

Environmental Product Declaration

 **EPD**
INTERNATIONAL EPD SYSTEM



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Chrome plated copper pipes

from

Trio Perfekta AB



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products from a company
EPD registration number:	EPD-IES-0027717:001
Version date:	2026-01-19
Validity date:	2031-01-18

EPD of multiple products, based on the average results of the product group
The included products are listed in the Product Table. An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com.



General information

Programme information

Programme:	The International EPD System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	support@environdec.com

PCR and verification

Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i>PCR 2019:14 Construction products v.2.0.1</i>
PCR review was conducted by: <i>PCR review was conducted by the Technical Committee of the International EPD System. See https://environdec.com/about-us/the-international-epd-system-about-the-system for a list of members. Review chair: Rob Rouwette. The review panel may be contacted via the Secretariat www.environdec.com/contact.</i>
Verification
External and independent ('third-party') verification of the declaration and data, according to ISO 14025:2006, via EPD verification through:
<input checked="" type="checkbox"/> Individual EPD verification without a pre-verified LCA/EPD tool
Third-party verifier: <i>Stephen Forson, Viridis Pride Ltd</i>
Approved by: The International EPD System
Procedure for follow-up of data during EPD validity involves third party verifier:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Ownership and limitations on use of EPD

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

Information about EPD owner

EPD owner: Trio Perfekta AB

Contact: Robert Johansson, robert.johansson@trio-perfekta.se

Address: Modellgatan 12, 283 50 Osby, Sweden

Description of the organisation: For over 80 years, we have been dedicated to creating functional and safe products for the plumbing industry. All of our products are developed and manufactured in-house at our facility in Lönsboda. With our extensive industry experience, we are able to provide reliable, high-quality products at affordable prices, offering the flexibility that best serves our customers' needs. Today, we are one of Sweden's largest producers and distributors of plumbing products that manage water flow into buildings. Our products are available through installers and retailers. Since 2016, Trio Perfekta has been a part of the Vitas group, a group of companies specializing in HVAC solutions.

Product-related or management system-related certifications: ISO 9001 & ISO 14001

LCA practitioner: Anna Liljenroth, anna.liljenroth@carbonzero.se

Product information

Product name: Chrome-plated copper pipes

Product description: Chrome-plated copper pipes with a trivalent chromium surface treatment are available in annealed, semi-hard, and hard grades. These pipes are reliable and durable, meeting the EN1057 standard. They offer excellent corrosion resistance and a long service life.

Ideal for all types of plumbing installations, they can be used in both new constructions and renovation projects. The pipes are joined using press or compression fittings. Delivered in straight lengths and packed in cardboard tubes, support sleeves should be used with annealed and semi-hard pipes.

Visual representation of the product:



Description of production process: Copper pipes are bought as raw unplated copper pipes and the production process is to electroplate the pipes with Nickel and Chrome+3 including the pre-treatment in different acidic and alkaline baths. The processes are performed in a Rack line where the pipes are dipped in different baths according to a specified program and parameters.

Technical or actual lifespan: >50 years

UN CPC code: 41516 Tubes, pipes and tube or pipe fittings, of copper

Name and location of production site(s): Trio Perfekta AB, Östra Järnvägsgatan 18, 283 72 Lönsboda

List of included products:

All these products are covered by this EPD, the material composition is the same within the entire product group, giving them the same environmental impact per kg of pipe.

