Environmental Product Declaration

In accordance with ISO 14025 and UNE-EN 15804:2014+A2:2019 for:

ECOPact: AGILIA SUELO C, ARTEVIA HDOS 275 and H25.

FROM HOLCIM

PHOLCIM

Programme:	The International EPD [®] System, <u>www.environdec.com</u>
Programme operator:	EPD International AB
EPD version	3
EPD registration	S-P-03786
number:	5-F-03760
Publication date:	2021-06-02
Revision date:	2023-05-29
Valid until:	2026-05-31

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com







General information

Programme information

Programme:	The International EPD [®] System						
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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. Version 1.11, c-PCR-003 Concrete and concrete elements (EN 16757). Version 2019-12-20.

PCR review was conducted by: The Technical Committee of the International EPD® System. See <u>www.environdec.com/TC</u> for a list of members. Review chair: Claudia A. Peña. The review panel may be contacted via the Secretariat info@environdec.com

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

 \Box EPD process certification \boxtimes EPD verification

Third party verifier:

TECNALIA R&I Certificación S.L. Auditor: Cristina Gazulla Santos Accredited by: ENAC. Accreditation no.125/C-PR283

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

⊠ Yes □ No

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

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.





Company information

Owner of the EPD: HOLCIM SPAIN Avenida de Manoteras 20 Edif. Tokyo 1ªplanta. 28050 Madrid (Spain). https://www.holcim.es/

<u>Contact:</u> HOLCIM ESPAÑA Telephone: 34 912 13 31 00 Email: marketing.spain@holcim.com

<u>Description of the organisation:</u> Holcim is one of the world leaders in building materials and solutions with activity in four business segments: cement, aggregate, concrete solutions and products in the field of construction. Its ambition is to lead the industry towards reducing carbon emissions and moving towards low carbon construction. With the strongest R&D area in the industry, the company seeks to promote the development and marketing of high-quality and sustainable building materials and solutions for its customers around the world.

Holcim has five cement factories in Spain with an installed capacity of seven million tons per year, 20 concrete plants, a mortar plant, a plant for the preparation of alternative fuels from waste, four terminals and two distribution centers, where about 700 employees work. The company is distinguished by having the first Laboratory with an exclusive area of alternative fuels and the first Research and Development Center for New Concrete and Mortars. Holcim contributes to global development by making significant efforts in innovation, which materialize in the creation of safe, sustainable and high-performance materials and solutions that respond to customer challenges

<u>Product-related or management system-related certifications:</u> Holcim has implemented ISO 9001 and ISO 14001 management systems.

Name and location of production site(s):

The results are valid for the product produced in all the manufacturing plants of Holcim in Spain. The formulation of the products is representative for a complete year.

Product information

Product name: ECOPact: AGILIA SUELO C, ARTEVIA HDOS 275 and H25.

<u>Product description:</u> Holcim is a leading manufacturer and supplier of high quality concrete and mortar, and has projects and activities on road and network, collective housing.

Concrete and mortar production is a specific process: depending on the nature and quantity of each of the components (cement, aggregates, water, additives), it will have different characteristics. Once manufactured, the ready-mixed concrete/mortar is a fresh product, which must be transported and used quickly on local markets, and under optimal conditions.

Holcim's concrete and mortar offer an outstanding combination of product quality and performance. All manufactured products are high quality concrete and mortar, characterised by their extraordinary capacity and great finishing. Products are a ready-mix concrete/mortar, which is to be used in continuous pavements. Agilia Suelo C which is a self-leveling mortar.

See more product properties in www.Holcim.es/ecopact-hormigon-sostenible



UN CPC code: 375 Articles of concrete, cement and plaster.

