

Environmental Product Declaration



In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

GRANOCRYL Decorative Renders

CPC 3753 – “Articles of plaster or of compositions based on plaster”

From **Beissier S.A.U.**

Beissier

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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
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
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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) Version 1.11
PCR review was conducted by: PCR review was conducted by: The Technical Committee of the International EPD®System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact .
Independent third-party verification of the declaration and data, according to ISO 14025:2006: ☒ External ☐ Internal Covering ☐ EPD process certification ☒ EPD verification
Third party verifier: Tecnalia R&I Certificacion, SL Auditor: Eva Larzabal info@tecnaliacertificacion.com Accredited by: ENAC nº125/C-PR283 accreditation.
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: BEISSIER S.A.U.

Description of the organisation:

Since its outset in 1930, BEISSIER has been associated with spearhead solutions for improving construction aesthetics, comfort and efficiency.

With a history spanning back over 100 years, BEISSIER presented itself in the XXI century as a solid, dynamic company, with prestigious brands and innovative solutions. This was down to active listening and close collaboration with professional painters. The new, efficient and modern production facilities, opened in 2001, finds BEISSIER manufacturing products under the strictest quality standards so as to guarantee products' on-site optimal performance.

The intensive work of our laboratory, coupled with research conducted with technological centres and universities, upholds the status of our R+D+i department as a forefront point of reference in the sector.

With extensive experience BEISSIER brands have been present in the main European markets since 1985, where they are renowned amongst professional painters and decorators.

This business track has positioned BEISSIER as one of the filler sector leader in Europe.

BEISSIER has been certified in ISO 9001, ISO 14001 and ISO 45001. In BEISSIER's environmental management policy, we have some basic commitments, among others.

- To carry out the activities whilst considering the health and safety of people, and the protection of the environment, as essential values.
- To guarantee the identification, assessment and compliance with the legislation and regulations applicable to Quality, Environment and Occupational Health and Safety.
- Similarly, one of the fundamental guidelines set by our Group (STO) is a responsible approach to the limited resources available to us with respect to all business processes, bearing in mind that an efficient and sustainable business is one that tries to bring economy and ecology together within the framework of a long-term strategy.



Figure1.ISO 9001, ISO 14001, ISO 45001 Certifications.

Name and location of production site(s):

BEISSIER S.A.U. Txirrita Maleo 14, E-20100 Errenteria (Gipuzkoa)

Contact:

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More information: www.beissier.es

Product information

Product name: GRANOCRYL Decorative Render

Product description: This EPD covers the life-cycle analysis carried out on a range of BEISSIER products, such as decorative renders: GRANOCRYL BRA SL 01, GRANOCRYL BRA SL 07, GRANOCRYL BRA SL 10, GRANOCRYL BRA SL 10 ADVANCE, GRANOCRYL BRA SL 15, GRANOCRYL BRS SL 03, GRANOCRYL BRS SL 07, GRANOCRYL BRS SL 10 and GRANOCRYL BRS SL 15.



Renders: GRANOCRYL BRA SL 01, GRANOCRYL BRA SL 07, GRANOCRYL BRA SL 10, GRANOCRYL BRA SL 10 ADVANCE, GRANOCRYL BRA SL 15, GRANOCRYL BRS SL 03, GRANOCRYL BRS SL 07, GRANOCRYL BRS SL 10, GRANOCRYL BRS SL 15

The products under study are renders based on acrylic copolymers or siloxane-modified acrylic copolymers from the GRANOCRYL range, specially designed for facades and external thermal insulation systems (SATE), according to the UNE-EN 15824: 2017 Specifications for external renders and internal plasters based on organic binders. The renders are designed to achieve finishes of different decorative textures.

GRANOCRYL RANGE:

BRA renders are based on acrylic copolymers and the BRS renders are based on siloxane-modified acrylic copolymers, all of them according to Standard UNE-EN 15824: 2017.

