



ENVIRONMENTAL PRODUCT DECLARATION

Lightweight lime mortar
with cork for rendering
and plastering. BEYEM NEOCAL TERM



DAPcons®.100.292

DECLARACIÓN AMBIENTAL DE PRODUCTO
ENVIRONMENTAL PRODUCT DECLARATION

According to the standards:

ISO 14025 and UNE-EN 15804:2012+A2:2020/AC:2021

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This declaration has been promoted and developed with funds derived from the agreement signed between the Valencian Regional Government and the Valencia Institute of Building.



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Barcelona



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GENERAL INFORMATION

Product

Beyem Neocal Term

Company



Product description

The product in question is Beyem NeoCal Term industrial dry mortar, a colored decorative lime coating that is lightened with natural cork, flexible, breathable, and water-repellent. The product under study is supplied in powder form, with a bulk density of $\approx 1100 \text{ kg/m}^3$ and an average coverage of $\approx 1.4 \text{ kg/m}^2$ per mm of thickness, and represents the average color production at the Rodacal Beyem S.L. plant. The mortar, used as a decorative finish and as part of external thermal insulation systems (ETIS), serves the primary functions of water repellency, breathability, and aesthetic finishing.

Reference RCP

RCP 100 (version 3.2 - 21/12/2023) Construction products in general

Production plant

Rodacal Beyem S.L.'s production plant located in La Roda (Albacete).

Validity

From: 31/07/2026 Until: 31/07/2031

The validity of DAPcons®.100.292 is subject to the conditions of the regulation DAPcons®. The current edition of this DAPcons® is the one that appears in the registry maintained by Cateb; for informational purposes, it is included on the Program website www.dapcons.com

EXECUTIVE SUMMARY

Beyem Neocal Term

**DAPconstruction® Programme Operator**

Environmental Product Declarations in the Construction sector
www.dapcons.com

**Programme Manager**

Colegio de la Arquitectura Técnica de Barcelona (Cateb)
Bon Pastor, 5 · 08021 Barcelona www.cateb.cat

**Owner of the declaration**

RODACAL BEYEM SL
Ctra. Madrid-Alicante, Km. 213 (Extramuro) 02630 - RODA, LA (España)
<https://www.rodacal.com>

**Author of the Life cycle assessment:**

Instituto Valenciano de la Edificación
Camí de Vera, s/n, Algirós, 46022 València, Valencia, 46022 - VALENCIA, VALENCIA, España
<https://www.five.es/>

Declared product

Beyem Neocal Term

Geographic representation

Spain

Variability between different products

The variability in GWP for A1-A3 among mortar colour variants exceeds 10%, based on the production-weighted average. Due to this variability, compliance with ISO 21930 is not required.

Declaration number

DAPcons®.100.292

Version

02 - 20260729

Validity

This verified declaration authorizes its holder to carry the logo of the operator of the ecolabelling program DAPconstruction®. The declaration is applicable exclusively to the mentioned product and for five years from the date of registration. The information contained in this statement was provided under the responsibility of:

RODACAL BEYEM SL

Programme Administrator Signature

Celestí Ventura Cisternas. President of Cateb

Verifier Signature

HELIOS POMAR BLANCO. tlf: 677098569; mail: hpomar@serviciosqma.com. Verifier accredited by the administrator of the DAPcons® Programme

ENVIRONMENTAL PRODUCT DECLARATION

1. PRODUCT DESCRIPTION AND USE

The product in question is Beyem NeoCal Term, a dry industrial mortar for colored decorative coatings, formulated with lime, lightened with natural cork, flexible, breathable, and water-repellent. It is supplied in powder form, has an approximate bulk density of 1,100 kg/m³, and an average coverage of 1.4 kg/m² per millimeter of thickness, for a typical application thickness of between 4 and 6 mm. The product is classified as CR CS III Wc2, in accordance with UNE-EN 998-1:2017. It is manufactured at the Rodacal Beyem, S.L. plant, located in La Roda (Albacete), from where it is distributed through the company's logistics network. Beyem NeoCal Term is used as a decorative finish on facades and as a component of exterior thermal insulation systems, providing water protection, vapor permeability, and an aesthetic finish.

