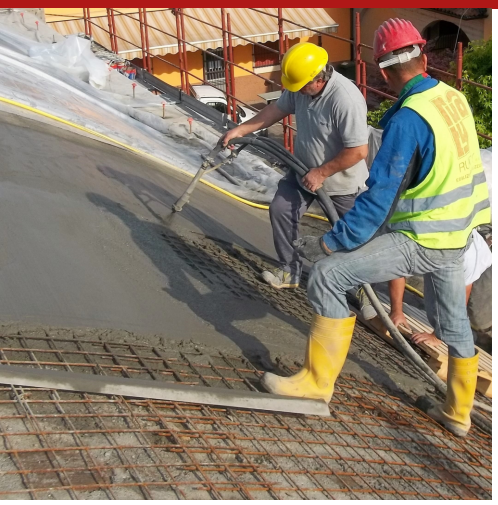
Repar Tix SFR

Structural thixotropic, shrinkage-compensated, reinforced fibre mortar



High-performance, thixotropic, structural cementitious mortar, fiber-reinforced with a mix of metal microfibers (length = 6 mm, diameter = 0.22 mm) and alkaline-resistant synthetic microfibers, used for the restoration and thickening of reinforced concrete structures and in masonry, even in severe exposure environments (marine, industrial, cyclically dry and wet).

CUSTOMS CODE: 3824 5090
COMPONENTS: Single-component
APPEARANCE: Powder
AVAILABLE COLORS: Gray
PACKAGING AND DIMENSIONS: Bag 25 kg - Pallet: 50 x (Bag 25 kg)

OBTAINED CERTIFICATIONS AND REGULATIONS

CE R4 EN 1504-3

FEATURES AND BENEFITS

Repar Tix SFR consists of special cements, silica fume, anti-shrinkage agents, specific additives and selected aggregates, high-performance in terms of adhesion, adherence, mechanical resistance, intrinsic watertightness, dimensional stability and overall hardness. Repar Tix SFR is added with a mix of amorphous metal fibres of 30 mm (≥0.9% by weight) and multifilament synthetic fibres of 6 mm (≥0.08% by weight).

FIELDS OF APPLICATION

Restorations, repairs and consolidations, even of considerable thicknesses and dimensions, on reinforced concrete and masonry structures. Reinstatement and reconstruction of the concrete cover on heavily deteriorated reinforced concrete works, even in particularly demanding and heavily stressed environments (marine, industrial, purification plants, hydraulic pipes). Reliable and durable structural consolidation of road structures (bridges, viaducts, tunnels, etc.). Reinforcement hoods on vaulted wall structures. Reinforcements and seismic adjustments in combination with structural glass fiber meshes from the ARMAGLASS line, Armaglass Connector glass fiber connectors, helical bars in Helix Steel AISI 304 stainless steel.

ALLOWED SUPPORTS

Plasters - Concrete - Cement-based or lime-based mortars - Prefabricated concrete - Mixed walls (bricks and stones)

PREPARATION OF SUPPORTS

Application surfaces should be clean, free of soiling, crumbling and non-adhering parts, dust, etc., conveniently saturated with water until they reach the condition "saturated with 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).

MODE OF USE

Pour about 2/3 of the mixing water into the mixer, add Repar Tix SFR and the remaining water; continue to mix until a homogeneous lump-free mixture is obtained. The mixing water should be about 20-22% of the weight of the bag. After mixing is completed wait a few minutes before applying. Place on site by rendering or using plastering /or shotcrete machines, use product quantities appropriate for the specific requirements of the construction site .