Article number	Type of copper tube	Length (mm)	Circumference (mm)
RSK 8564149	Annealed	1200	10 x 0.8
RSK 8564150		2000	10 x 0.8
RSK 8564151		1200	12 x 1.0
RSK 8564152		2000	12 x 1.0
RSK 8564153		1200	15 x 1.0
RSK 8564154		2000	15 x 1.0
RSK 8564156		2000	22 x 1.0
RSK 8564157		Semi-rigid	1000
RSK 8564158	2000		10 x 0.8
RSK 8564159	2750		10 x 0.8
RSK 8564160	1000		12 x 1.0
RSK 8564161	2000		12 x 1.0
RSK 8564162	2750		12 x 1.0
RSK 8564163	1000		15 x 1.0
RSK 8564164	2000		15 x 1.0
RSK 8564165	2750		15 x 1.0
RSK 8564166	2000		18 x 1.0
RSK 8564167	2750		18 x 1.0
RSK 8564168	2000		22 x 1.0
RSK 8564169	2750	22 x 1.0	
RSK 8564170	Rigid	2500	28 x 1.2

Content declaration

The average content of the product group is declared in the content declaration.

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product ¹	Biogenic material kg C/declared unit
Copper	9,90E-01	26	0	0
Nickel	9,75E-03	0	0	0
Chrome	2,50E-04	0	0	0
TOTAL	1,00E+00	0	0	0
Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material ¹ kg C/declared unit	
Plastic film	1,56E-03	0,16	0	
Paper board	8,44E-02	8,41	3,63E-02	
TOTAL	8,60E-02	8,57	3,63E-02	

Hazardous substances from the candidate list of SVHC	EC No.	CAS No.	Mass-% per declared unit
Not relevant			

¹ 1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO₂.

LCA information

Declared unit: 1 kg of chrome-plated copper pipe

Reference service life: Not applicable as module B is not included

Time representativeness: 2024

LCA software used: Calculation completed in LCA for Experts v. 10.9. The characterization factors used in this study refer to PCR 2019:14 and EN 15804+A2 (based on EF 3.1).

Description of system boundaries: Cradle to gate, with options (A1-A3, A4-A5, C1-C4, D)

Life cycle stages not considered: B1-B7

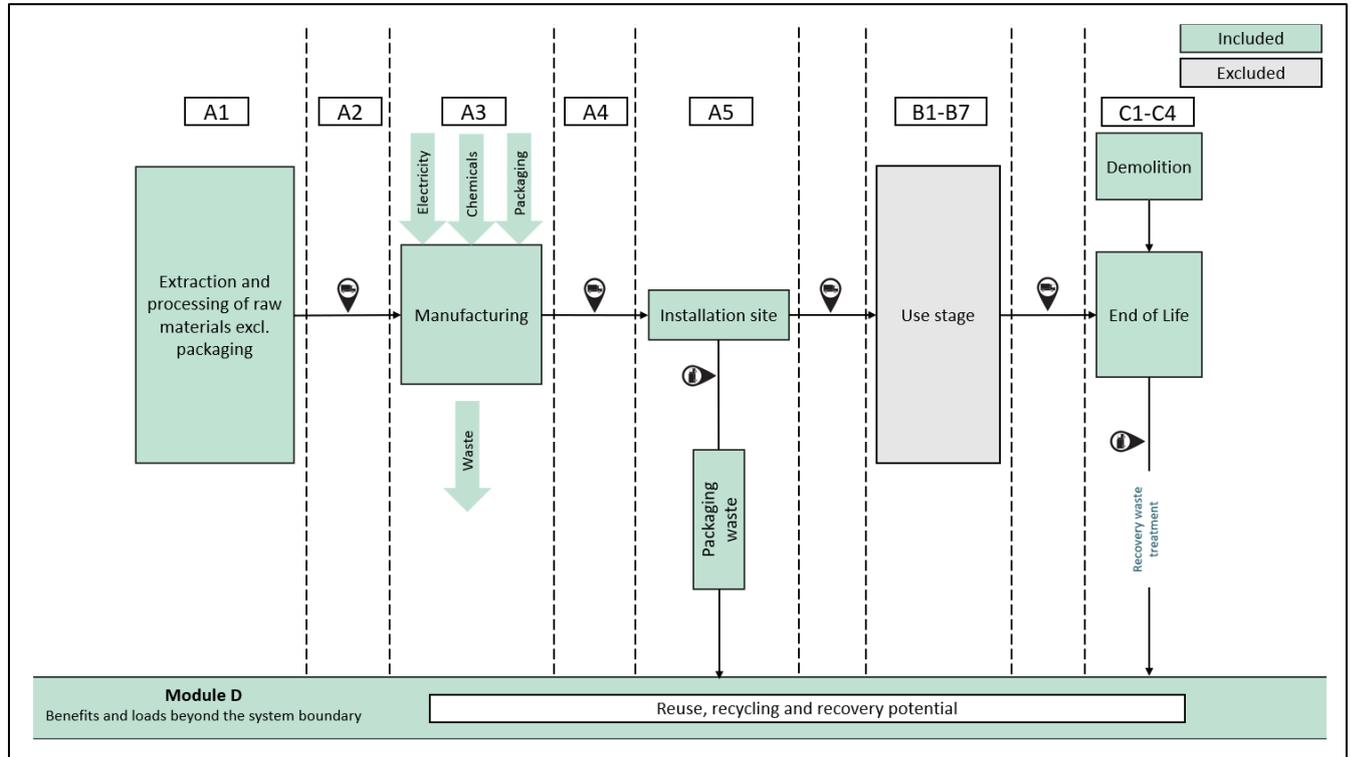
Electricity used in manufacturing: The GWP-GHG values for the manufacturing stage impacts are presented according to wind powered electricity retrieved from Sphera database.

