





ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Product name:

1. Ventilation noise silencers

2. Ventilation fittings

Producer:

VENT TRADE SP. Z O.O.

Address: Abrahama 1A/2.01, 1st floor, 80-307 Gdańsk, POLAND





Issued on 9 May 2025 Valid until 9 May 2030





GENERAL INFORMATION

EPD OWNER

Manufacturer / EPD Holder	VENT TRADE SP. Z O.O.
Address	Abrahama 1A/2.01, 1st floor, 80-307 Gdańsk, POLAND
Contact details	info@venttrade.eu
Website	https://venttrade.eu

PRODUCT IDENTIFICATION

Product name	1. Ventilation noise silencers
	2. Ventilation fittings
Place(s) of production	Poland

EPD INFORMATION

EPD Poland	Multicert Sp. z o.o.						
program operator	UI. Mydlarska 47, 04-690 Warszawa, Poland						
	www.epd.org.pl, epd@epd.org.pl						
EPD standards	This EPD is in accordance with EN 15804+A2 and ISO 14025 standards.						
Product category rules	The CEN standard EN 15804+A2 serves as the core PCR.						
EPD verification	Independent verification of this EPD and data, according to ISO 14025: \Box Internal certification \boxtimes External verification						
EPD verifier	Daniel Wałach, PhD Eng.						
EPD number	EPD-P 01.05.2025						
Registration:	EPD Polska www.epd.org.pl						
Publishing date	9 May 2025						
EPD valid until	9 May 2030						
Reasons for performing LCA	B2B						
Accountability	The EPD Holder is responsible for the information provided and evidence. Multicert Sp. z o.o. does not hold responsibility for the manufacturer information, life cycle assessment data nor supporting evidence.						

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.







COMPANY INFORMATION

HOLDER OF THE EPD

VENT TRADE SP. Z O.O. Abrahama 1A/2.01, 1st floor, 80-307 Gdańsk, POLAND

COMPANY PROFILE

Venttrade Sp. z o.o. from Gdańsk brings together two specialist divisions:ventilation and metal fabrication under one roof. Since its founding in 2010 Venttrade has pioneered turnkey building-services solutions tailored to HVAC industrial and commercial projects across Europe. In the Ventilation division, the company provides circular program ductwork engineered to EN 1506 standards. The Metalworks unit fabricates custom sheet-metal assemblies—laser-cut, press-braked and welded—to create supports and mesh panels meeting customer's requirements.

Venttrade's 2 500 m² production plant houses: CNC laser cutters, high-tonnage press, metal forming stands, manual and automated welding cells, enabling rapid prototyping and batch production keeping high precission.







PRODUCT INFORMATION

PRODUCT DESCRIPTION

Vent Trade ventilation noise silencers and fittings are sheet-metal HVAC components engineered for high performance, durability and recyclability.

Ventlation noise silencers are inline acoustic attenuators for circular ducts. Their casings are made from galvanized steel, with mineral-wool cores protected by perforated sheet and EPDM rubber gaskets to ensure airtightness class D and excellent sound absorption. They resist fire exposure and retain acoustic performance under continuous airflow.



Segment & Pressed Bends comes from from 15° up to 90° bend angle, made of galvanized steel for keeping optimum corrosion resistance and long service life. Available with or without rubber gaskets. Manufactured in automated process maintain class-D airtightness and precise geometry for leak-free duct operation.



Other ventilation fittings (transitions, reducers, tee, male/female joints) are produced according to EN 1506 (circular) standards, ensuring mechanical strength, dimensional accuracy and compatibility with customer's requirements.









Finished items are fully recyclable at end of life.



VENT TRADE SP. Z O.O.



PRODUCT APPLICATION

Venttrade's sheet-metal HVAC components serve wherever airflow control, acoustic attenuation and airtight duct connections.

Venttrade noise silencers: Inline acoustic attenuators for circular ducts, delivering class-D airtightness and high sound absorption in commercial, industrial and clean-room applications.

Segment bends & pressed bends: Elbow fittings are used for direction changes, available with rubber gaskets to ensure leak-free performance.

Ventilation fittings: transitions, reducers, tee, male/female joints, used for precise, airtight duct connections.

