



Environmental Product Declaration

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

Concrete Admixtures

from

Polisan Yapikim Yapı Kimyasalları Sanayi ve Ticaret A.Ş.



Programme:	International EPD System, www.environdec.com
Programme operator:	EPD International AB
Licensee:	EPD Türkiye
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EPD Registration Number:	EPD-IES-0004871
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Included Products:	See page 5 for the exclusive list of included products

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CEN standard EN 15804 serves as the core Product Category Rules (PCR)

Product Category Rules (PCR): PCR 2019:14 Construction products (EN 15804+A2) (2.0.1)
UN CPC code: 35499 - Other chemical products n.e.c.

PCR review was conducted by: The Technical Committee of the International EPD System. See
www.environdec.com for a list of members.

Review chair: Rob Rouwette (chair), Noa Meron (co-chair). The review panel may be
contacted via the Secretariat www.environdec.com/support.

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

EPD verification through an individual EPD verification

Third party verifier: Dr. Rajesh Kumar Singh
Approved by: International EPD System

The procedure for follow-up of data during EPD validity involves third party verifier:

Yes No

Polisan Yapıkim Yapı Kimyasalları Sanayi ve Ticaret A.Ş. has the sole ownership, liability, and
responsibility for this EPD.

LCA accountability: Orhan Atacan, Metsims Sustainability Consulting, info@metsims.com

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 lifecycle 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



Owner of the EPD: Polisan Yapıkim Yapı Kimyasalları Sanayi ve Ticaret A.Ş.

Address: Hilltown Ofis, Aydınnevler Mah. Siteler Yolu Cad. 28 No:1/A Küçükyalı-Maltepe, İstanbul - Türkiye

Production location:

Dilovası Organize Sanayi Bölgesi 1. Kısım Liman Cad. No: 7 Dilovası, Kocaeli - Türkiye
19 Mayıs Organize Sanayi Bölgesi Yaşar Doğu cad. No: 9/1 Tekkeköy, Samsun
Adana Hacı Sabancı Organize Sanayi Bölgesi Acidere OSB Mah. Atatürk Blv. No: 13 Sarıçam, Adana

Product/management system-related certifications:

- ISO 9001 Quality Management System
- ISO 14001 Environment Management System
- ISO 45001 Occupational Health and Safety Management System
- ISO 10002 Customer Satisfaction Management System
- ISO 50001 Energy Management System
- ISO 27001 Information Security Management System

Polisan Yapıkim commenced its operations in the construction chemicals sector in 2009, rapidly establishing a strong presence in the concrete admixtures market. Today, the company offers a comprehensive product portfolio that includes chemical admixtures for concrete and cement, as well as specialized underground solutions used in mechanized tunneling and metro excavation projects. With its commitment to innovation and quality, Polisan Yapıkim continues to deliver value-added solutions to all its stakeholders across the construction and infrastructure industries.

In a market comprising 7 international and 20 domestic companies, Polisan Yapıkim holds the third position with a 15% market share.



Product Name: Concrete Admixtures

Product Identification: Polisan Yapikim concrete admixtures are a range of chemical additives designed to improve the performance and quality of concrete. The portfolio includes superplasticizers, plasticizers, accelerators, retarders, air-entraining agents, and specialty admixtures for various construction applications.

Product Description: Polisan Yapikim concrete admixtures are high-performance chemical formulations engineered to optimize fresh and hardened concrete properties. By modifying the rheology and hydration behavior of cementitious systems, these admixtures improve workability, reduce water demand, control setting time, and enhance mechanical strength and long-term durability.

The admixtures enable superior concrete quality by providing benefits such as increased flowability, improved cohesion, reduced segregation and bleeding, enhanced resistance to harsh environmental conditions, and extended service life of structures. Suitable for a wide range of construction applications, these products contribute to more efficient production processes, improved sustainability through reduced cement and water usage, and consistent, reliable performance in both standard and demanding conditions.

Production Site: Dilovası plant, Dilovası Organize Sanayi Bölgesi 1. Kısım Liman Cad. No: 7, Dilovası, Kocaeli - Türkiye



This Environmental Product Declaration (EPD) covers the concrete admixture product group manufactured by Polisan Yapikim. The study encompasses a total of 22 products within this category, which are considered functionally similar and are produced using comparable raw materials and production processes.

According to a detailed life cycle assessment (LCA) study, environmental impacts across the products show variations exceeding 10% for certain impact categories. In accordance with the requirements of the applicable Product Category Rules (PCR), such variation necessitates a conservative and representative approach in reporting.