This Environmental Product Declaration covers the entire range of colors available for Beyem NeoCal Term mortar. The available shades can be found in the color chart published on the Rodacal Beyem website: www.rodacal.com. The calculated results represent the average product of the Beyem NeoCal Term color range. To obtain this average product, the different formulations were weighted according to the quantities actually manufactured during the study's reference period. Therefore, the declared results do not correspond to a single color, but rather to the weighted average environmental impact of the set of colors marketed during the analyzed period.

1.1 Content information

Product components

Aggregates, mineral fillers, and functional minerals: 0.7720 kg (77.20%)

Binders: 0.1344 kg (13.44%)

Polymers, resins, and functional organic additives: 0.0516 kg (5.16%)

Lightening agents: 0.0249 kg (2.49%)

Pigments and colour additives: 0.0110 kg (1.10%)

Minor performance additives: 0.0063 kg (0.63%)

TOTAL: 1.00 kg (100.00%)

Packaging materials

The packaging materials associated with the declared unit (1 kg) are:

Packaging item 1 - Paper (bag): 3.75E-03 kg.

Packaging item 2 - Plastic (HDPE bag + LDPE pallet wrap + LDPE sheet under the pallet): 9.59E-04 kg.

Packaging material 3 - Wood (pallet): 1.17E-02 kg.

Property	Value / Description
Appearance	Coloured powder
Particle size	0-400 µm
Supply	20 kg paper bags
Mixing water	22%
Classification (EN 998-1)	CR CSIII Wc 2

General characteristics

Technical Property	Test standard	Value
Adhesion	UNE-EN 1015-12	≥ 0.15 MPa
Compressive strength	UNE-EN 1015-11	≥ 3.5 MPa
Water absorption	UNE-EN 1015-18	≤ 0.2 kg/m ² · min ^{0.5}
Water vapour permeability (µ)	UNE-EN 1015-19	≤ 15
Reaction to fire	UNE-EN 13501-1	Class A1

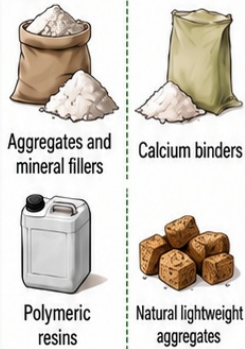
Technical characteristics



LIFE CYCLE DIAGRAM: BEYEM NEOCAL TERM

PRODUCT STAGE (A1–A3)

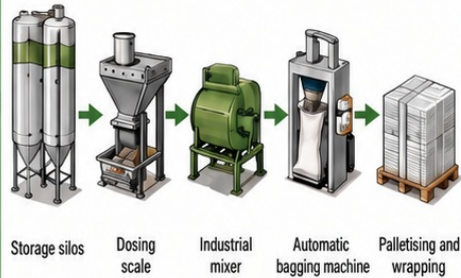
A1 Raw materials



A2 Transport



A3 Manufacturing

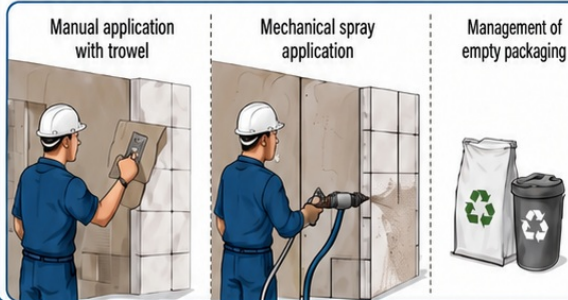


CONSTRUCTION STAGE (A4–A5)

A4 Transport to construction site



A5 Installation



USE STAGE (B1–B7)

MODULE B: USE STAGE (NOT DECLARED – ND)

END-OF-LIFE STAGE (C1–C4) AND MODULE D

C1 Demolition



C2 Waste transport



C3 Treatment



C4 Disposal



MODULE D: BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY

2. DESCRIPTION OF THE STAGES OF THE LIFE CYCLE

2.1. Manufacturing (A1, A2 y A3)

Raw Materials and transport (A1 y A2)

This module covers the extraction and pretreatment of aggregates, binders, lightweighting agents, and additives. Consider the transport by heavy-duty truck (32 t) and by sea of the individual raw materials from their point of origin to the Rodacal Beyem plant in La Roda (Albacete).