LCA information

<u>Functional unit</u>: One m3 of ready-mix of concrete/mortar which fulfills the requirements of technical performance for construction for a reference service life of 100 years. Ready-mix concrete for surface paving must be applied with a dosage of 260 to 275 kg/m³

Type of concrete	Stregth (MPa)	Cement dosage (kg/m³)	Density (kg/m³) 1	Standard
ECOPact AGILIA SUELO C	Not applicable	260	2161,75	RD 470/2021, Spain
ECOPact ARTEVIA HDOS 275	Not applicable	275	2309,80	RD 470/2021, Spain
ECOPact H25	25	Not applicable	2311,65	UNE-EN 12390- 3:2020

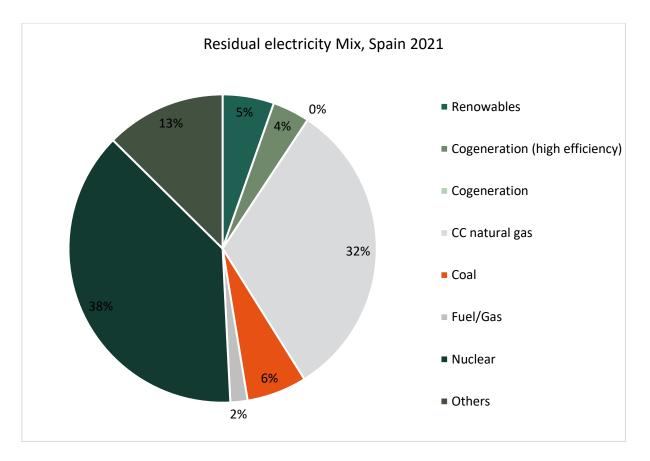
- For product references that have MPa: the intended use is structural.
- For the product references that do not have MPa: the intended use is in paving and flooring systems (those do not have the "strength" data, in MPa, because they are not structural and are not characterised by their compression).

<u>Reference service life:</u> 100 years (as functional by the manufacturer) and recommended in c-PCR for structural concrete.

<u>Time representativeness</u>: the data inventory of the LCA study presented representative of a regular annual production inventory since Ecopact began to manufacturing on march 2021. The residual electricity mix is from Spain in 2021. The amount used of raw materials (cement, water, gravel stone) has been obtained from the recipe in Papiol and Alcobendas manufacturing plant in 2021. Energy consumption, waste production, pollutant emissions and transport distance (in A2 and A4) have been obtained from Alcobendas and Papiol manufacturing plants in 2021 (from the 1st of January 2021 to the 31st of December 2021) since the production process is the same for the different concrete products manufactured in the plants. The composition of the specific cement used for each product has been obtained also directly from the manufacturing plants and therefore corresponds to reality.

¹ UNE-EN 12350-6:2020. Testing fresh concrete - Part 6: Density





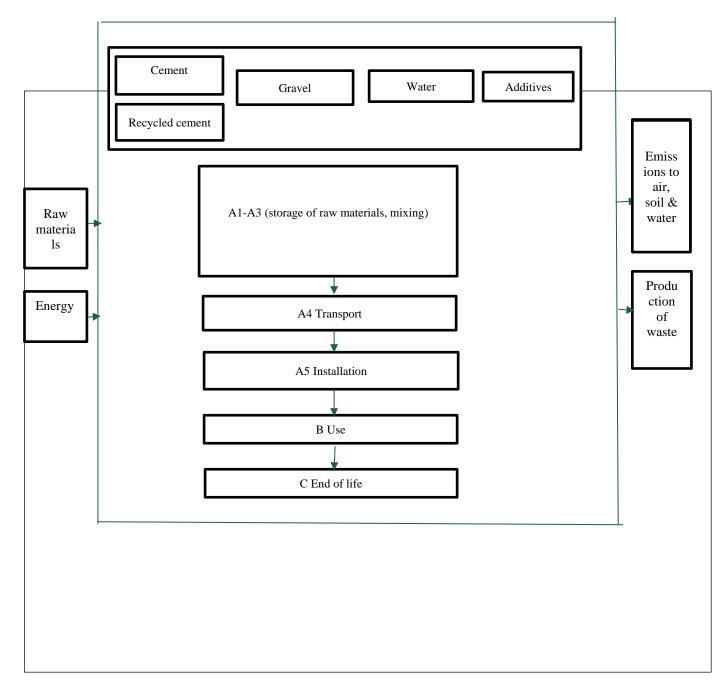
<u>Database(s) and LCA software used:</u> generic data on the impact per unit of matter or energy have been taken to determine emissions per kg of matter, kWh of energy or tkm transported. These data have been obtained from the Ecoinvent database version 3.8. (updated in <2 years) and Simapro 9.3. The impact models used are those indicated in UNE-EN 15804:2014+A2:2019.

