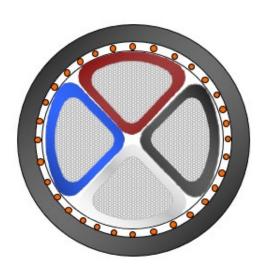




## **Environmental Product Declaration**

In accordance with ISO14025:2006 and EN15804:2012+A2:2019 Y180575 - IFSI 4x25 AL



# **Scabelte**

Owner of the declaration:

Cabelte - Cabos Eléctricos. S.A

Product name:

Y180575-IFSI 4X5 AL

Declared unit:

1 m of installed electrical cables or lines with a specific function, from cradle-to-grave with activities needed for the study period of the construction.

**Product category /PCR:** 

NPCR 027 - Part B for Electrical cables and wires. 01.03.2022. EPD Norge; NPCR PART A - Construction products and services. Version: 2.0. 24.03.2021. EPD Norge

**Program holder and publisher:** The Norwegian EPD foundation

**Declaration number:** NEPD-11802-11744

**Registration number:** NEPD-11802-11744

Issue date: 15.07.2025 Valid to: 15.07.2030

The Norwegian EPD Foundation

## General information

#### **Product:**

Y180575-IFSI 4X5 AL

## Program operator:

The Norwegian EPD Foundation

Post Box 5250 Majorstuen. 0303 Oslo. Norway

Phone: +47 23 08 80 00 e-mail: post@epd-norge.no

## Declaration number:

NEPD-11802-11744

## This declaration is based on Product Category Rules:

NPCR 027 - Part B for Electrical cables and wires. 01.03.2022. EPD Norge

NPCR PART A - Construction products and services.

Version: 2.0. 24.03.2021. EPD Norge PCR review conducted by: Christofer Skaar

### Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer life cycle assessment data and evidences.

#### Declared unit:

1 m of installed electrical cables or lines with a specific function, from cradle-to-grave with activities needed for the study period of the construction.

#### Functional unit:

1 m of installed power cable used to transmit a reference energy throughput of 1A over a period of 100 years.

#### Verification:

Independent verification of the declaration and data according to ISO14025:2010

Je May

internal ☐ external ⊠

Arch. Lucas Pedro Berman (Senda - Environmental and Energy Consulting)

Independent verifier approved by EPD Norway

#### Owner of the declaration:

Cabelte - Cabos Eléctricos. S.A Contact person: Manuela Carvalho Phone: +351 961 870 595

#### Manufacturer:

Cabelte - Cabos Eléctricos. S.A Rua de Espírito Santo

4410-420 Arcozelo. Vila Nova de Gaia. Portugal

Phone: +351 961 870 595

## Place of production:

Arcozelo unit: Rua de Espírito Santo 4410-420 Arcozelo. Vila Nova de Gaia. Portugal Ribeirão unit: Avenida da Indústria. 382 4760-715 Ribeirão. Vila Nova de Famalicão. Portugal

## Management system:

ISO 9001 ISO 14001 ISO 45001

### Organisation no:

PT 500049572

## Issue date:

15.07.2025

## Valid to:

15.07.2030

#### Year of study:

2023

#### Comparability:

EPD of construction products may not be able to compare if they do not comply with EN 15804 and are seen in a building context.

#### The EPD has been worked out by:

Susana Lopes - Cabelte

Approved

Haken Dayous

Manager of EPD Norway

## **Product**

## Product description:

Y180575-IFSI 4X5 AL

Low voltage power cable

Aluminium conductors

CPC Product's code 46310 (Insulated wire and cable; optical fibre cables)

## Product specification:

Low voltage power cable
Aluminium conductors
XLPE insulation
LSZH inner covering
Copper wire concentric conductor