Cut-off: The use of cut-off criterion on mass inputs and primary energy at the unit process level (1%) and at the information module level (5%) was applied

Allocation: Allocation criteria are based on mass. For post-consumer content, only transport have been considered.

Electricity	Period	GWP-GHG [kg CO ₂ -eq/kWh]
Wind powered electricity	2021	0.011

System diagram:



Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	EU	SE	SE	SE	-	-	-	-	-	-	-	SE	SE	SE	SE	SE
Specific data used	10,8%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0 %					-	-	-	-	-	-	-	-	-	-	-	-

Declaration of data sources, reference years, and share of primary data:

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Manufacturing of product	Collected data	EPD owner	2023	Primary data	6,8%
Generation of electricity used in manufacturing of product	Database	Sphera	2021	Primary data	0,4%
Transport of raw materials manufacturing site	Collected data	EPD owner	2024	Primary data	3,6%
Production of copper pipes & coating	Database	Sphera	2024	Representative generic data	0%
Production of packaging	Database	Sphera	2023	Representative generic data	0%
Total share of primary data, of GWP-GHG results for A1-A3	10,8%				

Summary of data quality: The data quality detailed above is considered being good as majority of the data has been collected by the manufacturer, but the datasets used are sometimes on a global scope and most of the impact is represented by representative secondary data. Majority of the impacts derive from the raw materials, which is not considered primary data, hence the share of primary data of GWP-GHG results for A1-A3 is fairly low.

Scenario descriptions for downstream stages

Transport to the building site (A4)

Scenario information	Unit (expressed per functional unit or per declared unit)
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long-distance truck, boat, etc.	Truck-trailer, Diesel, Euro mix, 34 - 40t gross weight, consumption 0,025 liter/ton*km
Distance	370 km
Capacity utilisation (including empty returns)	61 %
Bulk density of transported products	2215 kg/m ³
Volume capacity utilisation factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaged products)	1

Installation of the product in the building (A5)

Scenario information	Quantity	Unit (expressed per functional unit or per declared unit)
Ancillary materials for installation (specified by material)	Not relevant	kg or other units as appropriate
Water use	Not relevant	m ³
Other resource use	Not relevant	kg
Quantitative description of energy type (regional mix) and consumption during the installation process	Not relevant	kWh or MJ
Waste materials on the building site before waste processing, generated by the product's installation (specified by type)	Packaging material: LDPE Packaging material: Carton	kg
Output materials (specified by type) as results of waste processing at the building site e.g. of collection for recycling, for energy recovery, disposal (specified by route)	Packaging material: LDPE (26% recycling, 74% incineration with energy recovery) Packaging material: Carton (100% incineration)	kg
Direct emissions at ambient air, soil and water	Not relevant	kg

