# Environmental Product Declaration

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

# Rendering and plastering mortars

CPC 3751 – "Non-refractory mortars and concretes" From **Beissier S.A.U.** 

# Beissier

Programme:	The International EPD <sup>®</sup> System, <u>www.environdec.com</u>
Programme operator:	EPD International AB
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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





**EPD**<sup>®</sup>



# General information

# Programme information

Programme:	The International EPD <sup>®</sup> System						
	EPD International AB						
	Box 210 60						
Address.	SE-100 31 Stockholm						
	Sweden						
Website:	www.environdec.com						
E-mail:	info@environdec.com						

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/TCfor 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

 $\Box$  EPD process certification  $\boxtimes$  EPD verification

Third party verifier:

Tecnalia R&I Certificacion, SL Auditor: Maria Feced <u>info@tecnaliacertificacion.com</u> 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) <u>Contact:</u> Leire Arnaez. Email: I.arnaez@beissier.es More information: <u>www.beissier.es</u>



# **Product information**

Product name: Rendering and plastering mortars

<u>Product description:</u> This EPD covers the life-cycle analysis carried out on a range of BEISSIER products, such as light base mortar BME 12007, light base mortar BME 12003 and fine base mortar BMB 12003.



Mortars: BME 12007, BME 12003, BMB 12003

### Light base mortar BME 12007 and BME 12003:

Mineral mortar specially designed for bonding and reinforcing (base coat) thermal insulation boards (EPS, MW) in ETICs System, according to UNE-EN 998-1. *Specification for mortar for masonry. Part 1: Rendering and plastering mortar.* 

- Lightweight (LW)
- 👃 High adherence
- Low water absorption. Waterproofed
- High permeability to water vapor
- High impact resistance
- Reinforced with fibers
- Excellent workability
- Applicable with projection machine
- Exterior and interior
- Supplied in 20 kg bags

### Fine base mortar BMB 12003:

Mineral mortar specially designed for bonding and reinforcing (base coat) thermal insulation boards (EPS, MW) in ETICs System, according to UNE-EN 998-1. *Specification for mortar for masonry. Part 1: Rendering and plastering mortar.* 

- General purpose (GP)
- High adherence
- Low water absorption. Waterproofed
- High permeability to water vapor
- Reinforced with fibers
- Excellent workability
- Applicable with projection machine
- Exterior and interior
- Supplied in 25 kg bags.



Characteristic	BME 12007	BME 12003	BMB 12003
Colour	White	White	White
Crear dans strat	Average: 0,7 mm	Average: 0.3mm	Average: 0.3mm
Granulometry	Max.: < 1,2 mm	Max.: <0.6 mm	Max.: <0.6 mm
Powder density	≤ 1,3 g/cc	≤ 1,3 g/cc	1,3 g/cc
Paste density	1,5 g/cc	1,5 g/cc	1,6 g/cc
Hardened mortar density	≤ 1,3 g/cc	≤ 1,3 g/cc	1,3 g/cc
Compressive strength	3,5-7,5 MPa (CS III)	3,5-7,5 MPa (CS III)	3,5-7,5 MPa (CS III)
Adhesion to concrete	≥ 0,25 MPa	≥ 0,25 MPa	≥ 0,25 MPa
Adhesion on EPS	≥ 0,08 MPa	≥ 0,08 MPa	≥ 0,08 MPa
Water vapor permeability	μ < 20	μ < 20	μ < 20
Water observation	Wc2 Medio (EN 998-1)	Wc2 Medio (EN 998-1)	Wc2 Medio (EN 998-1)
	≤ 0,5 kg/m2 (ETAG 004)	≤ 0,5 kg/m2 (ETAG 004)	≤ 0,5 kg/m2 (ETAG 004)
Thermal conductivity ) 10 dry	≤ 0,39 (P=50%) W/mK	≤ 0,39 (P=50%) W/mK	≤ 0,43 (P=50%) W/mK
Thermai conductivity XTO, dry	≤ 0,76 (P=90%) W/mK	≤ 0,76 (P=90%) W/mK	≤ 0,76 (P=90%) W/mK
Reaction to fire	A2-s1, d0. Not flammable	A2-s1, d0. Not flammable	A2-s1, d0. No inflamable

### The technical characteristics of the mortars analysed are shown below:

UN CPC code: 3751 - "Non-refractory mortars and concretes".