The main characteristics of GRANOCRYL of products are:

-  Outdoor high resistance
-  Reinforced by fibbers
-  Flexible
-  Great adherence
-  Waterproof to rainwater and permeable to water vapour
-  Contains encapsulated preservatives for the protection of the film against the growth of microorganisms.
-  Easy application
-  Projectable by machine
-  Exterior



The BEISSIER DARKCOOL TECHNOLOGY ensure high solar reflection, achieving a lower temperature increase of the surface. In this way, they prevent the risks of cracking and premature aging of the envelope in painted facades, as well as the deformation of the EPS in the case of isolated facades. The GRANOCRYL BRS SL10 and BRS SL15 products from the BEISSIER catalogue have this technology.

The technical characteristics of the renders analysed are shown below:

Characteristic	BRA SL01	BRA SL07	BRA SL10
Packaging	20kg	25kg	25kg
Finish	Textured matte	Textured matte	Textured matte
Granulometry	Average: 0.1mm	Average: 0.7mm	Average: 1.0mm
Thinner	Water	Water	Water
Film thickness	Max. 0.3 mm	0.7 - 1 mm	1 - 1.5 mm
Density	1.55 g/cc	1.6 g/cc	1.75 g/cc
Theoretical performance	1 - 2 kg/m ² in 0.1mm thickness	1.5 – 2 kg/m ² in 0.7mm thickness	1.5 – 2 kg/m ² in 1.0mm thickness
Drying time	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C
Reaction to fire	B-s2, d0	B-s2, d0	B-s2, d0
Water absorption	W3	W3	W3
Water vapor permeability	V2	V2	V2
Adherence	≥ 0.5 MPa	≥ 0.5 MPa	≥ 0.5 MPa
Thermal conductivity λ ₁₀ , dry	≤ 0,45 (P=50%) W/mK	≤ 0,61 (P=50%) W/mK	≤ 0,61 (P=50%) W/mK
	≤ 0,49 (P=90%) W/mK	≤ 0,66 (P=90%) W/mK	≤ 0,66 (P=90%) W/mK

Characteristic	BRA SL10 ADVANCE	BRA SL15	BRS SL03
Packaging	25kg	25kg	20kg
Finish	Textured matte	Textured matte	Textured matte
Granulometry	Average: 1.0mm	Average: 1.5mm	Average: 0,3mm
Thinner	Water	Water	Water
Film thickness	1 - 1.5 mm	1.5-2 mm	1.5 - 2 mm
Density	1.6 g/cc	1.6 g/cc	1.2 g/cc
Theoretical performance	1.5 – 2 kg/m ² in 1.0mm thickness	2 – 3 kg/m ² in 1.5mm thickness	2 – 3 kg/m ² in 0.3mm thickness
Drying time	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C
Reaction to fire	A2-s2, d0	B-s2, d0	B-s2, d0
Water absorption	W3	W3	W3
Water vapor permeability	V1	V2	V2
Adherence	≥ 0.3 MPa	≥ 0.5 MPa	≥ 0.5 MPa
Thermal conductivity λ ₁₀ , dry	≤ 0,61 (P=50%) W/mK	≤ 0,61 (P=50%) W/mK	≤ 0,25 (P=50%) W/mK
	≤ 0,66 (P=90%) W/mK	≤ 0,66 (P=90%) W/mK	≤ 0,27 (P=90%) W/mK

Characteristic	BRS SL07	BRS SL10	BRS SL15
Packaging	25kg	25kg	25kg
Finish	Textured matte	Textured matte	Textured matte
Granulometry	Average: 0.7mm	Average: 1.0mm	Average: 1.5mm
Thinner	Water	Water	Water
Film thickness	0.7 - 1 mm	1 - 1.5 mm	1.5 - 2 mm
Density	1.6 g/cc	1.7 g/cc	1.6 g/cc
Theoretical performance	1.5 – 2 kg/m ² in 0.7mm thickness	1.5 – 2 kg/m ² in 1.0mm thickness	2 – 3 kg/m ² in 1.5mm thickness
Drying time	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C	Touch: approx. 2 h at 20 °C Repaint: approx. 24 h at 20 °C
Reaction to fire	B-s2, d0	B-s2, d0	B-s2, d0
Water absorption	W3	W3	W3
Water vapor permeability	V2	V2	V2
Adherence	≥ 0.5 MPa	≥ 0.5 MPa	≥ 0.5 MPa
Thermal conductivity λ ₁₀ , dry	≤ 0,61 (P=50%) W/mK	≤ 0,61 (P=50%) W/mK	≤ 0,61 (P=50%) W/mK
	≤ 0,66 (P=90%) W/mK	≤ 0,66 (P=90%) W/mK	≤ 0,66 (P=90%) W/mK

UN CPC code: 3753 – “Articles of plaster or of compositions based on plaster”.

