ENVIRONMENTAL PRODUCT DECLARATION

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

Zinc Plus (Z+) Products from Stago BV
Wibe Group

EPD HUBHUB-3046
Published on 14.03.2025, last updated on 15.03.2025, valid until 13.03.2030.

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

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Stago BV
Address	Electronweg 1, 1627 LB Hoorn, The Netherland
Contact details	inquiry-INT@wibe-group.com
Website	https://wibe-group.com/

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR Version 1.1, 5 Dec 2023
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	Manjunatha BC , Sustainability Leader, Wibe Group
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Sarah Curpen, 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	Zinc Plus (Z+) Products from Stago BV
Additional labels	-
Product reference	-
Place of production	Hoorn, Netherlands
Period for data	01/01/2023-31/12/2023
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	-

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg Zinc Plus (Z+) Cable Support Product
Declared unit mass	1 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	2.27E+00
GWP-total, A1-A3 ($kgCO_2e$)	2.27E+00
Secondary material, inputs (%)	59.1
Secondary material, outputs (%)	95
Total energy use, A1-A3 (kWh)	7.72
Net freshwater use, A1-A3 (m^3)	0.01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Wibe Group has nearly a 100-year-long history of continuous development. It started in Mora with Anders Wikstrand's invention of the hexagon shaped ladder. Today we are in a new and exciting development phase with renewed vigor and a desire to show what we can do together with our customers. With our four strong brands Wibe, Stago, Mita and Defem, we offer a complete, innovative range of cable supports and installation systems – for applications ranging from commercial buildings to extreme demanding industrial environments.

PRODUCT DESCRIPTION

The cable support system is as essential for the building's infrastructure as the bone structure is for the body. Stago zinc+ cable support systems are suitable for areas with average to high levels of environmental corrosion, humidity and airborne pollution (low to average salt levels). Typical applications can be outdoor urban, (light-)industrial and/or coastal areas or indoor areas with average to high levels of humidity and up to considerable airborne pollutants from production processes, like breweries, dairies, laundries as well as chemical plants, swimming pools and docking yards.

This EPD covers the cable support products made from Zinc+ material, produced at Wibe Group / Stago production plant located in Hoorn, the Netherlands. The cable support system consists of cable trays, mesh trays, joints, pendants, cantilevers and accessories.

Zinc+ relates to a surface treatment process where an alloy of Zinc, Aluminum and Magnesium is applied at the steel mill directly on the flat steel raw material before it is shipped to be processed further to a final product.

The Zinc+ surface treatment is an alternative to hot-dip galvanization and protects the material against rust, especially in environments where the material may be exposed to moisture or harsh conditions. It offers anti-corrosion properties comparable to hot-dip galvanized materials, while having a thinner zinc-layer and a less rough surface. When the coating is damaged, post-installation treatment with zinc-spray is recommended. Further information can be found at https://wibe-group.com

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	100	Europe
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	0.00808

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg Zinc Plus (Z+) Cable Support Product
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).

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	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

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

Raw materials consist of steel purchased in tubes, coils, or sheets. The distance between the exact manufacturer location and the Stago factory has been taken into account. Raw materials are delivered by trucks, primarily using EURO5 and EURO6 vehicles. The manufacturing process includes various steps, such as cutting, punching, and forming the steel, which are done in-house. The majority of the surface treatment process is carried out by subcontractors. During the manufacturing of 1 kg of the final product, a 0.22% production loss is factored into the calculations. All production waste is sent to several different recycling facilities. 100% renewable energy, including wind- and solar-powered electricity, is used for manufacturing. Finally, the products are stored as-is or packed in wood crates, pallets, cardboard boxes, or plastic bags.

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.