APPLICATION METHODS

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

TOOL CLEANING

Water

KEY FEATURES

- Dosage: 1.9 kg/dm³
- Maximum diameter of aggregate: 1.5 mm
- Mix with water: 20-22 %
- Pot-life: 60 min
- Temperature of use: +5 / +35 °C
- Max. recommended thickness: 50 mm
- Min. recommended thickness: 8 mm
- Nonflammable
- Shelf-life: 12 months
- Use wearing protective gloves

TECHNICAL SPECIFICATIONS

UNI EN 12190
Compressive strength after 1 day **≥ 25 N/mm²**

UNI EN 12190
Compressive strength after 28 days **≥ 70 N/mm²**

Breaking load longitudinal **3.8 N/mm²**

UNI EN 13036-4
Skid resistance **56.0 mm**

fR1 medium_ average residual strength after cracking (0.5 mm) EN 14651 **3.1 MPa**

UNI EN 1015-17
Chloride content **<0.01 %**

EN 13142
Static elastic modulus **24000 N/mm²**

Toughness class EN 14651 **3a**

UNI EN 13687-1
Determination of thermal compatibility **2.4 mPa**

UNI EN 12190
Compressive strength after 7 days **≥ 50 N/mm²**

UNI EN 196/1
Flexural strength after 28 days **≥ 9.5 N/mm²**

UNI EN 13295
Resistance to carbonatation **0.5 mm**

Resistance to the limit of proportionality (average value) EN 14651 **4.7 MPa**

fR3 medium_ average residual strength after cracking (2.5 mm) EN 14651 **1.6 MPa**

EN 13501-1
Reaction to fire **A1**

UNI EN 1015-12
Adhesion to substrate **2 MPa**

UNI EN 13057
Capillary absorption **0.48 kg•h^0.5/m²**

ASTM D 5887
Coefficient of permeability **10^{-12} m/s**

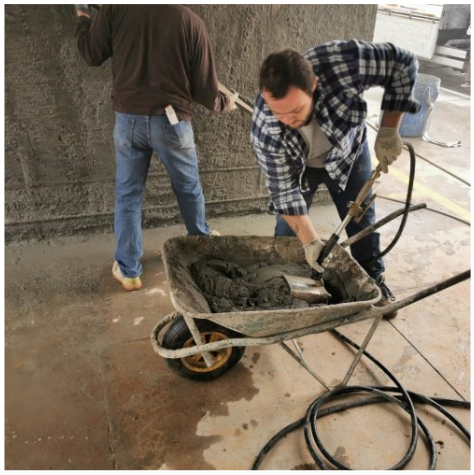
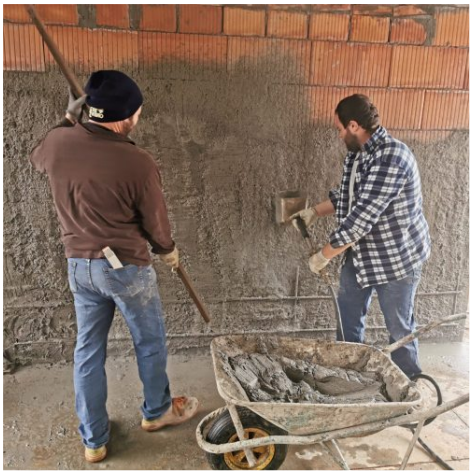
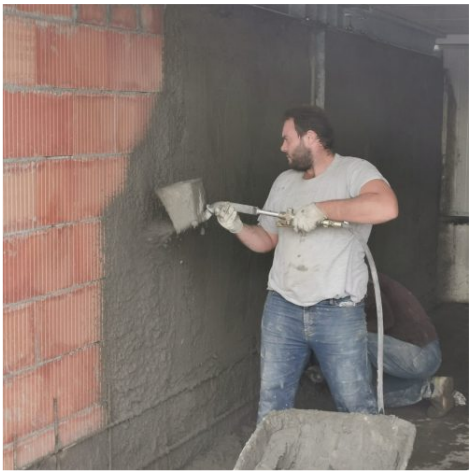
CONSUMPTION

Approximately 19 kg/m² of Repar Tix SFR for every centimetre of thickness to be implemented (approximately 1900 kg per cubic metre).

STORAGE AND CONSERVATION

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. Protect from humidity.

PHOTO GALLERY

ADDITIONAL CONTENT

WARNINGS AND PRECAUTIONS

Adopt the necessary care and moist hardening procedures of exposed surfaces that must be protected from rain, from direct sunlight, ventilation, etc.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.