LCA information

Declared unit: The declared unit is the baseline reference for which all information is collected. In this study, the declared unit is “**1 kg of GRANOCRYL decorative render**”.

Reference service life: Not relevant for this EPD.

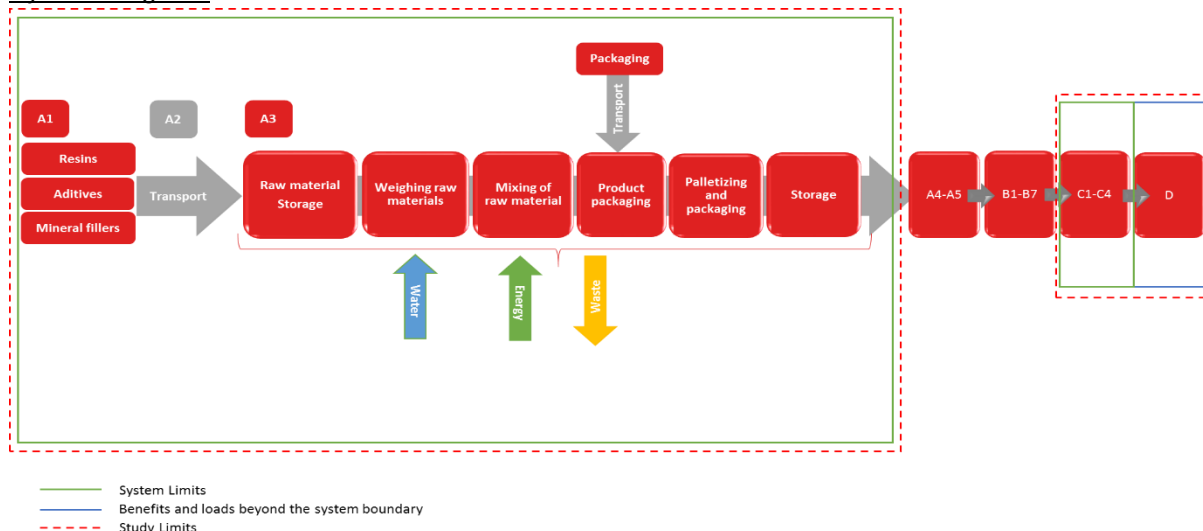
Geographical scope: The geographical scope of this EPD is global.

Time representativeness: The data collection from factory (primary data) and electricity mix are from 2019/06/01 to 2020/09/30. In this study, no datasets older than 10 years were used.

Database(s) and LCA software used: All the data used to model the process and obtain the Life Cycle Inventory are specific data and have been obtained by measurements made during the period from 2020/07/01 to 2021/06/30. They are representative of the different processes implemented during the manufacturing process. The data has been measured directly at the company's own premises. In addition, the most complete and highest quality European life cycle inventory database, Ecoinvent 3.6, has been used, as this database contains the most extensive and updated information and its scope coincides with the geographical, technological and temporal area of the project. The LCA was modelled with Simapro 9.1.1.1.

Description of system boundaries: According to the standard UNE-EN 15804_2012+A2_2020 (MARCH 2020) and PCR 2019:14 CONSTRUCTION PRODUCTS (version 1.11) the system boundary is cradle to gate with modules C1–C4 and module D (A1–A3 + C + D). The life cycle stages A4–A5, B1–B7 were excluded from the LCA study.

System diagram:



Manufacturing process:

The manufacturing process of the renders is divided into the following stages:

- ✓ **Raw material storage:** Raw materials are transported to the BEISSIER factory where they are stored. Raw materials are stored in bags, containers (liquids) and silos (emulsions).
- ✓ **Weighing:** The raw materials from containers and bags are weighed according to the product recipe. While emulsions came from silos are dosaged by a volumetric system.
- ✓ **Mixing:** In the mixing of the raw materials, parameters as speeds and the types of whisk are controlled, as well as the registration the productions.