LIST OF ARTICLES COVERED BY THIS DECLARATION

Article code												
BFV	BVU	HFV	LRCAVU	PILFV	PTCPV	RCLVU	TPRV					
BFVU	EPFHV	HFVU	MFV	PILV	PTCPVU	RLV	TPRVU					
BKFMV	EPFV	HNV	NPV	PILVU	RCFLKV	RLVU	TSTCUV					
BKFMVU	EPMV	HNVU	NPVU	PRCLV RCFLKVU		SLV	TSTCV					
BKFV	EPNV	ILV	PDR0-9V	PRCLVU	RCFLV	SLVU	VHAV					
BKFVU	ESHV	ILVU	PDR0-9VU	PSLV	RCFLVU	TCPV	VHAVU					
BSLV	ESHVU	KHV	PEPFV	PSLVU	RCLKV	TCPVU	VHLVU					
BSLVU	ESV	KHVU	PESV	PSV	RCLKVU	TCV	VHV					
BV	ESVU	LRCAV	PESVU	PSVU	RCLV	TCVU						

This EPD declaration covers the following products:

PRODUCT STANDARDS

The product complies with:

- EN 1506 Circular sheet metal ducts and fittings for ventilation; requirements and testing
- EN 12237 Strength and leakage of circular sheet metal ducts and fittings

ADDITIONAL TECHNICAL INFORMATION

Further information can be found at https://venttrade.eu





PRODUCT RAW MATERIAL COMPOSITION

Product Raw Material Composition for Ventilation Silencers

Material	Amount (by weight)	Weighted average (by weight)
Galvanized steel DX51D	82.5 – 95 %	94.6 %
Mineral-wool	4.2 – 15.9 %	0.3 %
EPDM gasket	0.3 – 0.8 %	0.5 %
Sealant	0.14 - 0.8 %	4.6 %

Product Raw Material Composition for Ventilation Fittings

Material	Amount (by weight)	Weighted average
		(by weight)
Galvanized steel DX51D, DX54D	98.0 - 100.0 %	98.0 %
EPDM gasket	0 .0- 1.0 %	1.0 %
Sealant	0.0 - 1.0 %	1.0 %

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

RAW MATERIALS ACQUISITION TRANSPORT (A1, A2)

A1 and A2: Raw Materials Supply and Transport encompass the sourcing, processing and delivery of all raw materials required for Vent Trade's ventilation noise silencers and fittings. A1 covers the production of sheet-metal coils (galvanized steel DX51D+Z275 and DX54D+Z275), EPDM gasket profiles, mineral-wool acoustic inserts and fastening hardware sourced from both domestic and EU suppliers. Transportation, covered under Module A2, involves truck transport and relies on Polish and European average data for fuel consumption.

MANUFACTURING (A3)

The manufacturing of Vent Trade circular silencers is based on spiro ducts forming in automated process. Circular endcaps are made in punch cutting, rolling, line welding and plastic forming process; finally the EPDM gasket is fixed. The last step is manual assembly of duct reducer and insulation wool.

Rectangular silencers production process starts from laser cutting of housing and end caps. EPDM gaskets are fixed. Casing is consolidated with special folding system. The last steps are manual assembly and spot welding process closing the housing with end caps.

Segment elbows process consists of a series of automated well-defined steps, each ensuring precision and performance. The last step is forming grooves and fixing the EPDM gaskets.

Ventilation fittings are manufactured in cold metal forming process connected with EPDM gasket fixing and line welding.

All finished parts undergo quality verification procedure according to strict guidelines. Units are packed in single boxes, palletized with protective separators, wrapped with special foil, labeled with product code, dimensions and batch number, and fixed for transportation ensuring they arrive in perfect condition, ready for immediate installation.





END OF LIFE (C1 – C4)

Deconstruction /Demolition (C1)

The deconstruction of the product does not require the use of energy. Therefore, energy consumption and emissions associated with this module are considered negligible.

Transport (C2)

In the assumed end-of-life scenario, deconstructed products are transported 100 km to waste processing using a lorry (>32 t, EURO mix standard).