Manufacturing (A3)

It includes silo storage, automated dry dosing and blending, mechanical bagging into 20-kg paper bags, and palletizing with low-density polyethylene (LDPE) stretch film on wooden pallets. This module also tracks: Electricity consumption (a mix of national grid power and the facility's own solar photovoltaic generation) and industrial water use.

Emissions of solid particulates that are channeled and filtered by high-efficiency collectors.

Discharges of water treated by an on-site wastewater treatment plant, and the management of sludge and mixing waste as non-hazardous waste.

Description of the production process:

The manufacturing process for Beyem NeoCal Term mortar at the La Roda plant (Albacete) consists of the following phases:

- (1) Receiving and dosing: The production process begins with the receipt and inspection of raw materials, which are stored in silos and specific storage areas until they enter the production line. Next, the raw materials are gravimetrically dosed in the proportions established by each product's formula, using scales and automatic dosing systems.
- (2) Mixing and homogenization: The dosed components are transported to the mixer, where they are dry-mixed until a uniform mixture with the required particle size distribution and color is obtained. During this dry mixing process, pigments and functional additives (water-repellents, rheological modifiers, fibers, and other auxiliaries) are incorporated, imparting the mortar's decorative and technical properties. Throughout the entire process, particle collection and filtration systems capture airborne dust, which is reintroduced into the production line as an internal secondary raw material
- (3) Packaging and Palletizing: Once homogenized, the mixture is conveyed to the bagging machine's hoppers, where the product is mechanically packaged into paper bags. The bags are then automatically palletized onto wooden pallets and wrapped with low-density polyethylene (LDPE) stretch film to ensure their stability and protection during storage and transport
- (4) Storage and Shipping: The finished, palletized product is stored at the plant itself pending shipment, from where it is distributed through Rodacal Beyem S.L.'s logistics network to the end customer or the destination construction site.

2.2. Construction process stage (A4 y A5)

Transport to the building site (A4)

For the transport to the construction site phase (A4), a scenario representative of the national distribution of Beyem NeoCal Term mortar has been established. Road transport by a heavy-duty truck (32 t) was considered, assuming a predetermined distance of 200 km from the La Roda plant (Albacete) to the installation site, and including the return trip with the truck 50% empty, in accordance with the criteria of GlobalEPD-RCP-006 Mortars.

Table 1. Basic of a scenario with the parameters described in the following table

Destinations	Type of transport	Percentage	Average km
Spain	Truck (32 t)	100	400

Product installation process and construction (A5)

Once the product is received at the construction site, installation begins. To model this stage, the most common and representative application process was taken into account, based on the energy, water, and end-of-life consumption scenarios proposed by the sectoral standard GlobalEPD-RCP-006 Mortars.

During installation (A5), the following inputs and outputs were considered for the declared unit (1 kg of mortar):

- Mixing water: Water consumption on-site was calculated at 22% by weight ($2.20 \times 10^{-4} \text{ m}^3$ per unit), which is necessary for mixing the dry mortar.
- Energy consumption: The electricity consumption required for on-site mechanical mixing has been included, estimated at 0.3 Wh/kg of mortar ($3.00 \times 10^{-4} \text{ kWh}$ per unit).
- Product losses: In accordance with the rules of RCP 006 for mortars, no additional production processes are included to compensate for the loss of product discarded on-site, as it is assumed that losses are less than 0.1%.
- Packaging management: The management and final treatment of packaging waste generated when unpacking the product (paper bags, plastic film, and wooden pallets) are accounted for.