- ✓ **Packing and storage:** The mixture is transferred by gravity to each bucket that is closed with a lid and is labeled. The buckets are palletized and wrapped with pre-stretch film. Later it is stored until its expedition.

Author of the Life Cycle Assessment:

IK ingenieria

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Data quality

The environmental impact of the decorative renders has been calculated. It is based on the international standards established for the development of environmental product declarations, such as ISO 14025 for the preparation of the environmental product declaration, ISO 14040 and ISO 14044 for the preparation of the life cycle analysis, UNE-EN 15804:2012+A2:2020 (MARCH 2020) and the Product Category Rules PCR - "2019:14 Construction products " (Version 1.11) of the CPC 3753.

Data has been collected from 2020/07/01 to 2021/09/30 and is representative of that year. Data for raw material supply, transport to fabrication plant and production (A1-A3) is based on specific consumption data for the factory at Errenteria. Generic background datasets were used for the downstream processes. SimaPro v9.1.1.1. software was used to prepare the life cycle analysis together with the Ecoinvent 3.6 database. Characterization factors from EN15804: 2012 + A2:2019.

The geographical coverage is global. Technological coverage is typical or average.

Assumptions

The modularity principle, as well as the polluter-payer principle have been followed. The following assumptions have been made in this EPD:

- ✓ It does not include the manufacturing processes of the capital goods or spare parts and/or maintenance with a life of more than three years.
- ✓ The environmental impact of infrastructure for general management, office, and headquarters operations is not included.
- ✓ The impact caused by people (common activities, travel for work...) will not be considered.
- ✓ It does not include the consumption of natural gas for sanitary hot water from showers and heating system for the comfort of people.
- ✓ The processes associated with fuel production are intrinsically included in the indicators in ECOINVENT's database used in carrying out the LCA.
- ✓ The environmental impact of external transport has been calculated using lorries from the ECOINVENT 3.6 database, EURO 5. These lorries have been selected to reflect the most realistic scenario possible.

Cut-off rules

The standard ISO 14025 and the PCR -"2019:14 CONSTRUCTION PRODUCTS" indicate that the life cycle inventory data should include a minimum of 95% of the total inputs (materials and energy) for each stage. This cut-off rule does not apply for hazardous materials and substances. No such cut-off criteria have been taken into account in this study.

Allocation

Where necessary, such as waste generation and energy consumption, an allocation based in mass has been used.

Greenhouse gas emission from the use of electricity in the manufacturing phase

Specific electricity mix, high voltage (direct emissions and losses in grid) electricity is considered for the manufacturing process.

Electricity mix	Amount	Units
Specific electricity mix	0,18	Kg CO2-equiv/kWh

LCA Scenarios and additional technical information

Dismantling/demolition (module C1):

Since they are not products with a structural use, the energy consumption of this phase is considered not relevant.

Transport (module C2):

With a collection rate of 100%, the transports are carried out by lorry (EURO 5) over 50 km.

Waste processing (modules C3 and C4):

A recycling ratio of 88 % is considered in accordance with the recovery rate of construction and demolition waste statistics (https://ec.europa.eu/eurostat/databrowser/view/CEI_WM040_custom_354944/bookmark/table?lang=en&bookmarkId=7e4febc4-a0fd-444b-aae0-94643539ce0d), published by Eurostat. The remaining 12% is considered to be landfilled. These percentages are representative of the areas where the product is marketed.

Recyclability potentials (module D):

Module D contains credits from the recycling of the render in module C3. The render is collected and recycled for use in substitution of virgin raw aggregates.

