ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Lindab circular ventilation duct, folded
Lindab Safe & Safe Click – recycled 75

Lindab Ventilation AB

EPD Registration number: HUB-2960
Version: 1.0
Publication date: 04 April 2025
Valid until: 04 April 2030
Revision date: 04 April 2025

Lindab®

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Lindab Ventilation AB
Address	Stålhögavägen 115, 269 82 Båstad, Sweden
Contact details	lindab@lindab.com
Website	https://www.lindab.se/

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD HUB
Reference standard	EN 15804+A2:2019 and ISO 14021
PCR	EPD Hub Core PCR Version 1.1, 5 Dec 2023
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Kerstin Bergström
EPD verification	☑ Internal certification ☑ External verification
EPD verifier	Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

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	Circular ventilation duct, folded Lindab Safe & Safe Click – recycled 75
Additional labels	SR, SRL
Product reference	-
Place of production	Grevie, Sweden
Period for data	Calendar year 2024
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3	< 10%

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of circular ventilation duct
Declared unit mass	1 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	0.97
GWP-total, A1-A3 ($kgCO_2e$)	0.87
Secondary material, inputs (%)	97.8
Secondary material, outputs (%)	85
Total energy use, A1-A3 (kWh)	10.2
Total water use, A1-A3 (m^3)	0.02

MANUFACTURER

ABOUT LINDAB

Lindab is a leading ventilation company in Europe, offering solutions for energy-efficient ventilation and a healthy indoor climate. The products are characterised by high quality, ease of installation and environmental thinking. In northern Europe, Lindab also offers an extensive range of roof, wall and rainwater systems.

FOR A BETTER CLIMATE

We want to create a better climate. Most of us spend the majority of our time indoors. The air we breathe, in our homes, at our workplaces and at school, affects our well-being. Since air is not visible, we do not always think about it. However, the indoor climate is crucial for how we feel, for our energy levels, and whether we stay healthy. Lindab wants to contribute to the architecture and indoor climate of tomorrow. We also want a better climate for our planet. That is why we develop energy-efficient solutions for healthy indoor environments

OUR VISION

We want to be the leading player in the area in which we are strongest – ventilation in Europe. We focus on air distribution and air diffusion. Since we offer high-quality products, we focus on Europe where demand for good ventilation is high, and we can offer superior availability. We specialise in those parts of the ventilation system where we are the strongest. We adapt our offering to the local market, with our core ventilation offering as the clear common denominator in all markets.

THE IMPORTANCE OF VENTILATION

About 90 percent of the global population breathes poor air every day. A common misconception is that outdoor air is more polluted due to emissions, smog, and harmful chemicals. In fact, indoor air in homes, schools, offices, and factories can be as much as five times more polluted. People nonetheless spend most of their life indoors. The most common causes of indoor air pollution are mould; chemicals in, for example, furniture and building materials; dust; radon; and cigarette smoke; but above all, airborne particles from combustion and industrial processes, which are so small they can enter the human bloodstream via the respiratory system. Today, air pollution is a risk factor in several of the world's most common causes of death, including heart disease, pneumonia, stroke, diabetes, and lung cancer. Ventilation is an efficient and convenient method to remove those indoor air pollutants.

SUSTAINABILITY PLAN

For us, sustainability is a way of thinking and working. This affects how we work with Lindab's strategy in all areas. Everything from the purchases we make, to the deliveries and the service we offer our customers. Lindab has three long-term, non-financial targets for the business, one that focuses on increasing our attractiveness as an employer, one for reducing our own carbon dioxide emissions, and one for a better working environment.

Read more about Lindab's sustainability work and non-financial targets on www.lindabgroup.com

RECYCLED STEEL

Steel allows products with long service life, making it a preferred material across various applications. Its advantages are numerous: steel is highly durable, non-combustible, and meets stringent hygiene requirements. Moreover, steel is fully recyclable, playing a vital role in the circular economy transition.

At Lindab, we are committed to advancing sustainability through our materials choices. We strive to increase the proportion of recycled content in our products, with Recycled Steel 75 guaranteeing at least 75% metal scrap utilization. Lindab offers circular ventilation ducts and fittings made from this material as part of our standard offerings in selected markets, and we are actively exploring ways to further enhance our recycled content.