LSZH outer sheath

Rated voltage: 0.6 / 1 (1.2) kV

Materials		Value (kg)	%
FIO MAQ.AI.9.50mm -Tipo H12	Aluminium	2.71E-01	27%
XLPE BT 101 BK WANMA	Polyethylene	4.67E-02	5%
LDPE NATURAL	Polyethylene	3.10E-02	3%
REVIL GE430-NEUTRO/S-HTS-B	Non halogenated thermoplastic (PE)	2.07E-02	2%
COMPOSTO MIXER 3RP321(NÃO FR)	Isolant compound polyethylene	2.59E-01	26%
FITA POLIETILENO 0.10mmx 40 mm	Polyethylene	1.28E-02	1%
FIO MAQ. Cu 8mm DIAM.	Copper	1.35E-01	13%
FITA COBRE 10 x 0.10 mm	Copper	1.04E-02	1%
HFFR REVIL GM 09	Non halogenated thermoplastic (PE)	2.13E-01	21%
Total with exclusions		9.99E-01	99%
Total without exclusions		1.01E+00	100%
Final product (cable) (kg/m)		9.52E-01	
Packaging (reels)	Wood	8.00E-02	

#### Technical data:

Stranded sector-shaped aluminium conductor (cross-section  $\geq$  35mm2) class 2 or circular stranded aluminium conductor (cross-section < 35mm2) class 2, manufactured according to EN 60228

XLPE insulation according to IEC 60502-1

Plastic binding tape over laid-up conductors

Concentric conductor of round annealed copper wires and a copper binder tape over the wires

Plastic tape spirally applied over the concentric conductor Halogen free fire retardant thermoplastic compound with UV protection

#### Market:

Norway

## Reference service life. product:

100 years

## Reference service life. building:

Not applicable

## Additional technical information

Rated voltage: 0.6 / 1 (1.2) kV

Construction and testing according standards:

EN 60228

Based on HD 603 Part 3 Section L

Halogen free – EN 60754-1

Reaction to fire – EN 50575 (Dca-s2.d2)

IEC 60502-1

Flame retardant – EN 60332-1-2

Fire retardant – EN 50399

IEC 60332-3-24 Cat.C

Low acidity and corrosivity – EN 60754-2

The reference product Y180575-IFSI 4X5 AL represents the entire product family based on the highest material consumption.

Other references from the same family:

6182360	IFSI 4x10
6182349	IFSI cu 1kV 2X2.5/2.5
Y240477	IFSI 2x1.5
Y240478	IFSI 4x1.5

## LCA: Calculation rules

#### Declared unit:

1 m of installed electrical cables or lines with a specific function, from cradle-to-grave with activities needed for the study period of the construction.

## Cut-off criteria:

Were followed the PCRs indications No relevant material or energy flows were excluded.

## Allocation:

Allocation rules based on physical relations were used to determine the wastes generated in production module.

## Data quality:

Specific data for the product composition are provided by the manufacturer. The data represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on LCA databases. The data quality of the raw materials in A1 is presented in the table below.

Specific data for the product composition are provided by the manufacturer. The data represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on EPDs according to EN 15804 and different LCA databases. The data quality of the raw materials in A1 is presented in the table below.

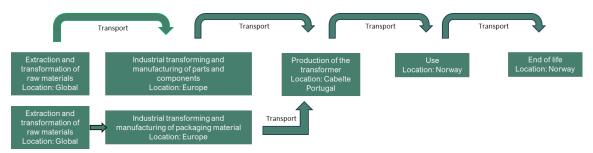
Materials	Source	Data quality	Year
FIO MAQ.AI.9.50mm -Tipo H12	Ecoinvent 3.10	Database	2023
XLPE BT 101 BK WANMA	Ecoinvent 3.10	Database	2023
LDPE NATURAL	Ecoinvent 3.10	Database	2023
REVIL GE430-NEUTRO/S-HTS-B	Ecoinvent 3.10	Database	2023
COMPOSTO MIXER 3RP321(NÃO FR)	Ecoinvent 3.10	Database	2023
FITA POLIETILENO 0.10mmx 40 mm	Ecoinvent 3.10	Database	2023
FIO MAQ. Cu 8mm DIAM.	Ecoinvent 3.10	Database	2023
FITA COBRE 10 x 0.10 mm	Ecoinvent 3.10	Database	2023
HFFR REVIL GM 09	Ecoinvent 3.10	Database	2023

System boundaries (X=included. MND=module not declared. MNR=module not relevant)

Product stage		Assembly stage		Use stage				Eı	nd of l	ife sta	ge	Benefits & loads beyond system boundary				
Raw materials	Transport	Manufacturing	Transport	Assembly	$ m U_{Se}$	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling- potential
A1	A2	A3	A4	A5	В1	В2	В3	В4	В5	В6	В7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## System boundary:

All life cycle stages are to be included, is a cradle to grave study.



