuotteet Oy
Address	Teollisuustie 8, 16300 Orimattila, Finland
Contact details	jukka.viljamaa@vesivek.fi
Website	www.vesivek.fi

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
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	Jukka Viljamaa Vesivek Tuotteet Oy
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Vera Durão, as an authorised verifier acting for EPD Hub Limited

PRODUCT

Product name	RST balcony pipe system and Roof drains
Additional labels	Industrial penetrations
Product reference	-
Place(s) of raw material origin	EU
Place of production	Orimattila,Finland
Place(s) of installation and use	EU
Period for data	1.2.2024-31.1.2025
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	<1
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	3,75

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg
Declared unit mass	1 kg
Mass of packaging	0,0135 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	4,87
GWP-total, A1-A3 ($kgCO_2e$)	4,83
Secondary material, inputs (%)	56,8
Secondary material, outputs (%)	95,1
Total energy use, A1-A3 (kWh)	22,8
Net freshwater use, A1-A3 (m^3)	0,05

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Vesivek Tuotteet is Finland's leading manufacturer of rainwater systems and roof safety products.
Vesivek Tuotteet is part of the Vesivek Group. The product range of Vesivek Tuotteet includes solutions for the needs of residential, commercial, and industrial construction. The product categories of Vesivek Tuotteet include rainwater systems, roof safety products, balcony rainwater systems, solar panel mounting brackets, and industrial penetrations. More detailed information about the company and its products can be found on the company's website: www.vesivek.fi

PRODUCT DESCRIPTION

The RST balcony pipe system is made of stainless steel (RST). Standard sizes are Ø50 mm, Ø75 mm, and Ø100 mm, with a length of 3000 mm and a wall thickness of approximately 1.0–1.5 mm. The system is designed for controlling drainage of rainwater from balconies. Pipes lock into the drains, so wall brackets are not needed between the drains. The typical bracket spacing is about 2 m, using single-point brackets. Fire resistance meets EI60–EI90 requirements, and the service life exceeds 50 years. Components include connection pipes, balcony pipes (3000 mm), elbow pipes (45°, 75°, 88°), Y-branches, drain pipes, extension pieces, as well as clamp bands and RPM brackets. The system is certified EUFI29-23004602-C. This EPD covers all pipe sizes as well as industrial penetrations and pipe dimensions. The sales volumes and production requirements (raw materials, energy, etc.) of all these products have been included in the calculations for this EPD and allocated per kilogram of weight. All the products are manufactured in same materials.

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

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	100	EU
Minerals	-	-
Fossil materials	-	-
Bio-based materials	-	-

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	0,40806

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg
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	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.
Vesivek's stainless steel balcony pipes are manufactured from high-quality stainless steel that meets fire resistance requirements (EI60–EI90) without the need for separate fire barriers. The pipes are precision-formed and usually delivered without coating, as stainless steel versions do not require surface treatment. The system's connection components, such as bends, brackets, and strainer sleeves, are made from the same material and equipped with seals in gasketed systems. Each component undergoes testing for tightness, fire resistance, and compatibility, and the system is certified under EUFI29-23004602-C.

A1: Raw materials came from wholesaler and mostly from direct transport. Transport distances are ca 100 km for each raw material. Product are packed to cardboard boxes or plastic. In transport are used wooden pallets.

A3: Production loses are ca 1 %. Also welding gases Argon are included

A3 Energy; Factory use Nuclear power produced energy and liquefied petroleum gas for heating

A3: waste scenario: Metals and Cardboard are recycled, Plastic and order solid waste are incinerated to energy. Hazardous waste are incinerated to energy. Transport distance is assumed to be 67 km to waste sorting. .
The use of carbon free electricity in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