Lindab prioritises collaboration with steel suppliers committed to developing decarbonised steel processes. By working together, we aim to drive innovation and progress towards more environmentally friendly steel production methods.

PRODUCT

PRODUCT DESCRIPTION

Lindab ventilation ducts (SR) are circular ducts made from 75% recycled steel, meant to be used for air distribution in mechanical ventilation systems in buildings. SRL is the same ventilation duct with lids on each side to protect the inside of the duct from dirt before installation.

They are compatible with Lindab Vent or Lindab Safe duct fittings. The products are Eurovent certified for airtightness class D when used as part of the Lindab Safe air duct system.

Further information can be found at www.lindab.com.

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	0.032

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of circular ducts made of recycled 75 galvanized steel
Mass per declared unit	1 kg
Functional unit	-
Reference service life	>50 years The reference service life of the product is highly dependent on the conditions of use, average lifespan under normal conditions with recommended service and maintenance. This is an estimated value based on experience and scientific facts.

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm). More detailed information about the products material content can be found in the Building Product Declaration available online.

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		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	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.

The steel raw material (Hot-Dip galvanized steel made of minimum 75% scrap) is received in Lindab Steel service centre and goods inwards control is performed. The correct slitted coil is selected according to the manufacturing order. The unique ID number is connected to the manufacturing order for traceability.

The Lindab circular ducts are then rolled to wanted shape by spiro machines. Replicating oil emulsion is used during the process to reduce the wear of machines and to ensure stable production conditionings. Electricity source is from hydro energy. The production is based on order of projects, which minimises the material use significantly. Wooden crates and plastic foils are used as packaging and protection during transport.

CONTENT INFORMATION

Circular ventilation duct, folded Lindab Safe & Safe Click – recycled 75, made of minimum 75% scrap. The figure and table below explain that recycled material in this product only includes secondary materials, also called pre- and post-consumer scrap.

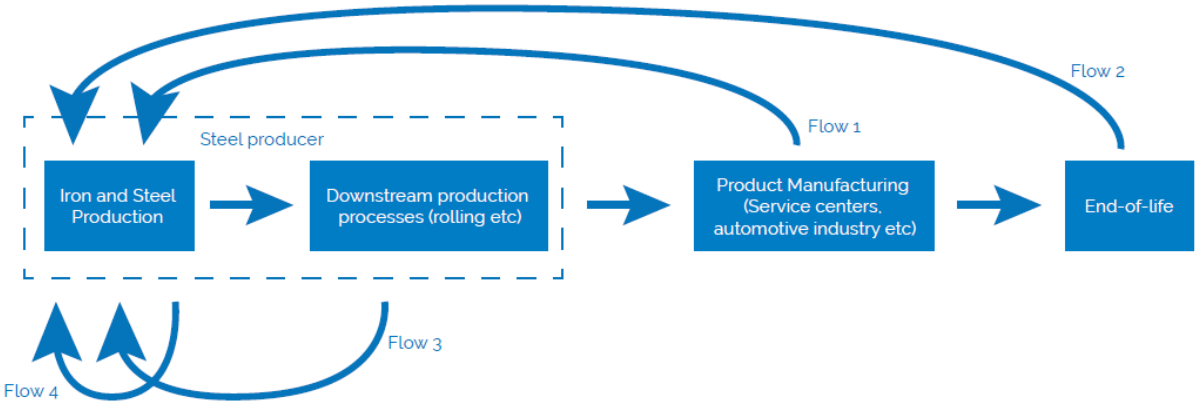


Figure 1: Recycled scrap in this EPD includes scrap flows 1 & 2. Se table below to compare scrap definitions.

Flow in picture	Common names (ISO 14021:2016)	LCA definition according to ISO 21930:2020 and EN 15804:2012-A2:2019 used in EPD
Flow 1	Pre-consumer scrap, Post-industrial scrap, Process scrap	Secondary material
Flow 2	Post-consumer scrap	Secondary material
Flow 3	Internal scrap, Home scrap	Not a secondary material
Flow 4	Internal scrap, Home scrap	Not a secondary material

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. Installation spills and handling of packaging material is considered. Material loss during installation is estimated to be zero.