Schematic representation of the life cycle of the products under study with geographic location.



Schematic representation of the life cycle of the products under study with main environmental factors.

## LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

## Transport from production place to assembly/user (A4)

This process consists in the transportation of the cable from Cabelte Portugal to installation site of the country of destiny (Norway).

A4	Type of vehicle	Distance [km]	Fuel/Energy	Modelling
Truck	The type of vehicle is a lorry	500	The fuel consumed is diesel	Transport. freight. lorry > 32 metric ton. EURO 4. RER was used to model the road transportation
Sea transport	The type of vehicle is a container ship	2557.61	The fuel consumed is heavy fuel oil	Transport. freight. sea. container ship. heavy fuel oil GLO was used to model the sea transportation

Assembly/Installation (A5)

	Unit	Value
Electricity consumption	kWh	1.14E-02
Electricity. low voltage. residual mix. NO was used to model electricity consumpt The GWP is 598.61 g CO2e/kWh	otion	
Material loss	kg	4.76E-02

Operational energy (B6) and water consumption (B7)

	Unit	Value
Water consumption	$m^3$	0
Electricity consumption	kWh	9.89E-01

The cable dissipates energy due to the Joule effect according to the formula:

$$E_{use} \left[ \frac{J}{km} \right] = R_{linear} * I^2 * RSL$$

Where

Euse is the energy dissipated by the cable during its operating time.

 $\bullet$  Rlinear is the linear resistivity of the cable. expressed in  $\Omega/km$ 

• I2 is the current. expressed in A

• RSL is the reference service life of the product

Study period: 100 years

Electricity. low voltage. residual mix. NO was used to model electricity consumption.

The GWP is 598.61 g CO2e/kWh

End of Life (C1. C3. C4)

C1. C2. C3	Unit	Value
Hazardous waste disposed	kg	0
Collected as mixed construction waste	kg	0
Reuse	kg	0
Recycling	kg	2.64E-01
Energy recovery	kg	2.78E-01
To landfill and incineration	kg	4.11E-01

Transport to waste processing (C2)

C2	Type of vehicle	Distance [km]	Fuel/Energy	Modelling
Truck	The type of vehicle is a lorry	100	The fuel consumed is diesel	Transport. freight. lorry > 32 metric ton. EURO 4. RER was used to model the road transportation

Benefits and loads beyond the system boundaries (D)

Benefits and loads beyond the system boundaries (D)	Unit	Value
Substitution of electricity. in Norway	MJ	2.05E-02
Substitution of primary copper with net scrap	kg	8.29E-02
Substitution of primary aluminium with net scrap	kg	1.81E-01

## LCA: Results

The result tables are given using a market based (guarantee of origin) approach for foreground system (A3).