The transport of waste materials (packaging) from the construction site to the authorized waste management facility has been modeled using a heavy-duty truck (32 t) over an estimated distance of 50 km.

2.3. Product use (B1-B7)

Use (B1)

Undeclared

Maintenance (B2)

Undeclared

Repair (B3)

Undeclared

Replacement (B4)

Undeclared

Refurbishment (B5)

Undeclared

Operational energy use (B6)

Undeclared

Operational water use (B7)

Undeclared

2.4. End of life (C1-C4)

Deconstruction and demolition (C1)

Once its useful life has ended, the product will be removed, either as part of a building renovation or during its demolition. In the context of a building's demolition, the impacts attributable to the removal of the product are negligible. Similarly, the removal of the product during renovation has been considered negligible, since the amount of energy required to remove 1 m² of stucco- or plaster-type cladding is less than 1% of the total energy required over the entire life cycle. For these reasons, the impact of stage C1 (deconstruction and demolition) has been estimated to be negligible.

Transport (C2)

Waste materials are transported using a heavy-duty truck (32 t), and the average distance from the demolition site to the landfill has been estimated at 50 km. To characterize the product's end-of-life scenario, the default parameters specified in the GlobalEPD-RCP-006 industry standard for mortars were used as a basis.

Waste processing for reuse, recovery and/or recycling (C3)

Because the hardened mortar adheres monolithically and inseparably to the facade substrate, it cannot be mechanically broken up or sorted for recycling; therefore, no treatment process is considered at this stage (C3).

Disposal (C4)

Consequently, in accordance with the end-of-life scenario defined in GlobalEPD-RCP-006 Mortars, a scenario involving the direct disposal of 100% of the product's mass in a construction and demolition waste landfill (C4) has been considered for the product under study.

2.5. Reuse/recovery/recycling potential (D)

In this Module D, environmental burdens and credits (i.e., avoided environmental impacts) outside the system boundaries resulting from the reuse, recovery, or recycling of some of the system's output streams are reported. The net impacts resulting from accounting for the impacts of the recycling process are reported, and the production impacts of the primary materials or fuels displaced or substituted by the recycled ones are subtracted, taking into account the difference in quality between the primary and secondary materials. For this study, it has been assumed that environmental burdens associated with the manufacture of virgin raw materials are avoided, and benefits are obtained from the thermal and/or electrical energy recovered from the management of packaging waste (paper bags, plastic film, and wooden pallets) generated during the product's installation on-site.

As indicated in the Product Category Rules (PCR) and the UNE-EN 15804 standard, the environmental impacts and benefits of residual materials destined for recycling generated during the manufacturing stage (A1–A3) have not been accounted for in this module. Therefore, only the environmental impacts and benefits generated by the recycling and recovery of packaging waste produced during the construction phase (A5) have been accounted for. Since the end-of-life scenario assumes that 100% of the mortar adhering to the facade is sent to a landfill (C4) without prior sorting, no outflows to recycling are generated during the end-of-life stage that could provide additional benefits in this module.

3. LIFE CYCLE ASSESSMENT

This study was conducted using the SimaPro 10.3.0.1 LCA tool from PRé Sustainability, which was developed in accordance with the UNE-EN ISO 14040–14044 standards and the Ecoinvent v3.11 (2025) database.

Once each of the unit processes described above has been modeled in the SimaPro software, the impact assessment is performed in accordance with the guidelines of the UNE-EN ISO 14044:2006 standard. This LCA was

prepared in accordance with the guidelines of GlobalePD-RCP-006_rev. 1 Mortars, and complies with the requirements of the international standards ISO 14040:2006 and ISO 14044:2006, as well as ISO 14025 and UNE-EN 15804:2012+A2:2020/AC:2021. In accordance with the hierarchy established in the ISO 14044 and EN 15804 standards, a mass-based physical allocation procedure (mass allocation) has been applied in this study. Since it was not possible to avoid allocation by subdividing processes, all material and energy inputs, as well as emissions and output flows from the manufacturing process, were distributed proportionally according to this underlying physical relationship.