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

	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	EU	EU	ND	ND	ND	ND	ND	ND	ND	ND	ND	GLO	GLO	GLO	GLO	GLO
Specific data	>90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	Not applicable			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Not applicable			-	-	-	-	-	-	-	-	-	-	-	-	-	-

ND: Not declared

Content information

Product components	GRANOCRYL BRA SL 01			GRANOCRYL BRA SL 07			GRANOCRYL BRA SL 10		
	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Resins	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%
Aditives	< 0,20	0,0%	10,0%	< 0,20	0,0%	0,0%	< 0,20	0,0%	0,0%
Mineral fillers	> 0,50	0,0%	0,0%	> 0,50	0,0%	0,0%	> 0,50	0,0%	0,0%
Water	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%
TOTAL	1,00	0,0%	2,0%	1,00	0,0%	0,0%	1,00	0,0%	0,0%
Packaging materials	Weight, kg	Weight-% (versus the product)		Weight, kg	Weight-% (versus the product)		Weight, kg	Weight-% (versus the product)	
Bucket	0,18	18,36%		0,15	14,68%		0,15	14,68%	
Pallet	0,05	4,80%		0,03	3,03%		0,03	3,01%	
film	0,00	0,09%		0,00	0,08%		0,00	0,08%	
TOTAL	0,23	23,25%		0,18	17,79%		0,18	17,77%	

Product components	GRANOCRYL BRA SL 10 ADVANCE			GRANOCRYL BRA SL 15			GRANOCRYL BRS SL 03		
	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Resins	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%
Aditives	< 0,20	0,0%	0,0%	< 0,20	0,0%	0,0%	< 0,20	0,0%	0,0%
Mineral fillers	> 0,50	0,0%	0,0%	> 0,50	0,0%	0,0%	> 0,50	0,0%	0,0%
Water	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%
TOTAL	1,00	0,0%	0,0%	1,00	0,0%	0,0%	1,00	0,0%	0,0%
Packaging materials	Weight, kg	Weight-% (versus the product)		Weight, kg	Weight-% (versus the product)		Weight, kg	Weight-% (versus the product)	
Bucket	0,15	14,68%		0,15	14,68%		0,18	18,40%	
Pallet	0,03	3,04%		0,03	3,00%		0,04	3,77%	
film	0,00	0,08%		0,00	0,08%		0,00	0,09%	
TOTAL	0,18	17,80%		0,18	17,76%		0,22	22,27%	

Product components	GRANOCRYL BRA SL 07			GRANOCRYL BRA SL 10			GRANOCRYL BRA SL 15		
	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Resins	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%
Aditives	< 0,20	0,0%	0,0%	< 0,20	0,0%	0,0%	< 0,20	0,0%	0,0%
Mineral fillers	> 0,50	0,0%	0,0%	> 0,50	0,0%	0,0%	> 0,50	0,0%	0,0%
Water	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%	< 0,25	0,0%	0,0%
TOTAL	1,00	0,0%	0,0%	1,00	0,0%	0,0%	1,00	0,0%	0,0%
Packaging materials	Weight, kg	Weight-% (versus the product)		Weight, kg	Weight-% (versus the product)		Weight, kg	Weight-% (versus the product)	
Bucket	0,15	14,68%		0,15	14,68%		0,15	14,68%	
Pallet	0,03	3,03%		0,03	3,01%		0,03	3,01%	
film	0,00	0,08%		0,00	0,08%		0,00	0,08%	
TOTAL	0,18	17,79%		0,18	17,77%		0,18	17,76%	

Packaging: The product is transported to the customers packed in a labeled pot, in pallets protected with plastic film.

No substances included in the Candidate List of Substances of Very High Concern for authorization under REACH Regulations are present in the renders GRANOCRYL BRA SL 01, GRANOCRYL BRA SL 07, GRANOCRYL BRA SL 10, GRANOCRYL BRA SL 10 ADVANCE, GRANOCRYL BRA SL 15, GRANOCRYL BRS SL 03, GRANOCRYL BRS SL 07, GRANOCRYL BRS SL 10, GRANOCRYL BRS SL 15 manufactured by BEISSIER, either above the threshold for registration with the European Chemicals Agency or above 0,1% (wt/wt).

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804:

Results per declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GRANOCRYL BRA SL 01							
GWP-fossil	kg CO ₂ eq.	1,12E+00	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-2,60E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	1,05E-03	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	8,61E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	4,46E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	8,62E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	1,23E-04	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	4,01E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	1,10E-03	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	1,20E-02	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	4,33E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	2,67E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	2,52E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	9,86E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
GRANOCRYL BRA SL 07							
GWP-fossil	kg CO ₂ eq.	7,40E-01	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-1,92E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	7,73E-04	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	5,49E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	4,85E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	6,61E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	9,28E-05	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	3,02E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	8,91E-04	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	8,69E-03	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	4,13E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	1,75E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,51E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	6,53E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
GRANOCRYL BRA SL 10							
GWP-fossil	kg CO ₂ eq.	7,02E-01	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-1,92E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	7,10E-04	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	5,11E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	4,23E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	5,74E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	8,54E-05	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	2,78E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	7,59E-04	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	7,90E-03	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	3,64E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	1,64E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,39E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	6,46E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
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.