# LCA information

<u>Declared unit</u>: The declared unit is the baseline reference for which all information is collected. In this study, the declared business unit is **"1 kg of packed mortar"**.

Reference service life: Not relevant for this EPD.

<u>Geographical scope:</u> The geographical scope of this EPD is global.

<u>Time representativeness</u>: The data collection from factory (primary data) and electricity mix are from 2019/10/01 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 2019/10/01 to 2020/09/30. 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.

<u>Description of system boundaries:</u> 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 frogs is divided into the following stages:

- Raw material storage in silos: Raw materials are transported to the BEISSIER factory where they are stored in silos.
- ✓ Preparation of additives: with the mixture of different raw materials, the additives are prepared.
- ✓ Mixing: The dosage and mixing of the raw materials and additives in the appropriate quantities are controlled by a computer system, which allows advanced management of the raw materials, as well as the registration of each of the productions.
- Packing and storage: The mixture is transferred by pneumatic transport to intermediate silos that feed the packaging lines. The pallet completed with the packed products is removed from the palletizing line and taken to the rotating platform, where it is wrapped with pre-stretch film. Later it is stored until its expedition.

#### Author of the Life Cycle Assessment:

IK ingenieria Av. Cervantes 51,Edif. 10, panta 5, dpto. 48970 Basauri, Bizkaia (Spain)

### Data quality

The environmental impact of the steel profiles and accessories 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 3751.

Data has been collected from 2019/10/01 to 2020/09/30 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.

# **Beissier**



The modularity principle, as well as the polluter-payer principle have been followed. The following assumptionshave 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 us waste generation and energy consumption, an allocation based in mass has been used.

### Greenhous 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	0,24	Kg CO2-eqv/kWh

# LCA Scenarios and additional technical information

### Product stage (modules A1-A2-A3):

Extraction and processing of raw materials and the energy that is produced prior to the manufacturing process under study, such us cement, mineral fillers, synthetic resins, fibbers and the materials used for packing products.

This module includes the transports of the raw materials and packaging to the factory gate from the manufacturer, by lorry (EURO 5) or ship, as appropriate.

This module includes manufacture of the mortar, consume of ancillary materials and the treatment of waste generated during the manufacturing process, as well as the transport to its treatment site.





### 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 75,80 % is considered in accordance with the Construction and Demolition Waste Statistics of the autonomous community of the Basque Country 2018 (<u>https://www.euskadi.eus/web01-s2ing/es/contenidos/estadistica/amb\_res\_rcd\_2018/es\_def/index.shtml</u>), published by the Basque government. The remaining 24,20% 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 mortar in module C3. The mortar 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:

	Pro	oduct st	age	Const proces	ruction s 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	<b>B</b> 3	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	No	o applica	ble	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	No	o applica	ble	-	-	-	-	-	-	-	-	-	-	-	-	-	-

ND: Module not declared

# **Content information**

Droduct components	BME 12007	BME 12003	BME 12003 BMB 12003		Renewable	
Product components	Weight, kg	Weight, kg	Weight, kg	material, weight- %	%	
Cement	≥ 0,15 - < 0,20	≥ 0,15 - < 0,20	≥ 0,15 - < 0,20	0,00%	0,00%	
Mineral fillers	≥ 0,75 - < 0,80	≥ 0,75 - < 0,80	≥ 0,75 - < 0,80	0,00%	0,00%	
Additives	< 0,05	< 0,05	< 0,05	0,00%	0,00%	
Fibers	< 0,005	< 0,005	< 0,005	0,00%	0,00%	
TOTAL	1,00	1,00	1,00	0,00%	0,00%	

Packaging materials	BME	12007	BME	12003	BMB 12003		
	Weight, g	Weight-% (versus the product)	Weight, g	Weight-% (versus the product)	Weight, g	Weight-% (versus the product)	
Bag	5,00	0,50%	5,25	0,53%	4,00	0,40%	
Pallet	19,4	1,94%	22,1	2,21%	20,01	2,00%	
cardboard	0,13	0,01%	0,14	0,01%	0,13	0,01%	
Plastic film	0,90	0,09%	0,90	0,09%	0,83	0,08%	

<u>Packaging</u>: The product is transported to the customers packed in paper bags, in pallets protected with cardboard and plastic film. The declared unit considers both the product and the primary packaging (the bag).