End-of-Life (C1, C3, C4)

Process	Unit (expressed per functional unit or per declared unit of components products or materials and by type of material)
C1: Collection process specified by type	1 kg collected separately
	0 kg collected with mixed construction waste
C3: Recovery system specified by type	0 kg for re-use
	0,90 kg for recycling*
	0 kg for energy recovery
C4: Disposal specified by type	0,1 kg product or material for final deposition*

*100% of the copper pipes are sent for recycling, meaning that a 100% scenario is declared, but only 90% is credited in module D to account for losses in the recycling process and the remaining 10% is sent for landfill. Therefore 0,90 kg is stated in the table above for recycling and 0,1 kg for final deposition. MFR is also declared as 0,90 kg in the result tables.

Transport to the building site (C2)

Scenario information	Unit (expressed per functional unit or per declared unit)
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long-distance truck, boat, etc.	Truck-trailer, Diesel, Euro mix, 34 - 40t gross weight, 0,025 Liter/ton*km
Distance	80 km
Capacity utilisation (including empty returns)	61 %
Bulk density of transported products	2215 kg/m ³
Volume capacity utilisation factor (factor: =1 or <1 or ≥ 1 for compressed or nested packaged products)	Not applicable

Default values applied for End of Life (C1-C4)

Module	Processes	Energy carrier	Quantity [kWh/tonne]	Weight considered [kg]
C1	Demolition/deconstruction of steel, wood and other materials	Diesel	1.1	1
Module	Processes	Distance [km]	Weight considered [kg]	
C2	Transports (for materials not to be incinerated)	80	1	
	Transports (for materials to be incinerated)	130	0	
Module	Processes	Energy carrier	Quantity [kWh/tonne]	Weight considered [kg]
C3	Loading and unloading at sorting facility	Diesel	1.8	1
	Mechanical sorting	Electricity	2.2	1
	Fragging of steel (proxy for copper)	Diesel	7.4	1
	Treatment of other materials	Diesel	0.8	0

Environmental performance

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (module C) should be considered when using the results of the production stage (modules A1-A3).

Main environmental performance results

Mandatory impact category indicators according to EN 15804

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	3,50E+00	3,19E-02	6,58E-03	3,93E-04	6,35E-03	3,40E-03	2,13E-03	-2,98E+00
GWP-biogenic	kg CO ₂ eq.	-1,23E-01	7,64E-05	1,33E-01	5,46E-08	1,52E-05	1,98E-05	6,55E-06	-5,88E-03
GWP-luluc	kg CO ₂ eq.	1,16E-02	3,27E-04	4,10E-06	4,42E-08	6,52E-05	1,64E-05	6,68E-06	-1,00E-02
GWP-total	kg CO ₂ eq.	3,39E+00	3,23E-02	1,40E-01	3,93E-04	6,43E-03	3,44E-03	2,14E-03	-3,00E+00
ODP	kg CFC 11 eq.	3,04E-09	5,28E-15	1,18E-12	6,25E-12	1,05E-15	4,95E-11	6,88E-15	-3,02E-10
AP	mol H ⁺ eq.	6,79E-02	4,62E-05	3,44E-05	3,64E-06	9,19E-06	3,02E-05	1,33E-05	-4,71E-02
EP-freshwater	kg P eq.	6,71E-05	8,58E-08	2,37E-08	1,21E-08	1,71E-08	1,08E-07	3,01E-09	-4,09E-06
EP-marine	kg N eq.	3,16E-03	1,84E-05	1,26E-05	1,69E-06	3,67E-06	1,40E-05	3,23E-06	-2,59E-03
EP-terrestrial	mol N eq.	3,38E-02	1,95E-04	1,57E-04	1,84E-05	3,89E-05	1,53E-04	3,52E-05	-2,81E-02
POCP	kg NMVOC eq.	1,19E-02	4,10E-05	3,34E-05	5,43E-06	8,17E-06	4,57E-05	1,00E-05	-9,35E-03
ADP-minerals&metals	kg Sb eq.	2,14E-03	2,12E-09	7,34E-10	1,37E-10	4,21E-10	1,25E-09	1,44E-10	-2,14E-03
ADP-fossil	MJ	4,00E+01	4,08E-01	3,95E-02	5,13E-03	8,12E-02	5,07E-02	3,48E-02	-3,21E+01
WDP	m ³	1,77E+00	1,45E-04	1,52E-02	1,74E-05	2,90E-05	2,01E-04	2,48E-04	-1,62E+00
Acronyms	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								