Waste processing (C3) and Disposal (C4)

After deconstruction, the components are processed as follows:

- Steel: 95% of the steel is assumed to be sent for material recycling, while 5% is sent to landfill.
- Mineral wool: 100% of the mineral wool is disposed of via landfilling, as recycling is not applied.
- EPDM gasket: 100% of the EPDM gasket is subject to energy recovery through incineration.

Reuse/recovery/recycling potential (D)

Module D presents the environmental benefits associated with the recycling of steel scrap. The recycled steel is credited with avoiding the production impacts of primary steel. Additionally, the energy recovered from the incineration is accounted for as a benefit by substituting the production of energy from conventional sources.

In order to avoid double counting, the share of recycled steel content already present in the product was deducted when calculating the recycling benefits in Module D.







Diagram 1 - Life cycle stages







LIFE-CYCLE ASSESSMENT

LIFE-CYCLE ASSESSMENT INFORMATION

Period for data 2024 year

DECLARED AND FUNCTIONAL UNIT

Declared unit	1 kg
Mass per declared unit	1 kg

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0.00
Biogenic carbon content in packaging, kg C	0.02

SYSTEM BOUNDARY

The scope of the EPD is "cradle to gate with modules C1-C4 and module D". The modules A1 (Raw material supply), A2 (Transport) and A3 (Manufacturing), C1 Deconstruction /Demolition C2 (Waste Transport), C3 (Waste Processing), C4 (Waste Disposal) and D are included in the study.

Product stage Assembly stage					Use stage						End of life stage				Beyond the system boundaries	
A1	A2	A3	A4	A5	B1	B2	B3	B 4	В5	B6	B7	C1	C2	C3	C4	D
x	x	x	MND	MND	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x
Raw materials`	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse / Recycling

Modules not declared = MND. Modules not relevant = MNR.





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CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the *EN 15804:2012+A2:2019*. 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 which data were available for are included in the calculation. There is no neglected unit process more than 1% of total mass and energy flows. The total neglected input and output flows do not exceed 5% of energy usage or mass. The life cycle analysis includes all industrial processes from raw material acquisition to production, and distribution.

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.

ESTIMATES AND ASSUMPTIONS

This LCA study is conducted in accordance with all methodological considerations, such as performance, system boundaries, data quality, allocation procedures, and decision rules to evaluate inputs and outputs. All estimations and assumptions are given below:

- **Module (A1-A3):** All relevant data declared have been included. The average transport distances of each material were calculated based on locations of all suppliers and allocated as per the declared unit. Energy resources were considered and accounted for as disclosed. Furthermore, the management of on-site waste was handled.
- **Module (C1):** Products at the end of their service life are dismantled without requiring additional equipment or energy.
- **Module (C2):** 100 kms of distance is taken as an average for the transportation of waste to the recycling facility.
- **Module (C3,C4):** After deconstruction, steel is prepared for material recycling (95%) or landfilling (5%), mineral wool is prepared for landfilling (100%), and the EPDM gasket undergoes energy recovery through incineration.
- **Module (D):** The recycled steel is credited with avoiding the impacts of primary steel production. Additionally, the energy recovered from incineration is credited by substituting energy produced from conventional sources. In order to avoid double counting, the recycled content of steel already present in the product was deducted when calculating the recycling benefits in Module D.







ALLOCATION

The allocation is carried out in accordance with the provisions of EN 15804. The information provided for the year 2024 includes all products produced at both manufacturing facilities during that year. Due to the similarity in production resources and processing stages, a weighted average based on product weight for both facilities was applied. Input and output data from production are inventoried and allocated on a mass basis to the declared unit of 1 kilogram.

Data Quality

For foreground data, the LCA study relies on primary data gathered by VENT TRADE Sp. z o.o. All relevant background data sets have been sourced from the LCA for Experts, version 10.9.1.10. – software's database Sphera Managed LCA Content Databases v2025 and from available EPD.

Geographic Representativeness

The specified land or region where the product system is manufactured and managed is Poland, Europe.