## Core environmental impact indicators

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Indicato r	Unit	A1-A3	A4	A5	B1-B5	В6	В7	C1	C2	С3	C4	D
GWP - total	kg CO2 eq	1.54E+00	2.22E- 02	4.31E- 02	0.00E+00	1.66E-01	0.00E+0 0	1.90E- 03	2.75E- 03	2.45E- 01	6.81E-03	-1.07E+00
GWP - fossil	kg CO2 eq	1.55E+00	2.22E- 02	1.45E- 02	0.00E+00	1.66E-01	0.00E+0 0	1.90E- 03	2.75E- 03	2.45E- 01	8.85E-03	-1.08E+00
GWP - biogenic	kg CO2 eq	-2.70E-02	6.24E- 06	2.86E- 02	0.00E+00	4.67E-05	0.00E+0 0	5.37E- 07	1.52E- 06	3.66E- 04	-2.04E-03	6.69E-03
GWP - luluc	kg CO2 eq	1.30E-02	8.82E- 06	3.70E- 06	0.00E+00	2.23E-05	0.00E+0 0	2.57E- 07	9.31E- 07	6.92E- 05	1.30E-06	-1.65E-04
ODP	kg CFC11 eq	2.68E-08	3.95E- 10	8.80E- 11	0.00E+00	2.64E-09	0.00E+0 0	3.04E- 11	5.40E- 11	9.20E- 10	3.78E-11	-3.63E-09
AP	mole H+	2.93E-02	2.67E- 04	2.53E- 05	0.00E+00	5.06E-04	0.00E+0 0	5.82E- 06	1.06E- 05	3.14E- 04	1.11E-05	-1.09E-02
EP- freshwater	kg P eq	2.16E-03	1.21E- 06	1.88E- 06	0.00E+00	6.10E-05	0.00E+0 0	7.01E- 07	1.83E- 07	2.36E- 05	2.12E-07	-2.79E-03
EP - marine	kg N eq	2.20E-03	7.36E- 05	8.00E- 06	0.00E+00	1.08E-04	0.00E+0 0	1.24E- 06	3.98E- 06	7.22E- 05	1.56E-04	-2.11E-03
EP - terrestrial	mole N eq	2.66E-02	8.13E- 04	7.44E- 05	0.00E+00	1.10E-03	0.00E+0 0	1.27E- 05	4.34E- 05	7.16E- 04	4.43E-05	-2.53E-02
POCP	kg NMVOC eq	9.45E-03	2.48E- 04	2.28E- 05	0.00E+00	3.36E-04	0.00E+0 0	3.86E- 06	1.68E- 05	2.20E- 04	1.62E-05	-6.12E-03
ADP- M&M2	kg Sb-Eq	2.95E-04	4.71E- 08	2.46E- 08	0.00E+00	1.13E-06	0.00E+0 0	1.29E- 08	7.41E- 09	5.48E- 07	4.23E-09	-1.44E-05
ADP- fossil2	MJ	2.53E+01	2.98E- 01	7.42E- 02	0.00E+00	2.49E+00	0.00E+0 0	2.86E- 02	3.89E- 02	7.36E- 01	3.28E-02	-1.05E+01
WDP2	m3	1.25E+00	1.30E- 03	8.78E- 03	0.00E+00	3.79E-02	0.00E+0 0	4.35E- 04	1.96E- 04	1.55E- 01	3.43E-04	-1.13E-01

GWP-total: Global Warming Potential; GWP-fossil: Global Warming Potential fossil fuels; GWP-biogenic: Global Warming Potential biogenic; GWP-LULUC: Global Warming Potential land use and land use change; ODP: Depletion potential of the stratospheric ozone layer; AP: Acidification potential. Accumulated Exceedance; EP-freshwater: Eutrophication potential. fraction of nutrients reaching freshwater end compartment; See "additional Norwegian requirements" for indicator given as PO4 eq. EP-marine: Eutrophication potential. fraction of nutrients reaching freshwater end compartment; EP-terrestrial: Eutrophication potential. Accumulated Exceedance; POCP: Formation potential of tropospheric ozone; ADP-M&M: Abiotic depletion potential for non-fossil resources (minerals and metals); ADP-fossil: Abiotic depletion potential for fossil resources; WDP: Water deprivation potential. deprivation weighted water consumption

Reading example:  $9.0 \text{ E}-03 = 9.0*10^{-3} = 9.0*\frac{1}{10}*\frac{1}{10}*\frac{1}{10}*0.009$   $9.0 \text{ E}+03 = 9.0*10^{-3} = 9.0*10*10*10=9000$ 

#### Additional environmental impact indicators

Indicato r	Unit	A1-A3	A4	A5	B1-B5	В6	В7	C1	C2	С3	C4	D
PM	Disease incidenc e	1.26E-07	1.68E- 09	2.53E- 10	0.00E+00	1.88E-09	0.00E+0 0	2.16E- 11	2.71E- 10	3.30E- 09	2.44E-10	-7.47E-08
IRP1	kBq U235 eq.	1.37E-01	2.96E- 04	6.80E- 04	0.00E+00	3.49E-02	0.00E+0 0	4.02E- 04	4.73E- 05	6.12E- 03	4.60E-05	-5.59E-02
ETP-fw2	CTUe	2.38E+02	2.64E- 01	4.56E- 01	0.00E+00	4.54E+00	0.00E+0 0	5.22E- 02	3.71E- 02	8.12E+0 0	2.73E+02	-2.25E+02
HTP-c2	CTUh	9.04E-09	1.20E- 10	1.98E- 11	0.00E+00	2.19E-10	0.00E+0 0	2.51E- 12	1.66E- 11	2.18E- 10	1.27E-11	-1.81E-09
HTP-nc2	CTUh	2.57E-07	2.10E- 10	1.77E- 10	0.00E+00	2.22E-09	0.00E+0 0	2.55E- 11	3.23E- 11	2.36E- 09	7.76E-09	9.02E-09
SQP2	Dimensi onless	1.26E+01	2.19E- 01	2.41E- 02	0.00E+00	3.58E-01	0.00E+0 0	4.12E- 03	3.92E- 02	2.67E- 01	6.24E-02	-3.18E+00