Therefore, for each environmental impact indicator assessed within the scope of this EPD, the highest value observed among the included products has been selected and reported. This approach ensures that the declared results reflect a worst-case scenario, providing a robust, transparent, and precautionary representation of the environmental performance of the product group.

PROOFTON 2001: PROOFTON Series Chemical Admixtures are in the water impermeability group which minimizes the capillary voids in the concrete mixture with the various chemicals it contains and aims to reduce permeability without increasing water/cement ratio.

SUPERTON 342: SUPERTON Series Chemical Admixtures constitute the super plasticizer chemical concrete admixture group which are composed of specially selected modified sulphonate raw materials with high water reduction and strength increasing properties.

POLITON 5090, 5090_S, 5090_W, 624, 665, 682, 682_S, 682_W, 696, 735, 740, 746, 758, 44, 44S, 44W: POLITON Series Chemical Admixtures constitute the Polycarboxylate based highly water reducing next generation super plasticizer (hyper plasticizer) concrete admixture group which reduces concrete mixture water ratio increasing all kinds of strengths and highly improves workability period of fresh concrete.

ULTRATON PF60: ULTRATON PF Series Chemical Admixtures constitute the super plasticizer precast concrete admixture group with high rates of water reduction and developed for precast applications where the time between concrete production and casting is short.

ULTRATON 920, 935: ULTRATON Series Chemical Admixtures constitute the modified polymer or phosphonate based polymer containing next generation super plasticizer (hyper plasticizer) concrete admixture group specially designed according to worksite requirements, which ensures high rate of water reduction.

AIRTON S: AIRTON Series Chemical Admixtures constitute the ready-to-use or concentrated air entrainer concrete admixture group which entrains uniformly distributed air in the concrete in adequate dimensions thanks to the special air entraining components, reduces the unit volume weight of the concrete or the mortar, improves freezing-thawing resistance of concrete.

Content Declaration

Content Name	*Weight, %	Post-consumer recycled material, weight-% of product	Biogenic material, weight-% of product	Biogenic material ¹ , kg C/ declared unit
Water	40 - 50	0	0	0
Superplasticizer	10 - 20	0	0	0
Retarder	5 - 10	0	0	0
Water Reducer	30 - 40	0	0	0
Additives	1 - 8	0	0	0
Total	100	0	0	0

Note 1

1 kg biogenic carbon is equivalent to 44/12 kg of CO₂.

*Product composition is presented as percentages rather than specific weights to maintain confidentiality while transparently communicating the relative proportions of each component.

Packaging Materials

The product is distributed in bulk using reusable 1000-liter Intermediate Bulk Containers (IBCs). Due to their volume and high number of reuse cycles (typically more than 20 cycle)¹, the environmental impacts associated with the IBCs per declared unit of product are considered negligible and are therefore excluded from the system boundaries. No single-use consumer packaging is utilized for these products.

The product does not contain any substances that are listed in the 'Candidate List of Substances of Very High Concern (SVHC) for authorisation' in concentrations exceeding 0.1% by weight of the product. No other hazardous or toxic substances with concern for human health or the environment are present in the product as required by normative standards in Türkiye or international markets.

¹ Biganzoli, L., Rigamonti, L., & Grosso, M. (2018). Intermediate bulk containers re-use in the circular economy: An LCA evaluation. *Procedia CIRP*, 69, 518-523.

LCA Information

EPD based on declared or functional unit	Declared unit
Declared unit	1 kg of of Polisan Yapikim Concrete Admixtures
Data sources used for this EPD	ecoinvent 3.11 database
LCA Software	SimaPro Craft 10.2
Version of the EN 15804 reference package	EF reference package 3.1.
Scrap (recycled material) inputs contribution level	Not applicable.
Infrastructure and capital goods	Excluded

Data quality assessment	<p>The Life Cycle Assessment (LCA) for this Environmental Product Declaration (EPD) is based on both primary and secondary data. Primary data were collected directly from the manufacturer’s production processes and site-specific operations for the reference year 2025. The quality and representativeness of all data used for the EPD have been evaluated in terms of time, geography, and technology according to the principles outlined in EN 15804:2012+A2:2019, Annex E, and the data quality requirements specified in EN 15941:2010 for life cycle data. All relevant datasets were reviewed for completeness, consistency, and reliability, and the assessment confirmed that no data were classified as “poor” or “very poor” in quality.</p>
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Process Name	Source Type	Source	Reference Year	Data category	Share of primary data of GWP-GHG results for A1-A3
Manufacturing	Collected Data	EPD Owner	2025	Primary	7%
Raw Material Transport	Collected Data	EPD Owner	2025	Primary	5%
Other Processes	Databases	Ecoinvent 3.11	2015-2025	Secondary	0%
Total share of primary data, of GWP-GHG results for A1-A3					12%

