



Neofil Block

HIGH-WORKABILITY THIXOTROPIC MINERAL SMOOTHING ADHESIVE, GUARANTEED FOR THE HIGH RESISTANCE LAYING AND SUBSEQUENT SMOOTHING OF CELLULAR CONCRETE AND EXPANDED CLAY BLOCKS. GUARANTEES THE CONTINUOUS BLOCK THERMAL INSULATION. FOR INDOORS AND OUTDOORS.



TECHNICAL DATA SHEET - REV. 01/2023

DESCRIPTION

NEOFIL BLOCK Flex is a white powder consisting of hydraulic binders, mineral fillers, synthetic resins and special additives. Mixed with water, it turns into an easily workable white mortar, both horizontally and vertically, with high adhesiveness and excellent thixotropy. NEOFIL BLOCK hardens without any special shrinkage, adhering perfectly to cellular concrete blocks, expanded clay blocks or concrete surfaces in general.

Complies with European Standard EN 998-1 for general purpose mortars for internal/external rendering (GP) - Compressive strength class III (CS III).
Conforms to European Standard EN 998-2 for general purpose masonry mortar (G) Class M 2,5.

FIELDS OF APPLICATION

NEOFIL BLOCK is used for interior and exterior bonding and smoothing of cellular concrete and expanded clay blocks for the construction of masonry, for bonding of thermal blocks and panels for the construction of curtain walls or partitions, and for smoothing of cement plasters or concrete surfaces.

SUBSTRATE PREPARATION

The masonry elements must be dimensionally stable, dry, solid, and free of loose parts, dust, oils, greasy substances or anything else that may impair the perfect adhesion of the product. The elements may only be slightly moistened if they are particularly absorbent or if they are used in a very hot climate.

For the application of NEOFIL BLOCK as a smoothing agent, the substrates must be thoroughly cleaned to remove dust or any loose parts.

APPLICATION

To prepare the mixture, pour a 25-kg bag of NEOFIL BLOCK in a clean container with 6-6.5 litres of clean water and mix with a mechanical stirrer until smooth and free of lumps. Let the mixture rest for a few minutes, remixing quickly before use. This mixture remains workable for about 3 hours at a temperature of +23°C.

Applying the mixture as an adhesive

Check that the laying surface is perfectly flat; if necessary, lay the first row of blocks using a traditional cement mortar, ensuring that the positioned row is perfectly flat.

Spread NEOFIL BLOCK evenly along the thickness of the wall with a suitable notched trowel, then position the blocks, always checking their linearity (the adhesive is applied in a thin layer to allow continuity of the thermal insulation of the

blocks). Remove any excess adhesive before it hardens. Make sure that the adhesive spread on the surface is always fresh and has not formed a superficial film; if it has formed, refresh the adhesive by spreading it again with the notched trowel. Blocks laid with NEOFIL BLOCK must not be subject to runoff, heavy rain, vertical loads or thrust for at least 24 hours.

To prevent the formation of cracks or micro-cracks along perimeter edges, along joints with pillars, beams, floors or with perimeter masonry, provide an expansion joint of approximately 2 cm to be filled with self-expanding polyurethane foam. After complete curing, remove excess polyurethane with a utility knife.

Applying the mixture as a smoothing agent

To ensure perfect wetting of the substrate, it is advisable to apply a first coat of NEOFIL BLOCK, then proceed to apply the layer required to level and regularise the surface, exerting pressure with the trowel to ensure perfect adhesion of the mixture to the substrate. At perimeter edges, beams, pillars or adjoining masonry, position the ARMOFLEX 130 glass fibre technology mesh so that it is incorporated into the smoothing agent coat. Depending on the degree of finish required, smoothing should be carried out with a sponge trowel or with specific skimming compounds.

YIELD

As adhesive: 3-5 kg/m².

As smoothing agent: 1.4 kg/m² per mm of thickness.