Description of system boundaries: Cradle to grave and Module D (A+B+C+D)



EPD[®]

System diagram:



More information: www.Holcim.es

- Technical support for the implementation of the EPD: Marcel Gómez Consultoría Ambiental.
- The modularity principle, as well as the polluter-payer principle have been followed.
- Cut off rules: according to EN 15804 a minimum of 95% of total inflows (mass and energy) per module are included and more than 99% of the inflows are accounted for.
- Allocation procedure: where necessary (energy and water consumption, waste production) an allocation based in volume has been used.
- The next processes have not been included since its impact is not significant:



- Environmental impact from infrastructure, construction, production equipment, and tools that are not directly consumed in the production process.
- Personnel-related impacts, such as transportation to and from work.
- Research and development activities.
- Long-term emissions.

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

	Pro	duct st	age	proc	ruction cess age		[U	se sta	ge	Ι		Er	nd of li	fe sta	ge	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	В3	B4	В5	B6	B7	C1	C2	C3	C4	D
Modules functional	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	х	х
Geography	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES	ES
Specific data used	More		6 specific the EPD	c data is ι).	ised in	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	Less t	han 10%	inside o products	of every gi s	roup of	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites		Les	ss than 1	0 %		-	-	-	-	-	-	-	-	-	-	-	-

• A1-A3 Product stage

- A1 Raw materials supply: this module takes into account the extraction and processing of raw materials and the energy that is produced prior to the manufacturing process under study. The product uses ECOPlanet III/A 42.5N cement, which contains 41% recycled cement, since a significative amount of clinker has been replaced by sludge.
- **A2 Transport:** this module includes the transport of the different raw materials from the manufacturer to the factory. The distance and type of concrete truck for each raw material has been introduced.
- A3 Manufacturing: this module includes the consumption of energy and water used during the manufacturing process, as well as the transport and management of the factory-produced waste. The manufacture of concreate or mortar consists mainly of a mixing process of different components.



• A4-A5 Construction process stage

• A4 Transport

PARAMETER	VALUE/DESCRIPTION
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat, etc	Truck of 16- 32 tn. Fuel consumption: 43 L/100 Km
Distance	Truck: 10,3 km
Capacity utilisation (including empty returns)	% according to Ecoinvent database
Bulk density of transported products*	See table in LCA information section
Volume capacity utilisation factor	1

• A5 Construction/Installation

The product is directly transferred from the truck to the construction site

PARAMETER	VALUE/DESCRIPTION
Auxiliary materials for installation	No auxiliary material used
Use of water	Not used
Use of other resources	No other resource consumption
Quantitative description of the type of energy (regional mix) and the consumption during the installation process	Not used
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	Product losses (2%)

• **B Use stage:** the products fix CO₂ by carbonatation during the use phase (B1), and do not require maintenance (B2), repair (B3), replacement (B4), refurbishment (B5), operational energy use (B6) or operational water use (B7) during its Reference Service Life.

 CO_2 fixed by carbonatation of cement during the use phase has been included as required in c-PCR, following the methodology explained in EN 16757².

$$CO2 uptake = k * \left(\frac{\sqrt{t}}{1000}\right) * Utcc * C * Dc$$

Where: K:K factor, mm of carbonatation/year^{0,5} Utcc: maximum theorical uptake in g CO₂/Kg of cement

² UNE-EN 16757:2018. Sustainability of construction works - Environmental product declarations - Product Category Rules for concrete and concrete elements



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C:cement content in kg/m³ of concrete Dc: degree of carbonation

A hypothesis is made where only one face of one m³ of concrete is in contact with air, being the other 3 faces not in contact with air.

• C End of life stage

- **C1 Deconstruction/demolition:** the use of diesel during the demolition process has been included.
- **C2 Transport to waste processing:** the model use for the transportation (see A4, transportation to the building site) is applied.
- **C3 Waste processing for reuse, recovery and/or recycling:** the product is 89% recycled³.

PARAMETER	VALUE/DESCRIPTION
Collection process specified by type	The product is collected mixed with construction waste
Recovery system specified by type	89% recycling
Disposal specified by type	11% landfill
Assumptions for scenario development (e.g. transportation)	16-32 tn truck. Fuel consumption: 25 l/100 Km Distance: 50 km

• **C4 Disposal:** the product is 11% landfilled.

