

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Circular ventilation duct, folded Lindab Safe & Safe Click in galvanized coated steel
Lindab A/S



EPD HUB, HUB-8013
Published on 02.11.2026, last updated on 02.11.2026, valid until 01.11.2031
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

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Lindab A/S
Address	Stålfjæra 10, 0975 Oslo, Norway
Contact details	lindab@lindab.no
Website	https://www.lindab.no/

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	Sister EPD
Parent EPD number	HUB-0506
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Cecilia Cederek
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Haiha Nguyen 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	Circular ventilation duct, folded Lindab Safe & Safe Click in galvanized coated steel
Additional labels	SR, SRL
Product reference	160561, 160562, 160563, 160564, 160565, 160566, 160567, 160568, 160569, 160570, 160571, 693702, 224988, 224993
Place(s) of raw material origin	EU
Place of production	Norway; Oslo, Trondheim, Sandnes, Ålesund, Spydeberg, Bergen, Tromsö
Place(s) of installation and use	Norway
Period for data	Jan-dec 2025
Averaging in EPD	Multiple factories
Variation in GWP-fossil for A1-A3 (%)	<10 %
GTIN (Global Trade Item Number)	7319660553003, 7319660553010, 7319660553027, 7319660553034, 7319660553041, 7319660553058, 7319660553065, 7319660553072, 7319660553089, 7319660553096, 7319660553102, 7319660308658, 7319662249881, 7319662249935
NOBB (Norwegian Building Product Database)	47411000

A1-A3 Specific data (%)	99,4

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of circular ducts made of galvanized steel
Declared unit mass	1 kg
Mass of packaging	0,0108 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	2,51
GWP-total, A1-A3 ($kgCO_2e$)	2,50
Secondary material, inputs (%)	14,9
Total energy use, A1-A3 (kWh)	9,20
Net freshwater use, A1-A3 (m^3)	0,55

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Lindab is a leading European ventilation company creating healthy indoor air and helping improve building energy performance. We do this through everything from individual ventilation components to energy-efficient solutions – always guided by comfort, quality and usability. Our systems are designed to support balanced airflow, safe operation and comfortable indoor climates across a wide range of building types.

Lindab A/S is a part of Lindab Group, one of Europe's largest ventilation groups, with operations in 18 European countries and the USA. Lindab Group has its headquarters in Grevie, Sweden, and is listed on Nasdaq Stockholm, Large Cap, under the ticker symbol LIAB.

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.

PRODUCT DESCRIPTION

Lindab ventilation duct is a circular ventilation duct manufactured from galvanized coated steel and designed for air distribution in residential, commercial, and industrial buildings. The duct forms part of the Lindab Safe duct system and is used for the transportation of supply and extract air throughout ventilation installations.

The product is available in a range of diameters and lengths to support flexible system design and installation, see Annex A. The standard product is made of galvanized steel and has a length of 2400mm. The product is equipped with protective caps or films based on the diameter to repel dirt.

Lindab SR and SRL ducts are Eurovent certified and fulfil airtightness class D requirements when installed as part of the Lindab Safe system.

Further information can be found at https://www.lindab.no/

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

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of circular ducts made of galvanized steel
Mass per declared unit	1 kg
Functional unit	-
Reference service life	50 years

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	ND	ND	ND	ND	ND	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.

Steel coils are received, inspected, and stored until production. The correct slitted coil is selected per the manufacturing order, with a unique ID assigned for traceability. The coil is rigged in the spiral tube forming machine, and the first duct undergoes quality control. If approved, production runs in auto mode with hourly quality checks. A mineral-based oil emulsion ensures machine longevity and stable conditions. Finished ducts are packed in steel stillages used in a closed-loop system and stored in the warehouse.

A market-based approach is used in modelling the electricity mix utilized in the factory. The use of renewable energy 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.

Lindab operates multiple production sites for spiral ducts across Norway as part of a strategy to enable local production and minimize transport distances to construction sites. Based on this regional production structure, a typical transport distance of 100 km by road freight has been assumed for deliveries from the production site to the customer.

Steel stillages used for transportation are assumed to be reused within Lindab's closed-loop logistics system. A 100% return rate is assumed, and the environmental impacts of the stillages are allocated over their estimated number of reuse cycles.

Activities related to packaging waste management are included and modelled using a European average recycling scenario.

The product is delivered ready for installation. Due to the standardized dimensions and installation method of the product, installation losses have been assumed to be negligible. Only the handling and treatment of packaging materials are included in the calculations. For installation, mounting equipment according to the installation instructions is recommended.