In compliance with the provisions of standard EN 15941:2024, the DAP covers the Beyem Neocal Term products from the Beyem Rodacal plant. No moderate, poor, or very poor data quality was found during the evaluation of the relevant data using EN 15804:2012+A2:2020, Annex E, Table E.1, with a final data quality rating ranging from “Acceptable” to “Very Good.” The market-based approach was followed for the calculation of electricity.

3.1. Declared Unit

The declared unit of the DAP is “1 kg of lime mortar lightened with cork for plastering and rendering.”

Additional comments

Conversion Factors and Physical Properties To facilitate the conversion from the Declared Unit (1 kg) to the actual application on-site (Functional Unit in the building), the technical properties, densities, and coverage rates of the Beyem NeoCal Term product are detailed below:

Bulk density (powder): $\approx 1100 \text{ kg/m}^3$

Mix density (wet): $\approx 1350 \text{ kg/m}^3$

Coverage per mm of thickness: $\approx 1.4 \text{ kg/m}^2 \cdot \text{mm}$

Typical application thickness: 4–6 mm

Weight per unit area (for 5 mm thickness): 7 kg/m^2

* Explanatory note for building-level assessment: To calculate the environmental impacts corresponding to 1 m^2 of facade clad with this mortar at the recommended thickness (5 mm), the results of this Environmental Product Declaration (EPD) must be multiplied by a factor of 7.

3.2. Scope and modules that are declared

Table 2. Declared modules

Product stage			Construction Process Stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw materials supply	Transport	Manufacturing	Transport	Construction - Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction	Transport	Waste processing	Disposal	Reuse, recovery, recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

X = Declared module MND = Undeclared module

3.3. LCA results of potential environmental impact referred to the declared unit (ACV)

Table 3. Parameters of environmental impact

Parameter	Unit	Life cycle stage														Module D
		Product stage	Construction Process Stage		Use stage							End of life stage				
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	
Climate change - total (GWP-total)	kg CO2 eq	2,18E-01	6,00E-02	1,77E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,26E-02	0,00E+00	8,79E-03	1,22E-02
Climate change - fossil (GWP-fossil)	kg CO2 eq	3,99E-01	5,99E-02	4,02E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,26E-02	0,00E+00	8,74E-03	-3,39E-03
Climate change - biogenic (GWP-biogenic)	kg CO2 eq	-4,98E-02	0,00E+00	2,03E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	2,96E-02	-1,57E-02
Climate change - land use and changes in land use (GWP-luluc)	kg CO2 eq	6,43E-02	9,48E-07	9,34E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,54E-07	0,00E+00	1,22E-06	-7,24E-05
Ozone layer depletion (ODP)	kg CFC 11 eq	1,70E-08	1,36E-09	3,77E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,09E-10	0,00E+00	3,15E-10	-1,18E-10
Acidification (AP)	mol H+ eq	1,73E-03	7,44E-05	7,82E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,69E-05	0,00E+00	1,05E-04	-2,07E-05
Eutrophication of fresh water (EP-freshwater)	kg P eq	9,97E-06	3,70E-08	4,69E-09	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,38E-08	0,00E+00	2,68E-07	-2,68E-07
Eutrophication of sea water (EP-marine)	kg N eq.	2,89E-04	1,67E-05	6,50E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,69E-06	0,00E+00	2,61E-05	-8,01E-06
Terrestrial eutrophication (EP-terrestrial)	mol N eq.	2,82E-03	1,82E-04	2,11E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,30E-05	0,00E+00	2,81E-04	-7,12E-05
Photochemical ozone formation (POCP)	kg NMVOC eq	1,12E-03	1,46E-04	9,34E-07	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,29E-05	0,00E+00	1,02E-04	-1,85E-05
Depletion of abiotic resources - minerals and metals (ADP-minerals&metals)	kg Sb eq	3,90E+00	1,56E-09	1,38E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,85E-10	0,00E+00	2,33E-09	-6,39E-10
Depletion of abiotic resources - fossil fuels (ADP-fossil)	MJ, net calorific value	9,73E-01	7,97E-01	4,18E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,98E-01	0,00E+00	2,17E-01	-8,85E-02
Water consumption (WDP)	m3 worldwide eq. private	1,51E-01	2,61E-04	9,39E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,76E-05	0,00E+00	-1,28E-01	-4,67E-03
Eco-toxicity - freshwater (ETP-fw)	CTUe	2,30E+00	2,87E-02	2,75E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,21E-03	0,00E+00	1,34E-01	-2,19E-02
Human toxicity, cancer effect (HTP-c)	CTUh	1,12E-10	3,71E-12	6,39E-14	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,20E-12	0,00E+00	3,06E-12	-1,99E-12
Human toxicity, non-cancer effects (HTP-nc)	CTUh	3,14E-09	4,00E-10	3,96E-12	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,04E-10	0,00E+00	2,29E-10	-4,06E-11
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. Can be obtained from IPCC characterization factors.																
Global Warming Potential (GHG)	kg CO2 eq	4,02E-01	5,99E-02	8,30E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,26E-02	0,00E+00	8,75E-03	-3,51E-03