No substances included in the Candidate List of Substances of Very High Concern for authorization under REACH Regulations are present in the packed mortars BME 12007, BME 12003, BMB 12003 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	
		Light base r	mortar BME 12	007				
GWP-fossil	kg CO <sub>2</sub> eq.	3,21E-01	0,00E+00	8,29E-03	5,38E-04	1,27E-03	-2,24E-03	
GWP-biogenic	kg CO <sub>2</sub> eq.	-4,70E-02	0,00E+00	4,42E-06	3,35E-05	2,51E-06	-4,29E-05	
GWP-luluc	kg CO <sub>2</sub> eq.	4,75E-03	0,00E+00	2,90E-06	7,41E-07	3,53E-07	-1,59E-06	
GWP-total	kg CO <sub>2</sub> eq.	2,79E-01	0,00E+00	8,30E-03	5,72E-04	1,27E-03	-2,29E-03	
ODP	kg CFC 11 eq.	3,30E-08	0,00E+00	1,88E-09	1,06E-10	5,22E-10	-3,08E-10	
AP	mol H⁺ eq.	1,27E-03	0,00E+00	3,39E-05	4,33E-06	1,20E-05	-1,96E-05	
EP-freshwater	kg PO₄³- eq.	2,05E-05	0,00E+00	2,00E-07	1,04E-07	4,36E-08	-1,74E-07	
EP-freshwater	kg P eq.	6,67E-06	0,00E+00	6,51E-08	3,38E-08	1,42E-08	-5,68E-08	
EP-marine	kg N eq.	3,17E-04	0,00E+00	1,01E-05	1,27E-06	4,14E-06	-5,20E-06	
EP-terrestrial	mol N eq.	3,43E-03	0,00E+00	1,11E-04	1,46E-05	4,56E-05	-7,40E-05	
POCP	kg NMVOC eq.	9,90E-04	0,00E+00	3,40E-05	3,92E-06	1,33E-05	-1,67E-05	
ADP-minerals&metals*	kg Sb eq.	4,33E-06	0,00E+00	2,24E-07	6,79E-09	1,16E-08	-6,62E-07	
ADP-fossil*	MJ	4,19E+00	0,00E+00	1,25E-01	1,66E-02	3,54E-02	-2,71E-02	
WDP	m <sup>3</sup>	1,41E-01	0,00E+00	3,48E-04	1,20E-04	1,59E-03	-6,47E-04	
		Light base r	mortar BME 12	003				
GWP-fossil	kg CO <sub>2</sub> eq.	3,40E-01	0,00E+00	8,29E-03	5,38E-04	1,27E-03	-2,24E-03	
GWP-biogenic	kg CO <sub>2</sub> eq.	-5,22E-02	0,00E+00	4,42E-06	3,35E-05	2,51E-06	-4,29E-05	
GWP-luluc	kg CO <sub>2</sub> eq.	4,76E-03	0,00E+00	2,90E-06	7,41E-07	3,53E-07	-1,59E-06	
GWP-total	kg CO <sub>2</sub> eq.	2,92E-01	0,00E+00	8,30E-03	5,72E-04	1,27E-03	-2,29E-03	
ODP	kg CFC 11 eq.	3,29E-08	0,00E+00	1,88E-09	1,06E-10	5,22E-10	-3,08E-10	
AP	mol H⁺ eq.	1,31E-03	0,00E+00	3,39E-05	4,33E-06	1,20E-05	-1,96E-05	