Transportation of waste materials to the waste treatment facility is assumed to be 50 km by road.

End of Life Scenarios A5

Name	Recycling	Incineration	Landfill	Source
Plastic packaging	40	37	23	EUROSTAT, 2020

PRODUCT END OF LIFE (C1-C4, D)

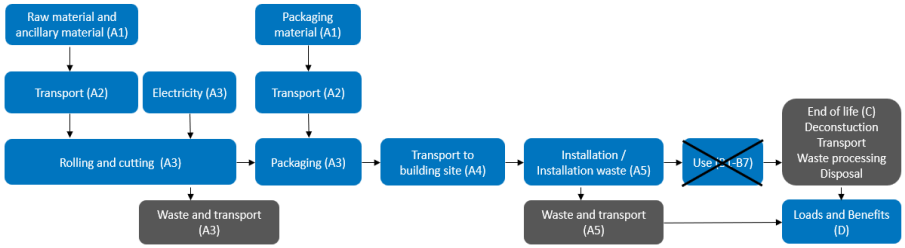
Energy (0,1kWh) for demounting is included in C1. The distance for transportation to disposal is assumed as 50 km and the transportation method is assumed to be lorry in C2. Activities related to recycling are included in C3 and C4 and modelled based on a European scenario. Recycling rates according to the following table:

End of Life Scenarios C3-C4

Name	Recycling	Incineration	Landfill	Source
Steel	85		15	World Steel 2020

Benefits and loads from recycling and recovery are included in module D. Benefits and loads in module D correspond to recycling and recovery rates modelled in packaging and product end of life modules A5 and C1-C4. Recycled raw material content has been subtracted from benefits and loads to avoid double counting. Avoided burdens from substituted processes, such as production of virgin raw materials and conventional energy generation, is accounted for. Benefits and loads do not include manufacturing losses or co-products from A3.

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

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple factories
Grouping method	Based on a representative site
Variation in GWP-fossil for A1-A3, %	<10 %

The LCA results are based on production at the Oslo facility, which represented approximately 60% of Lindab's Norwegian duct production in 2025 and was therefore selected as the representative manufacturing site. The product volume was calculated using the most frequently produced duct size, Ø125 mm.

Circular ventilation ducts are also manufactured at Lindab facilities in Spydeberg, Bergen, Stavanger, Ålesund, Trondheim and Tromsø. Manufacturing processes, materials and product specifications are equivalent across all Norwegian production sites. Average production scrap rates from all Norwegian duct manufacturing sites were applied in the assessment. Therefore, differences between production sites are primarily related to upstream transportation of raw materials to the manufacturing facility and have only a limited influence on the overall results.

A sensitivity analysis was carried out using the Tromsø production site, representing the worst-case scenario for raw material transportation distances. The analysis showed that the variation in environmental impacts between the Norwegian production sites remains below 10%, confirming the representativeness of the selected production data.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.5. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 environmental data sources follow the methodology ‘allocation, Cut-off, EN 15804+A2‘.

Recycling scenario references:

- World Steel, 2020
- Plastics Europe, 2020
- Eurostat: https://ec.europa.eu/eurostat/databrowser/view/env_waspac__custom_8519259/default/table?lang=en

Third-party verified and compliant with EN15804+A2 EPDs:

- HUB-0463: Hot-dip galvanized steel with zinc coating, 0.4 mm, 3.14 kg/m2 (Lindab Steel AB)