A1 Raw material supply. **A2** Transport. **A3** Manufacturing. **A4** Transport. **A5** Installation and construction processes. **B1** Use. **B2** Maintenance. **B3** Repair. **B4** Replacement. **B5** Refurbishment. **B6** Operational energy use. **B7** Operational water use. **C1** Deconstruction and demolition. **C2** Transport. **C3** Waste management for reuse, recovery and recycling. **C4** Fine removal. **D** Environmental benefits and burdens beyond the system boundary. **MND** Undeclared module.

Table 4. Parameters for the use of resources, waste and output material flows

Parameter	Unit	Life cycle stage														Module D	
		Product stage	Construction Process Stage			Use stage							End of life stage				
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		
Use of renewable primary energy excluding renewable primary energy resources used as feedstock	MJ, net calorific value	2,20E+00	1,99E-03	2,13E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,43E-04	0,00E+00	3,40E-03	-7,42E-02	
Use of renewable primary energy used as raw material	MJ, net calorific value	2,12E-01	0,00E+00	-2,12E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Total use of renewable primary energy (primary energy and renewable primary energy resources used as feedstock)	MJ, net calorific value	2,41E+00	1,99E-03	7,87E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,43E-04	0,00E+00	3,40E-03	-7,42E-02	
Non-renewable primary energy use, excluding non-renewable primary energy resources used as feedstock	MJ, net calorific value	4,52E+00	8,47E-01	6,71E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,17E-01	0,00E+00	2,31E-01	-9,40E-02	
Use of non-renewable primary energy used as raw material	MJ, net calorific value	6,67E-01	0,00E+00	-6,67E-01	MND	MND	MND	MND	MND	MND	MND	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 renewable primary energy resources used as feedstock)	MJ, net calorific value	5,19E+00	8,47E-01	4,38E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,17E-01	0,00E+00	2,31E-01	-9,40E-02	
Use of secondary materials	kg	6,31E-03	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Use of renewable secondary fuels	MJ, net calorific value	8,71E-03	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Use of non-renewable secondary fuels	MJ, net calorific value	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Net use of freshwater resources	m3	7,87E-03	1,54E-05	2,19E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,77E-06	0,00E+00	-2,76E-03	-1,37E-04	
Hazardous waste removed	kg	5,24E-05	5,30E-06	1,61E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,98E-06	0,00E+00	1,43E-06	-7,71E-07	
Non-hazardous waste eliminated	kg	8,76E-02	4,54E-07	6,77E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,70E-07	0,00E+00	1,00E-04	-7,79E-06	
Radioactive waste disposed of	kg	1,29E-05	4,81E-08	2,30E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,80E-08	0,00E+00	5,74E-08	-3,45E-07	
Components for reuse	kg	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Materials for recycling	kg	3,30E-05	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Materials for energy recovery (energy recovery)	kg	1,25E-04	0,00E+00	2,16E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Exported energy	MJ by energy vector	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,56E+02	
Exported electrical energy (AEE)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,62E+02	
Exported thermal energy (EET)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,43E+01	