Note	<p>The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.</p>
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Electricity used in the manufacturing process in A3	
Type of electricity	Electricity consumption is supplied from the grid; however, 100% of the consumption is covered by I-REC certificates sourced from renewables.
Energy sources	Wind 100 %
Average Climate impact (GWP-GHG): 0.021 kg CO ₂ eq./kWh	

Description of the System boundary

b) Cradle to gate with options, modules C1-C4, module D and optional modules (A1-A3 + C + D and optional module, A4)

Excluded modules

B modules are excluded due to being not relevant with the product.

	Product stage			Construction process stage		Use stage							End of life stage			Beyond product life cycle	
	Raw Material Supply	Transport	Manufacturing	Transport to site	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	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	GLO	GLO	TR	GLO	-	-	-	-	-	-	-	-	GLO				
Share of specific data	12%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - products	84%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation - sites	0%		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

A1: Raw Material Supply

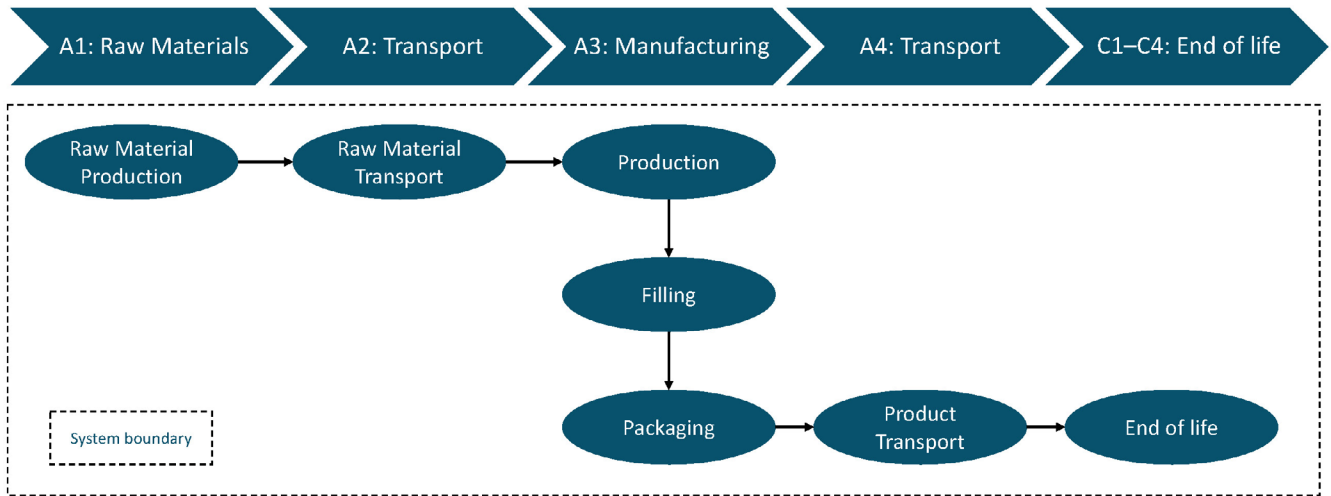
This module covers the extraction and processing of raw materials used in the production of the concrete admixture. This includes chemical components, additives, auxiliary materials, and upstream processes such as raw material pre-treatment and energy supply.

A2: Transport

This stage includes the transportation of raw materials and components from suppliers to the manufacturing facility. Transport distances, modes, fuel consumption, and associated emissions are considered based on representative supply chain scenarios.

A3: Manufacturing

A3 stage covers the manufacturing processes at the production site, including storage, dosing, mixing, blending, and packaging of the concrete admixture. This module accounts for energy and water consumption, process-related emissions, and waste generation. Internal logistics and handling within the facility are also included.



A4: Transport

Module A4 includes the transportation of the finished product from the manufacturing facility to the construction site or distribution point. The assessment considers typical transport distances, vehicle types, load factors, and fuel consumption, along with the resulting environmental impacts.