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	2,42E+00	5,01E-02	2,12E-02	2,50E+00	1,92E-02	1,10E-02	ND	ND	ND	ND	ND	ND	ND	3,29E-02	9,68E-03	1,92E-02	9,37E-04	-1,16E+00
GWP – fossil	kg CO_2e	2,44E+00	5,00E-02	2,01E-02	2,51E+00	1,92E-02	1,09E-02	ND	ND	ND	ND	ND	ND	ND	3,27E-02	9,67E-03	1,92E-02	9,36E-04	-1,16E+00
GWP – biogenic	kg CO_2e	-1,68E-02	2,90E-05	1,12E-03	-1,57E-02	0,00E+00	6,79E-05	ND	ND	ND	ND	ND	ND	ND	7,34E-05	1,92E-06	-4,08E-05	-2,98E-07	0,00E+00
GWP – LULUC	kg CO_2e	1,19E-03	1,86E-05	1,71E-05	1,23E-03	6,89E-06	4,41E-07	ND	ND	ND	ND	ND	ND	ND	1,00E-04	3,42E-06	2,37E-05	5,35E-07	-1,89E-04
Ozone depletion pot.	kg CFC-$_{11}$e	1,39E-09	1,13E-09	1,46E-10	2,67E-09	3,82E-10	5,77E-12	ND	ND	ND	ND	ND	ND	ND	6,03E-10	1,92E-10	2,58E-10	2,71E-11	-4,27E-09
Acidification potential	mol H^+e	5,69E-03	1,21E-04	7,65E-05	5,89E-03	3,99E-05	2,99E-06	ND	ND	ND	ND	ND	ND	ND	1,92E-04	3,02E-05	2,29E-04	6,64E-06	-4,72E-03
EP-freshwater[2)]	kg Pe	1,30E-05	3,65E-06	5,04E-06	2,17E-05	1,29E-06	9,74E-08	ND	ND	ND	ND	ND	ND	ND	3,05E-05	6,41E-07	1,24E-05	7,70E-08	-8,37E-04
EP-marine	kg Ne	1,42E-03	3,20E-05	1,83E-05	1,47E-03	9,59E-06	2,10E-06	ND	ND	ND	ND	ND	ND	ND	3,02E-05	1,02E-05	5,06E-05	2,53E-06	-1,05E-03
EP-terrestrial	mol Ne	1,52E-02	3,46E-04	1,87E-04	1,58E-02	1,03E-04	1,27E-05	ND	ND	ND	ND	ND	ND	ND	2,71E-04	1,11E-04	5,72E-04	2,76E-05	-1,14E-02
POCP ("smog")[3)]	kg NMVOCe	4,55E-03	2,03E-04	7,02E-05	4,82E-03	6,64E-05	3,74E-06	ND	ND	ND	ND	ND	ND	ND	8,91E-05	4,74E-05	1,69E-04	9,90E-06	-3,90E-03
ADP-minerals & metals[4)]	kg Sbe	4,32E-05	1,49E-07	1,33E-07	4,35E-05	6,39E-08	2,85E-09	ND	ND	ND	ND	ND	ND	ND	4,42E-07	3,16E-08	1,36E-06	1,49E-09	-1,27E-05
ADP-fossil resources	MJ	2,79E+01	7,58E-01	2,23E-01	2,88E+01	2,70E-01	4,98E-03	ND	ND	ND	ND	ND	ND	ND	7,62E-01	1,36E-01	2,58E-01	2,30E-02	-1,10E+01
Water use[5)]	m^3e depr.	7,19E-02	4,39E-03	1,13E+00	1,20E+00	1,34E-03	3,32E-04	ND	ND	ND	ND	ND	ND	ND	2,08E-02	6,67E-04	4,64E-03	6,63E-05	-2,63E-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.

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	1,37E+00	1,17E-02	3,40E+00	4,78E+00	4,72E-03	2,62E-04	ND	ND	ND	ND	ND	ND	ND	2,09E-01	2,35E-03	4,81E-02	2,22E-04	-9,44E-01
Renew. PER as material	MJ	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
Total use of renew. PER	MJ	1,37E+00	1,17E-02	3,40E+00	4,78E+00	4,72E-03	2,62E-04	ND	ND	ND	ND	ND	ND	ND	2,09E-01	2,35E-03	4,81E-02	2,22E-04	-9,44E-01
Non-re. PER as energy	MJ	2,78E+01	7,58E-01	-1,90E-01	2,83E+01	2,70E-01	-3,59E-01	ND	ND	ND	ND	ND	ND	ND	7,62E-01	1,36E-01	2,58E-01	2,30E-02	-1,10E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	3,82E-01	3,82E-01	0,00E+00	-3,82E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,50E-01
Total use of non-re. PER	MJ	2,78E+01	7,58E-01	1,92E-01	2,87E+01	2,70E-01	-7,42E-01	ND	ND	ND	ND	ND	ND	ND	7,62E-01	1,36E-01	2,58E-01	2,30E-02	-1,08E+01
Secondary materials	kg	1,49E-01	3,20E-04	1,03E-02	1,59E-01	1,25E-04	1,37E-05	ND	ND	ND	ND	ND	ND	ND	1,26E-04	6,22E-05	3,15E-04	5,78E-06	6,55E-01
Renew. secondary fuels	MJ	6,06E-03	4,22E-06	2,83E-06	6,07E-03	1,58E-06	1,17E-07	ND	ND	ND	ND	ND	ND	ND	1,01E-06	7,85E-07	1,46E-05	1,20E-07	-1,04E-04
Non-ren. secondary fuels	MJ	-8,27E-07	0,00E+00	0,00E+00	-8,27E-07	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
Use of net fresh water	m^3	5,18E-01	1,02E-04	2,91E-02	5,47E-01	3,68E-05	-4,64E-06	ND	ND	ND	ND	ND	ND	ND	6,58E-04	1,83E-05	1,37E-04	2,39E-05	-4,26E-03