Potential environmental impact – mandatory indicators according to EN 15804:

Results per declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GRANOCRYL BRA SL 10 ADVANCE							
GWP-fossil	kg CO ₂ eq.	8,96E-01	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-1,91E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	8,09E-04	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	7,06E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	4,54E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	6,46E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	8,75E-05	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	2,85E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	9,33E-04	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	9,87E-03	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	3,38E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	2,18E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,89E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	7,17E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
GRANOCRYL BRA SL 15							
GWP-fossil	kg CO ₂ eq.	7,40E-01	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-1,91E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	7,73E-04	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	5,49E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	4,85E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	6,60E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	9,27E-05	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	3,02E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	8,90E-04	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	8,68E-03	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	4,13E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	1,75E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,50E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	6,52E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
GRANOCRYL BRS SL 03							
GWP-fossil	kg CO ₂ eq.	1,03E+00	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-2,37E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	1,04E-03	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	7,90E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	5,25E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	7,66E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	1,26E-04	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	4,10E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	1,11E-03	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	1,17E-02	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	5,01E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	2,18E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,98E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	8,91E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
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.

Potential environmental impact – mandatory indicators according to EN 15804:

Results per declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GRANOCRYL BRS SL 07							
GWP-fossil	kg CO ₂ eq.	8,20E-01	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-1,89E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	8,35E-04	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	6,32E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	5,31E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	7,01E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	1,00E-04	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	3,27E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	9,65E-04	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	9,52E-03	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	4,24E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	1,84E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,62E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	7,80E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
GRANOCRYL BRS SL 10							
GWP-fossil	kg CO ₂ eq.	8,05E-01	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-1,89E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	7,82E-04	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	6,17E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	5,24E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	6,31E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	9,57E-05	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	3,12E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	8,53E-04	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	8,92E-03	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	3,98E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	1,75E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,57E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	7,85E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
GRANOCRYL BRS SL 15							
GWP-fossil	kg CO ₂ eq.	8,20E-01	0,00E+00	8,33E-03	6,27E-04	6,32E-04	-2,62E-03
GWP-biogenic	kg CO ₂ eq.	-1,89E-01	0,00E+00	4,45E-06	3,91E-05	1,25E-06	-5,01E-05
GWP-luluc	kg CO ₂ eq.	8,34E-04	0,00E+00	2,91E-06	8,65E-07	1,76E-07	-1,86E-06
GWP-total	kg CO ₂ eq.	6,32E-01	0,00E+00	8,34E-03	6,67E-04	6,33E-04	-2,67E-03
ODP	kg CFC 11 eq.	5,31E-07	0,00E+00	1,89E-09	1,24E-10	2,60E-10	-3,60E-10
AP	mol H ⁺ eq.	7,00E-03	0,00E+00	3,41E-05	5,06E-06	6,00E-06	-2,29E-05
EP-freshwater	kg PO ₄ ³⁻ eq.	1,00E-04	0,00E+00	2,01E-07	1,21E-07	2,17E-08	-2,04E-07
EP-freshwater	kg P eq.	3,26E-05	0,00E+00	6,54E-08	3,95E-08	7,08E-09	-6,63E-08
EP-marine	kg N eq.	9,64E-04	0,00E+00	1,01E-05	1,48E-06	2,06E-06	-6,06E-06
EP-terrestrial	mol N eq.	9,52E-03	0,00E+00	1,12E-04	1,71E-05	2,27E-05	-8,63E-05
POCP	kg NMVOC eq.	4,24E-03	0,00E+00	3,42E-05	4,57E-06	6,61E-06	-1,95E-05
ADP-minerals&metals*	kg Sb eq.	1,84E-05	0,00E+00	2,26E-07	7,93E-09	5,78E-09	-7,73E-07
ADP-fossil*	MJ	1,62E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
WDP	m ³ deprive	7,79E-01	0,00E+00	3,50E-04	1,40E-04	7,92E-04	-7,55E-04
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						