FInal products are transported mainly by truck and sometimes also ferry is used.The Vesivek balcony pipe system is designed for both new construction and renovation projects, using powder-coated aluminum or stainless steel (RST). Typical pipe diameters in RST systems are Ø50 mm, Ø75 mm, and Ø100 mm. Installation relies on sealed joints with EPDM gaskets to ensure tight and durable connections, and horizontal lines are connected to vertical lines using system-specific fittings. Pipes lock into the drains, eliminating the need for separate wall brackets between drains in the same line, although adjustable mounting systems can be used when pipes need to be fixed 15–200 mm away from the wall. The actual installation is carried out using battery-powered tools or hand tools, allowing flexible and efficient work on-site. To prevent freezing, it is recommended to install a heating cable inside the piping, and additional accessories such as condensate drain fittings and inspection hatches can also be used. Waste scenarios of packaking materials are based on Eurostat data. Plastic 40% is recycled, 37% is incinerated and 23% is landfilled. Cardboard 83% is recycled 8% is recycled and 9% is landfilled. Wooden pallets: 32% is recycled 30% is incinerated and 38% is landfilled. Transport distance to landfill is 50 km, to incineration 150 km and to recycling 250 km
Installation loses are 4% And waste scenario is based on Eurostat Where Stainless sell is recycled and transport distance is 50 km

PRODUCT USE AND MAINTENANCE (B1-B7)

The use phase (B) has been excluded from this EPD because Vesivek balcony drainage system products require minimal maintenance during their lifecycle. No emissions to air, water, or soil have been observed during the use phase in this case.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

C1: Decommisioning is mainly done by hand tools or battery powered machines

C2: It is estimated that the products are transported to a waste treatment facility to sorting to different materials. The assumed transport distance is 50 km by EURO 5 emission truck.

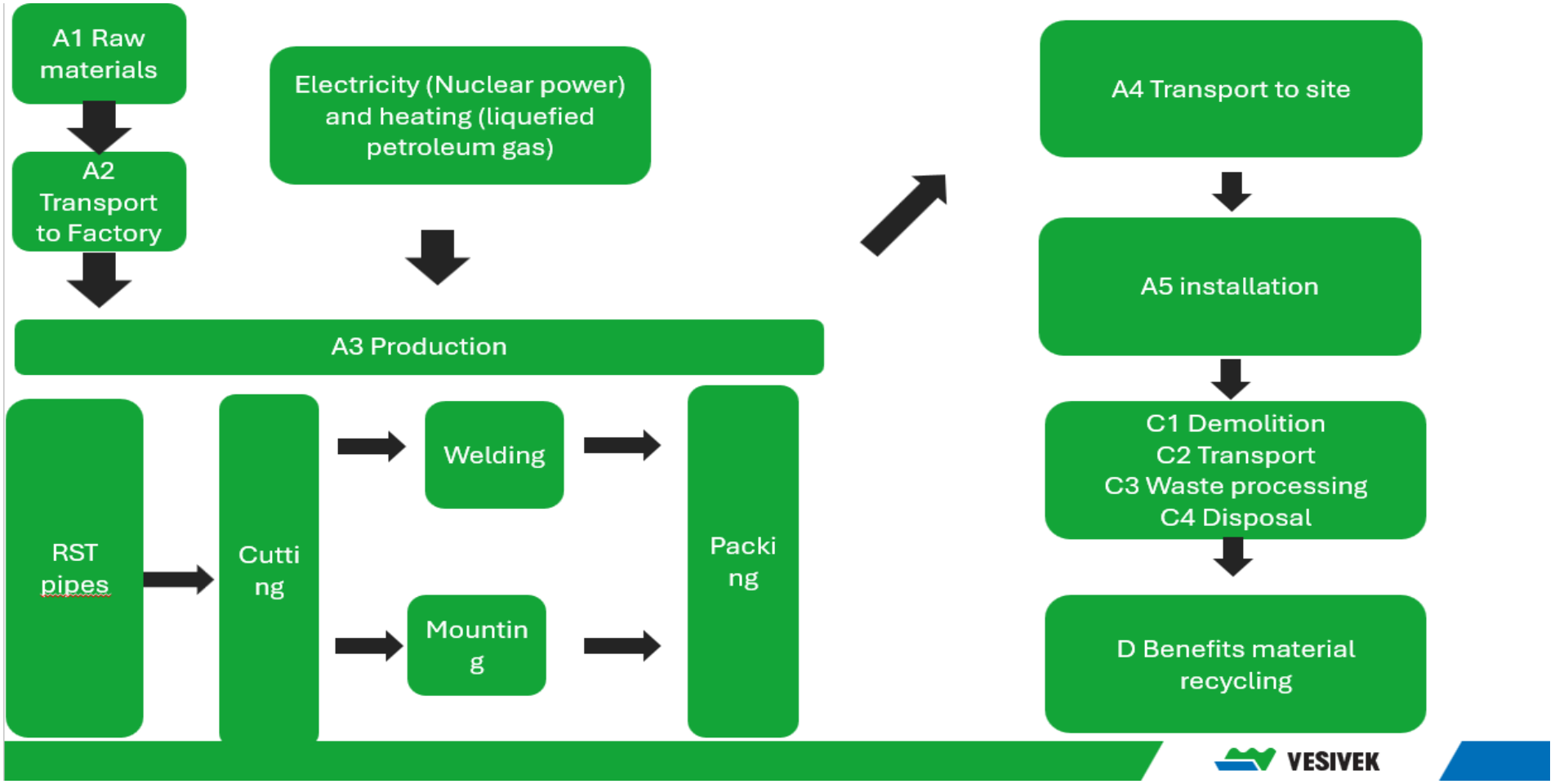
C3-C4. The materials of balcony drainage system products are mostly recyclable. In this scenario:

