Environmental Product Declaration

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

Concrete H30

from

TEJAMAX S.A.

Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
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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
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Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
▪ **Product Category Rules (PCR):** ***"Construction products" Version 2.0.1***
PCR review was conducted by: The Technical Committee of the International EPD System. A full list of members is available on www.environdec.com. The review panel may be contacted via support@environdec.com. Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review. ***Chairs of the PCR review*** **Rob Rouwette (chair), Noa Meron (co-chair).**
c-PCR, if applicable: "Concrete and concrete elements" Version 1.0.0.

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ **Individual EPD verification without a pre-verified LCA/EPD tool** Third-party verifier: *Bárbara María Civit - Universidad Tecnológica Nacional Facultad Regional Mendoza* Approved by: International EPD System
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ 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: TEJAMAX S.A.
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Description of the organisation: **Grupo Tejamax S.A.** is a company based in the province of Córdoba, Argentina, dedicated to the production of ready-mix concrete, precast, and prestressed elements. Founded in 2007, it has consolidated its presence in the region with plants located in Córdoba City, Río Primero, and Punilla, reaching an approximate production capacity of 14 000 m³ of ready-mix concrete per month. The company stands out for its strong commitment to sustainability, implementing practices such as water treatment and reuse, residual concrete recycling, dust-filtering systems, and the development of innovative projects for CO_2 capture in concrete. With this vision, Tejamax integrates technological innovation, product quality, and environmental responsibility, actively contributing to the sustainable development of the construction sector.
Product-related or management system-related certifications: Tejamax S.A. has been certified under ISO 9001 since 2020 and is currently in the process of obtaining ISO 14001 certification, which will be completed in February 2026

PRODUCT INFORMATION

Product name: Concrete H30
Product identification: 30B19L12
Visual representation of the product



UN CPC code: 37510 non-refractory concretes and mortars
Other codes for product classification: Concrete 30MPa
Product description: Concrete with a compressive strength of 30 MPa and a maximum aggregate size of 19 mm, suitable for placement by concrete pump, with a slump range of 12 cm ± 3 cm. It is suitable for reinforced concrete structures and has been designed according to the criteria of CIRSOC Regulation 201 - 2005.
Product identification: The product is identified as **Concrete H30**, where the letter **H** refers to *concrete* and the number **30** refers to its **characteristic compressive strength**.
Internally, within **Tejamax S.A.**, the product is coded as **30B19L12** in order to specify additional technical characteristics that are relevant to the product. The internal coding is described as follows:

- **30**: characteristic compressive strength of **30 MPa** at **28 days** of age.

- **B**: indicates that the product is **suitable for placement using a concrete pump**.
- **19**: maximum nominal size of the aggregate, expressed in millimetres (**19 mm**).
- **L**: type of cement used.
- **12**: slump at discharge measured in centimetres (**12 cm**), which is an indicator of the **workability/flowability** of the concrete.

Product description; It is a concrete suitable for use in reinforced concrete structures with medium to high strength requirements. It is used in high-rise building projects where high structural performance is required and where the product may be exposed to certain aggressive environments, which shall be assessed in advance. It is also occasionally used for industrial floors and urban pavements, where it may be subjected to heavy traffic loads.

Brief description of the main manufacturing processes

The manufacturing process consists of the **weighing and dosing** of the constituent materials: aggregates, cement, water and admixtures using **automated weighing systems**.

Once dosed, the materials are loaded into a **truck mounted concrete mixer**, where mixing is carried out by a dedicated mixing unit installed on the vehicle. The truck then transports the concrete to the construction site, where the product is **discharged and placed**.

The manufacturing process itself is not technically complex; however, the main complexity lies in the **logistical organisation**, particularly in coordinating the trucks to arrive at the agreed location and time according to customer requirements.

References to relevant websites: www.grupotejamax.com

Description of material properties; Concrete H30 is characterised by providing a **compressive strength of 30 MPa** once the concrete has reached an age of **28 days**.

The density of the hardened concrete ranges between **2 390 and 2 450 kg/m³**. This variation is mainly due to the inherent variability of its constituent materials, which means that the final product is not exactly identical in every production batch.