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Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit						
Indicator	A1-A3	C1	C2	C3	C4	D
GRANOCRYL BRA SL 01						
GWP-GHG ¹	1,09E+00	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRA SL 07						
GWP-GHG ¹	7,23E-01	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRA SL 10						
GWP-GHG ¹	6,86E-01	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRA SL 10 ADVANCE						
GWP-GHG ¹	8,75E-01	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRA SL 15						
GWP-GHG ¹	7,22E-01	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRS SL 03						
GWP-GHG ¹	1,01E+00	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRS SL 07						
GWP-GHG ¹	8,02E-01	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRS SL 10						
GWP-GHG ¹	7,87E-01	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03
GRANOCRYL BRS SL 15						
GWP-GHG ¹	8,02E-01	0,00E+00	8,26E-03	6,22E-04	6,20E-04	-2,58E-03

Use of resources

Results per declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GRANOCRYL BRA SL 01							
PERE	MJ	6,48E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	1,26E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	7,74E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,48E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ.	1,05E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	2,52E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	2,53E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04
GRANOCRYL BRA SL 07							
PERE	MJ	5,28E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	5,83E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,86E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,22E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ.	2,83E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,51E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,68E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04

¹ The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

GRANOCRYL BRA SL 10							
PERE	MJ	5,22E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	5,80E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,80E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,16E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ	2,35E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,39E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,65E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04
GRANOCRYL BRA SL 10 ADVANCE							
PERE	MJ	5,30E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	5,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,89E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	6,40E+00	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ	1,46E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,89E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,84E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04
GRANOCRYL BRA SL 15							
PERE	MJ	5,28E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	5,78E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,85E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,22E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ	2,82E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,50E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,68E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04
GRANOCRYL BRS SL 03							
PERE	MJ	6,82E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	7,27E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	7,55E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,66E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ	3,15E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,98E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	2,33E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04
GRANOCRYL BRS SL 07							
PERE	MJ	5,43E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	5,84E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	6,01E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,34E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ	2,83E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,62E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	2,03E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04

GRANOCRYL BRS SL 10							
PERE	MJ	5,37E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	5,81E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	5,96E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,33E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ	2,36E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,57E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m³	2,03E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04
GRANOCRYL BRS SL 15							
PERE	MJ	5,42E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PERM	MJ	5,79E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	6,00E+00	0,00E+00	1,77E-03	9,99E-03	1,43E-04	-2,56E-03
PENRE	MJ	1,34E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
PENRM	MJ	2,82E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,62E+01	0,00E+00	1,26E-01	1,94E-02	1,77E-02	-3,16E-02
SM	kg	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
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m³	2,02E-02	0,00E+00	1,32E-05	3,32E-05	1,89E-05	-2,86E-04
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water						

Waste production

Results per functional or declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GRANOCRYL BRA SL 01							
Hazardous waste disposed	kg	1,94E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	3,56E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	6,20E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07
GRANOCRYL BRA SL 07							
Hazardous waste disposed	kg	1,45E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	2,87E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	4,70E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07
GRANOCRYL BRA SL 10							
Hazardous waste disposed	kg	1,30E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	2,61E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	4,08E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07
GRANOCRYL BRA SL 10 ADVANCE							
Hazardous waste disposed	kg	1,75E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	3,61E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	5,30E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07
GRANOCRYL BRA SL 15							
Hazardous waste disposed	kg	1,45E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	2,87E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	4,69E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07

GRANOCRYL BRS SL 03							
Hazardous waste disposed	kg	2,01E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	3,07E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	5,88E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07
GRANOCRYL BRS SL 07							
Hazardous waste disposed	kg	1,55E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	2,97E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	5,04E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07
GRANOCRYL BRS SL 10							
Hazardous waste disposed	kg	1,42E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	2,73E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	4,50E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07
GRANOCRYL BRS SL 15							
Hazardous waste disposed	kg	1,55E-05	0,00E+00	3,29E-07	1,80E-08	2,64E-08	-1,88E-07
Non-hazardous waste disposed	kg	2,96E-01	0,00E+00	6,01E-03	6,32E-05	1,20E-01	-6,59E-04
Radioactive waste disposed	kg	5,04E-05	0,00E+00	8,57E-07	2,05E-07	1,16E-07	-1,68E-07