The transportation distance is defined according to the PCR. The average transportation distance from the production plant to the building site is assumed to be 348 km by lorry, based on one year of delivery data. The vehicle capacity utilization factor is assumed to be 100%, meaning a full load. While this may vary in reality, the impact of transportation emissions on the total results is small, so the variation in load is considered negligible. Empty returns are not taken into account, as it is assumed that the return trip is used by the transportation company to serve the needs of other clients. Transportation does not cause losses, as products are properly packaged. For the installation of the product, a small hand drill will suffice. 0.0001 kWh is required to assemble 1 kg of Zinc Plus product. Manufacturing waste from packaging materials has been considered. 95% of packaging materials (plastic,

wood, and paper) are assumed to be recycled, while 5% is assumed to go to landfill.

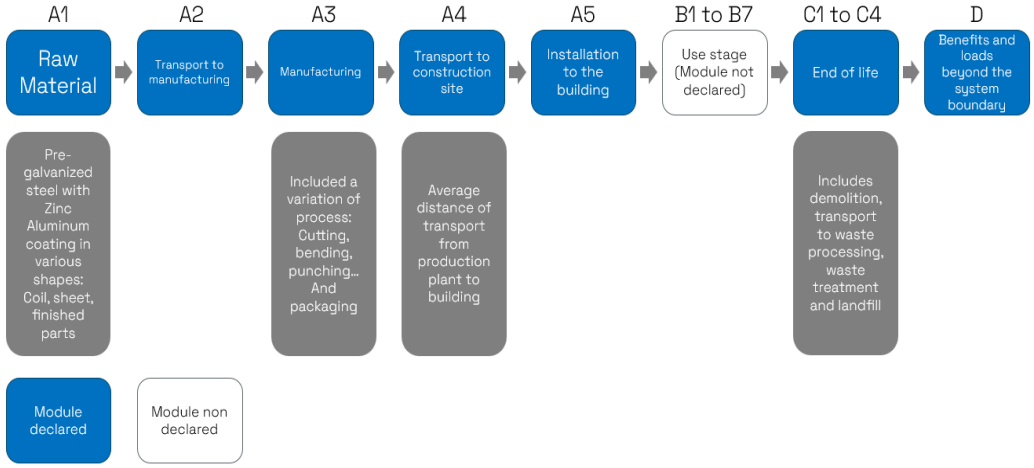
PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Disassembly is assumed to consume 0.0001 kWh/kg of product. A small hand drill is considered similar to the mounting of the product. The transportation distance to the treatment facility is assumed to be 50 km, with the transportation method being a lorry (C2). Approximately 95% of the steel is assumed to be recycled, based on data from the World Steel Association (2020) (C3). The remaining 5% of steel is assumed to be sent to landfill for final disposal (C4). Due to the recycling process, the end-of-life product is converted into recycled steel, while the wooden pallet is incinerated for energy recovery (D).

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.

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	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

