

Environmental Product Declaration



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

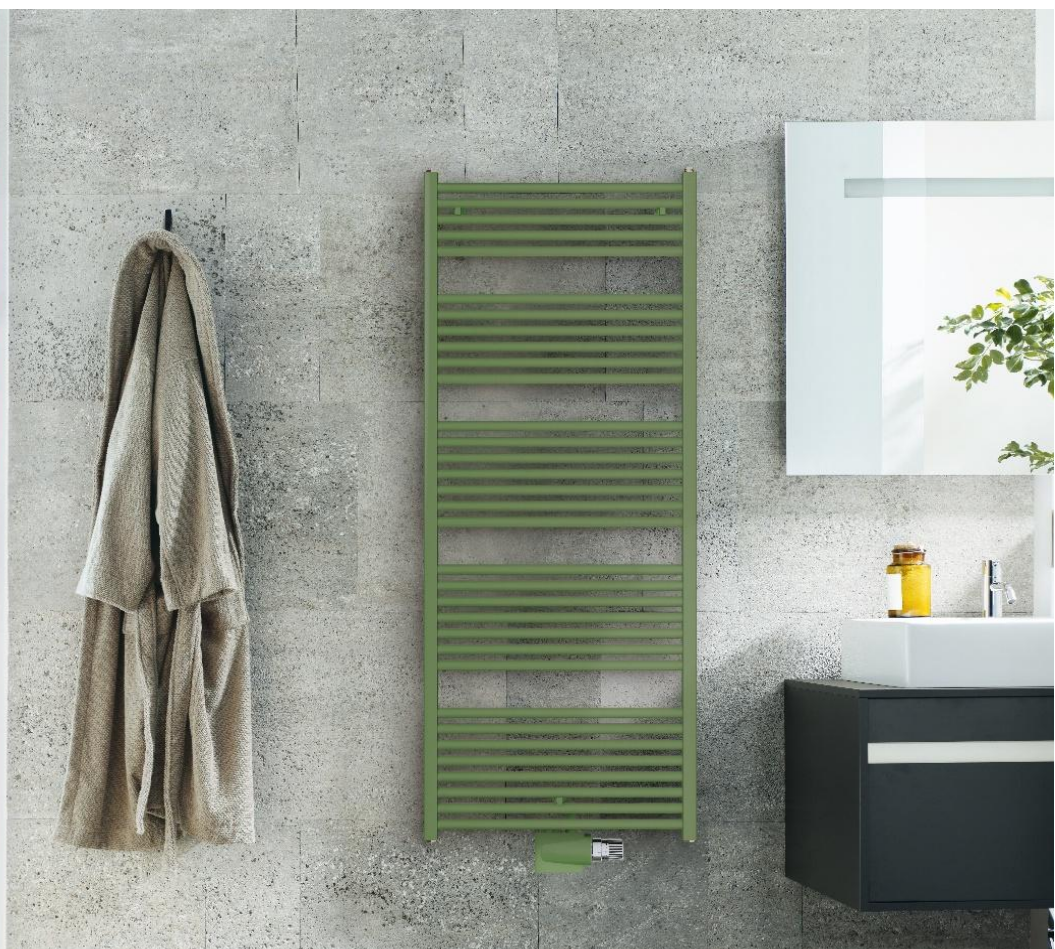
Zehnder painted towel radiator produced in Bolesławiec, Poland

from

Zehnder Group International

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-0028477:001
Version date:	2026-03-02
Validity date:	2031-03-02

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

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804:2012+A2:2019/AC:2021 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): <i><PCR 2019:14 Construction products, Version 2.0. The EF reference package 3.1 was used. In addition, version 1.0.0 of 2024:06 NMD Determination method was used to determine the end-of-life scenario</i>
PCR review was conducted by: <i>Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact.</i>
Life Cycle Assessment (LCA)
LCA accountability: Zehnder Group International AG, Moortalstrasse 1, 5722 Gränichen, Switzerland
Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
<input checked="" type="checkbox"/> Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: <i>Jane Anderson, Construction LCA Ltd</i> Approved by: International EPD System <i>Jane Anderson</i>
Procedure for follow-up of data during EPD validity involves third party verifier:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
[Procedure for follow-up the validity of the EPD is at minimum required once a year with the aim of confirming whether the information in the EPD remains valid or if the EPD needs to be updated during its validity period. The follow-up can be organized entirely by the EPD owner or together with the original verifier via an agreement between the two parties. In both approaches, the EPD owner is responsible for the procedure being carried out. If a change that requires an update is identified, the EPD shall be re-verified by a verifier]

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. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: Zehnder Group International AG, Moortalstrasse 1, 5722 Gränichen, Switzerland.