EP-freshwater	kg PO₄³- eq.	2,14E-05	0,00E+00	2,00E-07	1,04E-07	4,36E-08	-1,74E-07	
EP-freshwater	kg P eq.	6,96E-06	0,00E+00	6,51E-08	3,38E-08	1,42E-08	-5,68E-08	
EP-marine	kg N eq.	3,26E-04	0,00E+00	1,01E-05	1,27E-06	4,14E-06	-5,20E-06	
EP-terrestrial	mol N eq.	3,55E-03	0,00E+00	1,11E-04	1,46E-05	4,56E-05	-7,40E-05	
POCP	kg NMVOC eq.	1,02E-03	0,00E+00	3,40E-05	3,92E-06	1,33E-05	-1,67E-05	
ADP-minerals&metals*	kg Sb eq.	4,29E-06	0,00E+00	2,24E-07	6,79E-09	1,16E-08	-6,62E-07	
ADP-fossil*	MJ	4,24E+00	0,00E+00	1,25E-01	1,66E-02	3,54E-02	-2,71E-02	
WDP	m <sup>3</sup>	1,44E-01	0,00E+00	3,48E-04	1,20E-04	1,59E-03	-6,47E-04	
		Light base r	nortar BMB 12	003				
GWP-fossil	kg CO <sub>2</sub> eq.	3,38E-01	0,00E+00	8,30E-03	5,38E-04	1,27E-03	-2,25E-03	
GWP-biogenic	kg CO <sub>2</sub> eq.	-4,65E-02	0,00E+00	4,43E-06	3,35E-05	2,52E-06	-4,29E-05	
GWP-luluc	kg CO <sub>2</sub> eq.	4,75E-03	0,00E+00	2,90E-06	7,42E-07	3,54E-07	-1,59E-06	
GWP-total	kg CO <sub>2</sub> eq.	2.96E-01	0.00E+00	8.31E-03	5.72E-04	1.27E-03	-2.29E-03	
ODP	kg CFC 11 eq.	3.26E-08	0.00E+00	1.89E-09	1.06E-10	5.23E-10	-3.09E-10	
AP	mol H⁺ eq.	1,30E-03	0,00E+00	3,39E-05	4,34E-06	1,20E-05	-1,96E-05	
EP-freshwater	kg PO₄³- eq.	2,08E-05	0,00E+00	2,00E-07	1,04E-07	4,37E-08	-1,75E-07	
EP-freshwater	kg P eq.	6,78E-06	0,00E+00	6,52E-08	3,39E-08	1,42E-08	-5,69E-08	
EP-marine	kg N eq.	3,24E-04	0,00E+00	1,01E-05	1,27E-06	4,14E-06	-5,20E-06	
EP-terrestrial	mol N eq.	3,52E-03	0,00E+00	1,11E-04	1,46E-05	4,57E-05	-7,41E-05	
POCP	kg NMVOC eq.	1,01E-03	0,00E+00	3,41E-05	3,92E-06	1,33E-05	-1,67E-05	
ADP-minerals&metals*	kg Sb eq.	4,25E-06	0,00E+00	2,25E-07	6,80E-09	1,16E-08	-6,63E-07	
ADP-fossil*	MJ	4,20E+00	0,00E+00	1,25E-01	1,67E-02	3,55E-02	-2,71E-02	
WDP	m <sup>3</sup>	1.41E-01	0.00E+00	3.48E-04	1.20E-04	1.59E-03	-6.48E-04	
Acronyms	m³ 1,41E-01 0,00E+00 3,48E-04 1,20E-04 1,59E-03 -6,48E-04   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.							