The main component of the product is **cement**, which has the characteristic that, when it comes into contact with water, it initiates an **exothermic chemical reaction**. As time progresses, this reaction leads to a process known as **setting**, during which strong crystalline bonds are formed between the aggregate particles, resulting in a **rigid and resistant structure**.

The period during which the concrete remains in a **fluid state**, allowing its production, transport and placement, is approximately **2 to 3 hours**. After this time, the setting and hardening process described above begins.

Name and location of production sites: The locations plants is in Argentina country; Planta Norte y Planta Sur of Cordoba city, Planta Rio Primero of Rio Primero city and Planta Punilla of Tanti city.



References to any relevant websites for more information or explanatory materials, if applicable.
grupotejamax.com

CONTENT DECLARATION

- The mass per declared unit: 2411,5 kg/m^3
- The mass and the content of distribution and/or consumer packaging: The product is delivered in bulk and does not include consumer packaging. The only packaging used during distribution is a PVC seal applied for pumping operations, with a mass of 0.0065 kg per m^3 of product.
- Information on the environmental and hazardous/toxic properties of a substances contained in the product: The product does not contain substances with hazardous or toxic properties in amounts that require declaration.
- Other information on substances with hazardous and toxic properties: No additional information on hazardous or toxic substances is applicable.
- The declared share of biogenic/recycled materials; The product contains 10% recycled materials (recycled aggregates and recycled water), based on the average annual production data. In addition, it includes 0.033% of biogenic CO_2.

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Fine sand	523	0	0	0
Gravel	843	0	0	0
Cement	426	0	0	0
Coarse sand	436	0	0	0
Recycled aggregate	0	0	0	0

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
Water	100	0	0	0
Recycled water	80	0	0	0
Additive	3.4	0	0	0
Biogenic CO_2	0.12	0	0.033	0.0014
TOTAL	2411.5	**0**	**0.033**	**0.0014**

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit
-	-	-	-

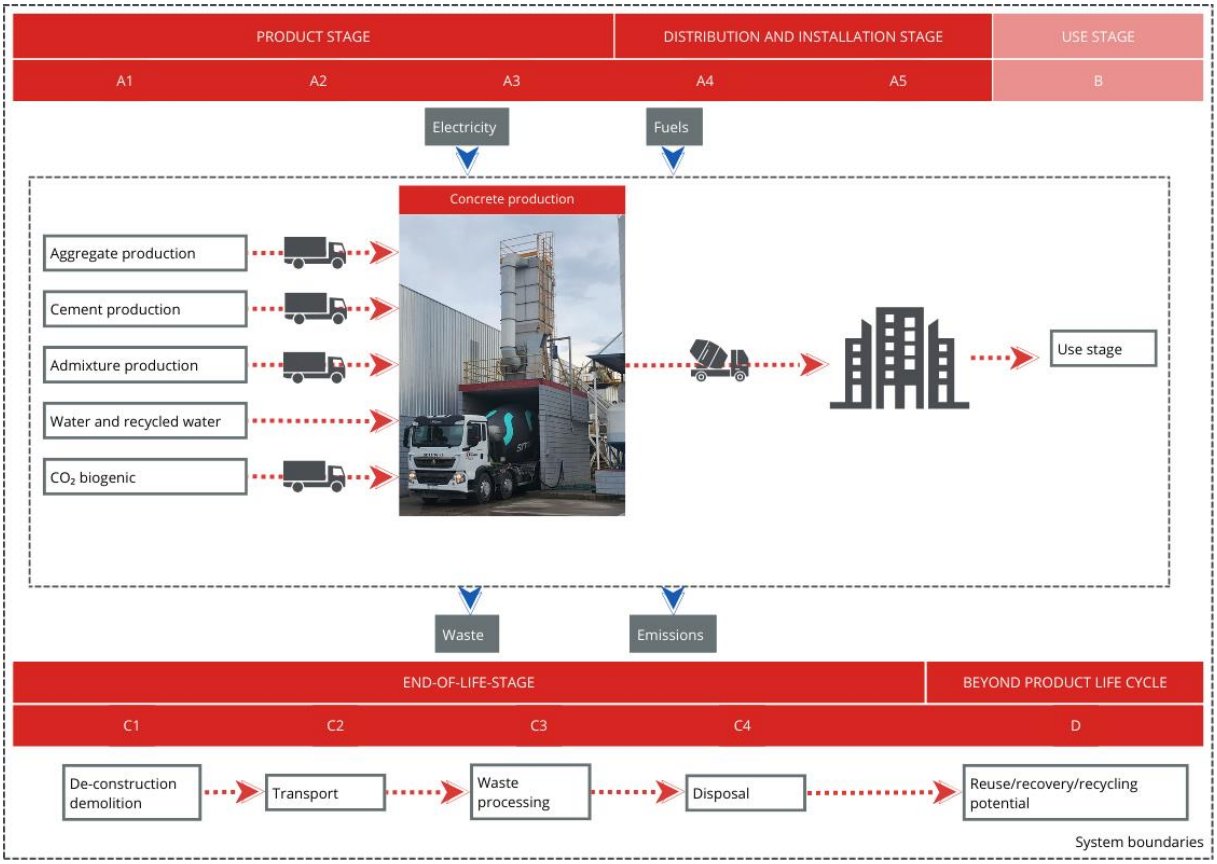
1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO_2.