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	-

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

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

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[1)]	kg CO_2e	2.03E+00	9.87E-02	1.46E-01	2.27E+00	6.08E-02	3.05E-04	MND	MND	MND	MND	MND	MND	MND	1.04E-05	0.00E+00	2.15E-02	3.12E-04	-6.58E-01
GWP – fossil	kg CO_2e	2.02E+00	9.87E-02	1.46E-01	2.27E+00	6.08E-02	1.96E-06	MND	MND	MND	MND	MND	MND	MND	1.03E-05	0.00E+00	2.15E-02	3.12E-04	-6.58E-01
GWP – biogenic	kg CO_2e	4.21E-03	2.24E-05	-8.17E-05	4.15E-03	1.28E-05	3.03E-04	MND	MND	MND	MND	MND	MND	MND	3.10E-08	0.00E+00	-4.56E-05	-9.93E-08	1.55E-04
GWP – LULUC	kg CO_2e	1.03E-03	4.41E-05	2.53E-05	1.10E-03	2.28E-05	4.48E-09	MND	MND	MND	MND	MND	MND	MND	1.93E-08	0.00E+00	2.65E-05	1.78E-07	-7.76E-05
Ozone depletion pot.	kg CFC_{-11}e	5.69E-13	1.46E-09	1.41E-08	1.56E-08	1.22E-09	2.51E-14	MND	MND	MND	MND	MND	MND	MND	6.51E-13	0.00E+00	2.89E-10	9.04E-12	-2.17E-09
Acidification potential	mol H^+e	5.10E-03	3.36E-04	2.00E-04	5.64E-03	1.96E-04	9.64E-09	MND	MND	MND	MND	MND	MND	MND	7.74E-08	0.00E+00	2.55E-04	2.21E-06	-2.60E-03
EP-freshwater[2)]	kg Pe	1.90E-06	7.68E-06	4.81E-06	1.44E-05	4.10E-06	1.23E-09	MND	MND	MND	MND	MND	MND	MND	6.13E-09	0.00E+00	1.38E-05	2.57E-08	-2.82E-04
EP-marine	kg Ne	1.33E-03	1.11E-04	3.28E-05	1.47E-03	6.66E-05	7.36E-09	MND	MND	MND	MND	MND	MND	MND	1.17E-08	0.00E+00	5.66E-05	8.44E-07	-5.78E-04
EP-terrestrial	mol Ne	1.44E-02	1.20E-03	3.52E-04	1.60E-02	7.25E-04	2.13E-08	MND	MND	MND	MND	MND	MND	MND	1.24E-07	0.00E+00	6.39E-04	9.21E-06	-6.34E-03
POCP ("smog")[3)]	kg NMVOCe	4.24E-03	4.96E-04	1.60E-04	4.89E-03	3.20E-04	7.31E-09	MND	MND	MND	MND	MND	MND	MND	4.46E-08	0.00E+00	1.89E-04	3.30E-06	-2.16E-03
ADP-minerals & metals[4)]	kg Sbe	4.71E-05	2.75E-07	7.19E-07	4.80E-05	1.68E-07	9.29E-12	MND	MND	MND	MND	MND	MND	MND	6.56E-10	0.00E+00	1.52E-06	4.96E-10	-6.37E-06
ADP-fossil resources	MJ	2.12E+01	1.43E+00	2.05E+00	2.46E+01	8.80E-01	3.33E-05	MND	MND	MND	MND	MND	MND	MND	1.28E-04	0.00E+00	2.88E-01	7.66E-03	-5.97E+00
Water use[5)]	m^3e depr.	2.64E-01	7.07E-03	1.06E-02	2.82E-01	4.51E-03	8.32E-07	MND	MND	MND	MND	MND	MND	MND	1.36E-05	0.00E+00	5.18E-03	2.21E-05	-1.10E-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, PEF