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.



# Beissier

# Potential environmental impact – additional mandatory and voluntary indicators

Results per declared unit										
Indicator	A1-A3	C1	C2	C3	C4	D				
Light base mortar BME 12007										
GWP-GHG <sup>1</sup>	2,79E-01	0,00E+00	8,30E-03	5,72E-04	1,27E-03	-2,29E-03				
		Light base mo	rtar BME 12003							
GWP-GHG <sup>1</sup>	2,92E-01	0,00E+00	8,30E-03	5,72E-04	1,27E-03	-2,29E-03				
		Light base mo	rtar BMB 12003							
GWP-GHG <sup>1</sup>	2,96E-01	0,00E+00	8,31E-03	5,72E-04	1,27E-03	-2,29E-03				

## Use of resources

Results per declared unit									
Indicator	Unit	A1-A3	C1	C2	C3	C4	D		
		Light base r	nortar BME 120	007					
PERE	MJ	4,05E-01	0,00E+00	1,76E-03	8,56E-03	2,87E-04	-2,20E-03		
PERM	MJ	5,02E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		
PERT	MJ	9,07E-01	0,00E+00	1,76E-03	8,56E-03	2,87E-04	-2,20E-03		
PENRE	MJ	3,21E+00	0,00E+00	1,25E-01	1,66E-02	3,54E-02	-2,71E-02		
PENRM	MJ.	9,91E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		
PENRT	MJ	4,20E+00	0,00E+00	1,25E-01	1,66E-02	3,54E-02	-2,71E-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 <sup>3</sup>	3,73E-03	0,00E+00	1,32E-05	2,85E-05	3,79E-05	-2,45E-04		
		Light base r	nortar BME 120	003					
PERE	MJ	4,32E-01	0,00E+00	1,76E-03	8,56E-03	2,87E-04	-2,20E-03		
PERM	MJ	5,53E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		
PERT	MJ	9,85E-01	0,00E+00	1,76E-03	8,56E-03	2,87E-04	-2,20E-03		
PENRE	MJ	3,25E+00	0,00E+00	1,25E-01	1,66E-02	3,54E-02	-2,71E-02		
PENRM	MJ.	9,91E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		
PENRT	MJ	4,24E+00	0,00E+00	1,25E-01	1,66E-02	3,54E-02	-2,71E-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 <sup>3</sup>	3,81E-03	0,00E+00	1,32E-05	2,85E-05	3,79E-05	-2,45E-04		
		Light base r	nortar BMB 120	003					
PERE	MJ	3,92E-01	0,00E+00	1,77E-03	8,57E-03	2,87E-04	-2,20E-03		
PERM	MJ	4,96E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		
PERT	MJ	8,88E-01	0,00E+00	1,77E-03	8,57E-03	2,87E-04	-2,20E-03		
PENRE	MJ	3,21E+00	0,00E+00	1,25E-01	1,67E-02	3,55E-02	-2,71E-02		
PENRM	MJ.	9,89E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00		
PENRT	MJ	4,20E+00	0,00E+00	1,25E-01	1,67E-02	3,55E-02	-2,71E-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 <sup>3</sup>	3,74E-03	0,00E+00	1,32E-05	2,85E-05	3,79E-05	-2,45E-04		
Acronyms	PERE = Use of renew PERM = Use of renew energy resources; resources used as raw PENRT = Total use of renewable secon	wable primary ener able primary ener PENRE = Use of materials; PENR of non-renewable dary fuels; NRSE	ergy excluding r gy resources us non-renewable RM = Use of non primary energy	enewable prima sed as raw mate primary energy -renewable prim re-sources; SM	ry energy resou rials; PERT = To excluding non-r nary energy reso = Use of second dary fuels; EW =	rces used as ray otal use of renev enewable prima ources used as r dary material; R = Use of net fres	w materials; wable primary ry energy aw materials; SF = Use of sh water		

<sup>1</sup> 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.





# Waste production

Results per functional or declared unit										
Indicator	Unit	A1-A3	C1	C2	C3	C4	D			
Light base mortar BME 12007										
Hazardous waste disposed	kg	5,03E-06	0,00E+00	3,28E-07	1,54E-08	5,30E-08	-1,61E-07			
Non-hazardous waste disposed	kg	7,16E-02	0,00E+00	5,98E-03	5,41E-05	2,41E-01	-5,65E-04			
Radioactive waste disposed	kg	1,66E-05	0,00E+00	8,53E-07	1,76E-07	2,33E-07	-1,44E-07			
Light base mortar BME 12003										
Hazardous waste disposed	kg	4,97E-06	0,00E+00	3,28E-07	1,54E-08	5,30E-08	-1,61E-07			
Non-hazardous waste disposed	kg	6,93E-02	0,00E+00	5,98E-03	5,41E-05	2,41E-01	-5,65E-04			
Radioactive waste disposed	kg	1,67E-05	0,00E+00	8,52E-07	1,76E-07	2,33E-07	-1,44E-07			
		Light base r	nortar BMB 120	003						
Hazardous waste disposed	kg	4,91E-06	0,00E+00	3,28E-07	1,55E-08	5,30E-08	-1,61E-07			
Non-hazardous waste disposed	kg	6,87E-02	0,00E+00	5,99E-03	5,42E-05	2,41E-01	-5,66E-04			
Radioactive waste disposed	kg	1,65E-05	0,00E+00	8,53E-07	1,76E-07	2,33E-07	-1,44E-07			

## **Output flows**

	F	Results per fund	ctional or decla	red unit					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D		
		Light base ı	mortar BME 12	007					
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	0,00E+00	0,00E+00	0,00E+00	7,54E-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		
Light base mortar BME 12003									
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	0,00E+00	0,00E+00	0,00E+00	7,54E-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		
		Light base ı	mortar BMB 12	003					
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	0,00E+00	0,00E+00	0,00E+00	7,54E-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		
		Light base mortar BME 12007	Light base mortar BME 12003	Light base mortar BMB 12003
Biogenic carbon content in product	kg C	1,19E-03	1,19E-03	1,20E-03
Biogenic carbon content in packaging	kg C	1,13E-02	1,26E-02	1,11E-02

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

# 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