Stainless steel: 95% is recycled and 5% is landfilled
Steel construction: 85% is recycled and 15% is landfilled

D Benefits was modeled by selecting predefined datasets with generic EU scenarios for each material type. In this scenario benefits are calculated only for virgin materials which are used.

The scenarios were modeled based on Eurostat year 2024, Which represent average scenarios on Europe.

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	Partly allocated by mass or volume
Packaging material	Allocated by mass or volume
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 average results of product group - by total mass
Variation in GWP-fossil for A1-A3, %	<1

This EPD represents RST balcony pipe systems, including RST balcony drains, roof drains, and industrial penetrations. All these products are manufactured using the same raw materials. Therefore, the calculation approach combines the production volumes of the final products together with their raw material and packaging needs. This method results in a single value for kilograms of raw material per kilogram of final product. RSt density

is 7900 kg/m^3. Scaling for different products are in Annex 1. All the raw materials come in Europe and the final products are manufactured in Orimattila Factory.

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‘.

This EPD raw materials use generatic datasets. Those compliant with EN15804+A2 requirements. In other stages there is used generatic data sets. EOL scenarios are based on Eurostat.

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	4,70E+00	9,96E-03	1,17E-01	4,83E+00	1,49E-01	3,19E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,69E-02	2,15E-02	3,13E-04	-1,85E+00
GWP – fossil	kg CO_2e	4,64E+00	9,95E-03	2,24E-01	4,87E+00	1,48E-01	2,08E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,69E-02	2,15E-02	3,13E-04	-1,85E+00
GWP – biogenic	kg CO_2e	5,95E-02	2,22E-06	-1,08E-01	-4,81E-02	2,32E-05	1,11E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,02E-05	-4,56E-05	-9,96E-08	0,00E+00
GWP – LULUC	kg CO_2e	5,13E-03	4,45E-06	7,81E-04	5,92E-03	7,15E-05	2,43E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,08E-05	2,65E-05	1,79E-07	-1,79E-03
Ozone depletion pot.	kg CFC_{-11}e	3,59E-08	1,47E-10	8,18E-09	4,42E-08	2,15E-09	1,90E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,56E-10	2,89E-10	9,07E-12	-1,24E-08
Acidification potential	mol H^+e	2,67E-02	3,39E-05	3,73E-04	2,71E-02	3,81E-03	1,26E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,56E-04	2,56E-04	2,22E-06	-1,04E-02
EP-freshwater[2)]	kg Pe	5,04E-03	7,75E-07	6,67E-04	5,71E-03	5,37E-06	2,92E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,65E-06	1,38E-05	2,57E-08	-5,55E-04
EP-marine	kg Ne	4,75E-03	1,11E-05	1,46E-04	4,91E-03	9,68E-04	2,54E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,07E-05	5,66E-05	8,46E-07	-1,86E-03
EP-terrestrial	mol Ne	4,94E-02	1,21E-04	1,14E-03	5,07E-02	1,07E-02	2,55E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,51E-04	6,40E-04	9,24E-06	-1,99E-02
POCP ("smog")[3)]	kg NMVOCe	1,55E-02	5,00E-05	5,79E-04	1,62E-02	2,94E-03	7,92E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,18E-04	1,90E-04	3,31E-06	-6,35E-03
ADP-minerals & metals[4)]	kg Sbe	1,39E-04	2,78E-08	5,07E-07	1,39E-04	1,74E-07	5,59E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,54E-07	1,52E-06	4,97E-10	-4,85E-05
ADP-fossil resources	MJ	5,50E+01	1,44E-01	1,14E+01	6,66E+01	1,87E+00	2,83E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,58E-01	2,88E-01	7,68E-03	-2,00E+01
Water use[5)]	m^3e depr.	1,98E+00	7,13E-04	1,08E-01	2,08E+00	5,60E-03	8,46E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,05E-03	5,19E-03	2,22E-05	-5,33E-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	4,11E-07	9,96E-10	5,66E-09	4,18E-07	5,91E-09	1,73E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,72E-09	3,47E-09	5,05E-11	-1,48E-07