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	0.00E+00	9.88E-09	1.21E-09	1.11E-08	6.05E-09	1.81E-13	MND	MND	MND	MND	MND	MND	MND	7.10E-13	0.00E+00	3.47E-09	5.04E-11	-4.35E-08
Ionizing radiation[6]	kBq U235e	0.00E+00	1.25E-03	1.27E-03	2.52E-03	1.06E-03	7.21E-07	MND	MND	MND	MND	MND	MND	MND	8.57E-07	0.00E+00	2.44E-03	4.82E-06	2.47E-02
Ecotoxicity (freshwater)	CTUe	0.00E+00	2.03E-01	9.66E-01	1.17E+00	1.04E-01	1.50E-05	MND	MND	MND	MND	MND	MND	MND	9.54E-05	0.00E+00	1.68E-01	6.43E-04	-1.61E+00
Human toxicity, cancer	CTUh	0.00E+00	1.63E-11	2.95E-11	4.58E-11	1.00E-11	1.86E-15	MND	MND	MND	MND	MND	MND	MND	7.05E-15	0.00E+00	1.92E-11	5.75E-14	-1.05E-10
Human tox. non-cancer	CTUh	0.00E+00	9.27E-10	1.13E-09	2.06E-09	5.72E-10	4.05E-14	MND	MND	MND	MND	MND	MND	MND	4.67E-13	0.00E+00	1.30E-09	1.32E-12	-5.18E-09
SQP[7]	-	0.00E+00	1.44E+00	7.58E-02	1.52E+00	8.87E-01	1.85E-05	MND	MND	MND	MND	MND	MND	MND	1.43E-04	0.00E+00	5.61E-01	1.51E-02	-1.90E+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	2.26E+00	1.96E-02	7.55E-01	3.04E+00	1.43E-02	-2.72E-04	MND	MND	MND	MND	MND	MND	MND	4.09E-04	0.00E+00	5.37E-02	7.39E-05	-4.11E-01
Renew. PER as material	MJ	0.00E+00	0.00E+00	2.45E-03	2.45E-03	0.00E+00	-2.45E-03	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.56E-03
Total use of renew. PER	MJ	2.26E+00	1.96E-02	7.57E-01	3.04E+00	1.43E-02	-2.72E-03	MND	MND	MND	MND	MND	MND	MND	4.09E-04	0.00E+00	5.37E-02	7.39E-05	-4.12E-01
Non-re. PER as energy	MJ	2.13E+01	1.43E+00	2.05E+00	2.47E+01	8.80E-01	-3.10E-04	MND	MND	MND	MND	MND	MND	MND	1.28E-04	0.00E+00	2.88E-01	7.66E-03	-5.97E+00
Non-re. PER as material	MJ	0.00E+00	0.00E+00	5.00E-04	5.00E-04	0.00E+00	-5.00E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.64E-06
Total use of non-re. PER	MJ	2.13E+01	1.43E+00	2.05E+00	2.47E+01	8.80E-01	-8.10E-04	MND	MND	MND	MND	MND	MND	MND	1.28E-04	0.00E+00	2.88E-01	7.66E-03	-5.97E+00
Secondary materials	kg	5.91E-01	6.10E-04	2.92E-04	5.92E-01	3.81E-04	4.02E-08	MND	MND	MND	MND	MND	MND	MND	1.82E-07	0.00E+00	3.52E-04	1.93E-06	3.63E-01
Renew. secondary fuels	MJ	2.17E-08	7.74E-06	8.53E-05	9.31E-05	4.80E-06	2.52E-10	MND	MND	MND	MND	MND	MND	MND	7.84E-09	0.00E+00	1.63E-05	3.99E-08	-5.43E-05
Non-ren. secondary fuels	MJ	5.53E-05	0.00E+00	0.00E+00	5.53E-05	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	8.00E-03	2.12E-04	2.69E-04	8.49E-03	1.30E-04	-1.06E-08	MND	MND	MND	MND	MND	MND	MND	3.26E-07	0.00E+00	1.53E-04	7.97E-06	-1.45E-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	1.35E-06	2.43E-03	1.92E-03	4.35E-03	1.27E-03	1.72E-07	MND	MND	MND	MND	MND	MND	MND	1.36E-06	0.00E+00	1.88E-03	8.46E-06	-2.17E-01
Non-hazardous waste	kg	8.67E-02	4.49E-02	4.71E-01	6.03E-01	2.55E-02	5.37E-05	MND	MND	MND	MND	MND	MND	MND	3.20E-05	0.00E+00	6.80E-02	1.93E-04	-1.69E+00
Radioactive waste	kg	3.13E-04	3.05E-07	7.76E-07	3.14E-04	2.63E-07	1.85E-10	MND	MND	MND	MND	MND	MND	MND	2.15E-10	0.00E+00	6.26E-07	1.17E-09	6.41E-06

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	1.22E-02	0.00E+00	1.09E-03	1.33E-02	0.00E+00	1.79E-04	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	9.50E-01	0.00E+00	0.00E+00
Materials for energy rec	kg	5.39E-08	0.00E+00	9.95E-05	9.96E-05	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	2.82E-02	0.00E+00	0.00E+00	2.82E-02	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy – Electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy – Heat	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MND	MND	MND	MND	MND	MND	MND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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[9)]	kg CO_2e	2.03E+00	9.87E-02	1.46E-01	2.27E+00	6.08E-02	1.97E-06	MND	MND	MND	MND	MND	MND	MND	1.03E-05	0.00E+00	2.15E-02	3.12E-04	-6.58E-01

9) 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.

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
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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.

Sarah Curpen, an authorized verifier acting for EPD Hub Limited
14.03.2025