Additional mandatory and voluntary impact category indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG ²	kg CO ₂ eq.	3,52E+00	3,21E-02	6,60E-03	3,93E-04	6,40E-03	3,44E-03	2,14E-03	-3,00E+00
PM	Disease incidence	5,23E-07	4,23E-10	2,11E-10	1,00E-10	8,42E-11	8,45E-10	1,52E-10	-3,78E-07
IRP	kBq U235 eq.	1,11E-01	1,10E-04	3,02E-04	2,44E-06	2,20E-05	3,21E-04	6,47E-05	-3,07E-02
ETP-fw	CTUe	5,90E+01	5,30E-01	1,62E-02	2,42E-03	1,06E-01	2,72E-03	2,64E-02	-2,49E+01
HTTP-c	CTUh	2,99E-09	7,15E-12	1,25E-12	1,25E-13	1,42E-12	5,85E-13	4,47E-13	-2,10E-09
HTTP-nc	CTUh	1,25E-07	4,00E-10	1,60E-11	8,59E-13	7,96E-11	7,90E-12	1,31E-11	-1,78E-07
SQP	Dimensionless	5,30E+01	1,80E-01	1,21E-02	3,43E-04	3,59E-02	8,61E-03	5,79E-03	-3,23E+01
Acronyms	GWP-GHG = Global Warming Potential Greenhouse Gases; PM = Particulate Matter; IRP = Ionizing Radiation Potential – Human Health; ETP-fw = Ecotoxicity - freshwater; HTTP-c = Human Toxicity - carcinogenic; HTTP-nc = Human Toxicity – non carcinogenic; SQP = Soil Quality								

² This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

Resource use indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	2,70E+01	3,07E-02	1,19E+00	2,93E-05	6,12E-03	1,04E-02	5,67E-03	-1,09E+01
PERM	MJ	1,18E+00	0,00E+00	-1,18E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,82E+01	3,07E-02	9,81E-03	2,93E-05	6,12E-03	1,04E-02	5,67E-03	-1,09E+01
PENRE	MJ	3,99E+01	4,08E-01	1,07E-01	5,13E-03	8,12E-02	5,07E-02	3,48E-02	-3,21E+01
PENRM	MJ	6,75E-02	0,00E+00	-6,75E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	4,00E+01	4,08E-01	3,95E-02	5,13E-03	8,12E-02	5,07E-02	3,48E-02	-3,21E+01
SM	kg	2,63E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	3,43E-02	1,52E-05	3,57E-04	4,04E-07	3,02E-06	1,61E-05	7,32E-06	-2,94E-02
Acronyms	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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water								

Waste indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	4,68E-02	1,64E-11	1,94E-11	0,00E+00	3,26E-12	3,84E-05	7,51E-12	-1,24E-08
Non-hazardous waste disposed	kg	-1,03E-01	5,69E-05	3,77E-03	0,00E+00	1,13E-05	2,96E-04	1,00E-01	-1,15E+00
Radioactive waste disposed	kg	6,97E-04	7,69E-07	1,91E-06	0,00E+00	1,53E-07	2,61E-06	4,82E-07	-2,20E-04