• D Reuse-Recovery-Recycling potential

The product is recycled in 89%³. As a consequence, the module D has been calculated, where the results of recycled content that the product already includes has been taken into account. The avoided product is considered crushed gravel.

² https://ec.europa.eu/eurostat/documents/2995521/9629294/8-04032019-BP-EN.pdf/295c2302-4ed1-45b9-af86-96d1bbb7acb1



Content information

ECOPact Agilia SUELO C

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
CEM ECOPlanet III/A 42,5N	230-280	41	0
Gravel	1500-1750	0	0
Water	250-300	0	0
Additives	0-10	0	0
TOTAL	2161,75	4,98	0

ECOPact Artevia HDOS 275

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
CEM ECOPlanet III/A 42,5N	250-300	41	0
Gravel	1800-2000	0	0
Water	150-200	0	0
Additives	0-5	0	0
TOTAL	2309,8	4,88	0

ECOPact H25

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
CEM ECOPlanet III/A 42,5N	250-300	41	0
Gravel	1800-2000	0	0
Water	150-200	0	0
Additives	0-5	0	0
TOTAL	2311,65	5,01	0

During the life cycle of the product any hazardous substance listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorization" has not been used in a percentage higher than 0,1% of the weight of the product.

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Environmental Information- results are by m³ of product

Estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

These results are valid for the next products since their impact differs less than 10%. A representative virtual product has been chosen, showing the highest results found per stage and per environmental impact category among the analyzed products.



ECOPact Agilia SUELO C, ECOPact Artevia HDOS 275 and ECOPact H25

Potential environmental impact – mandatory indicators according to UNE-EN 15804:2014+A2:2019

							R	lesu	lts	per i	unit					
Indicator	Unit	Manufacture			Use						Module					
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	С3	C4	D
Climate change - Fossil	kg CO2 eq	1,75E+02	1,69E+00	1,23E+00	-1,65E-01	0	0	0	0	0	0	8,64E+00	1,75E+01	0,00E+00	5,97E-01	-1,01E+01
Climate change - Biogenic	kg CO2 eq	2,37E-01	7,23E-04	3,13E-03	0,00E+00	0	0	0	0	0	0	3,24E-03	1,60E-02	0,00E+00	3,44E-04	-1,82E-01
Climate change - Land use and LU change	kg CO2 eq	3,67E-02	1,78E-05	8,85E-04	0,00E+00	0	0	0	0	0	0	8,63E-04	7,01E-03	0,00E+00	2,03E-05	-1,94E-02
Climate change	kg CO2 eq	1,75E+02	1,69E+00	1,24E+00	-1,65E-01	0	0	0	0	0	0	8,65E+00	1,75E+01	0,00E+00	5,98E-01	-1,03E+01
Ozone depletion	kg CFC11 eq	1,59E-05	5,23E-07	2,66E-07	0,00E+00	0	0	0	0	0	0	1,85E-06	4,06E-06	0,00E+00	1,24E-07	-2,75E-07
Acidification	mol H+ eq	5,00E-01	4,20E-03	5,94E-03	0,00E+00	0	0	0	0	0	0	8,98E-02	4,97E-02	0,00E+00	6,15E-03	-4,87E-02
Eutrophication	kg PO4 eq	3,28E-02	3,95E-04	7,31E-04	0,00E+00	0	0	0	0	0	0	1,40E-02	5,20E-03	0,00E+00	9,44E-04	-3,95E-03
Eutrophication, freshwater	kg P eq	4,82E-03	1,13E-06	1,16E-05	0,00E+00	0	0	0	0	0	0	2,87E-05	1,25E-04	0,00E+00	2,12E-06	-8,05E-04
Eutrophication, marine	kg N eq	1,52E-01	6,38E-04	1,78E-03	0,00E+00	0	0	0	0	0	0	3,97E-02	9,89E-03	0,00E+00	2,67E-03	-8,99E-04
Eutrophication, terrestrial	mol N eq	1,68E+00	7,07E-03	1,96E-02	0,00E+00	0	0	0	0	0	0	4,36E-01	1,10E-01	0,00E+00	2,93E-02	-4,89E-02
Photochemical ozone formation	kg NMVOC eq	4,81E-01	2,58E-03	6,20E-03	0,00E+00	0	0	0	0	0	0	1,20E-01	4,24E-02	0,00E+00	8,17E-03	-9,41E-03
*Resource use, minerals and metals	kg Sb eq	2,49E-04	9,56E-08	3,15E-06	0,00E+00	0	0	0	0	0	0	4,45E-06	6,21E-05	0,00E+00	2,88E-08	-1,30E-04
*Resource use, fossils	MJ	1,50E+03	3,12E+01	2,09E+01	0,00E+00	0	0	0	0	0	0	1,19E+02	2,66E+02	0,00E+00	7,96E+00	-1,52E+02
*Water use	m3 depriv.	3,99E+01	-5,22E-03	5,24E-01	0,00E+00	0	0	0	0	0	0	1,86E-01	8,09E-01	0,00E+00	3,22E-03	-2,44E+01

