

# PRB MORTIER BTC M5 R&D



## M5 ECO-DESIGNED MORTAR FOR COMPRESSED EARTH BLOCKS

### The **+**s of PRB MORTIER BTC M5 R&D

- +** Reduced carbon footprint\*
- +** Guaranteed cement-free
- +** Suitable for masonry work using compressed earth blocks and bricks.
- +** High water vapour permeability

#### PACKAGING

- Paper bag containing 25 kg.



#### STORAGE LIFE: 12 months.

#### CONSUMPTION/USE

- Consumption varies depending on the type of use and the thickness.
- Masonry construction: 20 to 35 kg/m<sup>2</sup> of wall - depending on the size of the masonry element and the thickness of the horizontal and vertical joints.
  - Sealing terracotta roof tiles: 15 to 30 kg/lm.
  - Grouting and repointing masonry: 8 to 13 kg/lm for a depth of 30 to 50 mm and a width of 15 mm.

#### COLOUR: Orange tint.

EN 998-2: Type G/Cat. M 5



\* Reduced carbon footprint compared to a product of the same category from our PRB range.

## APPLICATIONS

### USES

- PRB MORTIER BTC M5 R&D is suitable for masonry work using compressed earth bricks or blocks and natural stone, for new builds or renovation work, inside or outside.
- Sealing terracotta roof tiles & grouting and repointing stonework, CEBs and facing bricks.

### SUITABLE SUBSTRATES

- Compressed earth bricks or blocks (with or without stabiliser).
- Facing bricks.
- Terracotta roof tiles.
- Natural stonework.
- For other substrates or uses, please contact us.

### UNSUITABLE SUBSTRATES

- All masonry elements or construction methods requiring a mortar with a compressive strength greater than M5.

### APPLICATION CONDITIONS

- Between 5°C and 35°C.
- Do not apply to frozen, thawing, hot or damp surfaces. Do not apply to surfaces in full sunlight or during heavy rain and strong winds.

## TECHNICAL CHARACTERISTICS

### INGREDIENTS

- Eco-friendly fluid binders.
- Silica and limestone fillers
- Rheological and water retention agents.

### PRODUCTS

#### POWDER:

- Max. grain size: 2 mm.
- Bulk density: 1.6 ± 0.1 t/m<sup>3</sup>.

#### PASTE:

- pH (alkaline): 12 ± 0.5.
- Water retention: 86 to 94%.

### MORTAR PERFORMANCE ACCORDING TO EN 998-2.

#### TYPE G INDUSTRIAL MORTAR FOR USE IN OUTDOOR CONDITIONS SUBJECT TO STRUCTURAL OR NON-STRUCTURAL REQUIREMENTS:

- Compressive strength: – Cat. M 5 for 40 CEB & 60 CEB  
Please refer to the latest technical guidelines on compressed earth block masonry.

- Chloride content: ≤0.1%.
- Water vapour permeability (coefficient): 15/35 μ.
- Thermal conductivity (λ, 10, dry): 0.76 W/mK (established value).
- Reaction to fire (non-combustible): A1 (M0).
- Durability (freeze/thaw resistant): Assessment based on the provisions in force where the mortar is to be used.

### APPLICATION

- Quantity of water needed: 15 to 17%.
- Manipulation time: 2.5 hours.

**NB:** These values are estimates based on laboratory or on-site testing. The conditions of use, the type of material used and its level of wear and tear can significantly alter these values.

## UTILISATION

### PREPARING THE SUBSTRATE

- The substrate surface must be clean, dust-free, stable, resistant and not seeping moisture.
- In hot weather and/or dry winds, or for very absorbent substrates, the substrate must be wetted before application to avoid the risk of the mortar drying out.

### PREPARING THE MORTAR

- Add 1 bag of PRB MORTIER BTC M5 R&D to 4 (± 0.25) litres of clean water per 25 kg bag and mix using an electric mixer (at a slow speed), a concrete mixer, or by hand using a large masonry bucket and trowel, until you get a smooth, lump-free mortar.

**Please note:** The mortar can be coloured by adding mineral concrete pigments (in this case, the pigment should be added to the mixing water). Do not exceed 300 g/bag.

### APPLICATION

#### Masonry construction:

- Place the mortar on the laying surface at a thickness of 10 to 20 mm using a trowel or a mortar box and fill in the vertical joints if possible (ensuring that the masonry work is straight and level and in accordance with the applicable earthquake resistance standards).
- We recommend using a joint spacer to maintain a constant thickness.
- It is important to moisten compressed stabilised earth blocks before laying.
- The manipulation time and the amount of mortar required depend on the environmental conditions (wind, sun, etc.), the site conditions and the porosity of the masonry elements. You must ensure that the mortar is correctly applied to the element to be sealed/laid.
- Use a trowel to remove excess mortar from both sides of the element before it hardens.

#### Roof masonry:

- For sealing and laying ridge tiles,
- For making joints between hip tiles and ridge tiles, sealing and flashing.
- When laying hip or ridge tiles, the tiles should be placed on a soft, sticky mortar, pressing the mortar down by lightly tapping the tiles into place.
- The tiles must be wetted before laying in hot weather.
- Clean the mortar from the tiles as you go along.

#### Grouting and repointing:

- Manual or machine application.
- Fill the joints with mortar in one or several layers, depending on the depth.
- Use a pointing trowel to compact the mortar in the joint to ensure that there are no cavities or gaps.
- The joint finish can be either smoothed or brushed, depending on the desired effect.

- For old masonry, you will need to remove 30 to 50 mm of the existing joints.
- Joints should be flush with the masonry elements or with a downward slope to allow water to run off.

#### Waterproofing:

- If necessary, apply a layer of PRB MINÉRALISANT FAÇADE to reinforce and waterproof the compressed earth elements. This will protect the elements and preserve their original appearance.

### PRECAUTIONS FOR USE

- Contains lime.
- Please read the packaging safety label before use.
- Please read the safety data sheet before use.