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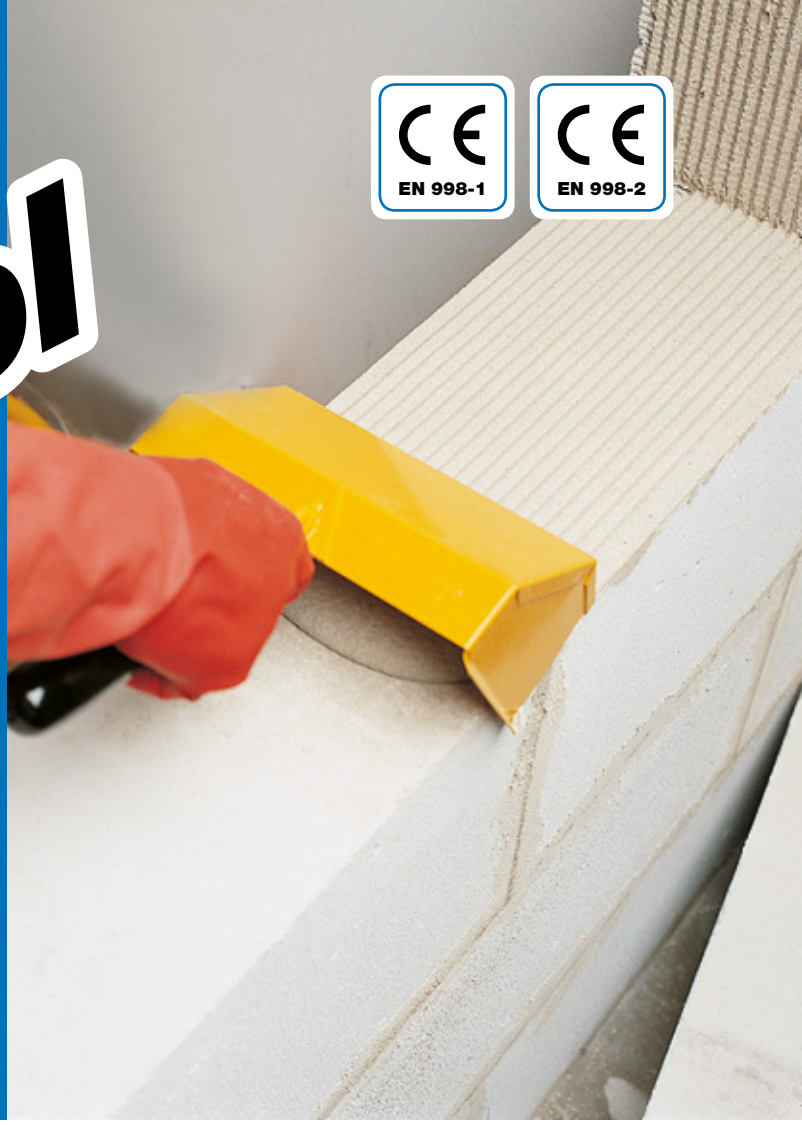
IN COMPLIANCE WITH EUROPEAN STANDARD EN 998-1 GP-CS III MAPEI RENDERING AND PLASTERING MORTAR

IN COMPLIANCE WITH EUROPEAN STANDARD EN 998-2 T-M5 MAPEI MASONRY MORTAR

Porocol

CE EN 998-1

CE EN 998-2



Cementitious-based adhesive mortar in powder form for breeze-block walls

WHERE TO USE

- Laying interior and exterior masonry blocks and panels in expanded concrete, calcium silicate, and cellular brick.
- Plaster and levelling compound for interior and exterior walls.

TECHNICAL CHARACTERISTICS

Porocol is a whitish powder composed of cement, selected fine aggregates, synthetic resins and special additives, produced according to a formula developed in the MAPEI research laboratories.
Porocol when mixed with water becomes an easily workable mortar with high adhesivity and thixotropy that is easily applied to horizontal and vertical surfaces.
Porocol hardens without appreciable shrinkage and develops remarkable strength, adhering perfectly to all materials normally used in construction. It is resistant to water and frost.

Porocol is classified as GP according to EN 998-1 standards: "*General purpose mortar for internal/external render*", guaranteed performance, Category CS III. It is also classified as T according to EN 998-2 Standards: "*Thin layer masonry mortar for internal and external use",* Class M5.

RECOMMENDATIONS

- Do not mix **Porocol** with gypsum, cement, sand or other materials used in building.
- Do not lay an excessive number of blocks over the adhesive before it develops enough mechanical strength to support the load.
- When **Porocol** is applied over gypsum or anhydrite, apply a coat of **Primer G** or **Primer S**.
- Do not use **Porocol** in thicknesses greater than 15 mm per coat.

APPLICATION PROCEDURE

Masonry elements must be dimensionally stable, sound, free of loose material, dust, oils, grease and other matter that might interfere with bonding.
Porocol can be used with blocks that are slightly wet, in which case, hardening is delayed.
Blocks may require wetting beforehand only if highly absorbent or if used in very hot weather. Wetting slightly is recommended when **Porocol** is applied as a finishing compound in thicknesses less than 3 mm.
When **Porocol** is used as a plaster or smoothing compound, walls must be brushed clean to eliminate dust or crumbling material.