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	2,59E-03	1,10E-03	1,71E-03	5,40E-03	3,92E-04	1,21E-04	ND	ND	ND	ND	ND	ND	ND	1,93E-03	1,95E-04	1,69E-03	2,54E-05	-3,84E-01
Non-hazardous waste	kg	9,50E-02	2,25E-02	6,02E-02	1,78E-01	8,28E-03	9,91E-03	ND	ND	ND	ND	ND	ND	ND	1,49E-01	4,11E-03	6,09E-02	5,80E-04	-4,71E+00
Radioactive waste	kg	3,47E-04	2,09E-07	2,32E-07	3,48E-04	8,65E-08	2,78E-09	ND	ND	ND	ND	ND	ND	ND	5,40E-06	4,30E-08	5,60E-07	3,52E-09	1,06E-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	2,98E-09	0,00E+00	0,00E+00	2,98E-09	0,00E+00	1,80E-03	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	2,79E-04	0,00E+00	1,00E-02	1,03E-02	0,00E+00	3,60E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	8,50E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	4,55E-06	0,00E+00	4,00E-04	4,05E-04	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	5,40E-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 – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,30E-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	3,10E-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	2,44E+00	5,00E-02	2,01E-02	2,51E+00	1,92E-02	1,09E-02	ND	ND	ND	ND	ND	ND	ND	3,28E-02	9,67E-03	1,92E-02	9,37E-04	-1,16E+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, hydro, reservoir, alpine region, Norway, Ecoinvent, 0.0065 kgCO2e/kWh

Transport scenario documentation - A4 (Transport resources)

1. Market for transport, freight, lorry >32 metric ton, EURO6, 100 km

Transport to the building site (A4) - Scenario documentation

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

Installation at the building site (A5) - Scenario documentation

Scenario parameter	Value
Energy: type and consumption (MJ or kWh)	-
Water use (m^3)	-
Ancillary materials: type and mass (kg)	-
Waste materials: type and mass (kg)	-
Waste materials: output routes	Packaging Plastic: 40% is recycled, 37% is incinerated, 23% is landfilled. Source: EUROSTAT
Direct emissions (kg)	-

End of life (C1-C4) - Scenario documentation

Scenario information	Value
Collection process: collected separately (kg)	1
Collection process: Mixed waste (kg)	0
Recovery: re-use (kg)	0
Recovery: recycling (kg)	0,85
Recovery: energy recovery (kg)	0
Disposal (kg)	0,15
Scenario assumptions e.g. transportation (mode, km) & other	Transported 50 km by lorry

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.

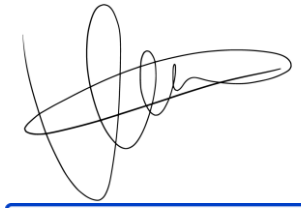
The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

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

Haiha Nguyen as an authorized verifier for EPD Hub Limited 02.11.2026





ANNEX A

This table presents representative standard size for circular ducts in galvanized steel.
All circular ducts can have different lengths, dimensions, with or without end cap, with or without click function.

CONVERSION TO WEIGHT PER METER

Product name	Product number	GTIN	Diameter (mm)	Length (mm)	Weight (kg/m)
SR/SRL	160561	7319660553003	100	2400	1,02
SR/SRL	160562	7319660553010	125	2400	1,28
SR/SRL	160563	7319660553027	160	2400	1,64
SR/SRL	160564	7319660553034	200	2400	2,27
SR/SRL	160565	7319660553041	250	2400	2,84
SR/SRL	160566	7319660553058	315	2400	4,02
SR/SRL	160567	7319660553065	400	2400	5,11
SR/SRL	160568	7319660553072	500	2400	7,81
SR/SRL	160569	7319660553089	630	2400	9,84
SR/SRL	160570	7319660553096	800	2400	14,80
SR/SRL	160571	7319660553102	1000	2400	24,10
SR/SRL	693702	7319660308658	1250	2400	30,20
SR/SRL	224988	7319662249881	1400	2400	48,00
SR/SRL	224993	7319662249935	1600	2400	54,30