A1 Raw material supply. A2 Transport. A3 Manufacturing. A4 Transport. A5 Installation and construction processes. B1 Use. B2 Maintenance. B3 Repair. B4 Replacement. B5 Refurbishment. B6 Operational energy use. B7 Operational water use. C1 Deconstruction and demolition. C2 Transport. C3 Waste management for reuse, recovery and recycling. C4 Fine removal. D Environmental benefits and burdens beyond the system boundary. MND Undeclared module.

Table 5. Kg of biogenic carbon

Carbon content (biogenic) - packaging	5,89E-03
Carbon content (biogenic) - product	8,06E-03

3.4. Recommendations of this EPD

Comparisons of construction products should be made using the same functional unit and at the building level—that is, taking into account the product's performance throughout its entire life cycle. Environmental product declarations from different Type III ecolabeling systems are not directly comparable, as the calculation rules may differ. Environmental product declarations for construction products (DAPcons®) may not be comparable with other environmental product declarations if they are not based on the UNE-EN 15804:2012+A2:2020/AC:2021 standard. This declaration represents the average performance of the Beyem NeoCal Term cork-lightened lime mortar product, based on the weighted average of the annual production of the different colour variants manufactured at the Rodacal Beyem S.L. plant.

3.5. Cut-off rules

More than 95% of all mass and energy inputs and outputs in the system have been included; excluded are, among other things, diffuse emissions from factories and the production of industrial machinery and equipment.

3.6. Additional environmental information

El producto incluido no libera sustancias peligrosas en el aire, suelo y agua durante la fase de uso. Durante el ciclo de vida del producto no se utiliza sustancias peligrosas listadas en “Candidate List of Substances of Very High Concern (SVHC) for authorisation”.

3.7. Other data

Waste generated from the manufacture and end-of-life of mortar is classified as “non-hazardous waste” in the European Waste List. During the production stage, rejected mixes and wastewater treatment sludge are generated (classified under EWL code 101314: “Concrete waste and concrete sludge”), and at the end of its useful life, it is managed inseparably from the substrate as inert construction and demolition waste (EWC code 170107: “Mixtures of concrete, bricks, tiles, and ceramic materials” or EWC code 170101: “Concrete”) (Decision 2014/955/EU).

4. ADDITIONAL TECHNICAL INFORMATION AND SCENARIOS

4.1. Transport to the building site (A4)

Parameter	Parameter expressed per functional unit
Type and fuel consumption, type of vehicle used for transportation	32t truck / Euro VI heavy-duty truck
Distance	Road transport: 200.00 km
Capacity utilization (including empty return)	Road transport: 50% imported into the database Ecoinvent 3.11
Apparent density of transported product	Not applicable / palletized or bagged product
Useful capacity factor (1, <1 or >1 for products that are packed compressed or nested)	1

4.2. Installation processes (A5)

Parameter	Parameter expressed per functional unit
Auxiliary materials for construction (specifying each material)	0 kg
Water use	Tap water: 2,20E-04 m ³
Use of other resources	0 kg
Quantitative description of the type of energy (regional mix) and consumption during the installation process	Energy consumption (on-site mechanical mixing): 3.00E-04 kWh
Waste of materials in the work before the treatment of waste, generated by the installation of the product (specify by type)	Mortar (loss): 0 kg (Losses of <0.1% are assumed according to RCP 006)
Material outputs (specified by type) as a result of waste treatment on the building site. For example: collection for recycling, energy recovery, disposal (specified by route)	Recycling: Paper: 2.66E-03 kg Plastic: 3.93E-04 kg Wood: 8.09E-03 kg Energy Recovery (Incineration): Paper: 1.50E-04 kg Plastic: 1.34E-04 kg Wood: 1.88E-03 kg Disposal (Landfill): Paper: 9.38E-04 kg Plastic: 4.31E-04 kg Wood: 1.76E-03 kg