Ionizing radiation[6]	kBq U235e	4,23E-01	1,26E-04	6,61E-01	1,08E+00	9,10E-04	4,35E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,33E-04	2,45E-03	4,83E-06	-7,70E-02
Ecotoxicity (freshwater)	CTUe	2,85E+02	2,04E-02	4,41E-01	2,86E+02	1,56E-01	1,15E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,04E-01	1,68E-01	6,44E-04	-5,28E+00
Human toxicity, cancer	CTUh	6,95E-09	1,64E-12	1,32E-10	7,08E-09	2,97E-11	3,28E-10	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,98E-12	1,92E-11	5,77E-14	-1,68E-09
Human tox. non-cancer	CTUh	1,03E-07	9,35E-11	9,45E-10	1,04E-07	5,77E-10	4,30E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,12E-10	1,30E-09	1,33E-12	-3,71E-08
SQP[7]	-	2,62E+01	1,45E-01	8,39E+00	3,48E+01	4,47E-01	1,46E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,93E-01	5,61E-01	1,51E-02	-9,43E+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	1,54E+01	1,98E-03	4,20E-01	1,58E+01	1,51E-02	-4,63E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,02E-03	5,38E-02	7,42E-05	-4,79E+00
Renew. PER as material	MJ	0,00E+00	0,00E+00	9,71E-01	9,71E-01	0,00E+00	-9,71E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renew. PER	MJ	1,54E+01	1,98E-03	1,39E+00	1,68E+01	1,51E-02	-1,43E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,02E-03	5,38E-02	7,42E-05	-4,79E+00
Non-re. PER as energy	MJ	5,50E+01	1,44E-01	1,11E+01	6,63E+01	1,87E+00	2,81E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,58E-01	2,88E-01	7,68E-03	-2,00E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	6,39E-02	6,39E-02	0,00E+00	-6,39E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-re. PER	MJ	5,50E+01	1,44E-01	1,12E+01	6,63E+01	1,87E+00	2,75E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,58E-01	2,88E-01	7,68E-03	-2,00E+01
Secondary materials	kg	5,68E-01	6,15E-05	1,93E-02	5,88E-01	8,12E-04	2,36E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,96E-04	3,52E-04	1,93E-06	2,18E-01
Renew. secondary fuels	MJ	1,43E-03	7,81E-07	2,97E-02	3,12E-02	3,26E-06	1,25E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,77E-06	1,64E-05	4,00E-08	-5,13E-04
Non-ren. secondary fuels	MJ	4,22E-29	0,00E+00	0,00E+00	4,22E-29	0,00E+00	1,69E-30	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	4,54E-02	2,13E-05	2,56E-03	4,80E-02	1,46E-04	1,84E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,72E-05	1,53E-04	7,99E-06	-1,62E-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	5,05E+00	2,45E-04	6,96E-03	5,06E+00	2,43E-03	2,03E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,15E-03	1,89E-03	8,49E-06	-1,82E+00
Non-hazardous waste	kg	2,74E+01	4,53E-03	2,30E-01	2,76E+01	3,55E-02	1,25E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,15E-02	6,81E-02	1,94E-04	-3,75E+00
Radioactive waste	kg	1,09E-04	3,08E-08	1,37E-04	2,46E-04	2,22E-07	1,02E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,30E-07	6,26E-07	1,18E-09	-1,89E-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	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	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	9,51E-01	0,00E+00	0,00E+00
Materials for energy rec	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
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,07E-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	4,52E-02	ND	ND	ND	ND	ND	ND	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	6,22E-02	ND	ND	ND	ND	ND	ND	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_2e	4,64E+00	9,95E-03	2,25E-01	4,88E+00	1,49E-01	2,08E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,69E-02	2,15E-02	3,13E-04	-1,85E+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 production, nuclear, boiling water reactor, Finland, Ecoinvent, 0.0077 kgCO2e/kWh
2. Electricity production, nuclear, boiling water reactor, Finland, Ecoinvent, 0.0077 kgCO2e/kWh
3. Heat production, natural gas, at boiler condensing modulating <100kW, Albania, Ecoinvent, 0.0740 kgCO2e/MJ
4. Market for heat, central or small-scale, natural gas, Albania, Ecoinvent, 0.0777 kgCO2e/MJ