Output flows

Results per functional or declared unit							
Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GRANOCRYL BRA SL 01							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	6,52E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GRANOCRYL BRA SL 07							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	7,05E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GRANOCRYL BRA SL 10							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	6,86E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GRANOCRYL BRA SL 10 ADVANCE							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	7,64E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

GRANOCRYL BRA SL 15							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	6,89E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GRANOCRYL BRS SL 03							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	5,89E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GRANOCRYL BRS SL 07							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	6,75E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GRANOCRYL BRS SL 10							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	6,77E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GRANOCRYL BRS SL 15							
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	6,86E-03	0,00E+00	0,00E+00	8,80E-01	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Information on biogenic carbon content

Results per declared unit				
BIOGENIC CARBON CONTENT	Unit	QUANTITY		
		GRANOCRYL BRA SL 01	GRANOCRYL BRA SL 07	GRANOCRYL BRA SL 10
Biogenic carbon content in product	kg C	1,00E-02	0,00E+00	0,00E+00
Biogenic carbon content in packaging	kg C	2,18E-02	6,76E-02	1,37E-02
BIOGENIC CARBON CONTENT	Unit	QUANTITY		
		GRANOCRYL BRA SL 10 ADVANCE	GRANOCRYL BRA SL 15	GRANOCRYL BRS SL 03
Biogenic carbon content in product	kg C	0,00E+00	0,00E+00	0,00E+00
Biogenic carbon content in packaging	kg C	1,39E-02	1,36E-02	1,79E-01
BIOGENIC CARBON CONTENT	Unit	QUANTITY		
		GRANOCRYL BRS SL 07	GRANOCRYL BRS SL 10	GRANOCRYL BRS SL 15
Biogenic carbon content in product	kg C	0,00E+00	0,00E+00	0,00E+00
Biogenic carbon content in packaging	kg C	3,10E-02	1,37E-02	2,50E-01

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

Additional information

The technical datasheet and the safety datasheet can be found in the following webpage:

<https://www.beissier.es/es/descargas/fichas-tecnicas/fichas-tecnicas.html>

<https://www.beissier.es/es/descargas/fichas-de-seguridad/fichas-de-seguridad.html>

Information related to Sector EPD

This is an individual EPD®

Differences versus previous versions

This is the first version of the 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.
- PCR 2019:14 Construction products (EN 15804: A2) version 1.11
- EN 15804:2012+A2:2019 Sustainability of construction works-Environmental Product Declarations-Core rules for the product category of construction products

VERIFICATION STATEMENT CERTIFICATE

CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

Certificate No. / Certificado nº: EPD03103

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:

BEISSIER S.A.U.
Polígono Industrial Txirrita Maleo, 14
E-20100 ERRETERIA (Guipúzcoa) SPAIN

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

GRANOCRYL DECORATIVE RENDERS
REVOCOS DECORATIVOS GRANOCRYL

with registration number **S-P-05206** in the International EPD® System (www.environdec.com)
con número de registro **S-P-05206** en el Sistema Internacional EPD® (www.environdec.com)

it's in conformity with:
es conforme con:

- **ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.**
- **EN 15804:2012+A2:2019 Sustainability of construction works. Environmental product declarations. Core rules for the product category of construction products.**
- **General Programme Instructions for the International EPD® System v.3.01.**
- **PCR 2019:14 Construction Products v1.11.**
- **CPC 3753 Articles of plaster or of compositions based on plaster.**

Issued date / Fecha de emisión: 13/12/2021
Update date / Fecha de actualización: 13/12/2021
Valid until / Válido hasta: 12/12/2026
Serial Nº / Nº Serie: EPD0310300-E



Carlos Nazabal Alsua
Manager

This certificate is not valid without its related EPD.
Este certificado no es válido sin su correspondiente EPD.

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The validity of this certificate can be checked through consultation in www.tecnaliacertificacion.com.