Contact: Stephan Wittmer, stephan.wittmer@zehndergroup.com

Description of the organisation: Zehnder Group provides worldwide leading solutions for a comfortable, energy-efficient and healthy indoor climate. The products and services of the Group include heating, cooling, indoor ventilation and air cleaning. The Group develops and manufactures its products at its own factories in Europe, China, and North America.

Product-related or management system-related certifications: ISO9001, ISO45001, ISO14001

Name and location of production site(s): Zehnder Group Bolesławiec Sp. z o. o. ul. Modłowa 5PL 59-700 Bolesławiec, Poland

PRODUCT INFORMATION

Product name: Painted towel radiators produced in Bolesławiec,

Reference product name: Zehnder Zeno, ZN170-075-05.

Product identification: Painted towel radiator produced in Bolesławiec, Poland. All variants (all lengths and heights) except galvanized versions, Zeno, Yucca, Virando, Universal, Toga, Tetris, Subway, Stalox, Ribbon, Quaro, Orbis, Nobis, Metropolitan, Madras, Kleo, Klaro, Forana, Flow Form, Fina Lean, Fain, Cala, Archibald, Angora, Altaï, Tweed, Deline, Oda, Palma, Kapla, Kazeane, Kadrane, Striane, Karena, Astrakan, Keva, Atoll, Alizea, Forma, AX, no name models based on the Zehnder models and Private label models.

Product description: Painted hydronic towel radiators generate heat in the bathroom and serve as a towel rack. It generally comes with a custom finish, delivered in a single piece, ready to use to order. Height, width and length are made to order. The finish in the analysis is white.

UN CPC code: 44823 "Radiators for central heating, not electrically heated, of iron or steel."

Geographical scope: The fabrication is based on the manufacturing site in Bolesławiec, Poland (A3), the delivery of product (A4) is based on true data from 2023, while the end-of-life scenario (module C) was model according to a 100% recycling scenario, which is the most likely scenario in Europe.

LCA information

Functional unit / declared unit: 1 kg of painted towel radiator produced in Bolesławiec, Poland.

Reference service life: 20 years; we choose to state a technical life span of 20 years, as this service life we also use in our Sustainability Reporting for the scope 3 emissions.

Time representativeness: 2023

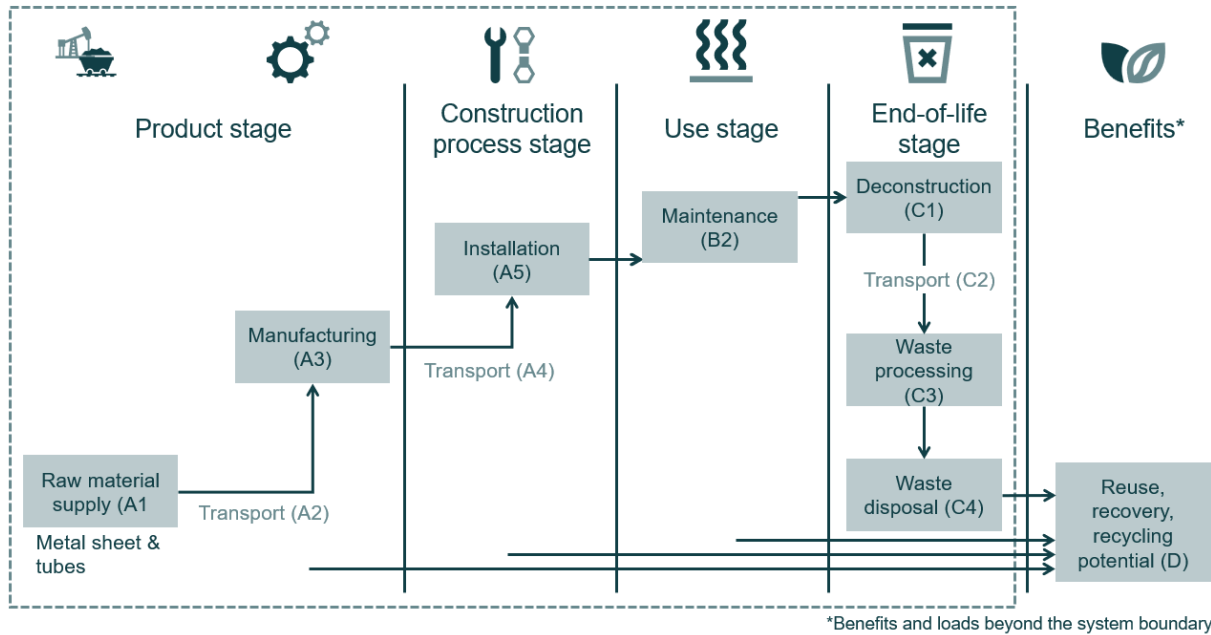
Database(s) and LCA software used: SimaPro (version 10.2.0.0 multiuser) with Ecoinvent (version 3.13)