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry >32 metric ton, EURO5, 200 km
2. Market for transport, freight, sea, ferry, 1000 km

Transport scenario documentation A4

Scenario parameter	Value
Capacity utilization (including empty return) %	100
Bulk density of transported products	1,01E+02
Volume capacity utilization factor	<1

Installation scenario documentation - A5 (Installation waste)

1. Scrap, collection & sorting (Stainless st), Ecoinvent, 0.042 kg
2. Treatment of waste polyethylene, for recycling, unsorted, sorting, Ecoinvent, 8.0E-5 kg
3. Treatment of waste polyethylene, municipal incineration, Ecoinvent, 7.4E-5 kg
4. Exported Energy: Electricity, Ecoinvent, 5.0E-4 MJ
5. Exported Energy: Electricity, Ecoinvent, 0.0017 MJ
6. Exported Energy: Electricity, Ecoinvent, 0.043 MJ
7. Exported Energy: Thermal, Ecoinvent, 6.9E-4 MJ
8. Exported Energy: Thermal, Ecoinvent, 0.0025 MJ
9. Exported Energy: Thermal, Ecoinvent, 0.059 MJ
10. Treatment of waste polyethylene, sanitary landfill, Ecoinvent, 4.6E-5 kg
11. Treatment of waste paperboard, unsorted, sorting, Ecoinvent, 0.0089 kg
12. Treatment of waste packaging paper, municipal incineration, Ecoinvent, 8.6E-4 kg
13. Treatment of waste packaging paper, sanitary landfill, Ecoinvent, 9.7E-4 kg
14. Treatment of waste wood, post-consumer, sorting and shredding, Ecoinvent, 0.02 kg
15. Treatment of waste wood, untreated, municipal incineration, Ecoinvent, 0.019 kg
16. Treatment of waste wood, untreated, sanitary landfill, Ecoinvent, 0.024 kg

