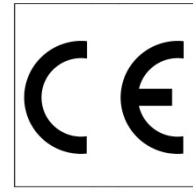
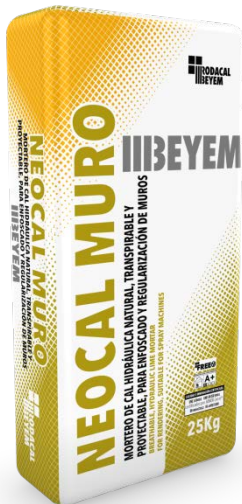


# Beyem Neocal Muro

Breathable, hydraulic lime mortar for rendering, suitable for spray machines



EN 998-1



## About this product

BEYEM NEOCAL MURO is a breathable, rainwater-proof, natural hydraulic lime (NHL) rendering mortar, suitable for both building rehabilitation and new construction. Formulated with natural hydraulic lime (NHL), natural pozzolan, selected aggregates and organic additives. Especially suitable for rehabilitation of historic and/or protected buildings (old masonry walls). Natural composition. Free of Portland cement. Indoor environment quality. Classified as A+ class according to Décret n°. 2011-321 (France). Free of radionuclides.

## Use

Natural hydraulic lime rendering mortar for both building rehabilitation and new construction. Suitable to compensate uneven surfaces and flatness of the support. Suitable for walls and ceilings both in interior and exterior situations, manually or mechanically. Specially designed for restoration and protection of walls and walls of old masonry, due to its natural composition and high breathability.

## Benefits

- Suitable for spray render and pump machines or manual applications.
- Mechanical strengths corresponding to lime mortars.
- High water vapour permeability. Allows the wall to breathe.
- Great plasticity. Excellent adhesion
- Compatible with old masonry brickworks/walls.
- Applicable directly to the building enclosure.
- Rainwater- proof. Weather resistant.
- Free of chlorides.
- Suitable for internal or external walls.
- New construction and building rehabilitation.
- Natural bacteriostatic and natural fungistatic.
- Very low VOCs emissions.
- Radiation-free certificate. **FREE**☼
- Mineral product. **Eco**

## Substrates

BEYEM NEOCAL MURO is suitable for:

- New construction and rehabilitation brickwork. Ceramic bricks.
- Traditional plastering /rendering mortars.
- Stonework.

## Preparation of substrates

Substrates must be clean, compact and free of substances that reduce adhesion such as dust, oil, grease and with no loose material. Substrates must submit an adequate porosity and surface roughness. Uneven areas must be corrected. Dampen substrates with water to cool down and wait until the thin layer of water disappears. It is a good practice curing with a fine spray of clean water 24 h after application. Curing operation is essential to avoid rapid drying and depends on the degree of porosity and surface absorption. If necessary, fill in the gaps of the substrate with BEYEM NEOCAL MUR and let harden.

Do not apply on gypsum-based plasters, paint, metal surfaces, plastic, surface waterproofing products or materials with low mechanical properties. Consult our technical department to apply on cellular concrete.

## Instructions for use

Mix manually or mechanically BEYEM NEOCAL MURO with 5,25-5,75 l per bag of clean water until a homogeneous, creamy and lump-free paste is obtained. Let the mix stand for 5 minutes before application. To apply with render spray machine, it's necessary to set the relation water/mortar and pump pressure depending on section and length of hose and climatology conditions. It's important to maintain the variables affecting the properties of the applied mortar (distance to the wall, angle of application and water proportion).

Substrates should be previously wetted until they are saturated, preventing waterlogging, and applying the mortar once the surface has a matt appearance.

Spread the mixed product with a trowel (in case of manually or mechanically application) leaving 10-15 mm of average thickness depending on the desired finish. Thicknesses up to 30 mm can be applied in layers of 15 mm thick per every 48 h. Mark the pieces using PVC splines. Press to ensure adhesion and expel the air contained in the pores. Smooth with a ruler the applied material to regulate thickness. When BEYEM NEOCAL BASE is green (set but not fully hardened) it should be finished using the appropriate tool depending on the desired texture (trowelled, scraping...). Time until finishing depends of substrate, temperature and humidity.

