

Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Isolex PEX PN10 18/45 mm



PIPELIFE 

The Norwegian EPD Foundation

Owner of the declaration:
Pipelife Norge AS

Product:
Isolex PEX PN10 18/45 mm

Declared unit:
1 kg

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core
PCR
NPCR Part A: Construction products and services. Ver. 2.0
March 2021

Program operator:
The Norwegian EPD Foundation

Declaration number:
NEPD-8713-8369

Registration number:
NEPD-8713-8369

Issue date: 15.01.2025

Valid to: 15.01.2030

EPD software:
LCAno EPD generator ID: 743079

General information

Product

Isolex PEX PN10 18/45 mm

Program operator:

The Norwegian EPD Foundation
Post Box 5250 Majorstuen, 0303 Oslo, Norway
Phone: +47 977 22 020
web: www.epd-norge.no

Declaration number:

NEPD-8713-8369

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR
NPCR Part A: Construction products and services. Ver. 2.0 March
2021

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 information, life cycle assessment data and evidences.

Declared unit:

1 kg Isolex PEX PN10 18/45 mm

Declared unit (cradle to gate) with option:

A1-A3,A4,A5,C1,C2,C3,C4,D

Functional unit:

Not applicable

General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is made according to EPD-Norway's guidelines for verification and approval requiring that tools are i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPD-Norway, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools

Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Michael M. Jenssen, Asplan Viak AS

(no signature required)

Owner of the declaration:

Pipelife Norge AS
Contact person: Are Lyubråten
Phone: +47 71 65 88 00
e-mail: are.lyubraten@ipelife.com

Manufacturer:

Pipelife Norge AS
Hamnesvegen 97
6650 Surnadal, Norway

Place of production:

Pipelife Norge AS - Ringebu
Flyplassvegen 16
2630 Ringebu, Norway

Management system:

NS-EN ISO 9001:2015 NS-EN ISO 14001:2015

Organisation no:

980 457 575

Issue date:

15.01.2025

Valid to:

15.01.2030

Year of study:

2022

Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804+A2 and seen in a construction context.

Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD Norway.
NEPDT15

Developer of EPD: Diana Karin Schleider

Reviewer of company-specific input data and EPD: Are Lyubråten

Approved:

Håkon Hauan
Managing Director of EPD-Norway

Product

Product description:

Isolex pipes are coiled flexible pipes with integrated frost protection. The applications are cold or hot tap water supply, mostly as distribution pipes between houses, cottages or other commercial facilities, especially when vulnerable landscapes, difficult terrain and cold climate can be a challenge, e.g. in periods when there is a risk of frost.

The pipes have a construction consisting of a media pipe in PEX PN10, which is approved for drinking water and a protective corrugated casing pipe in HDPE, as well as self-limiting heating cable as integrated frost protection.

Isolex pipes are suitable for permanent installations underground.

More information is found on www.pipelife.no

Product specification

The products covered by this EPD have small variations in composition and are manufactured with the same type of equipment. The composition below represents an average for these products with components manufactured in 2021 (purchased PEX pipes) and 2022 (extruded PE pipes).

| Materials | kg | % |
|------------------------|------|--------|
| Electronic - Cable | 0,19 | 19,44 |
| Plastic - Polyethylene | 0,32 | 32,76 |
| Metal - Aluminium | 0,01 | 0,85 |
| Tape | 0,00 | 0,02 |
| Polyethylene (HDPE) | 0,45 | 46,93 |
| Total | 0,97 | 100,00 |

| Packaging | kg | % |
|-----------------------|------|--------|
| Packaging - Plastic | 0,01 | 29,24 |
| Packaging - Wood | 0,02 | 70,76 |
| Total incl. packaging | 1,00 | 100,00 |

Technical data:

For products covered by this EPD the following applies:

Products used as media pipes fulfill the requirements in accordance with EN ISO 15875-2 and meeting the requirements for diffusion resistance outlined in DIN 4726. GDV and VA approved.

The products do not emit substances that can impair the quality of the drinking water or cause a health hazard. The product has been tested for leaching into drinking water according with KTW-BWGL.

For technical information, see our documentation for the specific finished mixed product, where PEX pipes as covered by this EPD as a constituent component.