Description of system boundaries:

Cradle to grave and module D (A + B + C + D).

System diagram:

System boundary



More information:

For further information on the reference product please visit the webpage under the following [Zehnder Zeno - Warmwasserbetrieb](#)

Modules include impacts and aspects related to losses or/and waste in the module in which the losses or waste occur (i.e. production, transport and waste processing and disposal of the lost waste products and materials). Impacts and aspects related to waste are considered in the module in which the waste occurs.

Module A1 to A3:

The product stage includes the raw material extraction and production, transport to the manufacturing site, and manufacturing and assembly of components.

An EPD based on PCR version 1.11 was used for modelling the raw steel input in module A1.

It considers the demand of energy, auxiliary and operational materials, packaging, as well as waste treatment to end-of-waste condition or disposal of end residues during the product stage. The following dataset was used for modelling the used electricity: Electricity, low voltage {PL}| electricity, low voltage, residual mix| Cut-off, U (1.00 kg CO₂ eq. / kWh).

Module A4 to A5:

The construction process stage includes transportation to the installation site by truck and installation.

It considers the energy demand and auxiliary material including related Volatile Organic Compound (VOC) emissions.

Means of transport	Distance [km]
Lorry (Truck) 16-32t, EURO6	4.15E+02
Light commercial vehicle	3.01E+00
Ocean container ship	3.34E+00

Treatment and disposal of packaging material in A5. Credits for potential avoided burdens due to energy substitution of electricity and thermal energy generation by the packaging waste are declared in module D and affects only the rate of primary material (no secondary materials). Installation into the building is done with simple tools and is therefore neglected.

Module B1 to B7:

The use stage of the products has no direct emissions (B1) and is designed so that no maintenance is required (B2) or parts need to be replaced (B4). Furthermore, no standard repairs (B3) or refurbishments (B5) are foreseen. The use of the product does not require any electricity consumption (B6) and water consumption (B7). These effects are therefore stated as zero.

Module C1 to C4:

The end-of-life stage includes the deconstruction, considering the energy demand and auxiliary materials, the transportation by truck to waste processing facilities, the waste processing, considering sorting, and the waste disposal, considering a scenario with recycling, incineration, and landfill. The scenario is built on today's practice. The removal of the radiator does only need handheld tools and is therefore neglected. The transport of end-of-life (EOL) stage (C2) considers 50 km, 150 km and 100 km for the shipment of collected waste to approved treatment centres by truck (Euro6) to recycling, incineration and landfill, respectively. The radiator materials are treated according to 100% recycling scenario, which is the most likely scenario in Europa. Meaning that the steel is recycled, the paint is burnt during the steel recycling and the plastics are incinerated. The impact of material share, which is incinerated, is reported in C3 while in C4 the share disposed of in landfill is reported.

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

Module	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	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	RER	RER	PL	GLO	RER	RER	RER	RER	RER	RER	RER	RER	RER	RER	RER	RER	RER	
Specific data used	74%* GWP- GHG					-	-	-	-	-	-	-	-	-	-	-	-	
Variation – products	<10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Variation – sites	NA			X	NR	-	-	-	-	-	-	-	-	-	-	-	-	

* According to the EPD, the steel in module A1 contains 46 % specific data; module A3 contributes a further 27 %, with electricity accounting for 20 % of this share.

X: Module declared, ND: Module not declared, NR= Module not relevant, PL: Poland, GLO: Global, RER: Europe.

Tabelle erzeugen die die source of primary data angibt.