Preparing the mix

Porocol should be mixed with 23-25% clean water (25 kg of **Porocol** in 5.75-6.25 l of water) until an even, smooth mix is obtained (a mechanical stirrer is recommended).
Always add the powder into the water.
Porocol maintains workability for 2-3 hours after mixing.

Porocol

TECHNICAL DATA (typical values)

PRODUCT IDENTITY			
Type of mortar (EN 998-1):	GP - General purpose mortar for internal/external render		
Type of mortar (EN 998-2):	T - Masonry mortar with guaranteed performance, applied in thin layers for internal and external applications		
Appearance:	powder		
Colour:	very light grey		
Maximum diameter of aggregate (EN 1015-1) (mm):	1		
Bulk density (kg/m³):	1,500		
Chloride content (EN 1015-17) (%):	**EN 998-1** not required	**EN 998-2** < 0.1	**Performance of product** < 0.05
APPLICATION DATA (at +20°C - 50% R.H.)			
Mixing ratio:	100 parts of **Porocol** with 23-25 parts of water (5.75-6.25 litres of water per 25 kg bag of the product)		
pH of mix:	approx. 12		
Consistency of fresh mortar (EN 1015-3) (mm):	155		
Density of fresh mortar (EN 1015-6) (kg/m³):	1,570		
Porosity of the mix while still fresh (EN 1015-7) (%):	24.5		
Application temperature range:	from +5°C to +35°C		
Workability time of fresh mortar (EN 1015-9):	approx. 2-3 hours		
Minimum applicable thickness (mm):	1		
Maximum applicable thickness per layer (mm):	15		
Initial hardening time:	24 hours		
Complete hardening:	14 days		

FINAL PERFORMANCE (23% mixing water)

Performance characteristic	Test method	Requirements according to EN 998-1	Requirements according to EN 998-2	Performance of product
Compressive strength after 28 days (N/mm²):	EN 1015-11	CS I (from 0.4 to 2.5) CS II (from 1.5 to 5.0) CS III (from 3.5 to 7.5) CS IV (≥ 6)	from Class M 1 (> 1 N/mm²) to Class M d (> 25 N/mm²)	> 5 (Category CS III) (Class M 5)
Bond strength to substrate (brickwork) (N/mm²):	EN 1015-12	declared value and failure type (FP)	not required	> 1.00 Failure mode (FP) = B
Initial shear strength (f_{vok}) (N/mm²):	EN 998-2 Appendix C	not required	declared value	0.30
Capillary action water absorption [kg/(m²·min$^{0.5}$)]:	EN 1015-18	from category W Ø to category W 2	declared value	Category W Ø 0.8
Coefficient of permeability to water vapour (μ):	EN 1015-19	chart value	chart value	5/20
Thermal conductivity ($\lambda_{10,dry}$) (W/m·K):	EN 1745	chart value	chart value	0.40 (P = 50%)
Reaction to fire:	EN 13501-1	Euroclass		A1

Applying the mix

1) For laying blocks

Apply **Porocol** evenly with a trowel over the entire thickness of the wall, checking alignment, if necessary (thickness is usually several mm).
Porocol should be applied with the same technique on the vertical wall surface of each block before placing the next block into position. Applying **Porocol** is made easier by using special notched trowels the same width as the block.
The open time of **Porocol** under normal temperature and humidity conditions is several minutes; unfavourable conditions (hot sun, dry winds, high temperatures) can drastically reduce open time. The adhesive should therefore be checked to make sure it has not formed a skin on the surface and that it is still "fresh".
If skinning occurs (while the adhesive remains still fresh underneath), re-work the adhesive by re-spreading it with a notched trowel.
Blocks installed with **Porocol** should not be soaked with water, exposed to heavy rain, or subject to vertical loads or lateral pressure for at least 24 hours. They should be protected from frost for at least 5-7 days after installation.

2) For skimming blocks

Spread **Porocol** with a trowel to a maximum thickness of 15 mm and smooth with a float. Applying a scratch coat to the substrate is recommended in order to guarantee thorough wetting. Then spread **Porocol** immediately in the thickness required for levelling, exerting enough pressure with the trowel to ensure that the mix bonds well to the substrate.

Cleaning

Mortar which has not yet hardened may be washed from tools using running water. Once hardened, cleaning is much more difficult, and it must be removed mechanically.

CONSUMPTION

For horizontal block surfaces: from 5-7 kg per m^2 of surface to be bonded.
For skimming blocks: 1.4 kg/m^2 per mm of thickness.

PACKAGING

Porocol is available in 25 kg bags.

STORAGE

Porocol may be stored for up to 12 months in its original packaging.
The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH), item 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Porocol contains cement that when in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes.
During use wear protective gloves and goggles and take the usual precautions for handling of chemicals.
In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention.
For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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