ENVIRONMENTAL IMPACT DATA - VENTILATION NOISE SILENCERS

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

								VEN	TILATION N	OISE SILENCERS
Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Acidification	mol H+e	1.19E-02	MND	MND	MND	0.00E+00	1.65E-05	9.45E-06	1.13E-05	-3.15E-03
Climate change – total	kg CO2e	2.94E+00	MND	MND	MND	0.00E+00	9.60E-03	2.43E-02	1.72E-03	-1.37E+00
Climate change – fossil	kg CO2e	3.03E+00	MND	MND	MND	0.00E+00	9.72E-03	2.43E-02	1.71E-03	-1.37E+00
Climate change – biogenic	kg CO2e	-9.13E-02	MND	MND	MND	0.00E+00	-2.13E-04	2.15E-07	-3.72E-06	3.05E-04
Climate change – LULUC	kg CO2e	2.06E-03	MND	MND	MND	0.00E+00	9.96E-05	1.49E-06	6.06E-06	-6.67E-04
Abiotic depletion of fossil resources	МЈ	3.55E+01	MND	MND	MND	0.00E+00	1.24E-01	4.79E-02	2.57E-02	-1.05E+01
Eutrophication, aquatic freshwater	kg PO4e	9.24E-04	MND	MND	MND	0.00E+00	2.61E-08	1.95E-09	2.47E-09	-4.84E-07
Eutrophication, aquatic marine	kg Ne	2.70E-03	MND	MND	MND	0.00E+00	7.04E-06	2.17E-06	2.84E-06	-7.59E-04
Eutrophication, terrestrial	mol Ne	2.81E-02	MND	MND	MND	0.00E+00	7.40E-05	2.74E-05	3.09E-05	-8.17E-03
Abiotic depletion, minerals & metals	kg Sbe	2.71E-05	MND	MND	MND	0.00E+00	6.44E-10	4.86E-10	1.12E-10	-1.43E-08
Ozone depletion	kg CFC11e	8.88E-08	MND	MND	MND	0.00E+00	1.61E-15	6.85E-14	5.23E-15	-7.90E-13
Photochemical ozone formation	kg NMVOCe	1.08E-02	MND	MND	MND	0.00E+00	1.50E-05	6.00E-06	8.66E-06	-2.54E-03
Water use	m3e depr.	7.25E-01	MND	MND	MND	0.00E+00	4.43E-05	1.74E-03	1.94E-04	-9.66E-03

MND abbreviation stands for Module Not Declared, MNR stands for Module Not Relevant

EN 15804+A2 disclaimer for Abiotic depletion and Water use indicators and all 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 experienced with the indicator.







ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2, PEF

VENTILATION NOISE SILENCERS

Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Eco-toxicity (freshwater)	CTUe	4.54E+00	MND	MND	MND	0.00E+00	1.61E-01	1.50E-02	1.97E-02	-1.64E+00
Human toxicity, cancer effects	CTUh	7.31E-10	MND	MND	MND	0.00E+00	2.18E-12	6.23E-13	3.35E-13	-2.17E-09
Human toxicity, non-cancer effects	CTUh	6.01E-09	MND	MND	MND	0.00E+00	1.22E-10	1.28E-11	1.08E-11	1.61E-09
Ionizing radiation, human health	kBq U235e	1.41E-02	MND	MND	MND	0.00E+00	3.36E-05	3.02E-05	4.15E-05	1.79E-02
Particulate matter	Incidence	1.17E-07	MND	MND	MND	0.00E+00	1.41E-10	9.00E-11	1.34E-10	-4.64E-08

USE OF NATURAL RESOURCES

								VENTIL	<u>ATION NOI</u>	<u>SE SILENCERS</u>
Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Total use of non-renewable PER	МЈ	1.68E+01	MND	MND	MND	0.00E+00	1.24E-01	4.79E-02	2.57E-02	-1.05E+01
Total use of renewable PER	MJ	1.64E+00	MND	MND	MND	0.00E+00	9.35E-03	2.42E-02	4.47E-03	1.59E+00
Use of net fresh water	m₃	-1.35E-03	MND	MND	MND	0.00E+00	4.62E-06	4.87E-05	5.71E-06	-8.07E-04
Use of renewable secondary fuels	МЈ	0.00E+00	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of secondary materials	kg	2.86E-01	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PER abbreviation stands for primary energy resources

MND abbreviation stands for Module Not Declared, MNR stands for Module Not Relevant

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.