Hazardous substances from the candidate list of SVHC	EC No.	CAS No.	Mass-% per product or declared unit
-	-	-	-

LCA INFORMATION

Declared unit: One cubic meter (m^3) of H30 concrete
Reference service life: 20 years or more, depending on the intended use and the environmental conditions in which the product is installed.
Time representativeness: The study was carried out with data from the production process for the year 2024.
Geographical scope: Argentina
Database and LCA software used: SimaPro 9.6.0.1 // Ecoinvent v3.10.1
Description of system boundaries: ***cradle to gate with module C1-C4, module D and optional module A4-A5***

Process flow diagram:



Modules A1 – A3 Production

A1 Raw material supply: this module considers the extraction of raw materials and the associated energy consumption for their processing.

Since no local Life Cycle Assessment (LCA) data for cement compatible with the international EDP system are available, international secondary datasets were used. The main selection criteria was the cement composition, with emphasis on the clinker content, which determines the greatest environmental of this input.

A2: Transport: this module includes the transport of the different inputs to the concrete plant.

A3 Production: this module accounts for the consumption of fuels, energy, and water at the plant, as well as waste generation. This process mainly consists of mixing the components that form each type of concrete.

Modules A4 – A5 Construction

A4 Transport: the products are delivered over an average distance of 16 km. The company also records fuel consumption per cubic meter (m^3) transported.

A5 Installation: between 40% and 50% of the concrete produced is pumped on site using the same truck. The energy consumption of the pump is recorded. For the pumped application of the product, a 6.5 g PVC seal is used.

Modules B1 – B7 Use

These modules were not included in the analysis.

Modules C1 – C4 End of Life

C1 Demolition: fuel consumption of 0.209 L/t was considered, according to machinery technical specifications.
C2 Waste transport: 50 km to the landfill were assumed.
C3 Waste processing: currently, no treatment is applied to these residues.
C4 Disposal: all material is disposed of in a sanitary landfill.

Module D Resource recovery
D Reuse, recovery, and/or recycling: this module was calculated considering that the product is not recycled at the end of its service life.

More information:
No environmental allocation was performed, because the processes under study don't generate others products or by-products that require this division.

The production lines are used exclusively for each type of concrete, which are produced separately. Any surplus material or small losses that may occur are reintroduced into the process and are therefore not considered byproducts.

The wastes generated at the plant, whether assimilable urban or hazardous, was allocated equally for all types of concrete produced by the company. Likewise, the effluent generated was allocated to equal parts per cubic meter of concrete produced.

The processes modelled with secondary datasets were used without modification for application in the life cycle analysis. In all cases, their allocation corresponds to 100%, which is consistent with the approach adopted.

Exclusions:

The impact from construction and manufacturing of infrastructure, machinery, buildings, vehicles, and common-use spaces, since, due to their long useful lives, their participation is insignificant relative to the volume of production handled.

Emissions generated by employee transportation.

Assumptions:

Since exact measurements are not available, it is assumed that all CO2 injected into the concrete, remains contained in the material throughout its useful life.

Hazardous waste generated in the production process, like rags or other solids with paint, solvents or hydrocarbon residues, are assumed to be recycled or reused. According to the company, this is the priority treatment, and to a lesser extent, incineration or disposal in safety cells may be carried out.