Transport from production place to user (A4)

Type	Destination	Transportation method
Transportation	300	Lorry

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase. These life cycle stages are dependent on how the product is used and should be developed and included as part of a holistic assessment of specific construction works.

The reference service life of the product is highly dependent on the conditions of use, average lifespan under normal conditions is minimum 50 years. This is an estimated value based on experience and scientific facts.

PRODUCT END OF LIFE (C1-C4, D)

Energy (0,1kWh) for deconstruction is included in C1. Activities related to steel recycling is included in C3. A recycling rate of 85% and landfill rate of 15% has been assumed for the product. That is to be seen as the proportion of the material in the product that will be recycled in a subsequent system.

See below tables for scenarios used in Modules C and D.

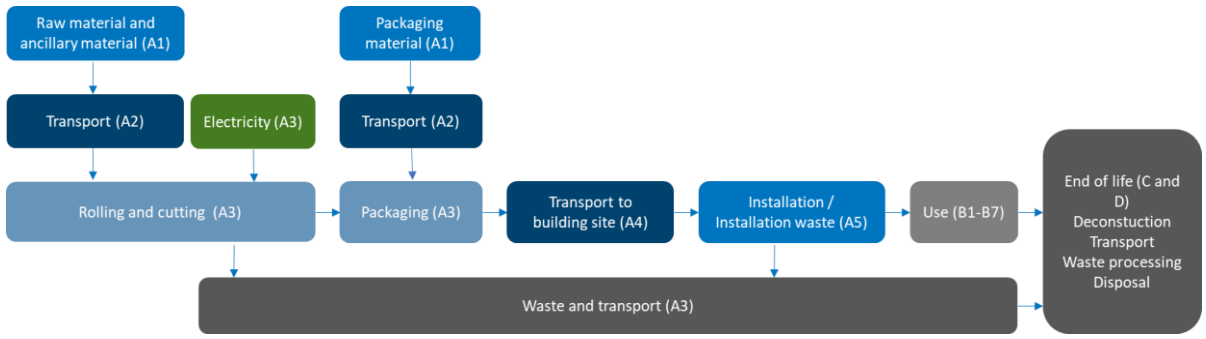
Transport to waste processing scenario (A5, C2)

Type	Distance
Lorry	50 km

End of Life Scenarios (A3, A5, C3/C4, D)

Name	%	Source
Steel to recycling	85	World Steel Association 2020
Steel to landfill	15	World Steel Association 2020
Plastic to recycling	30	Lindab sustainability reporting 2022
Plastic to incineration	70	Lindab sustainability reporting 2022
Wood recovered energy (incineration)	100	Lindab sustainability reporting 2022

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. While cut-off criteria according to the PCR were employed, much data which would have fallen within that scope were included regardless, if available, resulting in a data set which is robust and captures all significant contributors to the LCA results.

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.

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 materials	No allocation
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Representative product
Variation in GWP-fossil for A1-A3	<10 %

The environmental facts are represented by ducts manufacturing in Grevie, Sweden. The circular ventilation ducts in recycled steel can also be produced in Grevie, Boliden, Göteborg, Södertälje, Jönköping and Uppsala.

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. Data from Arcelor has been used to represent the raw material. For other inputs Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