* Disclaimer: The results of this Environmental Impact Indicator should be used with caution as the uncertainties of these results are high or as there is limited experience with the Indicator. ** The additional environmental indicators of EN 15804:2012+A2:2019 are not stated in this EPD.





Use of resources

									R	esult	s pe	r unit				
Indicator	Unit	Manufacture	Const	ruction				Use	9				End	of life		Module
		A1-A3	A4	A5	B1	B2	B3	B4	B	5 B(5 B	7 C1	C2	C3	C4	D
Use of renewable primary energy, excluding the resources of non- renewable primary energy used as a raw materials	MJ	3,46E+02	4,47E-02	7,01E-01	0	0	0	0	0	0	O	6,67E-01	3,80E+00	0,00E+00	3,33E-02	-1,90E+01
Use of renewable primary energy used as raw materials	MJ	0,00E+00	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use a renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	3,46E+02	4,47E-02	7,01E-01	0	0	0	0	0	0	C	6,67E-01	3,80E+00	0,00E+00	3,33E-02	-1,90E+01
Use of non-renewable primary energy, excluding the resources of non- renewable primary energy used as a raw materials	MJ	1,54E+03	3,10E+01	2,22E+01	0	0	0	0	0	0	C	1,26E+02	2,82E+02	0,00E+00	8,45E+00	-1,61E+02
Use of non-renewable primary energy used as raw materials	MJ	0,00E+00	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of non-renewable primary energy (primary energy and resources of renewable primary energy used as raw materials)	MJ	1,54E+03	3,10E+01	2,29E+01	0	0	0	0	0	0	0	1,26E+02	2,82E+02	0,00E+00	8,45E+00	-1,61E+02
Use of secondary materials	MJ	1,08E+02	0,00E+00	3,88E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non-renewable secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0	0	0	0	0	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	1,33E+00	8,01E-05	2,36E-02	0	0	0	0	0	0	0	6,77E-03	3,01E-02	0,00E+00	1,70E-04	-6,26E-01



Waste production and output flows

Waste production

Indicator								Re	sults	per	unit					
	Unit	Manufacture	Const	ruction				Use					End of life	5		Module
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	С3	C4	D
Hazardous waste disposed	Kg	3,92E-03	8,20E-05	4,33E-05	0	0	0	0	0	0	0	3,25E-04	6,93E-04	0	2,01E-05	-2,85E-04
Non-hazardous waste disposed	Kg	4,20E+01	1,29E-03	5,69E+00	0	0	0	0	0	0	0	1,58E-01	1,39E+01	0	2,36E+02	-3,33E+00
Radioactive waste disposed	Kg	6,63E-03	2,23E-04	1,25E-04	0	0	0	0	0	0	0	8,19E-04	1,79E-03	0	5,49E-05	-6,68E-04

Other output flows

		Results per unit														
Indicator	Unit	Manufacture	Construction		Use									Module		
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials for recycling	Kg	0	0	0	0	0	0	0	0	0	0	0	0	1,92E+03	0	0
Materials for energy recovery	Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exported energy	MJ per vector	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Potential environmental impact - additional mandatory indicators

			Results per unit													
Indicator	Unit	Manufacture	Consti	ruction			Use						Module			
		A1-A3	A4	A5	B1	B2	B3	В4	B5	B6	B7	C1	C2	С3	C4	D
Global warming (GWP100a)*	kg CO2 eq	1,85E+02	1,68E+00	1,22E+00	-1,65E-01	0	0	0	0	0	0	8,56E+00	1,74E+01	0,00E+00	5,87E-01	-9,83E+00

*This indicator includes all greenhouse gases in Total Climate Change but excludes removals and emissions of biogenic carbon dioxide as well as biogenic carbon stored in the product. Therefore, this indicator is almost the same as the GWP indicator originally defined in EN 15804:2012+A1:2013.