PM: Particulate matter emissions; IRP: Ionising radiation. human health; ETP-fw: Ecotoxicity (freshwater); ETP-c: Human toxicity. cancer effects; HTP-nc: Human toxicity. non-cancer effects; SQP: Land use related impacts / soil quality

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

#### Resource use

Indicato r	Unit	A1-A3	A4	A5	B1-B5	В6	В7	C1	C2	С3	C4	D
PERE	MJ	4.90E+00	3.99E- 03	6.14E- 03	0.00E+00	2.14E-01	0.00E+0 0	2.46E- 03	6.18E-04	8.34E- 02	6.57E-04	-6.38E-01
PERM	MJ	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+0 0	0.00E+00	0.00E+00
PERT	MJ	4.90E+00	3.99E- 03	6.14E- 03	0.00E+00	2.14E-01	0.00E+0 0	2.46E- 03	6.18E-04	8.34E- 02	6.57E-04	-6.38E-01
PENRE	MJ	2.53E+01	2.98E- 01	7.43E- 02	0.00E+00	2.49E+00	0.00E+0 0	2.86E- 02	3.89E-02	7.36E- 01	3.28E-02	-1.05E+01
PENRM	MJ	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+0 0	0.00E+00	0.00E+00
PENRT	MJ	2.53E+01	2.98E- 01	7.43E- 02	0.00E+00	2.49E+00	0.00E+0 0	2.86E- 02	3.89E-02	7.36E- 01	3.28E-02	-1.05E+01
SM	kg	1.91E-02	1.33E- 04	2.20E- 05	0.00E+00	3.52E-04	0.00E+0 0	4.05E- 06	1.68E-05	2.06E- 04	1.63E-05	2.37E-02
RSF	MJ	1.03E-02	1.24E- 06	1.09E- 06	0.00E+00	2.59E-06	0.00E+0 0	2.98E- 08	2.12E-07	2.18E- 05	3.01E-07	-6.43E-05
NRSF	MJ	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+0 0	0.00E+00	0.00E+00
FW	m3	3.14E-02	3.65E- 05	2.11E- 04	0.00E+00	2.34E-03	0.00E+0 0	2.69E- 05	5.66E-06	3.64E- 03	-3.45E-04	-1.37E-03

PERE Renewable primary energy resources used as energy carrier; PERM Renewable primary energy resources used as raw materials; PERT Total use of renewable primary energy resources; PENRE Nonrenewable primary energy resources used as energy carrier; PENRM Nonrenewable primary energy resources used as materials; PENRT Total use of non-renewable primary energy resources; SM Use of secondary materials; RSF Use of renewable secondary fuels; NRSF Use of non-renewable secondary fuels; FW Use of net fresh water.

## End of life - Waste

Indicato r	Unit	A1-A3	A4	A5	B1-B5	В6	В7	C1	C2	С3	C4	D
HWD	kg	3.12E-01	4.22E- 04	2.22E- 03	0.00E+00	1.63E-02	0.00E+0 0	1.88E- 04	5.66E-05	3.92E- 02	1.17E-04	-2.27E-01
NHWD	kg	1.41E+01	7.71E- 03	3.73E- 02	0.00E+00	3.07E-01	0.00E+0 0	3.53E- 03	1.13E-03	2.77E- 01	5.71E-01	-2.05E+00
RWD	kg	3.53E-05	7.30E- 08	1.67E- 07	0.00E+00	8.59E-06	0.00E+0 0	9.88E- 08	1.17E-08	1.52E- 06	1.13E-08	-1.33E-05

HWD Hazardous waste disposed; NHWD Non-hazardous waste disposed; RWD Radioactive waste disposed.