Heating cables used as integrated frost protection comply with the requirements of Directive 2014/35/EU (Low Voltage Directive) and are CE-compliant.

The self-limiting heating cable has a nominal power output of 7 W/m at +5 °C, 230 V.

The circuit lengths range from 1 to 100 meters, based on a 230 VAC supply and C-type characteristic circuit protection devices in accordance with EN 60898.

The self-limiting heating cable has been tested and approved according to EN 62395.

Market:

Mainly Norway, but also the Nordic countries.

Reference service life, product

The overall service lifetime of the assembled product depends on the individual lifetimes of its components and their combined performance. These lifetimes may vary depending on environmental and operational conditions, compliance with instructions, maintenance, and usage patterns. Component PEX pipe: The service lifetime is at least 50 years (ref. NEPD-4933-4283-EN)). Component heating cable: The expected lifetime is typically 20 to 30 years for self-limiting cables.

Reference service life, building

Not relevant

LCA: Calculation rules

Declared unit:

1 kg Isolex PEX PN10 18/45 mm

Cut-off criteria:

All raw materials and all the essential energy are included.

Allocation:

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and waste production in-house is allocated equally among all products manufactured at Ringebu from raw materials, through mass allocation. The Ringebu factory has its own water supply. Water is not consumed, it is used for cooling and then returned to natural flows. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

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 EPDs according to EN 15804 and different LCA databases. The data quality of the raw materials in A1 is presented in the table below.

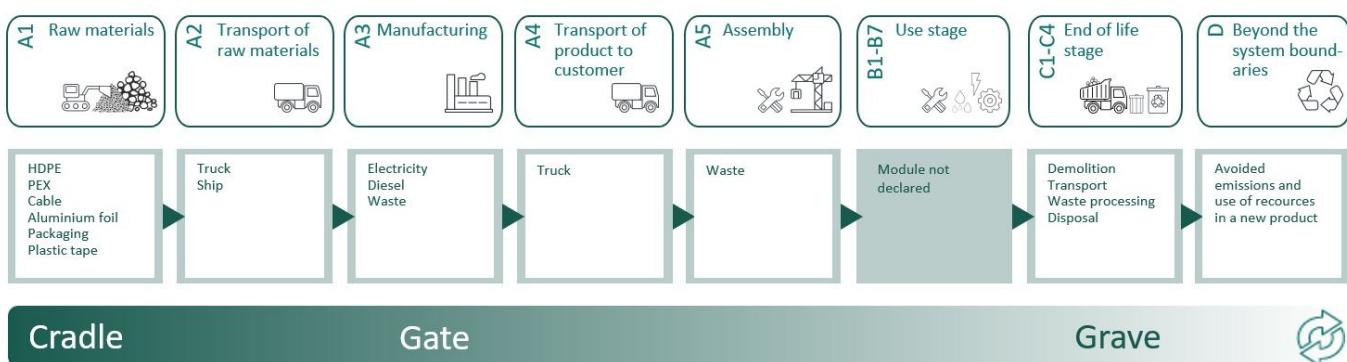
| Materials | Source | Data quality | Year |
|------------------------|-------------------|--------------|------|
| Electronic - Cable | ecoinvent 3.6 | Database | 2019 |
| Metal - Aluminium | ecoinvent 3.6 | Database | 2019 |
| Packaging - Plastic | ecoinvent 3.6 | Database | 2019 |
| Packaging - Wood | ecoinvent 3.6 | Database | 2019 |
| Plastic - Polyethylene | NEPD-4933-4283-EN | EPD | 2021 |
| Polyethylene (HDPE) | ecoinvent 3.6 | Database | 2019 |
| Tape | ecoinvent 3.6 | Database | 2019 |

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

| Product stage | | | Construction installation stage | | Use stage | | | | | | | End of life stage | | | | Beyond the system boundaries |
|---------------|-----------|---------------|---------------------------------|----------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|------------------------------------|
| Raw materials | Transport | Manufacturing | Transport | Assembly | Use | 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 | 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 |

System boundary:

The analysis is a cradle-to-gate (A1 - A3) study, with option A4 transport to market. It includes the extraction and production of raw materials, transportation to the production site, the production process itself and transport to the market. A5, installation, is included for the transport of packaging waste from the construction site and the treatment of this waste - not the installation of the products.