RECOMMENDATIONS

- ◆ NEOFIL BLOCK is a cementitious product and as such all precautions for proper curing must be observed.
- ◆ The open time of NEOFIL BLOCK is variable depending on the environmental conditions at the time of installation: beating sun, dry wind and high temperatures can significantly reduce this time.
- ◆ Do not mix NEOFIL BLOCK with plaster, cement, sand or other materials.
- ◆ Protect the surface from frost for at least 5-7 days after laying.
- ◆ Wash all the equipment used for preparation and application of the product with water before it hardens. After setting, the mortar can only be removed mechanically.

PACKAGING

NEOFIL BLOCK is available in 25 kg polyethylene coated paper bags on 1500 kg pallets. Store the product in a dry place and in its original packaging, well closed. In these conditions its stability is of at least 12 months

SAFETY INSTRUCTIONS

The product contains cement that on contact with body perspiration produces an irritant alkaline and sensitising reaction for the skin. Use suitable clothing, gloves and protective glasses.

Consult the Safety Data Sheet for more information to use the product safely.

SPECIFICATIONS

High-strength laying and subsequent smoothing of cellular concrete and expanded clay blocks using a thixotropic mineral smoothing adhesive with high workability, conforming to Standard EN 998-1 for general purpose mortars for internal/external plastering of class CS III and Standard EN 998-2 for general purpose masonry mortars of class M 2,5, such as **NEOFIL BLOCK** by Colmef Srl, to be applied by notched trowel or trowel.

TECHNICAL DATA

Compliant with Standard:	EN 998-1 EN 998-2
Class according to EN 998-1:	GP-CS III
Class according to EN 998-2:	G-M 2,5
Appearance:	powder
Colour:	white
Volume mass EN 1015-10 (kg/m ³):	980
Mixing ratio:	6-6.5 litres of water for 25 kg of powder
pH value:	≥ 12
Maximum grain size (μ):	0-600
Workability time:	~ 3 h
Allowed application temperature:	from +5 °C to +35 °C

FINAL PERFORMANCE according to EN 998-1 and EN 998-2

	Requirements EN 998-1	Requirements EN 998-2	Results	Test method
Compressive strength at 28 days (N/mm ²):	CS I (da 0.4 a 2.5) CS II (da 1.5 a 5.0) CS III (da 3.5 a 7.5) CS IV (≥ 6)	Mortar class as per table 1 of the standard	3.64 (Cl. CS III) (Class M 2,5)	EN 1015-11
Flexural strength (N/mm ²):	-	-	1.73	EN 1015-11
Adhesion to the substrate (N/mm ²):	declared value and failure mode	-	≥ 0.13 (FP) B	EN 1015-12
Initial shear strength (N/mm ²):	-	tabulated value	0.15	EN 1052-3
Capillary water absorption (kg/m ² min ^{0.5}):	W _c 0 (not specified) W _c 1 (c ≤ 0.40) W _c 2 (c ≤ 0.20)	declared value	W _c 0 ≤ 0.47	EN 1015-18
Water vapour permeability coefficient (μ):	-	tabulated value	5/20	EN 1015-19
Thermal conductivity (λ _{10,dry}) (W/mK):	-	-	0.23	EN 1745
Chloride content (%):	-	< 0.1	< 0.01	EN 1015-17

DATA DETECTION AT +23°C - 50% R.H. AND IN ABSENCE OF VENTILATION

The information in this bulletin is based on our best experience. We cannot be held liable for any product misuse. We therefore recommend anyone who intends to use this product to assess whether it is suitable for the intended application and to perform preliminary tests in any case. Always refer to the latest updated version of the technical data sheet available at www.colmef.com.

FOR MORE INFORMATION OR PARTICULAR USES, CONTACT THE COLMEF TECHNICAL SUPPORT DEPARTMENT.

COLMEF SRL | Z.I. Ponte d'Assi | 06024 - Gubbio (PG) ITALY | Tel. +39 075923561 | info@colmef.com | www.colmef.com