Information on biogenic carbon content

Results per functional unit									
Biogenic carbon content	Unit	Quantity							
Biogenic carbon content in the product	kg C	0,00E+00							
Biogenic carbon content in packaging	kg C	0,00E+00							

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



Interpretarion of results

As we can see in Table 6 and Figure 4, the product stage (A1-A3) is the life cycle stage with the greatest impact for all the impact categories analyzed, representing between 96,62% (Eutrophication, freshwater) and 70,02% (Ozone depletion) of the total impact of the product life cycle.

The module (A4-A5) represents a low impact for all the impact categories analyzed. Transport (A4) represents between 0,02% (Eutrophication, freshwater) and 2,30% (Ozone depletion) of the total life cycle impact. On the other hand, A5-Installation stage represents 1% of the total impact for all impact indicators.

In relation to End of life stages (C1-C4), the impact of C1 is between 19,20% (Eutrophication, marine) and 0,57% (Eutrophication, freshwater). C2 Transport represents between 2,50% (Eutrophication, freshwater) and 19,49% for Resource use, minerals. Finally, C4 Waste treatment represents an impact from 0,01% for Resource use, mineral and 1,29% for Eutrophication, marine and Eutrophication, terrestrial.

Table C Detential impost on the environment of the	life avala of ana m	as of a readination a paragraph and
Table 6. Potential impact on the environment of the	lile cycle ol one n	1° ol product, in percentage.

Impact category	A1-A3	A4	A5	B1 - CO2 absortion	C1	C2	C4
Global Warming	86,36%	0,78%	0,57%	-0,08%	3,99%	8,10%	0,27%
Ozone depletion	70,02%	2,30%	1,17%	0,00%	8,12%	17,84%	0,55%
Acidification	76,24%	0,64%	0,90%	0,00%	13,69%	7,58%	0,94%
Eutrophication, freshwater	96,62%	0,02%	0,23%	0,00%	0,57%	2,50%	0,04%
Eutrophication, marine	73,57%	0,31%	0,86%	0,00%	19,20%	4,78%	1,29%
Eutrophication, terrestrial	73,60%	0,31%	0,86%	0,00%	19,12%	4,83%	1,29%
Photochemical ozone formation	72,85%	0,39%	0,94%	0,00%	18,17%	6,42%	1,24%
Resource use, minerals and metals	78,09%	0,03%	0,99%	0,00%	1,40%	19,49%	0,01%
Resource use, fossils	77,18%	1,60%	1,08%	0,00%	6,09%	13,65%	0,41%



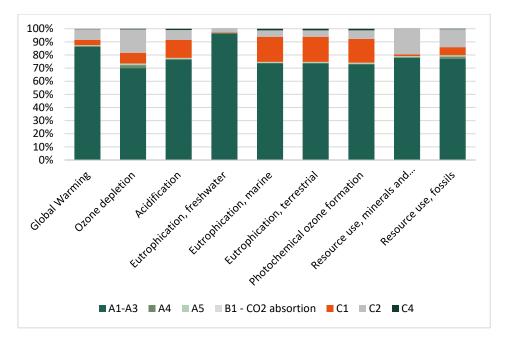


Figure 4. Potential impact on the environment of the life cycle of one m³ of product, in percentage.

Additional information

With the aim of achieving a positive contribution to nature and society, we develop our activity based on principles of sustainable development, through continuous improvement in our environmental behaviour and focused on these four fundamental principles: our Management System, control environmental impact, contribution to the circular economy and transparent relationship with the environment.

Registry of carbon footprint, compensation and CO₂ absorption projects of the Ministerio para la Transición Ecológica y el Reto Demográfico de España.



Holcim Spain has registered its carbon footprint in section a) of the Carbon footprint and commitment to reduce greenhouse gas emissions for the years 2016, 2017, 2018, 2019 and 2020.