Additional technical information:

Professionally executed design, storage, handling, installation, maintenance and operations are a precondition for a long service life. The installation instructions must be followed.

Pipelife Norway AS is certified according to EN ISO 14001:2015.

See www.pipelife.no for more information on how we are working on environmental issues.

LCA: Scenarios and additional technical information

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

| Transport from production place to user (A4) | Capacity utilisation (incl. return) % | Distance (km) | Fuel/Energy Consumption | Unit | Value (Liter/tonne) |
|---|---------------------------------------|---------------|-------------------------|-------|---------------------|
| Truck, 16-32 tonnes, EURO 6 (km) | 36,7 % | 100 | 0,043 | l/tkm | 4,30 |
| Assembly (A5) | Unit | Value | | | |
| Waste, hazardous waste, to average treatment (kg) | kg | 0,00034 | | | |
| Waste, packaging, plastic film (LDPE), to average treatment - A5 including transport (kg) | kg | 0,030 | | | |
| Waste, packaging, wood to average treatment - A5 including transp. (kg) | kg | 0,049 | | | |
| Waste processing (C3) | Unit | Value | | | |
| Waste treatment of polyethylene (PE), incineration with energy recovery and fly ash extraction (kg) | kg | 0,68 | | | |
| Copper to recycling (kg) | kg | 0,11 | | | |
| Waste treatment per kg of waste cable, manual treatment (kg) | kg | 0,18 | | | |
| Disposal (C4) | Unit | Value | | | |
| Landfilling of ashes from incineration of Polyethylene (PE), process per kg ashes and residues (kg) | kg | 0,024 | | | |
| Landfilling of plastic mixture (kg) | kg | 0,62 | | | |
| Landfilling of aluminium (kg) | kg | 0,0082 | | | |
| Waste treatment per kg Copper slag, to landfill, (kg) | kg | 0,012 | | | |
| Benefits and loads beyond the system boundaries (D) | Unit | Value | | | |
| Substitution of thermal energy, district heating, in Norway (MJ) | MJ | 20,13 | | | |
| Substitution of electricity, in Norway (MJ) | MJ | 1,33 | | | |

LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

| Environmental impact | | | | | | | | | | |
|---|----------------------------------|------------------------|-----------|----------|----------|----|----|----------|----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D | |
|  | GWP-total | kg CO ₂ -eq | 2,95E+00 | 1,63E-02 | 8,02E-02 | 0 | 0 | 2,10E+00 | 7,27E-02 | -1,21E-01 |
|  | GWP-fossil | kg CO ₂ -eq | 2,97E+00 | 1,63E-02 | 4,01E-03 | 0 | 0 | 2,09E+00 | 7,27E-02 | -1,17E-01 |
|  | GWP-biogenic | kg CO ₂ -eq | -1,78E-02 | 6,76E-06 | 7,62E-02 | 0 | 0 | 8,70E-05 | 7,16E-06 | -2,41E-04 |
|  | GWP-luluc | kg CO ₂ -eq | 3,25E-03 | 5,81E-06 | 9,43E-07 | 0 | 0 | 4,69E-05 | 1,67E-06 | -4,02E-03 |
|  | ODP | kg CFC11 -eq | 1,48E-07 | 3,70E-09 | 3,84E-10 | 0 | 0 | 2,61E-09 | 2,16E-09 | -8,50E-03 |
|  | AP | mol H ⁺ -eq | 8,04E-02 | 4,69E-05 | 1,43E-05 | 0 | 0 | 3,82E-04 | 5,47E-05 | -9,62E-04 |
|  | EP-FreshWater | kg P -eq | 6,35E-04 | 1,31E-07 | 2,74E-08 | 0 | 0 | 1,51E-06 | 8,57E-08 | -1,04E-05 |
|  | EP-Marine | kg N -eq | 4,88E-03 | 9,29E-06 | 7,48E-06 | 0 | 0 | 1,45E-04 | 9,33E-05 | -3,14E-04 |
|  | EP-Terrestrial | mol N -eq | 6,80E-02 | 1,04E-04 | 6,15E-05 | 0 | 0 | 1,58E-03 | 2,15E-04 | -3,40E-03 |
|  | POCP | kg NMVOC -eq | 2,10E-02 | 3,98E-05 | 1,67E-05 | 0 | 0 | 3,85E-04 | 7,63E-05 | -9,38E-04 |
|  | ADP-minerals&metals ¹ | kg Sb-eq | 4,33E-04 | 4,51E-07 | 3,57E-08 | 0 | 0 | 1,48E-07 | 5,64E-08 | -1,16E-06 |
|  | ADP-fossil ¹ | MJ | 7,62E+01 | 2,47E-01 | 2,71E-02 | 0 | 0 | 4,52E-01 | 1,61E-01 | -1,67E+00 |
|  | WDP ¹ | m ³ | 1,77E+02 | 2,39E-01 | 6,37E-02 | 0 | 0 | 1,42E+00 | 1,41E+00 | -2,08E+01 |

