



Family
Repair

Type
One-component structural thixotropic cement mortars

Product Lines
• Building
• Infratech

Functional Categories
• **Structural strengthening of masonry in historic buildings**
• **Repair and restoration of concrete structures with thixotropic mortars**

Components
Single-component

Appearance
Powder

REP.0352

REPAR TIX GS

Rheoplastic, structural thixotropic cement mortar for extensive thicknesses

Customs Code

3824 5090

Packaging

- Bag 25 kg
- Pallet: 50 x (Bag 25 kg)

Application

- Brick trowel
- Finishing trowel
- Shotcrete machine
- Plastering machine
- Spatula

General description

A structural and shrinkage-compensated thixotropic cementitious mortar with a maximum aggregate grain size of 5 mm, consisting of high-strength cements, super-pozzolanic fillers, stabilising additives and high-tenacity polypropylene microfibres. The coarse grain of the aggregate and the excellent workability of the mortar render REPAR TIX GS particularly suited to very thick volumetric structural restorations (with a depth of up to 50 mm per single coat applied) on reinforced concrete and masonry, even in environments with aggressive exposure (marine, industrial). It can be applied vertically or to the intrados of reinforced concrete structures, even of significant thickness, always in collaboration with the reinforcing rods, either manually or by spray, without the need for formwork and with wet curing for the first 48-72 hours.

General features

REPAR TIX GS, the thixotropic structural mortar for significant thicknesses, can benefit from the addition of 0.25% of FLUID SRA, a special additive able to reduce both plastic and hydraulic shrinkage. FLUID SRA protects the curing of the mortar and, mixed with REPAR TIX GS, can be considered as a technologically-advanced system able to reduce the rapid evaporation of water from mortar and promote the development of hydration reactions. Thanks to the interaction with certain cement components, FLUID SRA reduces final shrinkage by 20 to 50% compared with the standard values of REPAR TIX GS prepared with the addition of water alone.

Dosage

Approximately 19 kg/m² of REPAR TIX GS for every centimetre of thickness to be implemented (approximately 1900 kg per cubic metre).

Fields of application

For restorations, repairs, structural reclamations, reconstruction of concrete coverings, and the construction of reliable and durable coatings for construction, civil, hydraulic, industrial, concrete and masonry works in the event of extensive-thickness restorations.

Basic features

- | | |
|--|---|
|  Max. recommended thickness:
50 mm |  Maximum diameter of aggregate:
5 mm |
|  Min. recommended thickness:
15 mm |  Mix with water:
14 % |
|  Nonflammable |  Pot-life:
60 min |
|  Shelf-life:
12 months |  Temperature of use:
+5 / +35 °C |
|  Use wearing protective gloves |  UV-resistant |
|  Available colours
Gray | |

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Technical specifications

Bonding force (UNI EN 1015-12): >2.0 N/mm²

Capillary absorption (UNI EN 13057): 0.50 kg•h^{0.5}/m²

Compressive strength after 01 day (UNI EN 12190): >16 MPa

Compressive strength after 07 days (UNI EN 12190): >40 MPa

Compressive strength after 28 days (UNI EN 12190): >50 MPa

Darcy impermeability: 1 x 10 E-10 cm/s

Density: 2200 g/l

Flexural strength after 07 days (UNI EN 196): >7.0 MPa

Flexural strength after 28 days (UNI EN 196): >8.5 MPa

Flexural strength at 01 day (UNI EN 196): >3.5 MPa

pH: > 12.5 _

Static elastic modulus (EN 13142): 29.000 N/mm²

Water/binder ratio: 0.38 _

Tools cleansing

- Water

Applicable on

- Concrete
- Prefabricated concrete
- Bricks
- Mixed walls (bricks and stones)
- Stone walls
- Rock walls

Substrate preparation

The applicative surfaces must be clean, free from contamination or any loose or detached parts, dust, and so on, suitably watered down until it is "saturated with a dry surface". An adequate roughening of the surfaces by scarifying, sandblasting etc. is always necessary in order to obtain the maximum adhesion values to the substrate. The optimal values are obtained with high pressure hydro-scarification. Bare the irons undergoing disruptive oxidation or deeply oxidized, removing the rust of the exposed irons (by sandblasting or abrasive brushes). It is recommended to apply CONSILEX SAN consolidating realkalising agent to exposed surfaces in advance, prior to their restoration.

Instructions for use

Add two-thirds of the total mixing water (about 2.5 litres per bag) to the concrete mixer then gradually add the product and the remaining water until obtaining the desired mixture with a homogeneous consistency free from lumps. Ensure exposed surfaces are protected and wet-cured.

Adding BOND HG to the mixing water (about 0.5-0.7 kg per bag of product) offers significant improvements in terms of adhesion, adherence, waterproofing, workability, malleability and deformation capacity.

Storage and preservation

Store the product in its original packing, in a fresh and dry environment, avoiding frost and direct sunlight. Inadequate storage of the product may result in a loss of rheological performance.



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Warnings, Precautions and Ecology

The general information, along with any instructions and recommendations for use of this product, including in this data sheet and eventually provided verbally or in writing, correspond to the present state of our scientific and practical knowledge.

Any technical and performance data reported is the result of laboratory tests conducted in a controlled environment and thus may be subject to modification in relation to the actual conditions of implementation.

Azichem Srl does not assume any liability arising from inadequate characteristics related to improper use of the product or connected to defects arising from factors or elements unrelated to the quality of the product, including improper storage.

Those wishing to utilise the product are required to determine prior to use whether or not the same is suitable for the intended use, assuming all consequent responsibility.

The technical and characteristic details contained in this data sheet shall be updated periodically. For consultation in real time, please visit the website: www.azichem.com. The date of revision is indicated in the space to the side. The current edition cancels out and replaces any previous version.

Please note that the user is required to read the latest Safety Data Sheet for this product, containing chemical-physical and toxicological data, risk phrases and other information regarding the safe transport, use and disposal of the product and its packaging. For consultation, please visit: www.azichem.com.

It is forbidden to dispose of the product and/or packaging in the environment.

REPAR TIX GS is produced/distributed by



Via Giovanni Gentile, 16/A - 46044 Goito (MN), Italy
info@azichem.com Tel. +39 0376.604185 /604365 Fax +39 0376 604398



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