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

1. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 0.95 kg
2. Sorting and pressing of iron scrap, Ecoinvent, Materials for recycling, 8.2E-4 kg
3. Treatment of scrap steel, inert material landfill, Ecoinvent, 0.05 kg
4. Treatment of scrap steel, inert material landfill, Ecoinvent, 1.5E-4 kg

Scenario information	Value
Scenario assumptions e.g. transportation	Transport to landfill 50 km, to recycling 250 and incineration to energy150

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

ANNEX 1.

ø50 MM SYSTEM

Product	kg/kpl	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Roof drain RPC/200	0,831	4,01E+00	4,05E+00	-4,00E-02	4,92E-03
Roof drain RK- (mm)/250 -PVC	0,559	2,70E+00	2,72E+00	-2,69E-02	3,31E-03
Roof drain RK- (mm)/250 -SBS	0,559	2,70E+00	2,72E+00	-2,69E-02	3,31E-03
Renovation roof drain RPC/200	0,92	4,44E+00	4,48E+00	-4,43E-02	5,45E-03
Renovation roof drain RK/250 PVC	0,636	3,07E+00	3,10E+00	-3,06E-02	3,77E-03
Renovation roof drain RK/250 SBS	0,363	1,75E+00	1,77E+00	-1,75E-02	2,15E-03
Balcony drain RPM /140	0,466	2,25E+00	2,27E+00	-2,24E-02	2,76E-03
Discharge pipe drain RPH	0,507	2,45E+00	2,47E+00	-2,44E-02	3,00E-03
Discharge pipe for drain 300	0,334	1,61E+00	1,63E+00	-1,61E-02	1,98E-03
Balocny drainage pipe RST*	1,113	5,38E+00	5,42E+00	-5,35E-02	6,59E-03

*kg/m

ANNEX 2.

ø75 MM SYSTEM

Product	kg/kpl	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Roof drain RPC/200	1,135	5,48E+00	5,53E+00	-5,46E-02	6,72E-03
Roof drain RK- (mm)/250 -PVC	0,909	4,39E+00	4,43E+00	-4,37E-02	5,38E-03
Roof drain RK- (mm)/250 -SBS	0,909	4,39E+00	4,43E+00	-4,37E-02	5,38E-03
Renovation roof drain RPC/200	1,137	5,49E+00	5,54E+00	-5,47E-02	6,73E-03
Renovation roof drain RK/250 PVC	0,875	4,23E+00	4,26E+00	-4,21E-02	5,18E-03
Renovation roof drain RK/250 SBS	0,875	4,23E+00	4,26E+00	-4,21E-02	5,18E-03
Balcony drain RPM /140	0,579	2,80E+00	2,82E+00	-2,78E-02	3,43E-03
Balcony drain VEK/150	0,642	3,10E+00	3,13E+00	-3,09E-02	3,80E-03
Renovation balcony drain RPD	0,417	2,01E+00	2,03E+00	-2,01E-02	2,47E-03
Discharge pipe drain RPH	0,642	3,10E+00	3,13E+00	-3,09E-02	3,80E-03
Balocny drainage pipe RST*	2,117	1,02E+01	1,03E+01	-1,02E-01	1,25E-02

*kg/m

ANNEX 3.

