



TECHNICAL DATA SHEET  
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# GROUTMAX THIXO

## FIBRE-REINFORCED CEMENT

### Structural fibre-reinforced cement for concrete repair

GROUTMAX THIXO is a fibre-reinforced structural cement mortar for protecting and repairing concrete structures. Its physical and mechanical properties allow to correct large irregularities in the substrate with a rapid intervention. The product can be used for repairing reinforced concrete structures such as front panels of balconies, beams, columns, string courses, moldings, cornices and fairfaced concrete surfaces. It is easily applied using a continuous plastering machine, and is suitable for large surfaces such as drainage channels, dams, bridges, water pipes, tanks, containment structures made of reinforced concrete.

#### Composition

GROUTMAX THIXO is a premixed product made of special hydraulic binders, siliceous and calcareous aggregates, special glass fibres and additives that improve the quality of the product in terms of adhesion, mechanical resistance and workability.

#### Mixing and application

##### PREPARATION

GROUTMAX THIXO can be applied via mechanical projection using a plastering machine for premixed products or by hand. The substrates to repair must be stable, clean, solid, free of brittle parts, dust, bacterial proliferation, saline efflorescence, oil, grease, wax, residues of previous work etc. Remove via milling or hydro demolition the degraded parts. Remove any oxidation from the steelwork to be anchored by manual or mechanical cleaning. Apply the protecting coating PRIMAFER, let it dry for 4 to 6 hours.

##### APPLICATION


For manual application, mix the product adding approx. 5.0-6.0 liters of clean water to a 25 kg bag of GROUTMAX THIXO in a cement mixer. Add the correct amount of water, then the powdered product. Mix for about 2'-3' minutes until smooth and free of lumps. Apply the product using a trowel. The prepared product is usable with 45' minutes of mixing with water. For mechanical projection, apply the product evenly in a single layer, with a thickness of between 10 and 20 mm. To achieve greater thicknesses, proceed with the application in successive layers using the system "fresh on fresh". Level and finish the plaster layer with an aluminum screed bar. Remove any smudges or excess product by scraping and sanding. For thicknesses above 30 mm, we recommend the use reinforcement mesh anchored at an adequate distance from the media. Repair or consolidation mortar must be applied ensuring total coverage of the cavities and the incorporation of reinforcement bars. Level and finish the plaster layer with an aluminum screed bar. Remove any smudges or excess product by scraping and sanding. The prepared surfaces are then suitable for treating with finishing product.



## Recommendations

Do not apply in temperatures below + 5°C, in the presence of strong wind, rain or in direct sunlight. In summer months, the temperature when applying must not be above + 30°C. Do not apply to surfaces that are frozen, dusty, inconsistent or unstable. Apply thicknesses of between 10 and 50 mm. For thicknesses above 30 mm, use reinforcement anchored at an adequate distance from the media. Wet the substrates until saturated before applying product. Protect the applied product from frost and wait for complete drying before applying top coating or final decorations.

## Chemical characteristics

Appearance	Powder
Colour	Grey
Working time	~ 45' minutes
Dry bulk density	~ 1400 kg/m <sup>3</sup>
Maximum aggregate size	≤ 2.0 mm
Water content of mixture	20-24%
Mixing ratio	1 bag + 5-6 liters of water
Minimum application temperature	+ 5°C
Maximum application temperature	+ 35°C
Maximum thickness of application	10 mm
Maximum application thickness	50 mm
Density of fresh mortar	~ 2000 kg/m <sup>3</sup> (EN 1015-6)
Density of hardened mortar	~ 1800 kg/m <sup>3</sup> (EN 1015-10)
Compressive strength	≥ 25,0 MPa R3 Class (EN 12190)
Chloride ion content	≤ 0,05% (EN 1015-17)
Adhesion	≥ 1,5 MPa (EN 1542)
Elastic modulus	≥ 15,0 GPa (EN 13412)
Coefficient of thermal expansion	≤ 25,0 10 <sup>-6</sup> K <sup>-1</sup> (EN 1770)
Capillary absorption	≤ 0,5 kg m <sup>-2</sup> h <sup>-0,5</sup> (EN 13057)
Reaction to fire	A1 Euroclass (EN 13501-1)
Release of dangerous substances	See MSDS
LEED	Approved
Certification 	EN 1504-3:2005 Concrete repair product for structural repair CC mortar (based on hydraulic cement).
Shelf life	12 months from production date in its original packaging (unopened container) between 5° and 30° C in a cool dry place.
* indicative values, depending on the nature of the material and environmental conditions	



### Coverage

15 kg per m<sup>2</sup> per cm of thickness.



### Storage

12 months in original intact packaging and stored in a dry place.



### Packing

25 kg bags.

## Safety procedures

As far as the proper working procedures is concerned, we recommend to consult Material Safety Data Sheets issued according to E.U. rules and to follow your national laws concerning safety in the working place. MSDS is available on our web site [www.primaxbuild.it](http://www.primaxbuild.it)

## Trademark and Origin of the good

PRIMAX<sup>®</sup> is a registered trademark of Bellinzoni company. The law considers a trademark to be a form of property and any misuse can be persecuted by law. Bellinzoni s.r.l. declares that our product GROUTMAX THIXO is MADE IN ITALY.

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