IMPACT CATEGORY	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – TOTAL	kg CO_2e	9,47E-01	9,15E-04	-7,34E-02	8,75E-01	2,96E-02	1,35E-01	MND	MND	MND	MND	MND	MND	MND	4,95E-03	4,69E-03	1,86E-02	7,91E-04	-1,20E+00
GWP – FOSSIL	kg CO_2e	9,47E-01	9,14E-04	2,13E-02	9,69E-01	2,95E-02	1,87E-02	MND	MND	MND	MND	MND	MND	MND	4,63E-03	4,69E-03	1,86E-02	7,90E-04	-1,20E+00
GWP – BIOGENIC	kg CO_2e	0,00E+00	0,00E+00	-1,17E-01	-1,17E-01	0,00E+00	1,17E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWP – LULUC	kg CO_2e	5,78E-04	4,52E-07	2,19E-02	2,25E-02	1,06E-05	8,93E-07	MND	MND	MND	MND	MND	MND	MND	3,25E-04	1,73E-06	2,44E-05	7,46E-07	-2,47E-03
OZONE DEPLETION POT.	kg $CFC\text{-}_{11}$e	7,78E-09	2,07E-10	2,70E-09	1,07E-08	7,05E-09	1,95E-10	MND	MND	MND	MND	MND	MND	MND	2,26E-10	1,08E-09	2,30E-09	3,20E-10	-6,39E-08
ACIDIFICATION POTENTIAL	mol H^+e	3,81E-03	3,67E-06	1,20E-04	3,93E-03	1,23E-04	1,72E-05	MND	MND	MND	MND	MND	MND	MND	3,23E-05	1,99E-05	2,36E-04	7,43E-06	-9,46E-03
EP-FRESHWATER	kg Pe	2,09E-06	7,90E-09	3,73E-07	2,47E-06	2,02E-07	2,75E-08	MND	MND	MND	MND	MND	MND	MND	2,52E-07	3,84E-08	9,98E-07	8,28E-09	-4,86E-05
EP-MARINE	kg Ne	1,05E-03	1,04E-06	3,25E-05	1,08E-03	3,73E-05	7,62E-06	MND	MND	MND	MND	MND	MND	MND	5,52E-06	5,90E-06	4,99E-05	2,57E-06	-1,19E-03
EP-TERRESTRIAL	mol Ne	1,14E-02	1,15E-05	3,55E-04	1,18E-02	4,11E-04	8,14E-05	MND	MND	MND	MND	MND	MND	MND	6,94E-05	6,51E-05	5,77E-04	2,83E-05	-1,43E-02
POCP (“SMOG”)	kg NMVOCe	2,97E-03	3,65E-06	1,13E-04	3,09E-03	1,32E-04	2,06E-05	MND	MND	MND	MND	MND	MND	MND	1,64E-05	2,08E-05	1,59E-04	8,23E-06	-4,24E-03
ADP-MINERALS & METALS	kg Sbe	3,48E-05	4,24E-09	7,55E-07	3,55E-05	6,93E-08	1,19E-08	MND	MND	MND	MND	MND	MND	MND	3,17E-07	1,10E-08	2,51E-06	1,82E-09	-4,26E-06
ADP-FOSSIL RESOURCE	MJ	1,21E+01	1,36E-02	3,25E-01	1,24E+01	4,52E-01	1,89E-02	MND	MND	MND	MND	MND	MND	MND	6,27E-01	7,05E-02	2,52E-01	2,17E-02	-1,52E+01
WATER USE	m^3e depr.	2,27E-01	7,48E-05	7,07E-01	9,34E-01	2,09E-03	5,51E-03	MND	MND	MND	MND	MND	MND	MND	2,40E-02	3,15E-04	4,89E-03	6,87E-05	-2,54E-01

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

IMPACT CATEGORY	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG*)	kg CO_2e	9,47E-01	9,15E-04	4,32E-02	9,91E-01	2,96E-02	1,87E-02	MND	MND	MND	MND	MND	MND	MND	4,95E-03	4,69E-03	1,86E-02	7,91E-04	-1,20E+00

**) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.*

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**)	MJ	2,08E+01	2,42E-04	3,64E+00	2,45E+01	5,86E-03	5,45E-04	MND	MND	MND	MND	MND	MND	MND	2,60E-01	7,94E-04	4,47E-02	1,88E-04	-4,91E+00
RENEW. PER AS MATERIAL	MJ	0,00E+00	0,00E+00	1,02E+00	1,02E+00	0,00E+00	-1,02E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TOTAL USE OF RENEW. PER	MJ	2,08E+01	2,42E-04	4,66E+00	2,55E+01	5,86E-03	-1,02E+00	MND	MND	MND	MND	MND	MND	MND	2,60E-01	7,94E-04	4,47E-02	1,88E-04	-4,91E+00
NON-RE. PER AS ENERGY	MJ	1,21E+01	1,36E-02	2,78E-01	1,23E+01	4,52E-01	1,89E-02	MND	MND	MND	MND	MND	MND	MND	6,25E-01	7,05E-02	2,52E-01	2,17E-02	-1,51E+01
NON-RE. PER AS MATERIAL	MJ	0,00E+00	0,00E+00	3,40E-01	3,40E-01	0,00E+00	-3,40E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TOTAL USE OF NON-RE. PER	MJ	1,21E+01	1,36E-02	6,18E-01	1,27E+01	4,52E-01	-3,21E-01	MND	MND	MND	MND	MND	MND	MND	6,25E-01	7,05E-02	2,52E-01	2,17E-02	-1,51E+01
SECONDARY MATERIALS	kg	9,78E-01	5,71E-06	8,76E-03	9,86E-01	1,27E-04	3,53E-05	MND	MND	MND	MND	MND	MND	MND	5,66E-05	1,96E-05	2,81E-04	4,55E-06	1,04E-01
RENEW. SECONDARY FUELS	MJ	4,08E-03	6,31E-08	2,33E-06	4,08E-03	1,12E-06	1,75E-07	MND	MND	MND	MND	MND	MND	MND	2,35E-07	1,97E-07	1,46E-05	1,19E-07	-2,33E-05
NON-REN. SECONDARY FUELS	MJ	-2,36E-06	0,00E+00	1,26E-24	-2,36E-06	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	6,41E-03	2,05E-06	1,65E-02	2,29E-02	6,00E-05	-1,22E-05	MND	MND	MND	MND	MND	MND	MND	6,05E-04	9,13E-06	1,48E-04	2,37E-05	-1,13E-02

***) 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	1,59E-03	1,85E-05	1,57E-03	3,18E-03	4,85E-04	3,45E-05	MND	MND	MND	MND	MND	MND	MND	5,22E-04	9,34E-05	1,71E-03	0,00E+00	-1,42E-01
NON-HAZARDOUS WASTE	kg	1,25E-01	3,34E-04	3,65E-02	1,62E-01	8,43E-03	8,03E-02	MND	MND	MND	MND	MND	MND	MND	1,41E-02	1,54E-03	5,47E-02	1,50E-01	-3,70E+00
RADIOACTIVE WASTE	Kg	3,90E-04	9,25E-08	2,71E-06	3,92E-04	3,12E-06	4,62E-08	MND	MND	MND	MND	MND	MND	MND	9,62E-06	4,71E-07	1,48E-06	0,00E+00	-8,97E-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	4,05E-06	0,00E+00	8,42E-09	4,06E-06	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	1,82E-02	0,00E+00	8,55E-02	1,04E-01	0,00E+00	4,10E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	8,50E-01	0,00E+00	0,00E+00
MATERIALS FOR ENERGY REC	kg	4,75E-07	0,00E+00	7,60E-04	7,60E-04	0,00E+00	7,96E-02	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	3,86E-03	3,86E-03	0,00E+00	1,71E+01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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

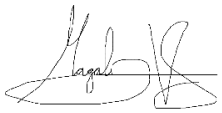
I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried 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.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited
04.04.2025



EPD Hub
VERIFIED ISO 14025

ANNEX I: CONVERSION TO WEIGHT PER METER

This table presents representative standard size for circular ducts.

All circular ducts can have different lengths, dimensions, with or without end cap, with or without click function.

Diameter of duct (mm)	Standard weight (kg/m)
63	0.85
80	0.91
100	1.14
112	1.28
125	1.41
140	1.76
150	1.89
160	2.02
180	2.26
200	2.56
224	2.87
250	3.18
280	3.92
300	4.20
315	4.41
355	4.96
400	6.01
450	7.37
500	9.54
560	10.7
600	11.4
630	12.0
710	15.5
800	17.4
900	21.7
1000	24.1
1120	27.0
1250	30.2
1400	48.0
1500	51.4
1600	54.8