Waste similar to urban consists mainly of samples and test tubes used in the company's own laboratory.

Fuel consumption in trucks that process and distribute the concrete, is information collected and reported by the company.

For recycled water, most of it comes from truck washing and is treated without chemicals and with low energy consumption, which is already accounted for in the company's total energy consumption; therefore, it was modeled without additional impacts.

For this category of environmental impact, "Water deprivation potential," the AWARE method characterization factor was applied to the cement production and tap water use profiles. The annual country-level aggregated CF for Argentina of 30.141 was used. (WULCA, 2023)

Regarding the type of electricity used, all production plants are supplied with electricity from the Argentine national grid. the Argentina low-voltage electricity grid consumption dataset available in the ecoinvent database was used to model electricity consumption. The greenhouse gas emissions associated with the generation and use of one kilowatt-hour (kWh) of low-voltage electricity are 0.441 kg CO_2 eq.

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

	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle
	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	AR	AR	AR	AR	AR	-	-	-	-	-	-	-	AR	AR	AR	AR	AR
Share of primary data	~ 20%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	< 10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Modules/processes/life-cycle stages declared shall be noted with “X”.
Modules/processes/life-cycle stages not declared shall be marked as “ND”.

Primary data were provided by the company during site visits to the plant and through the completion of data collection forms including fields for the declaration of energy consumption, fuels, inputs, water, and raw materials, as well as the generation of waste and effluents and the production of products and co-products. With regard to material quantities and mass balances, the company provided information obtained from software, which is used in several concrete production plants nationally and worldwide. Likewise, the fuel consumption of the concrete mixer truck used to mix and transport the product to the place of use was obtained as primary data.

Secondary data related to the production systems of the raw materials composing the concrete were obtained from the Ecoinvent database, prioritising the selection of product profiles similar to those of Argentina, considering specific geographical origin conditions and comparable clinker content.

A cut-off criteria of 1% was applied. Material and energy flows contributing less than 1% to the total mass, energy demand, or environmental relevance were excluded from the system boundaries, provided that the sum of excluded flows does not exceed this threshold.

Process	Source type	Source	Reference year	Data category	Primary data	Share of primary data, of GWP-GHG results for A1-A3
Fuels used in manufacturing of product	Collected data	Industrial plant, Ecoinvent v3.10	2024	Primary data, secondary data	50.0%	0.2%
Generation of electricity used in manufacturing of product	Database	Ecoinvent v3.10	2018	Primary data, secondary data	70.0%	0.3%
Transport of supplier materials to manufacturing site	Collected data	Industrial plant, Ecoinvent v3.10	2024	Primary data, secondary data	60.0%	5.9%
Production of supplier materials	Collected data	Industrial plant, Ecoinvent v3.10	< 10 years	Primary data, secondary data	15.0%	13.4%
Waste management	Database	Ecoinvent v3.10	2018	Primary data, secondary data	50.0%	0.1%
Total share of primary data, of GWP-GHG results for A1-A3						29.9%

The share of primary data is calculated based on GWP-GHG results. In is a simplified indicator for data quality that do not capture all relevant aspects of data quality. The indicator is not comparable across product categories.

Data quality was assessed according to the geographical and technological representativeness criteria set out in EN 15941, using a qualitative scale (Very good / Good / Fair / Poor / Very poor). The quality analysis was summarized considering the main inputs and outputs of each life cycle module.

LCA Stage	Inputs/Outputs	Temporal representativeness	Geographical representativeness	Technical representativeness
A1	Aggregate	Fair	Fair	Good
A1	Cement	Good	Fair	Good
A1	Admixture	Poor	Poor	Fair
A1	Water	Fair	Fair	Good
A1	CO2 biogenic	Good	Good	Good
A2	Raw material transport	Good	Fair	Good
A3	Fuel consumption	Good	Fair	Good
A3	Electricity	Good	Very good	Very good
A3	Waste	Good	Fair	Fair
A4	Distribution	Good	Good	Good
A5	Installation	Good	Good	Good

LCA Stage	Inputs/Outputs	Temporal representativeness	Geographical representativeness	Technical representativeness
C1	Demolition	Good	Fair	Fair
C2	Transport	Good	Fair	Good
C3	Waste processing	Good	Fair	Good
C4	Final disposal	Good	Fair	Fair
D	Benefits and loads beyond	Good	Good	Good

For geographical representativeness, electricity was rated as "very good" quality, as it corresponds to primary information and an impact factor specific to Argentina. RoW profiles were rated as "Fair" and GLO profiles as "Poor", except for fuel profiles, which are less sensitive to this variability.

