

Pratiko

MINERAL THIXOTROPIC MORTAR, FIBRE-REINFORCED, COMPENSATED SHRINKAGE, WITH LOW ELASTIC MODULUS, FOR PERFORMING LOCALISED RESTORATION WORK IN DOWNGRADED CONCRETE, TO IMPLEMENT THICKNESS SMOOTHING OF GUARANTEED DURABILITY AND TO REGULARISE DETERIORATED PLASTERS. FOR INDOORS AND OUTDOORS.



TECHNICAL DATA SHEET - REV. 01/2022

DESCRIPTION

PRATIKO is a cement mortar with compensated shrinkage, consisting of high-strength hydraulic binders, siliceous aggregates, special additives and synthetic fibres. When mixed with water, it becomes an excellently workable mortar with a thixotropic effect, which can be applied in great thicknesses, even vertically without dripping. It has high adhesion characteristics on both plaster and concrete, good water impermeability, good resistance to sulphates, good resistance to carbonation. Once hardened, it has mechanical strengths that make it compatible with both deteriorating concretes and plasters to be repaired.

For thicknesses up to 30 mm for renovating plasters or smoothing and levelling cement screeds.

For thicknesses up to 50 mm for reconstruction of mouldings, edges, facades.

Conforms to European Standard EN 1504-3 (Non-structural structural repair) for non-structural mortar class R2 (PCC) according to the CR principle (concrete repair).

FIELDS OF APPLICATION

PRATIKO is used for the localised, non-structural restoration of degraded concrete surfaces both horizontally and vertically, for localised repair of damaged substrates prior to the installation of ceramic tiles, and for the rectification of out-of-plumb walls. It is suitable for reconstructing edges and mouldings in architectural renovation work (stringcourses, cornices, architraves or jambs in fine facades) and for levelling and subsequent smoothing of surface defects such as gravel nests.

SUBSTRATE PREPARATION

Carefully remove all deteriorated concrete or concrete in the process of detachment by spiking, down to a solid and consistent substrate. Clean the concrete and rebars by mechanical means (hydro-blasting or brushing) until all oxide on the bars, surface cement slurry and any other traces of dirt are removed. In the event of a reduction in the section of the rebars, supplement them with additional reinforcement rods. Any oxidised rebars must be treated appropriately. As soon as the product has completely hardened, wet the area to be restored to saturation with water, eliminating any stagnation when work begins.

In the case of reinforcing masonry walls, thoroughly scarify the bedding mortar of the stone segments or bricks, and wash with pressurised water to remove any residual dust or salt formations that may be present.

APPLICATION

To prepare the mixture, pour approx. 4.5 litres of clean water per 25 kg bag of PRATIKO into a container and mix until a homogeneous, lump-free mixture of thixotropic consistency is obtained. Allow to rest and stir briefly. Depending on the type of application, the mixing water can be slightly increased in order to optimise the application. The mortar remains workable for about 1 hour. The minimum applicable thickness per layer is approximately 8 mm and a maximum of 30-50 mm depending on the application.

The application can be done manually with a trowel or spatula for grouting, sealing, reframing and repairing edges and fronts. As it is characterised by a high thixotropy, it does not require formwork and can be applied in one or more passes until the desired thicknesses are achieved. For interventions on large or very thick surfaces, the insertion of collaborating metal reinforcements is recommended, in order to make the response to any stresses between the substrate and the mortar used for restoration homogeneous. To ensure proper adhesion, apply good pressure and rework the product with the trowel until perfect contact with the substrate is guaranteed, including the wrapping of any rebars. If a second coat needs to be applied, do so before the previous one has completed setting, but do not exceed 4 hours. At the beginning of setting, remove excess product and finish with sponge or metal trowel or plastic or wooden trowel to the required degree of finish.

YIELD

17 kg/m² per cm of thickness.

RECOMMENDATIONS

- ◆ Do not apply on frozen substrates, thawing or in anticipation of ice in the following hours.
- ◆ Do not work in temperatures below +5°C.
- ◆ After applying PRATIKO, avoid rapid evaporation of water, which could cause small surface cracks due to plastic shrinkage.
- ◆ Keep the surface moist during the first 24 hours by spraying water or covering it with waterproof sheets.
- ◆ Do not apply directly to previously levelled or painted cement surfaces, plaster or similar, wood, metal.
- ◆ Tools can be cleaned with water if the mortar has not yet hardened. After setting, it can only be removed mechanically.

PACKAGING

PRATIKO is supplied in 25 kg polythene 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 lasts at least 12 months.

SAFETY INSTRUCTIONS

The product contains cement that, in contact with body perspiration, produces an irritant alkaline and sensitising reaction for the skin. Use suitable clothing, gloves and protective glasses. Refer to the respective Safety Data Sheet for more information about how to use the product safely.

SPECIFICATIONS

Localised repairs of deteriorated concrete structures, thick skimming and levelling of deteriorated plaster prior to the installation of ceramic coverings or decorative finishes, with thixotropic, fibre-reinforced, compensated-shrinkage mineral mortar with a low modulus of elasticity, such as **PRATIKO** by COLMEF Srl, to be applied by trowel, smooth trowel or float.

TECHNICAL DATA

Compliant with Standard:	EN 1504-3
Class:	R2
Typology:	PCC
Appearance:	powder
Colour:	grey
Apparent specific weight (kg/m ³):	1300
Solid residue (%):	100
Mixing ratio:	~ 4.5 litres of water for 25 kg of powder
pH value:	≥ 12
Maximum grain size (mm):	1.2
Setting start time:	1.5 h
Setting end time:	4 h
Waiting time for application of second layer:	max 4 h
Waiting time for laying ceramic material:	24-48 h
Waiting time for painting:	48 h
Allowed application temperature:	from +5 °C to +35 °C

FINAL PERFORMANCE according to EN 1504-3 Class R2-PCC

	Requirements	Results	Test method
Compressive strength (MPa):	≥ 15	> 21.1	EN 12190
Flexural strength (MPa):	not required	> 5.7	EN 12190
Chloride ion content (%):	≤ 0.05	< 0.01	EN 1015-17
Direct Tensile Adhesion (MPa):	≥ 0.8	> 0.8	EN 1542
Resistance to carbonation:	$d_k \leq \text{control cls [MC(0.45)]}$	Pass	EN 13295
Elastic modulus in compression (GPa):	not required	15.1	EN 13412
Thermal compatibility - part 1 freeze-thaw Bond strength after 50 cycles (MPa):	≥ 0.8	> 0.8	EN 13687-1
Capillary absorption (kg/m ² ·h ^{0.5}):	≤ 0.5	< 0.25	EN 13057
Reaction to fire:	Euroclass	Class A1	EN 13501-1

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.

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