Output flow indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00							
Material for recycling	kg	1,20E-03	0,00E+00	4,06E-04	0,00E+00	0,00E+00	9,00E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00							
Exported energy, electricity	MJ	0,00E+00	0,00E+00	1,89E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	3,42E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Information describing the biogenic carbon content at the factory gate

Biogenic carbon content	Unit (expressed per declared unit)
Biogenic carbon content in product	0 kg C
Biogenic carbon content in accompanying packaging	3,63E-02 kg C
Note:	1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO ₂ .

Disclaimers

ILCD classification	Indicator	Disclaimer
ILCD Type 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
ILCD Type 2	Acidification potential, Accumulated Exceedance (AP)	None
	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD Type 3	Abiotic depletion potential for non-fossil resources (ADP-minerals & metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2
	Potential Soil quality index (SQP)	2
<p>Disclaimer 1 – 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.</p>		
<p>Disclaimer 2 – 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.</p>		

Abbreviations

Abbreviation	Definition
General Abbreviations	
EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
CEN	European Committee for Standardization
CLC	Co-location centre
CPC	Central product classification
GHS	Globally harmonized system of classification and labelling of chemicals
GRI	Global Reporting Initiative
Environmental Impact Indicators (EN 15804)	
GHG	Greenhouse gas
GWP	Global Warming Potential (kg CO ₂ eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO ₂ eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO ₂ eq.)
GWP-luluc	Global Warming Potential from land use and land use change (kg CO ₂ eq.)
GWP-total	Total Global Warming Potential (kg CO ₂ eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO ₂ eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H ⁺ eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADP-minerals&metals	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADP-fossil	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m ³)
Resource Use Indicators	
PERE	Use of renewable primary energy excluding renewable primary energy resources used as raw materials (MJ)
PERM	Use of renewable primary energy resources used as raw materials (MJ)
PERT	Total use of renewable primary energy resources (MJ)
PENRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials (MJ)
PENRM	Use of non-renewable primary energy resources used as raw materials (MJ)
PENRT	Total use of non-renewable primary energy resources (MJ)
SM	Use of secondary material (kg)
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m ³)
Waste Indicators	
HW	Hazardous Waste (disposed) (kg)
NHW	Non-Hazardous Waste (disposed) (kg)
RW	Radioactive Waste (disposed) (kg)

Output Flow Indicators	
CFR	Components for Reuse (kg)
MR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)
EEE	Exported Energy, Electricity (MJ)
EET	Exported Energy, Thermal (MJ)
Lifecycle Stages / Modules	
A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential
Other Relevant Terms	
SVHC	Substances of Very High Concern
EC No.	European Community Number
CAS No.	Chemical Abstracts Service Number
MJ	Megajoule
kg	Kilogram
m ³	Cubic Meter
NM VOC	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO ₂ eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO ₂ eq.	Kilograms of Carbon Dioxide Equivalent
ND	Not Declared

References

EN 15804:2012+A2	Sustainability of construction works – Environmental product declaration – Core rules for the product category of constructions products
EPD International (2021)	General Programme Instructions of the International EPD® System, version 5.0
ISO 14020:2022	International Standard ISO 14020 – Environmental statements and programmes for products – Principles and general requirements
ISO 14025:2006	International Standard ISO 14025 – Environmental labels and declarations — Type III environmental declarations — Principles and procedures
ISO 14040:2006	International Standard ISO 14040: Environmental Management – Life cycle assessment – Principles and framework. Second edition 2006-07-01.
ISO 14044:2006	International Standard ISO 14044: Environmental Management – Life cycle assessment – Requirements and Guidelines.
PCR 2019:14	Construction products v2.0.1

Version history

Original version