Regarding technological representativeness, most processes correspond to standardized industrial profiles, where the correspondence between the modeled and actual process was assessed, also taking into account the amount of information available for such comparison.

ENVIRONMENTAL PERFORMANCE

LCA results of the product - main environmental performance results

Mandatory impact category indicators according to EN 15804

Results per declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	3.46E+02	1.01E+01	2.44E+00	1.81E+00	4.83E+00	0.00E+00	3.28E+00	0.00E+00
GWP-fossil	kg CO_2 eq.	3.43E+02	1.01E+01	2.44E+00	1.81E+00	4.83E+00	0.00E+00	3.27E+00	0.00E+00
GWP-biogenic	kg CO_2 eq.	3.56E+00	1.56E-03	4.50E-04	2.80E-04	5.62E-04	0.00E+00	1.11E-03	0.00E+00
GWP-luluc	kg CO_2 eq.	8.19E-02	3.46E-04	9.21E-05	6.23E-05	1.39E-04	0.00E+00	1.34E-04	0.00E+00
ODP	kg CFC 11 eq.	1.52E-06	1.58E-07	4.33E-08	2.85E-08	6.39E-08	0.00E+00	4.85E-08	0.00E+00
AP	mol H^+ eq.	9.88E-01	9.40E-02	2.27E-02	1.69E-02	1.27E-02	0.00E+00	2.97E-02	0.00E+00
EP-freshwater	kg P eq.	2.98E-02	8.21E-05	2.34E-05	1.48E-05	9.68E-05	0.00E+00	9.89E-05	0.00E+00
EP-marine	kg N eq.	3.05E-01	4.42E-02	1.07E-02	7.95E-03	4.58E-03	0.00E+00	1.35E-02	0.00E+00
EP-terrestrial	mol N eq.	3.38E+00	4.84E-01	1.17E-01	8.71E-02	5.00E-02	0.00E+00	1.48E-01	0.00E+00
POCP	kg NMVOC eq.	9.76E-01	1.44E-01	3.48E-02	2.59E-02	1.89E-02	0.00E+00	4.48E-02	0.00E+00
ADP-minerals&metals*	kg Sb eq.	5.49E-04	4.21E-07	1.08E-07	7.56E-08	2.83E-07	0.00E+00	1.29E-07	0.00E+00
ADP-fossil*	MJ	1.99E+03	1.32E+02	3.23E+01	2.38E+01	6.36E+01	0.00E+00	4.21E+01	0.00E+00
WDP*	m^3	2.73E+01	1.04E-01	2.90E-02	1.88E-02	5.86E-02	0.00E+00	3.81E-02	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								

** Disclaimer: 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.*

"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 (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3)."

Additional mandatory and voluntary impact category indicators

Results per declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[1]	kg CO_2 eq.	3.44E+02	1.01E+01	2.44E+00	1.81E+00	4.83E+00	0.00E+00	3.28E+00	0.00E+00

Resource use indicators

Results per declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	7.37E+01	2.91E-01	7.97E-02	5.24E-02	1.02E-01	0.00E+00	1.85E-01	0.00E+00
PERM	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
PERT	MJ	7.37E+01	2.91E-01	7.97E-02	5.24E-02	1.02E-01	0.00E+00	1.85E-01	0.00E+00
PENRE	MJ	1.99E+03	1.32E+02	3.23E+01	2.38E+01	6.36E+01	0.00E+00	4.21E+01	0.00E+00
PENRM	MJ	0.00E+00	0.00E+00	1.34E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	1.99E+03	1.32E+02	3.24E+01	2.38E+01	6.36E+01	0.00E+00	4.21E+01	0.00E+00
SM	kg	8.00E+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	1.05E+00	4.16E-03	1.10E-03	7.47E-04	2.14E-03	0.00E+00	1.46E-03	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 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 CO_2 is set to zero.