C1: Deconstruction

Admixtures become chemically and physically bound within the concrete matrix and cannot be separated at end of life; therefore, their end-of-life scenario follows that of the concrete and is modelled within the C-modules. The assessment starts with demolition and the associated energy requirements, including diesel consumption for machinery, based on default values provided in PCR 2019:14, v.2.0.1.

C2: Transport

Within the directives of the PCR 2019:14, 80 km road distance with 50% utilization rate is assumed.

C3: Waste Processing

Following a conservative approach, 100% of the product is assumed landfilled.

C4: Disposal

All collected waste is assumed to be disposed of in a sanitary landfill for inert construction waste.

D: Reuse-Recovery-Recycling-potential

Since conservative scenario (100% landfill) is assumed, no benefit is allocated to this stage.

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.

Mandatory environmental performance indicators according to EN 15804

Results per declared unit (1 kg of concrete admixture)

Impact category	Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
Climate change - total	GWP-total	kg CO ₂ eq.	7.36E-01	6.38E-02	3.41E-03	2.45E-02	0.00E+00	3.28E-03	0.00E+00
Climate change - fossil	GWP-fossil	kg CO ₂ eq.	7.36E-01	6.38E-02	3.41E-03	2.45E-02	0.00E+00	3.27E-03	0.00E+00
Climate change - biogenic	GWP-biogenic	kg CO ₂ eq.	4.11E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E-07	0.00E+00
Climate change - land use and land-use change	GWP-luluc	kg CO ₂ eq.	3.96E-04	3.08E-05	1.40E-07	3.88E-07	0.00E+00	1.82E-07	0.00E+00
Ozone depletion	ODP	kg CFC-11 eq.	2.94E-08	9.35E-10	5.18E-11	5.57E-10	0.00E+00	4.75E-11	0.00E+00
Acidification	AP	mol H+ eq.	3.22E-03	4.83E-04	3.15E-05	6.33E-05	0.00E+00	2.96E-05	0.00E+00
Eutrophication aquatic freshwater	EP-freshwater	kg P eq.	1.67E-05	6.32E-06	3.21E-09	1.51E-08	0.00E+00	9.48E-09	0.00E+00
Eutrophication aquatic marine	EP- marine	kg N eq.	6.74E-04	1.20E-04	1.48E-05	2.41E-05	0.00E+00	1.36E-05	0.00E+00
Eutrophication terrestrial	EP-terrestrial	mol N eq.	7.51E-03	1.33E-03	1.63E-04	2.64E-04	0.00E+00	1.49E-04	0.00E+00
Photochemical ozone formation	POCP	kg NMVOC eq.	3.56E-03	4.33E-04	4.85E-05	1.05E-04	0.00E+00	4.50E-05	0.00E+00
Depletion of abiotic resources-minerals and metals	ADP - minerals & metals ¹	kg Sb eq.	4.75E-06	1.63E-07	1.19E-10	6.39E-10	0.00E+00	1.10E-10	0.00E+00
Depletion of abiotic resources-fossil fuels	ADP-fossil ¹	MJ, net calorific value	1.77E+01	9.20E-01	4.45E-02	3.26E-01	0.00E+00	4.20E-02	0.00E+00
Water use	WDP ¹	m ³ world eq. deprived	3.02E-01	5.42E-03	5.61E-05	2.59E-04	0.00E+00	5.77E-05	0.00E+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								
General disclaimer	It is discouraged to use the results of modules A1-A3 without considering the results of module C.								
Disclaimer 1	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 environmental performance indicators according to EN 15804

Results per declared unit (1 kg of concrete admixture)

Impact category	Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
Climate change - GWP-GHG	GWP-GHG ¹	kg CO ₂ eq.	7.36E-01	6.38E-02	3.41E-03	2.45E-02	0.00E+00	3.28E-03	0.00E+00
Acronyms	GWP-GHG = Global warming potential greenhouse gas.								
Disclaimer 1	The GWP-GHG indicator is termed GWP-IOBC/GHG in the ILCD+EPD+ data format. The 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 CO ₂ is set to zero.								