Parameter	Parameter expressed per functional unit
Direct emissions to air, soil and water	None detected

4.3. Reference life (B1)

Undeclared

4.4. Maintenance (B2), Repair (B3), Replacement (B4), or Refurbishment (B5)

Maintenance (B2)

Undeclared

Repair (B3)

Undeclared

Replacement (B4)

Undeclared

Refurbishment (B5)

Undeclared

4.6. Operational energy use (B6) and operational water use (B7)

Undeclared

4.7. End of life (C1-C4)

	Process				
	Collection processes (specified by types)	Recovery systems (specified by type)			Elimination
	kg collected with mixed construction waste	kg for reuse	kg for recycling	kg for energy recovery	kg for final disposal
	1.00	0.00	0.00	0.00	1.00
Assumptions for scenario development	Waste materials are transported using a heavy-duty truck (32 t). Distance to the landfill for final disposal: 50 km. No reuse, recycling, or energy recovery processes are considered; all waste is sent for final disposal in Module C4.				

5. ADDITIONAL INFORMATION

The following are the main technical and performance characteristics of Beyem NeoCal Term cork-lightened lime mortar:

Adhesion (UNE-EN 1015-12): ≥ 0.15 MPa

Compressive strength (UNE-EN 1015-11): ≥ 3.5 MPa

Capillary water absorption (UNE-EN 1015-18): $\leq 0.2 \text{ kg/m}^2 \cdot \text{min}^{0.5}$

Water vapor permeability coefficient, μ (UNE-EN 1015-19): ≤ 15

Reaction to fire (UNE-EN 13501-1): Class A1

6. PCR AND VERIFICATION

This statement is based on Document

RCP 100 (version 3.2 - 21/12/2023) Construction products in general

Independent verification of the declaration and data, in accordance with ISO 14025 and IN RCP 100 (version 3.2 - 21/12/2023)



External

Third party Verifier

HELIOS POMAR BLANCO

Accredited by the administrator of the DAPcons®

Programme



Verification date:

29/07/2026

References

- Life Cycle Assessment of Products: Neocal Term v2 Cork-Lightened Lime Mortar. Valencian Institute of Building. June 2026 (Unpublished)
- Annex_C_Annex C to the PEF-OEF Methods V2.1_May2020.
- GHG Inventories Report 1990–2021 (2023 Edition). Annex 7.
- ANNEX I. RESULTS OF ELECTRICITY LABELING BY ELECTRICITY RETAILERS REGARDING ENERGY PRODUCED IN 2023. CNMC National Commission for Markets and Competition.
- EPD-IES-0000404:006 (S-P-00404): Ali Pre Green
- S-P-13450: Hydrated lime – EPD Sector
- EPD-LAN-20230194-IBC1-EN: Iron Oxide Black Pigment (Fe_3O_4)
- EPD-LAN-20230195-IBC1-EN: Iron Oxide Red Pigment (Fe_2O_3)
- EPD-LAN-20230193-IBC1-EN: Iron Hydroxide Yellow Pigment (FeOOH)

Standards:

- ISO 14020:2000 Environmental labels and declarations – General principles
- ISO 14025:2006 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 15804:2012+A2:2020, Sustainability of construction works – Environmental product declarations – Product category rules
- UNE-EN ISO 14067:2019 “Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification (ISO 14067:2018)”
- GlobalEPD-RCP-006 Mortars, rev. 1. AENOR. November 2017

Supplementary documentation consulted:

- ISO 21930:2007 Sustainability in building construction – Environmental declaration of building products

Databases and characterization factors:

- Ecoinvent v3.11 (2025). Developed by Ecoinvent Centre. For more information: <http://www.ecoinvent.ch>
- EC-JRC characterization factors, available at the following web link:
<https://eplca.jrc.ec.europa.eu/LCDN/EN15804.xhtml>

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