

# Repar Tix R3

Anti-shrink, fibre-reinforced, structural thixotropic restoration mortar R3



Thixotropic, anti-shrinkage, fibre-reinforced repair mortar, suitable for the restoration of damaged concrete and for structural interventions on walls. Repar Tix R3 is a mortar based on hydraulic binders with a low content of soluble salts, superpozzolanic fillers, anti-shrinkage agents, selected aggregates in rational grain size distribution, high-performance synthetic microfibres.

**CUSTOMS CODE:** 3824 5090

**COMPONENTS:** Single-component

**APPEARANCE:** Powder

**AVAILABLE COLORS:** Gray

**PACKAGING AND DIMENSIONS:** Bag 25 kg

## OBTAINED CERTIFICATIONS AND REGULATIONS



## FEATURES AND BENEFITS

The special formulation of Repar Tix R3 gives high adhesion to the support and excellent pastic-thixotropic rheology which allows vertical or intrados applications of reinforced concrete and masonry structures without dripping and without the need for formwork. The mortar, obtained by mixing the premixed mixture with water according to the proportions indicated in the technical data sheet, is characterized by its resistance to carbonation and excellent physical and mechanical compatibility with normal concrete and load-bearing walls made of solid bricks or stone elements.

## FIELDS OF APPLICATION

Cortical rehabilitation of reinforced concrete structures with exposed metal reinforcement. Restoration of damaged concrete cover layer. Repair of edges of beams and pillars. Restoration of degraded fronts and balconies. Filling of rigid joints. Reinforced plastering and filling of cracks on load-bearing brick, stone or mixed walls (in these cases it is advisable to combine the Repar Tix R3 mortar with the fiberglass meshes of our ARMAGLASS line and the Armaglass Connector, Armaglass Connector Twin, Helix Steel connectors AISI 304 chosen according to specific design needs).

## ALLOWED SUPPORTS

Concrete - Mixed walls (bricks and stones) - Stone walls

## PREPARATION OF SUPPORTS

The application surfaces must be clean, free of dirt, crumbly and inconsistent parts, dust, etc., hydrowashed with water to the "saturated surface dry" condition. Adequate roughening of the surfaces through scarification, sandblasting etc. is always necessary in order to obtain maximum adhesion values to the support. Optimal values are obtained with high pressure hydroscarifying. Expose irons undergoing disruptive or deeply oxidized oxidation by removing rust from exposed irons (through sandblasting or abrasive brushes). It is advisable, on particularly degraded supports, to firstly apply Consilex San consolidating rekalizer to the exposed surfaces before restoring them. The surface tensile strength of concrete must not be less than 1.5 MPa, as established by EN 1504-10. If the fund does not have the suitable characteristics, it will be the designer's responsibility to evaluate the appropriate measures to be implemented. When the bottom cleaning operations involve the reinforcement, cleaning of the irons becomes mandatory followed by treatment of the clean steels with one/two brush coats of Repar Steel or Repar Monosteel.

## MODE OF USE

Pour 2/3 of the total mixing water into the concrete mixer (approximately 2.5 liters per bag), gradually add the product and the remaining water, until a homogeneous mixture of the desired consistency and free of lumps is obtained. In the case of small mixtures, use a drill with a triple helical whisk. Take care of the protection and wet curing of exposed surfaces. The addition of Bond HG to the mixing water (at a rate of approximately 0.5-0.7 kg for each bag of product) allows significant improvements in terms of adhesiveness, adhesion, waterproofness, workability, moldability and deformation capacity. High coating thicknesses, static and monolithic requirements, etc. may make it necessary to use adequate reinforcement (electrically welded mesh, etc.) anchored to the support with Syntech Profix or GROUT MICROJ or Repar Tix G2.

## APPLICATION METHODS

Brick trowel - Finishing trowel - Plastering machine

## TOOL CLEANING

Water

## KEY FEATURES

↔ Max. recommended thickness: 2 - 3 cm

→← Min. recommended thickness: 5 mm

⌚ Pot-life: 60 min

🌡 Temperature of use: +5 / +35 °C

☀ UV-resistant

⊘ MAX Maximum diameter of aggregate: 1.5 mm

🌀 Mix with water: 16 %

🕒 Shelf-life: 12 months

🧤 Use wearing protective gloves



## TECHNICAL SPECIFICATIONS

UNI EN 12190

Compressive strength after 7 days > **20 N/mm<sup>2</sup>**

UNI EN 196/1

Flexural strength after 7 days > **4 N/mm<sup>2</sup>**

UNI EN 13295

Resistance to carbonatation **5 mm**

UNI EN 13687-1

Thermal compatibility > **1.5 mPa**

UNI EN 13057

Capillary absorption **0.50 kg•h<sup>0.5</sup>/m<sup>2</sup>**

UNI EN 1015-17

Chloride content < **0.01 %**

pH > **12.5**

UNI EN 12190

Compressive strength after 28 days > **25 N/mm<sup>2</sup>**

UNI EN 196/1

Flexural strength after 28 days > **5 N/mm<sup>2</sup>**

EN 13142

Static elastic modulus > **20000 N/mm<sup>2</sup>**

UNI EN 1015-12

Bonding force > **1.5 N/mm<sup>2</sup>**

EN 13501-1

Reaction to fire **A1**

UNI EN 1015-6

Density **1960 kg/m<sup>3</sup>**

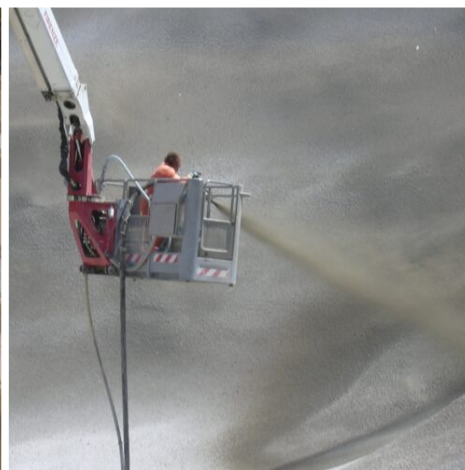
## CONSUMPTION

Approximately 17 kg/m<sup>2</sup> of Repar Tix R3 for each centimeter of thickness to be created (approximately 1700 kg for each cubic meter).

## 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



## WARNINGS AND PRECAUTIONS

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](http://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](http://www.azichem.com).

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

