

Pratiko R3 Tixo

THIXOTROPIC MINERAL MORTAR, FIBRORINFORCED, WITH COMPENSATED SHRINKAGE, WITH LOW ELASTIC MODULE, FOR THE GUARANTEED DURABILITY RESTORATION OF DEGRADED CONCRETE STRUCTURES AND FOR THE RESTORATION OR CREATION OF STRUCTURAL PLASTERS ON WALLS. FOR INTERIORS AND EXTERIORS.



TECHNICAL DATA SHEET - REV. 01/2024

DESCRIPTION

PRATIKO R3 TIXO is a shrinkage compensated cementitious mortar based on high-strength hydraulic binders, selected aggregates, special additives and synthetic fibers. When mixed with water, it transforms into a highly workable mortar with a thixotropic effect, which can be applied in high thicknesses, even vertically, without pouring. It has high adhesion characteristics both on plaster and concrete, impermeable to water, resistance to sulphates and carbonation. Once hardened, it has mechanical strengths such as to make it compatible with concretes that are now in a deteriorating phase and with plasters to be repaired. For thicknesses up to 30 mm per coat.

Complies with the European Standard EN 1504-3 ("Structural non-structural repair") for structural mortars of class R3 (PCC) according to the CR principle (restoration of concrete).

FIELDS OF APPLICATION

PRATIKO R3 TIXO is used as a rough coat and as a plaster for the construction of structural reinforcements of masonry, for the repair of plasters to be restored, for the rectification of out-of-plumb walls, for the construction of cortical plasters on deteriorated concrete structures, for the reconstruction of corners and moldings in interventions for the architectural recovery of decaying structures such as string courses, cornices, architraves and jambs in prestigious facades. It can be used for restoring or preparing the substrate before applying a ceramic coating to both walls and floors. Also suitable for localized interventions for the reconstruction of balcony fronts, for the regularization of edges, for the filling and smoothing of gravel nests, for the execution of coves between wall and floor.

SUBSTRATE PREPARATION

Carefully remove all deteriorated or flaking concrete by ice picking, until reaching the solid and consistent substrate. Clean the concrete and the reinforcing rods with mechanical means (hydro-sandblasting or brushing), until the oxide present on the rods, the superficial cement laitance and any other traces of dirt are removed. In the event of a reduction in the section of the reinforcing rods, integrate them with additional rods. Any oxidized reinforcing rods must be suitably treated. As soon as the product is completely hardened, wet the area to be restored to saturation with water, eliminating any stagnation at the time of starting the work.

In the case of reinforcement of masonry walls, abundantly scarify the bedding mortar of the stone segments or bricks, wash with pressurized water to eliminate any residual dust or residues of salt formations that may be present.

APPLICATION

To prepare the mixture, pour approximately 4.5 liters of clean water into a container or concrete mixer for each 25 kg bag of PRATIKO R 3 TIXO and mix for a few minutes until a homogeneous and lump-free paste is obtained. Depending on the type of application, it is possible to slightly increase the mixing water in order to optimize workability. Leave the mixture to rest for 5-10 minutes, remixing it briefly before use. This mixture remains workable for about 1 hour at a temperature of +23 ° C.

The application can be carried out manually with a trowel for the realization of plasters, grouting, sealing, squaring and repair of edges and front panels, with a plastering machine for the realization of rough or structural plasters on masonry, for cortical plasters on concrete. Being characterized by a high thixotropy, it can be applied in one or more passes until the desired thickness is reached. For interventions on large surfaces or with high thickness, the insertion of collaborating metal reinforcements is recommended, to make the response to any stresses between the substrate and the mortar used for the restoration homogeneous. To ensure good adhesion, it is advisable to always apply a first coat as a rough coat to fully cover the surface and on a sufficiently hardened product, top up to the desired thickness. If a second layer needs to be applied, perform the operation before the previous one has completed setting. To smooth the surfaces, use metal lines on level strips for large surfaces, or a plastic or wooden trowel on small surfaces depending on the degree of finish required. For over-applications (osmotic cement, smoothing, painting) wait until the product is sufficiently dry (at least 7 days).

YIELD

18 kg /m² per cm of thickness.

RECOMMENDATIONS

- ◆ Do not apply on surfaces that are frozen, thawing or in anticipation of ice in the following hours.
- ◆ Do not work with temperatures below +5 ° C.
- ◆ After applying PRATIKO R 3 TIXO 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 on previously smoothed or painted cementitious substrates, on gypsum 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 R 3 TIXO is supplied in 25 kg polythene paper bags on 1500 kg pallets. Store the product in a dry place and in its original, tightly closed packaging. In these conditions its stability is 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 thickness restoration of concrete structures, rectification of cementitious substrates such as screeds or deteriorated plasters before laying ceramic coatings or decorative finishes, structural reinforcement of masonry, reconstruction of architectural moldings, repair of edges, localized reconstruction of front panels and cornices in concrete with fiber-reinforced mineral mortar, thixotropic, with compensated shrinkage, such as **PRATIKO R 3 TIXO** by COLMEF Srl, to be applied with a trowel or plastering machine.

TECHNICAL DATA

Compliant with Standard:	EN 1504-3
Class:	R3
Typology:	PCC
Appearance:	powder
Colour:	grey
Apparent specific weight (kg/m ³):	1800
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
End of setting time:	4 h
Waiting time for the application of the second layer:	max 4 h
Waiting time for laying ceramic material:	24-48 h
Waiting time for painting:	7 days
Allowed application temperature:	from +5 °C to +35 °C

FINAL PERFORMANCE according to EN 1504-3 Class R3-PCC

	Requirements	Results	Test method
Compressive strength (MPa):	≥ 25	> 28	EN 12190
Flexural strength (MPa):	not required	> 6,5	EN 12190
Chloride ion content (%):	≤ 0,05	< 0,01	EN 1015-17
Adhesion by direct traction (MPa):	≥ 1,5	> 1,5	EN 1542
Resistance to carbonation:	$d_k \leq$ control concrete [MC(0,45)]	Pass	EN 13295
Elastic modulus in compression (GPa):	≥ 15	> 22,4	EN 13412
Thermal compatibility - part 1 freeze-thaw Bond strength after 50 cycles (MPa):	≥ 1,25	> 1,5	EN 13687-1
Capillary absorption (kg/m ² ·h ^{0,5}):	≤ 0,5	< 0,37	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.

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