## End of life - output flow

Indicato r	Unit	A1-A3	A4	A5	B1-B5	В6	В7	C1	C2	С3	C4	D
CRU	kg	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+00	0.00E+0 0	0.00E+0 0	0.00E+00	0.00E+0 0	0.00E+00	0.00E+00
MFR	kg	2.21E-03	1.20E- 05	5.78E- 06	0.00E+00	1.67E-04	0.00E+0 0	1.92E- 06	2.95E-07	5.95E- 02	4.51E-03	2.71E-03
MER	kg	2.60E-06	1.08E- 08	3.57E- 09	0.00E+00	4.04E-08	0.00E+0 0	4.65E- 10	1.70E-09	5.33E- 08	2.20E-09	4.28E-07
EEE	MJ	4.41E-03	3.57E- 05	5.62E- 04	0.00E+00	4.65E-02	0.00E+0 0	5.35E- 04	5.85E-06	2.62E- 03	4.55E-03	-3.34E-04
EET	MJ	9.53E-03	4.15E- 05	2.58E- 05	0.00E+00	1.35E-03	0.00E+0 0	1.55E- 05	7.16E-06	8.57E- 04	1.64E-03	-5.21E-05

CRU Components for reuse; MFR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; EET Exported thermal energy.

## Information describing the biogenic carbon content at the factory gate

Biogenic carbon content	Unit	Value
Biogenic carbon content in product	kg C	0.00E+00
Biogenic carbon content in the accompanying packaging	kg C	3.56E-02

Note: 1 kg biogenic carbon is equivalent to 44/12 (approx. 3.67) kg CO<sub>2</sub>

## Additional requirements

## Transparent reporting of energy

The EPD provides in the main result tables environmental impact categories based on a *market based approach* (GoO). The information below is provided so EPD users are able to understand the effect of these methodological choices.

The table below shows calculation of GWP-total for energy resources used in the manufacturing process (A3) for each approach.

Energy source	Data source	Amount	Unit	GWP <sub>total</sub> [kg CO <sub>2</sub> - eq/unit]	SUM [kg CO₂ -eq]
Market based approach					
Electricity production. photovoltaic. 570 kWp open ground installation. multi-SI PT (Cabelte has guarantees of origin. all the energy comes from renewable resources and the photovoltaic energy has the highest contribution)	Ecoinvent 3.10	7.75E-O1	kWh	1.39E-02	1.39E- 02

The electricity guarantees of origin were launched by EEGO-REN (Rede Elétrica Nacional. S.A.)/ EECS (European Energy Certificate System) with the validity of 31st december 2025.

## Additional environmental impact indicators required for construction products

In order to increase the transparency of biogenic carbon contribution to climate impact. the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.

Indicat or	Unit	A1-A3	A4	A5	B1-B5	В6	В7	C1	C2	С3	C4	D
GWP- IOBC	kg CO2- eq.	1.56E+0 0	2.22E- 02	1.45E- 02	0.00E+0 0	1.66E-01	0.00E+ 00	1.90E- 03	2.75E-03	2.45E- 01	8.85E-03	- 1.08E+00

**GWP-IOBC** Global warming potential calculated according to the principle of instantaneous oxidation.

## Hazardous substances

The declaration is based upon reference to threshold values and/or test results and/or material safety data sheets provided to EPD verifiers. Documentation available upon request to EPD owner.

The product contains no substances given by the REACH Candidate list.

#### Indoor environment

The product meets the requirements for low emissions.

#### Carbon footprint

While a carbon footprint analysis has not been conducted for the product separately. the results section does include an evaluation of Global Warming Potential (GWP) with such an analysis.

The GWP total results presented in this EPD document represents the carbon footprint of the product studied.

## **Bibliography**

ISO 14025:2010 Environmental labels and declarations - Type III environmental

declarations - Principles and procedures

ISO 14044:2006 Environmental management - Life cycle assessment -

Requirements and guidelines

EN 15804:2012+A2:2019 Sustainability of construction works - Environmental product

declaration - Core rules for the product category of construction

products

ISO 21930:2017 Sustainability in building construction - Environmental

declaration of building products

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