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG result of A1-A3
Manufacturing of product	Collected daata	EPD Owner	2023	Primary data	27%*
Production of steel	EPD	S-P-08145	2025	70% primary data,30% generic data	46%
Other processes	Databases	Ecoinvent 3.11; SimaPro 10.2	2023-2025	Representative generic data	1%
Total share of primary data, of GWP-GHG results for A1-A3					74%

* Electricity(none-renewable) accounts 20% of this share

In this document the results for 1 kg of painted towel radiator produced in Bolesławiec, Poland is given. The analysed model is among the most sold sizes (PBN-170-075) and is a very good representation of the whole painted portfolio produced in the factory in Bolesławiec, Poland.

Cut-off Criteria

The cut-off rule excludes irrelevant flows of material or energy from system boundaries. The following flows are excluded: lubricants for machines. The production and maintenance of capital equipment, facilities and infrastructure needed for production are not the subject of this assessment. Long-term emissions (> 100 years) are not taken into consideration in the impact estimate.

Allocation

Information about allocation procedure of single datasets is documented in Ecoinvent (<https://ecoquery.ecoinvent.org/>).

Data collection and reference time period

The foreground data refer to annual data for 2023.

Estimates and assumptions

All relevant process steps are considered and modelled to represent the specific situations. The process chain is considered sufficiently complete regarding the goal and scope of this study. The data quality of the inventory is assessed based on its precision (measured, calculated, literature or estimated), completeness (e.g., unreported emissions), consistency (degree of uniformity of the methods used) and representativeness (geographical, temporal, technological). In order to do justice to these aspects and thus ensure reliable results, first-hand industrial data were used together with consistent background data from the Ecoinvent databases (version 3.1).

Use of upstream EPD for steel

The data source for the steel used for the radiator body is an EPD based on PCR version 1.11. PCR version 2.01 includes methodological updates regarding, among others, the modelling of electricity (e.g. use of country-specific grid mixes) and the allocation of pre-consumer recycled content. Based on a qualitative assessment, these differences are estimated to have a limited quantitative influence on the overall results. The supplier's EPD according to PCR v1.11 was therefore used as the best available verified data source.

Data quality

The data quality of the inventory is assessed based on its precision (measured, calculated, literature or estimated), completeness (e.g., unreported emissions), consistency (degree of uniformity of the methods used) and representativeness (geographical, temporal, technological). In order to do justice to these aspects and thus ensure reliable results, first-hand industrial data were used together with consistent background data from the Ecoinvent databases (version 3.11). Data quality according to EN 15804:2012+A2:2019, Annex E, only E.2 was assessed (DQR = 1.0). No fair, poor and very poor data was used.

CONTENT DECLARATION

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Steel	9.62E-01	6	0
Powder paint	2.40E-02	0	0
Glass fiber reinforced	3.23E-04	0	0
PA 6	9.14E-06	0	0
TOTAL	1.00E+00	6	0
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
LDPE	9.19E-03	1%	0
Paper	2.80E-03	0%	5.36E-06
Corrugated board	4.83E-02	5%	2.01E-02
Solid construction timber	1.29E-01	13%	6.32E-02
TOTAL	1.89E-01	19%	8.33E-02

A comparison between the 232 substances in the updated list of 17 January 2023 and our products has shown that Zehnder radiator portfolio and their accessories do not contain any substances of the ECHA-list (European Chemical Agency) for substances of very high concern (SVHC) of more than 0.1%.