The limits of the organization included in the calculation are: cement, concrete and mortar manufacturing activity carried out in all its facilities in Spain, central offices in Madrid and 63 production centers





Our commitment to the circular economy as the main way to take advantage of the waste life cycle

The transition from a linear economy to a circular economy is one of the environmental priorities of our business. Within our activity, our objective is to reuse the value of waste as resources, that is, to maximize its life cycle.

At Holcim, we achieve the transition to circularity by complementing the activity of Geocycle, a subsidiary of the Group that is dedicated to the pre-treatment of waste to turn it into fuel, and the cement factories that use it in their clinker production process (component cement base).



Proactive restoration of our quarries

At Holcim we have been working, for more than 30 years, for the restoration of our quarries with the aim of generating a net positive impact on biodiversity. We are committed to a participatory model of quarry rehabilitation in which the increase of biodiversity and natural capital is favoured.

Our restoration model serves as a lever for change on the critical problem of biodiversity loss and its potential to reverse its current negative trend. This work, key when it comes to creating shared value with the communities in which we operate, has been recognized in 2018 with the first second prize in the "Company and Biodiversity" category in the latest edition of the European Business Awards for the Environment, promoted by the Biodiversity Foundation.







Information related to Sector EPD

Individual EPD.

Differences versus previous versions

The EPD was updated considering the following changes:

2nd version:

- There is a new and specific EPD for ECOPlanet CEM III/A 42,5 N (S-P-05185), therefore the values for the impacts in (A1 - raw materials) were updated.
- The residual electricity mix used was from 2021 it means the impacts of electricity in (A3-manufacture) were updated.
- Transport consumptions for A4 have been updated according to specific consumptions of the trucks used.
- The grouping of concrete products is updated. On the first version of the EPD, up to 11 products were included, but on this version of the EPD products have been separated in different EPDs.
- The PCR 2019:14 version 1.11 is used.

3rd version:

A new logotype of Holcim is used. •



EPD[®]

References

- General Programme Instruction of the International EPD[®] System. Version 3.01.
- ISO 14020:2000 Environmental labels and declarations General principles.
- ISO 14025:2010 Environmental labels and declarations Type III Environmental Declarations - Principles and procedures.
- ISO 14040:2006 Environmental management Life Cycle Assessment Principles and framework.
- ISO 14044:2006 Environmental management Life Cycle Assessment Requirements and guidelines.
- UNE-EN 12350-6:2020. Testing fresh concrete Part 6: Density
- Real Decreto 470/2021, 29th June, Spain
- PCR 2019:14 Construction products (EN 15804:A2) version 1.11.
- UNE-EN 15804:2014+A2:2019 Sustainability of construction works Environmental Product Declarations - Core rules for the product category of construction products.
- c-PCR-003 Concrete and concrete elements (EN 16757).
- Holcim ECOPlanet CEM III/A 42,5N https://www.environdec.com/library/epd5185
 <u>https://www.Holcim.es/ecoplanet-cemento-sostenible</u>
- The underlaying LCA report. Version 4, March 2023

tecnal:a certification



VERIFICATION STATEMENT CERTIFICATE *CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN*

Certificate No. / Certificado nº: EPD04604

TECNALIA R&I CERTIFICACION S.L., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:

TECNALIA R&I CERTIFICACION S.L., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:

HOLCIM ESPAÑA, S.A.U. Avd. Manoteras, 20 28050 MADRID - SPAIN

for the following product(s):
 para el siguiente(s) producto(s):

ECOPact: AGILIA SUELO C, ARTEVIA HDOS 275 and H25.

ECOPact: AGILIA SUELO C, ARTEVIA HDOS 275 y H25.

with registration number **S-P-03786** in the International EPD[®] System (www.environdec.com) con número de registro **S-P-03786** en el Sistema International EPD[®] (www.environdec.com)

it's in conformity with: es conforme con:

- ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.
- General Programme Instructions for the International EPD[®] System v.3.01.
- PCR 2019:14 Construction products v1.11.
- c-PCR-003 Concrete and concrete elements (EN 16757).
- UN CPC code: 375 Articles of concrete, cement and plaster.

Issued date / Fecha de emisión: Update date / Fecha de actualización: Valid until / Válido hasta: Serial № / № Serie: 02/06/2021 21/04/2023 31/05/2026 EPD0460401-E



Carlos Nazabal Alsua Manager



This certificate is not valid without its related EPD.

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