VENTILATION NOISE SILENCERS



END OF LIFE – WASTE

VENTILATION NOISE SILENCERS

Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste	kg	8.65E-02	MND	MND	MND	0.00E+00	4.98E-12	5.62E-11	5.59E-12	3.79E-09
Radioactive waste disposed	kg	4.68E-04	MND	MND	MND	0.00E+00	2.34E-07	2.00E-07	3.27E-07	1.72E-04
Non-hazardous waste	kg	7.19E-01	MND	MND	MND	0.00E+00	1.73E-05	6.29E-04	9.37E-02	-2.10E-02

END OF LIFE – OUTPUT FLOWS

VENTILATION NOISE SILENCERS Unit Impact category A1-A3 A4 A5 **B1-B7 C1 C2 C**3 **C4** D Components for reuse kg 0.00E+00 MND 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 MND MND Materials for recycling kg 1.63E-01 MND MND MND 0.00E+00 0.00E+00 8.99E-01 0.00E+00 -8.24E-01 Materials for energy kg 0.00E+00 MND 0.00E+00 0.00E+00 0.00E+00 0.00E+00 MND MND 0.00E+00 recovery MJ Exported energy 1.80E-03 MND MND MND 0.00E+00 0.00E+00 3.07E-02 0.00E+00 -3.25E-02

MND abbreviation stands for Module Not Declared, MNR stands for Module Not Relevant



VENT TRADE SP. Z O.O.



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ENVIRONMENTAL IMPACT DATA – VENTILATION FITTINGS

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

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Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Acidification	mol H+e	1.20E-02	MND	MND	MND	0.00E+00	1.65E-05	1.23E-05	6.50E-06	-3.08E-03
Climate change – total	kg CO2e	3.03E+00	MND	MND	MND	0.00E+00	9.60E-03	5.55E-02	1.04E-03	-1.35E+00
Climate change – fossil	kg CO2e	3.15E+00	MND	MND	MND	0.00E+00	9.72E-03	5.55E-02	1.04E-03	-1.35E+00
Climate change – biogenic	kg CO2e	-1.24E-01	MND	MND	MND	0.00E+00	-2.13E-04	1.41E-06	-1.48E-06	2.75E-04
Climate change – LULUC	kg CO2e	2.37E-03	MND	MND	MND	0.00E+00	9.96E-05	2.26E-06	3.28E-06	-6.49E-04
Abiotic depletion of fossil resources	МЈ	3.74E+01	MND	MND	MND	0.00E+00	1.24E-01	5.14E-02	1.70E-02	-1.03E+01
Eutrophication, aquatic freshwater	kg PO4e	9.37E-04	MND	MND	MND	0.00E+00	2.61E-08	2.57E-09	1.47E-09	-4.80E-07
Eutrophication, aquatic marine	kg Ne	2.79E-03	MND	MND	MND	0.00E+00	7.04E-06	2.94E-06	1.58E-06	-7.41E-04
Eutrophication, terrestrial	mol Ne	2.82E-02	MND	MND	MND	0.00E+00	7.40E-05	4.15E-05	1.73E-05	-7.98E-03
Abiotic depletion, minerals & metals	kg Sbe	2.81E-05	MND	MND	MND	0.00E+00	6.44E-10	4.99E-10	7.07E-11	-1.50E-08
Ozone depletion	kg CFC11e	9.06E-08	MND	MND	MND	0.00E+00	1.61E-15	6.87E-14	3.37E-15	-9.09E-13
Photochemical ozone formation	kg NMVOCe	1.11E-02	MND	MND	MND	0.00E+00	1.50E-05	8.21E-06	4.91E-06	-2.48E-03
Water use	m3e depr.	8.42E-01	MND	MND	MND	0.00E+00	4.43E-05	4.43E-03	1.22E-04	-9.47E-03

MND abbreviation stands for Module Not Declared, MNR stands for Module Not Relevant

EN 15804+A2 disclaimer for Abiotic depletion and Water use indicators and all 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 experienced with the indicator.





ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2, PEF

VENTILATION FITTINGS Unit **C**3 Impact category A1-A3 Α4 A5 **B1-B7 C1 C**2 **C4** D Eco-toxicity (freshwater) CTUe 5.01E+00 MND 0.00E+00 1.61E-01 1.69E-02 1.29E-02 -1.64E+00 Human toxicity, cancer CTUh 7.04E-10 MND MND MND 0.00E+00 2.18E-12 7.86E-13 2.19E-13 -2.10E-09 effects Human toxicity, non-cancer CTUh 6.51E-09 MND MND MND 0.00F+00 1.22E-10 1.40F-11 6.42F-12 1.51E-09 effects Ionizing radiation, human kBq U235e 1.23E-02 MND MND MND 0.00E+00 3.36E-05 7.21E-05 3.17E-05 1.73E-02 health Particulate matter Incidence 1.18E-07 MND MND 0.00F+00 1.41E-10 1.17E-10 7.47F-11 -4.51E-08 MND

USE OF NATURAL RESOURCES

								V	ENTILATIO	<u>N FITTINGS</u>
Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Total use of non-renewable PER	MJ	1.74E+01	MND	MND	MND	0.00E+00	1.24E-01	5.14E-02	1.70E-02	-1.03E+01
Total use of renewable PER	MJ	1.73E+00	MND	MND	MND	0.00E+00	9.35E-03	2.48E-02	2.78E-03	1.47E+00
Use of net fresh water	m₃	-1.40E-03	MND	MND	MND	0.00E+00	4.62E-06	1.12E-04	3.59E-06	-8.03E-04
Use of renewable secondary fuels	MJ	0.00E+00	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of secondary materials	kg	3.13E-01	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

PER abbreviation stands for primary energy resources

MND abbreviation stands for Module Not Declared, MNR stands for Module Not Relevant

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.





END OF LIFE – WASTE

VENTILATION FITTINGS

Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Hazardous waste	kg	8.75E-02	MND	MND	MND	0.00E+00	4.98E-12	5.71E-11	3.68E-12	3.55E-09
Radioactive waste disposed	kg	4.69E-04	MND	MND	MND	0.00E+00	2.34E-07	4.66E-07	2.36E-07	1.66E-04
Non-hazardous waste	kg	7.20E-01	MND	MND	MND	0.00E+00	1.73E-05	1.57E-03	4.91E-02	-2.05E-02

END OF LIFE – OUTPUT FLOWS

								<u>\</u>	<u>/ENTILATIO</u>	ON FITTINGS
Impact category	Unit	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	D
Components for reuse	kg	0.00E+00	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	1.42E-01	MND	MND	MND	0.00E+00	0.00E+00	8.69E-01	0.00E+00	-7.98E-01
Materials for energy recovery	kg	0.00E+00	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	МЈ	1.77E-03	MND	MND	MND	0.00E+00	0.00E+00	7.93E-02	0.00E+00	-8.11E-02

MND abbreviation stands for Module Not Declared, MNR stands for Module Not Relevant





SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	Electricity, medium voltage, production mix (Reference product: electricity, medium voltage), Poland, 2023
Electricity CO2e / kWh	0.669 kg CO2 / kWh

End of life scenario documentation

Scenario parameter	Value
Collection process – % collected separately	100
Collection process – % collected with mixed waste	-
Recovery process – % for re-use	-
Steel – % for recycling	95
Steel- % for final deposition	5
EPDM Gasket - % for energy recovery	100
Mineral-Wool- % for final deposition	100
Scenario assumptions for transportation	End-of-life product is transported 100 km with Truck, Euro mix, 24.7t payload capacity







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EPD VERIFICATION:

The verification procedure for this Environmental Product Declaration (EPD) has been carried out in accordance with the requirements of ISO 14025 standards. Once the verification process is complete, the EPD remains valid for a period of 5 years. There is no need to recalculate the parameters contained in the EPD after this period, provided that the data underlying the declaration have not changed substantially.

EPD CONTRIBUTORS

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Note: The sole ownership, liability, and	liability of this declaration are with the

owner. Construction product declarations may not be comparable if they do not comply with EN 15804. For detailed information on comparability, please refer to EN 15804 and ISO 14025.





EPD Poland Certificate