Results per functional or declared unit										
Indicator	Unit	A1-A3	A4	A5	B1 to B7	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	4.38E+00	8.35E-02	2.32E-02	0	0	7.67E-03	6.00E-02	6.22E-04	-1.80E+00
GWP-biogenic	kg CO2 eq	-1.99E-01	0.00E+00	1.99E-01	0	0	0.00E+00	0.00E+00	0.00E+00	8.24E-02
GWP-luluc	kg CO2 eq	1.43E-03	2.92E-05	2.40E-06	0	0	2.71E-06	1.52E-07	4.53E-08	-1.27E-03
GWP-total	kg CO2 eq	4.19E+00	8.20E-02	1.95E-01	0	0	7.67E-03	6.00E-02	6.22E-04	-1.72E+00
ODP	kg CFC11 eq	3.65E-08	1.82E-09	7.99E-11	0	0	1.70E-10	1.03E-11	1.87E-12	-1.13E-08
AP	mol H+ eq	2.03E-02	1.95E-04	3.35E-05	0	0	1.72E-05	5.20E-06	5.35E-07	-6.57E-03
EP-freshwater	kg P eq	4.49E-04	6.50E-07	7.78E-08	0	0	5.94E-08	7.04E-09	8.51E-10	-8.78E-05
EP-marine	kg N eq	3.38E-03	4.84E-05	1.37E-05	0	0	4.17E-06	2.38E-06	4.32E-07	-1.49E-03
EP-terrestrial	mol N eq	3.62E-02	5.36E-04	1.45E-04	0	0	4.62E-05	2.62E-05	2.18E-06	-1.73E-02
POCP	kg NMVOC eq	1.15E-02	3.05E-04	4.34E-05	0	0	2.79E-05	6.67E-06	8.98E-07	-5.85E-03
ADP-minerals&metals*	kg Sb eq	6.35E-02	3.16E-07	1.59E-08	0	0	2.57E-08	1.18E-09	1.37E-10	-1.68E-06
ADP-fossil*	MJ	2.51E+01	9.75E-02	1.12E-02	0	0	9.02E-03	1.02E-03	1.31E-04	-1.55E+01
WDP*	m³	5.43E-01	4.74E-03	5.78E-04	0	0	4.65E-04	6.17E-05	-1.07E-03	-1.87E-01
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									

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Additional mandatory and voluntary impact category indicators

Results per functional or declared unit										
Indicator	Unit	A1-A3	A4	A5	B1 to B7	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	4.38E+00	8.35E-02	2.32E-02	0	0	7.67E-03	6.00E-02	6.22E-04	-1.81E+00
PM	Disease incidences	1.43E-07	6.39E-09	5.27E-10	0	0	6.21E-10	4.43E-11	1.18E-11	-1.35E-07
IR	kBq U235 eq.	4.21E-02	5.56E-04	2.74E-05	0	0	5.09E-05	4.01E-06	5.34E-07	-1.75E-02
ETP-fw*	CTUe	2.92E+01	1.60E-01	8.33E-02	0	0	1.49E-02	2.02E-02	2.26E-02	-5.09E+00
HTP-c *	CTUh	7.43E-08	2.02E-11	6.12E-12	0	0	1.28E-12	7.41E-11	4.15E-14	-2.55E-09
HTP-nc*	CTUh	1.88E-08	7.43E-10	3.29E-10	0	0	6.99E-11	2.25E-10	7.23E-12	-5.63E-09
SQP*	Pt	2.49E+01	6.95E-01	4.70E-02	0	0	8.33E-02	1.92E-03	3.89E-03	-1.33E+01
Acronyms	ETP-fw = Potential Comparative Toxic Unit for ecosys-tems; HTP-c = Potential Toxic Unit for Humans toxicity, cancer; HTP-nc = Potential Toxic Unit for humans, non-cancer; IR = Potential Human exposure efficiency relative to U235, human health; PM = Potential incidence of disease due to Particulate Matter emissions; SQP = Potential soil quality index									

Disclaimer on IR: 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, or 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 indicators

Results per functional or declared unit										
Indicator	Unit	A1-A3	A4	A5	B1 to B7	C1	C2	C3	C4	D
PERE	MJ	1.11E+00	0.00E+00	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERM	MJ	1.85E+00	0.00E+00	-1.85E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.96E+00	0.00E+00	-1.85E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRE	MJ	2.17E+01	9.75E-02	3.19E-01	0	0	9.02E-03	9.03E-03	1.31E-04	-1.55E+01
PENRM	MJ	3.16E-01	0.00E+00	-3.07E-01	0	0	0.00E+00	-8.01E-03	0.00E+00	0.00E+00
PENRT	MJ	2.20E+01	9.75E-02	1.12E-02	0	0	9.02E-03	1.02E-03	1.31E-04	-1.55E+01
SM	kg	1.00E-01	0.00E+00	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	2.41E-01	1.52E-04	3.18E-05	0	0	1.47E-05	1.22E-05	-2.50E-05	-5.91E-03
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									

¹ 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.