Additional voluntary environmental performance indicators according to EN 15804

Results per declared unit (1 kg of concrete admixture)

Impact category	Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
Particulate matter emissions	PM	Disease incidence	3.40E-08	5.44E-09	9.07E-10	1.63E-09	0.00E+00	8.41E-10	0.00E+00
Ionizing radiation - human health	IRP ¹	kBq U-235 eq	9.80E-03	7.39E-04	3.70E-06	3.13E-05	0.00E+00	4.05E-06	0.00E+00
Eco-toxicity - freshwater	ETP-FW ²	CTUe	4.99E+00	1.38E-01	1.28E-03	1.17E-02	1.33E-03	1.54E-03	0.00E+00
Human toxicity - cancer effects	HTTP-C ²	CTUh	4.17E-10	1.10E-11	1.82E-13	1.66E-12	0.00E+00	2.18E-13	0.00E+00
Human toxicity - non-cancer effects	HTTP-NC ²	CTUh	1.42E-07	5.37E-10	3.36E-12	1.63E-10	0.00E+00	4.16E-12	0.00E+00
Land-use related impacts/soil quality	SQP ²	Dimensionless	1.92E+00	7.96E-01	7.57E-05	4.14E-04	0.00E+00	4.12E-02	0.00E+00
Acronyms	PM = Potential incidence of disease due to particulate matter emissions; IRP = Potential human exposure efficiency relative to U235; ETP-fw = Potential comparative toxic unit for ecosystems; HTTP-c = Potential comparative toxic unit for humans; HTTP-nc = Potential comparative toxic unit for humans; SQP = Potential soil quality index.								
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.								
Disclaimer 2	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.								

Resource use indicators according to EN 15804

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D	
PERE	MJ, net calorific value	3.83E-01	1.19E-02	9.71E-05	8.13E-04	0.00E+00	1.79E-04	0.00E+00	
PERM	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
PERT	MJ, net calorific value	3.83E-01	1.19E-02	9.71E-05	8.13E-04	0.00E+00	1.79E-04	0.00E+00	
PENRE	MJ, net calorific value	1.77E+01	9.20E-01	4.45E-02	3.26E-01	0.00E+00	4.20E-02	0.00E+00	
PENRM	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
PENRT	MJ, net calorific value	1.77E+01	9.20E-01	4.45E-02	3.26E-01	0.00E+00	4.20E-02	0.00E+00	
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
RSF	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
NRSF	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
FW	m ³	7.18E-03	1.32E-04	1.35E-06	6.31E-06	0.00E+00	1.40E-06	0.00E+00	
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 resources; 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 according to EN 15804

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
HWD	kg CO ₂ eq.	4.42E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg CO ₂ eq.	8.89E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	kg CO ₂ eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acronyms	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed.							

Output flow indicators according to EN 15804

Indicator	Unit	A1-A3	A4	C1	C2	C3	C4	D
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EET	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acronyms	CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.							

Abbreviations

Abbreviation	Definition
EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
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
SVHC	Substances of Very High Concern
ND	Not Declared
Depletion of abiotic resources- fossil fuels	ADP-fossil ¹
Water use	WDP ¹

Version History

Original version of the EPD; 19.10.2022

Second version of the EPD; 09.04.2026. Updated with new reference year data with inclusion of additional products.

Other environmental performance results of the product(s)

Environmental performance results presented in this (EPD) are based on a worst-case approach. Among the 21 products evaluated, the product with the lowest performance (highest impact) was selected for each environmental indicator. Consequently, the reported results reflect maximum (worst-case) impact scenarios.

In addition, the table below provides minimum results, expressed as percentages, representing the performance of the best-performing (lowest impact) product for each indicator.

Impact category	Indicator	Unit	Minimum (% difference from the maximum values)
Climate change - total	GWP-total	kg CO ₂ eq.	-84%
Climate change - fossil	GWP-fossil	kg CO ₂ eq.	-84%
Climate change - biogenic	GWP-biogenic	kg CO ₂ eq.	-12%
Climate change - land use and land-use change	GWP-luluc	kg CO ₂ eq.	-79%
Ozone depletion	ODP	kg CFC-11 eq.	-87%
Acidification	AP	mol H ⁺ eq.	-74%
Eutrophication aquatic freshwater	EP-freshwater	kg P eq.	-81%
Eutrophication aquatic marine	EP- marine	kg N eq.	-80%
Eutrophication terrestrial	EP-terrestrial	mol N eq.	-78%
Photochemical ozone formation	POCP	kg NMVOC eq.	-83%
Depletion of abiotic resources- minerals and metals	ADP - minerals & metals ¹	kg Sb eq.	-77%
Depletion of abiotic resources- fossil fuels	ADP-fossil ¹	MJ, net calorific value	-87%
Water use	WDP ¹	m ³ world eq. deprived	-69%

EN 15804:2012+A2:2019 + AC:2021 Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products

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