GWP-total = Global Warming Potential total; 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; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

¹INA Indicator Not Assessed

1. 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

Remarks to environmental impacts

Mechanical recycling of PE and heating cables as WEEE is very sustainable and in line with the circular economy. Scrap and used products should be collected for recycling.

Additional environmental impact indicators

| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D | |
|---|---------------------|-------------------|----------|----------|----------|----|----|----------|----------|-----------|
|  | PM | Disease incidence | 2,33E-07 | 1,00E-09 | 1,94E-10 | 0 | 0 | 1,90E-09 | 1,06E-09 | -5,83E-08 |
|  | IRP ² | kgBq U235 -eq | 9,75E-02 | 1,08E-03 | 1,07E-04 | 0 | 0 | 1,65E-03 | 7,79E-04 | -1,07E-02 |
|  | ETP-fw ¹ | CTUe | 7,16E+02 | 1,83E-01 | 3,25E-02 | 0 | 0 | 8,48E-01 | 5,38E+00 | -9,08E+00 |
|  | HTP-c ¹ | CTUh | 1,06E-08 | 0,00E+00 | 2,00E-12 | 0 | 0 | 5,20E-11 | 2,92E-10 | -1,65E-10 |
|  | HTP-nc ¹ | CTUh | 8,39E-07 | 2,00E-10 | 1,08E-10 | 0 | 0 | 1,96E-09 | 1,99E-08 | -8,70E-09 |
|  | SQP ¹ | dimensionless | 1,57E+01 | 1,73E-01 | 2,79E-02 | 0 | 0 | 6,51E-02 | 5,91E-01 | -1,12E+01 |

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

*INA Indicator Not Assessed

1. 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

2. 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.

| Resource use | | | | | | | | | | |
|--------------|-------|----------------|----------|----------|-----------|----|----|----------|----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D | |
| | PERE | MJ | 8,83E+00 | 3,54E-03 | 8,79E-04 | 0 | 0 | 3,91E-02 | 7,73E-03 | -1,03E+01 |
| | PERM | MJ | 3,40E-01 | 0,00E+00 | -6,98E-01 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| | PERT | MJ | 9,17E+00 | 3,54E-03 | -6,97E-01 | 0 | 0 | 3,91E-02 | 7,73E-03 | -1,03E+01 |
| | PENRE | MJ | 4,18E+01 | 2,47E-01 | 2,71E-02 | 0 | 0 | 4,52E-01 | 1,61E-01 | -1,67E+00 |
| | PENRM | MJ | 3,58E+01 | 0,00E+00 | -1,30E+00 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| | PENRT | MJ | 7,76E+01 | 2,47E-01 | -1,28E+00 | 0 | 0 | 4,52E-01 | 1,61E-01 | -1,67E+00 |
| | SM | kg | 5,46E-02 | 0,00E+00 | 0,00E+00 | 0 | 0 | 0,00E+00 | 7,65E-07 | 0,00E+00 |
| | RSF | MJ | 1,84E-01 | 1,26E-04 | 1,96E-05 | 0 | 0 | 1,02E-03 | 1,65E-04 | -1,81E-03 |
| | NRSF | MJ | 2,22E-02 | 4,52E-04 | 1,62E-04 | 0 | 0 | 0,00E+00 | 2,69E-03 | -6,11E-01 |
| | FW | m ³ | 7,28E-02 | 2,64E-05 | 1,78E-05 | 0 | 0 | 5,58E-04 | 1,96E-04 | -1,24E-02 |