Waste indicators

Results per functional or declared unit										
Indicator	Unit	A1-A3	A4	A5	B1 to B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	9.04E-05	9.44E-06	5.11E-07	0	0	7.55E-07	1.14E-07	1.16E-08	-2.05E-04
Non-hazardous waste disposed	kg	1.39E-01	5.62E-02	1.26E-02	0	0	6.94E-03	6.07E-04	6.76E-03	-8.55E-02
Radioactive waste disposed	kg	1.32E-05	3.85E-07	1.76E-08	0	0	3.48E-08	3.00E-09	3.41E-10	-1.34E-05

Output flow indicators

Results per functional or declared unit										
Indicator	Unit	A1-A3	A4	A5	B1 to B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	6.46E-03	0	0	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	6.17E-02	0.00E+00	5.12E-02	0	0	0.00E+00	1.00E+00	0.00E+00	0.00E+00
Materials for energy recovery	kg	9.90E-03	0.00E+00	1.23E-01	0	0	0.00E+00	1.91E-04	0.00E+00	0.00E+00
Exported energy, electricity	MJ	2.38E-02	0.00E+00	3.49E-01	0	0	0.00E+00	1.30E-03	0.00E+00	-3.74E-01
Exported energy, thermal	MJ	4.98E-02	0.00E+00	7.30E-01	0	0	0.00E+00	2.71E-03	0.00E+00	-7.83E-01

The results from modules A1-A3 should not be used without considering the results of module C.

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.

Difference from previous version

- First version

Abbreviations

ADP	Abiotic Depletion Potential	
ADPE	Abiotic Depletion Potential (elementary)	kg Sb eq.
ADPF	Abiotic Depletion Potential (fossil)	MJ
AP	Acidification Potential	Mole H+ eq.
CRU	Components for Re-use	kg
EEE	Exported Electrical Energy	MJ
EET	Exported Thermal Energy	MJ
EPD	Environmental Product Declaration	
EOL	End-of-Life	
EP	Eutrophication Potential	
FW	Use of net Fresh Water	m ³
GHG	Greenhouse Gas	
GWP	Global Warming Potential	kg CO2 eq.
HWD	Hazardous Waste Disposed	g
IBU	Institut Bauen und Umwelt e.V. (Institute of Construction and Environment)	
ILCD	International Cycle Data System	
ISO	International Organization for Standardization	
LCA	Life Cycle Assessment	
LCI	Life Cycle Inventory	
LCIA	Life Cycle Impact Assessment	
MER	Materials for Energy Recovery	Kg
MFR	Materials for Recycling	Kg
NHWD	Non-Hazardous Waste Disposed	Kg
NMVOC	Non-Methane Volatile Organic Compound	
NRSF	Use of Non-renewable Secondary Fuels	MJ
ODP	Ozone Depletion Potential	kg CFC 11 eq.
PCR	Product Category Rules	
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
PEP	Product Environmental Profile	
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
POCP	Photochemical Ozone Creation Potential	kg NMVOC eq
RSF	Use of Renewable Secondary Fuels	MJ
RSL	Reference Service Life	
RWD	Radioactive Waste Disposed	kg
SM	Use of Secondary Material	kg
VOC	Volatile Organic Compound	
WIP	Waste Incineration Plant	

References

General Program Instructions of the International EPD® System. Version 5.0.

CEN/TR 15941	Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data; CEN/TR 15941:2010
CPR	Regulation (EU) No 305/2011 of the European parliament and of the council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC
EF3.1	Environmental Footprint 3.1 method
EN 15804+A2	EN 15804:2012+A2:2019 Sustainability of construction works -Environmental Product Declarations - Core rules for the product category of construction products
EN ISO 14025	EN ISO 14025:2011-10 Environmental labels and declarations - Type III environmental declarations - Principles and procedures
EN ISO 14040	EN ISO 14040:2009-11 Environmental management - Life cycle assessment - Principles and framework
EN ISO 14044	EN ISO 14044:2006-10 Environmental management - Life cycle assessment - Requirements and guidelines
PCR 2019:14	PCR 2019:14: Construction products, version 2.0.0, environdec.
NMD Determination method	NMD Determination method Environmental performance Construction works v1.0.0 March 2024, foundation NMD
NMD waste regulations	Forfaitaire waarden voor verwerking-scenario's einde leven behorende bij: Bepalingsmethode Milieuprestatie Bouwwerken, Version: March 2024.
IBU PART A	PCR - Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project Report according to EN 15804+A2:2019, Institut Bauen und Umwelt e.V., www.bau-umwelt.com, 2023