## Cautions and recommendations

- Always mix with the specified amount of water.
- Do not apply below 5°C or above 30°C.
- Do not apply when there is risk of frost, rain, strong wind or direct sunlight.
- It is not advisable to apply on horizontal or sloped surfaces in exterior situations.
- Protect top edges of facade from rainwater penetration.
- Above 15 mm of thickness, apply the product in two layers, leaving a roughness surface in the first to improve the adhesion of the second layer.
- In any case, for an optimal finish, it is recommended to apply an uniform layer of 0.5 cm thickness approx. to avoid the appearance of cracks in subsequent layers.
- The minimum finishing thickness of render must be 10 mm, to contribute actively to the waterproofing of surface.

- Lime mortars have a slower setting, so the hardening time increases.
- Expansion joints should be included as required by the substrate and respected by all applied materials.
- Reinforcement with alkali resistant fiberglass mesh may also be required, dependent upon substrate condition ( junctions of different surfaces, corners of voids...), project specification or applied thickness greater than recommended.
- As a basecoat mortar, is recommended to leave a rough finish.

## Technical data

### Product identity. Properties of mixture and application data

Appearance	Powder
Color	Beige
Bulk density	≈ 1300 Kg/m <sup>3</sup>
Density of the mix	≈ 1800 Kg/m <sup>3</sup>
Grading	0-1,5 mm
Mixing water,%	± 22 %
Minimum finishing thickness	10 mm
Maximum thickness per layer	15 mm
Maximum thickness application	30 mm (two layers)
Coverage	14 Kg/m <sup>2</sup> per cm of thickness
Tariff code	3824.50.90.00
<b>Final performances</b>	
Type	CR CSII W <sub>c</sub> 1
Adhesion	≥ 0,20 MPa
Compressive strength	≥ 2,0 MPa
Water absorption	≤ 0,4 Kg/m <sup>2</sup> min <sup>1/2</sup>
Water vapor permeability	μ ≤ 15
Thermal conductivity	0,53 W/m·k
Reaction to fire	Euroclass A1
Total VOCs (28 days)	≤ 500 μg/m <sup>3</sup>
Radioactivity index (U, Ra, Pb, Th, others)	I = 0,116

## Packaging

BEYEM NEOCAL MURO is packed 25 kg plastic lined paper bags.

Storage: when stored unopened in a cool dry place, shelf life is 12 months from date of manufacture.

## Cleaning tools

Tools can be cleaned easily with water before the product hardens. Hardened product can be removed only mechanically.

## Project specification

*Facade rehabilitation of historic and/or protected buildings, must be carried out with highly breathable, natural hydraulic lime, Portland cement free, rendering mortar (free of COVs and radiation) compliant with EN 998-1- Class OC CSII  $W_c 1$ , such as BEYEM NEOCAL MURO manufactured by Rodacal Beyem Company. Coverage will be  $\approx 1,4 \text{ kg/m}^2$  per mm of thickness. The substrate must be clean, sound, compact and dimensionally stable. Expansion joints must be respected.*

## Health and Safety

For further and complete information about the safe use of our product please refer to our latest version of the Safety Data Sheet, which is available upon request.

Disposal of the product and packaging must be in accordance with current legislation. This is responsibility of the final product user.

## Certifications



ER-1089/1999



IDI-0004/2012



Indoor Environment Quality

Certificate nº LQAI.MC.41/19  
EN 16000-09



"Radiation-free Certificate"  
IAF- Radioökologie GmbH

Contact



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Note

**Product for professional use**

The above guidelines and information is accurate to the best of our knowledge and is offered in good faith. This information is true and accurate, but as conditions of use and any labor involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors.

End user should ensure that he has our latest literature, copy of which will be sent upon request.