ø98 MM SYSTEM

Product	kg/kpl	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Balcony drain RPM /140	0,77	3,72E+00	3,75E+00	-3,70E-02	4,56E-03
Renovation balcony drain RPD	0,849	4,10E+00	4,13E+00	-4,08E-02	5,03E-03
Discharge pipe drain RPH	1,149	5,55E+00	5,60E+00	-5,53E-02	6,80E-03
Balocny drainage pipe RST*	3,45	1,67E+01	1,68E+01	-1,66E-01	2,04E-02

*kg/m

ø110 MM SYSTEM

Product	kg/kpl	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Roof drain RPC/200	1,592	7,69E+00	7,75E+00	-7,66E-02	9,42E-03
Roof drain RK- (mm)/250 -PVC	1,292	6,24E+00	6,29E+00	-6,21E-02	7,65E-03
Roof drain RK- (mm)/250 -SBS	1,292	6,24E+00	6,29E+00	-6,21E-02	7,65E-03
Renovation roof drain RPC/200	1,654	7,99E+00	8,05E+00	-7,96E-02	9,79E-03
Renovation roof drain RK/250 PVC	1,262	6,10E+00	6,15E+00	-6,07E-02	7,47E-03
Renovation roof drain RK/250 SBS	1,262	6,10E+00	6,15E+00	-6,07E-02	7,47E-03

ANNEX 4.

ø160 MM SYSTEM

Product	kg/kpl	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Roof drain RPC/200	2,449	1,18E+01	1,19E+01	-1,18E-01	1,45E-02
Roof drain RK- (mm)/250 -PVC	2,115	1,02E+01	1,03E+01	-1,02E-01	1,25E-02
Roof drain RK- (mm)/250 -SBS	2,115	1,02E+01	1,03E+01	-1,02E-01	1,25E-02
Renovation roof drain RPC/200	2,617	1,26E+01	1,27E+01	-1,26E-01	1,55E-02
Renovation roof drain RK/250 PVC	2,577	1,24E+01	1,25E+01	-1,24E-01	1,53E-02
Renovation roof drain RK/250 SBS	2,577	1,24E+01	1,25E+01	-1,24E-01	1,53E-02

DRY RISE PIPE

Product	kg/m	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Dry rise pipe Stainless steel	3,25	1,57E+01	1,58E+01	-1,56E-01	1,92E-02

ANNEX 5.

RBD PASS-THROUGH SLEEVES

Product	kg/kpl	GWP total kg CO2e/m	GWP fossil kg CO2e/m	GWP biogenic kg CO2e/m	GWP LULUC kg CO2e/m
Ø52	0,375	1,81E+00	1,83E+00	-1,80E-02	2,22E-03
Ø75	0,735	3,55E+00	3,58E+00	-3,54E-02	4,35E-03
Ø77	0,735	3,55E+00	3,58E+00	-3,54E-02	4,35E-03
Ø100	0,863	4,17E+00	4,20E+00	-4,15E-02	5,11E-03
Ø102	1,021	4,93E+00	4,97E+00	-4,91E-02	6,04E-03
Ø125	1,142	5,52E+00	5,56E+00	-5,49E-02	6,76E-03
Ø127	1,161	5,61E+00	5,65E+00	-5,58E-02	6,87E-03
Ø150	1,374	6,64E+00	6,69E+00	-6,61E-02	8,13E-03
Ø152	1,392	6,72E+00	6,78E+00	-6,70E-02	8,24E-03
Ø200	1,836	8,87E+00	8,94E+00	-8,83E-02	1,09E-02
Ø202	1,854	8,95E+00	9,03E+00	-8,92E-02	1,10E-02
Ø250	2,298	1,11E+01	1,12E+01	-1,11E-01	1,36E-02
Ø309	2,844	1,37E+01	1,39E+01	-1,37E-01	1,68E-02
Ø350	3,223	1,56E+01	1,57E+01	-1,55E-01	1,91E-02
Ø410	3,778	1,82E+01	1,84E+01	-1,82E-01	2,24E-02
Ø450	4,148	2,00E+01	2,02E+01	-2,00E-01	2,46E-02
Ø500	4,61	2,23E+01	2,25E+01	-2,22E-01	2,73E-02