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw 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 = Net use of fresh water

*Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

*INA Indicator Not Assessed

End of life - Waste

| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D | |
|------------------|-------------|-------|----------|----------|----------|----|----|----------|----------|-----------|
| ☒ | HWD | kg | 1,50E-02 | 1,27E-05 | 1,94E-04 | 0 | 0 | 0,00E+00 | 2,08E-02 | -7,85E-05 |
| ☒ | NHWD | kg | 4,86E-01 | 1,20E-02 | 8,06E-02 | 0 | 0 | 0,00E+00 | 6,55E-01 | -3,94E-02 |
| ☒ | RWD | kg | 9,60E-05 | 1,68E-06 | 5,80E-09 | 0 | 0 | 0,00E+00 | 1,05E-06 | -8,74E-06 |

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

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

*INA Indicator Not Assessed

End of life - Output flow

| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D | |
|------------------|-------------|-------|----------|----------|----------|----|----|----------|----------|----------|
| ∅▷ | CRU | kg | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0 | 0 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| ∅▷ | MFR | kg | 3,74E-02 | 0,00E+00 | 1,57E-02 | 0 | 0 | 1,11E-01 | 5,65E-05 | 0,00E+00 |
| ▷∅ | MER | kg | 1,40E-02 | 0,00E+00 | 5,00E-02 | 0 | 0 | 6,86E-01 | 1,39E-06 | 0,00E+00 |
| ▷∅ | EEE | MJ | 1,19E-02 | 0,00E+00 | 3,47E-02 | 0 | 0 | 1,33E+00 | 8,87E-05 | 0,00E+00 |
| ▷∅ | EET | MJ | 1,80E-01 | 0,00E+00 | 5,25E-01 | 0 | 0 | 2,01E+01 | 1,34E-03 | 0,00E+00 |

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

*INA Indicator Not Assessed

Biogenic Carbon Content

| Indicator | Unit | At the factory gate |
|---|-------------|----------------------------|
| Biogenic carbon content in product | kg C | 0,00E+00 |
| Biogenic carbon content in accompanying packaging | kg C | 1,01E-02 |

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂

Additional requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

| Electricity mix | Source | Amount | Unit |
|---------------------------|---------------|--------|--------------|
| Electricity, Norway (kWh) | ecoinvent 3.6 | 24,33 | g CO2-eq/kWh |

Dangerous substances

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

Indoor environment

Not relevant

Additional Environmental Information

| Additional environmental impact indicators required in NPCR Part A for construction products | | | | | | | | | |
|--|------------------------|----------|----------|----------|----|----|----------|----------|-----------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| GWPIOBC | kg CO ₂ -eq | 2,90E+00 | 1,63E-02 | 3,97E-03 | 0 | 0 | 2,09E+00 | 7,28E-02 | -1,19E-01 |

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

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 Environmental product declaration - Core rules for the product category of construction products.
 ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products.
 ecoinvent v3, Allocation, cut-off by classification, Swiss Centre of Life Cycle Inventories.
 Iversen et al., (2021) eEPD v2021.09 Background information for EPD generator tool system verification, LCA.no rapportnummer: : 07.21.
 Vold, et al., (2019) EPD generator for Pipelife - Background information for customer application and LCA data. report number 08.19
 NPCR Part A: Construction products and services. Ver. 2.0. March 2021, EPD-Norge.

| | | |
|--|--|--|
|  Global program operator | Program operator and publisher The Norwegian EPD Foundation Post Box 5250 Majorstuen, 0303 Oslo, Norway | Phone: +47 977 22 020 e-mail: post@epd-norge.no web: www.epd-norge.no |
|  | Owner of the declaration: Pipelife Norge AS Hamnesvegen 97, 6650 Surnadal, Norway | Phone: +47 71 65 88 00 e-mail: are.lyubraten@ipelife.com web: www.ipelife.no |
|  | Author of the Life Cycle Assessment LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway | Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no |
|  | Developer of EPD generator LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway | Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no |
|  | ECO Platform ECO Portal | web: www.eco-platform.org web: ECO Portal |