Waste indicators

Results per declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-hazardous waste disposed	kg	0.80	0.00	0.00	0.00	0.00	2411.5	0.00	0.00
Radioactive waste disposed	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Output flow indicators

Results per declared unit									
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material for recycling	kg	0.00	0.00	48.23	0.00	0.00	0.00	0.00	0.00
Materials for energy recovery	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exported energy, electricity	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Exported energy, thermal	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ABBREVIATIONS

Abbreviation	Definition
General Abbreviations	
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

REFERENCES

a) *General Programme Instructions of International EPD System. (2025) Version 5.0.1*
b) *PCR 2019:14. Construction products. (2025) Version 2.0.1*
c) *c-PCR Concrete and concrete elements. Version 1.0.0*
d) *Boulay, A.-M., Bare, J., Benini, L., Berger, M., Lathuilliere, M. J., Manzardo, A., . . . Pfister, S. (2017, June 8). The WULCA consensus characterization model for water scarcity footprints: assessing impacts of water consumption based on available water remaining (AWARE). (S. M. Laren, Ed.) Int. J. Life Cycle Assess, 23(DOI 10.1007/s 11367-017-1333-8), 368 - 378.*
e) *Comisión Europea. (2010). ILCD handbook: General guide for life cycle assessment - Detailed guidance (1ra ed.).*
f) *Dirección Nacional de Cambio Climático. (2020). ¿Qué es el Cambio Climático? Obtenido de Secretaría de Cambio Climático y Desarrollo Sustentable de la Secretaría de Gobierno de Ambiente y Desarrollo Sustentable de la Nación (SAyDS): https://www.argentina.gob.ar/ambiente/sustentabilidad/cambioclimatico*
g) *EN 15804. (2021). Sostenibilidad en la Construcción Declaraciones Ambientales de Producto Regla de categoría Básicas para Productos de la Construcción. Errantum Europeo. Madrid.*
h) *Goedkoop, M., Heijungs, R., Huijbregts, M., Schryver, A. D., Struijs, J., & van Zelm, R. (2008). ReCiPe . Neatherlands.*
i) *ISO 14046. (2014, 08 01). ISO 14046 Environmental management - Water footprint - Principles, requeriments and guidelines. Firts Edition, 1-33. Vernier, Ginebra, Switzerland: ISO.*
j) *IVL Instituto Sueco de Investigación Ambiental, Secretaría del Sistema Internacional de DAP, CTME, Concrete NZ, Monk Spaces, Aquafil SpA. (2024). PCR 2019:14 En proceso de actualización - Productos de construcción (EN 15804+A2) (1.3.4). Obtenido de The EPD Portal: https://environdec.com/pcr-library/with-documents*
k) *Posch, M., Hettelingh, J.-P., Johansson, M., Margni, M., & Jolliet, O. (2008). The role of atmospheric dispersion models and ecosystem sensitivity in the determination of characterisation factors for acidifying and eutrophying emissions in LCIA. 477-486.*
l) *Seppälä, J., Posch, M., Johansson, M., & Hettelingh, J.-P. (2006). Country-Dependent Characterisation Factors for Acidification and Terrestrial Eutrophication Based on Accumulated Exceedance as an Impact Category Indicator. Int J LCA, 403-416.*
m) *Struijs, J., A, B. e., Jaarsveld, V. H., & Huijbregts, M. A. (2009). Aquatic Eutrophication. Chapter 6.*
n) *Van Oers, L., & Guinée, J. (2016). The Abiotic Depletion Potential: Background, Updates, and Future. Obtenido de Resources 2016, 5, 16: https://doi.org/10.3390/resources5010016*
o) *Zelm, V., Huigbrets, & Hollander, d. (2008). European characterization factors for human health damage of PM10 and ozone in life cycle impact assessment. Journal Atmospheric Environment, 441-453.*
p) *European Committee for Standardization. (2022). EN 16757:2022 Sustainability of construction works — Environmental product declarations — Product Category Rules for concrete and concrete elements. CEN.*
q) *WULCA. (2023). AWARE country regions – factores corregidos (versión 20230113). Obtenido de https://wulca-waterlca.org/aware/download-aware-factors/*

VERSION HISTORY

Original Version of the EPD, 2026-08-01

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