

# Grout Micro Fix

Rheoplastic micromortar, pourable, injectable, anti-shrinkage



The high-performance pourable micro-mortar Grout Micro Fix is a premix specifically intended for reinforced injection with the "sock" technique used for the consolidation of wall structures. Its particular composition has been designed to work in perfect coupling with the sealing sock and the threaded bars of the system, thus guaranteeing the main performance requirements required for this wall consolidation technique: easy mixing, high fluidity, injectability through the pipes injection even for long stretches, sufficient workability time, excellent mechanical performance even at short curing times.

**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



## FEATURES AND BENEFITS

Grout Micro Fix achieves fluid and hyper-fluid workability even with very low water/cement ratios (< 0.4), thus resulting perfectly homogeneous, pourable, self-levelling and without water exudation phenomena. The very fine grain size of the aggregates allows the perfect filling of particularly narrow spaces and discontinuities (< 0.5 cm). The capillary absorption of the applied micromortar is very low, allowing great resistance to freeze-thaw cycles and washout. Grout Micro Fix achieves very high mechanical performance and is rich in microsilicas with pozzolanic activity and special additives which make it extremely durable even if positioned in particularly aggressive environments (due to chloride contamination in marine atmospheres). It is resistant to sulphate attack (Anstett test passed). The very fine binders, in combination with the special additives contained, allow Grout Micro Fix to develop exceptional values of adhesion to the steel and resistance to slipping of the bars with improved adhesion.

When anchoring steel bars, the advantages of using Grout Micro Fix are:

- application also on damp supports (a situation that often limits the use of traditional structural resins);
- high resistance to high temperatures (for example in the event of impact and fire) thanks to the nature of the anchor.

## FIELDS OF APPLICATION

Reinforced injections for wall consolidation with the "sock" technique. Anchoring and fastening of bars with improved adhesion, threaded bars, recovery bars for integrative castings, tie rods, connectors (metal or GFRP). Filling of structural cracks on concrete and masonry with crack width > 5 mm.

## ALLOWED SUPPORTS

Mixed walls (bricks and stones) - Stone walls - Rock walls - Porphyry and natural stones - Steel - GFRP



## PREPARATION OF SUPPORTS

Drill the masonry with a diamond core drill (the diameter of the core varies from 50 to 80 mm depending on the diameter of the threaded bar to be inserted). Blow with compressed air and vacuum the dust from the hole.

## MODE OF USE

### Mixing the micromortar

Pour 2/3 of the total mixing water into the concrete mixer, gradually add the product and, subsequently, the remaining water, mixing until a homogeneous mixture of the desired consistency is obtained. Grout Micro Fix can be mixed with different consistencies, from plastic to self-levelling pourable. With 12-13% of water (3.0 - 3.25 lt/25 kg bag) plastic consistencies are obtained, with 13-14% (3.25-3.5 lt/25 kg bag) consistencies pourable, with 14-16% (3.5-4.0 lt/25 kg bag) self-levelling fluid consistencies. Small volume doughs can be mixed with a double/triple helicoid whisk equipped with a speed regulator. Install by injection or pouring within 60' 30" of packaging. If the temperature, at the time of application, is between 0 and 5°C, the development of mechanical resistance will be slower. It is recommended, with cold temperatures, to use lukewarm mixing water between 20 ÷ 30°C. If the temperature, at the time of application, is between 30 and 35°C, it is advisable to use low temperature mixing water (5 ÷ 10°C) and to apply the product during the least hot hours of the day (approximately morning or evening).

### Creation of the sock system

Place the sock system inside the hole, making the injection tubes come out. Proceed with mixing the mortar and pumping through the injection pipe until it is completely filled.

## APPLICATION METHODS


Pour out - Injection - Pump


## TOOL CLEANING


Water


## KEY FEATURES

 Maximum diameter of aggregate: 0.50 mm

 Pot-life: 60 min

 Temperature of use: +5 / +35 °C

 Mix with water: 13 - 16 %

 Shelf-life: 12 months



## TECHNICAL SPECIFICATIONS

*UNI EN 12190*

Compressive strength after 1 day > **28 N/mm<sup>2</sup>**

*UNI EN 12190*

Compressive strength after 28 days > **85 N/mm<sup>2</sup>**

*UNI EN 196/1*

Flexural strength after 7 days > **11 N/mm<sup>2</sup>**

Steel bar extraction at a load of 75 kN (EN 1504/6) < **0.6 mm**

*UNI EN 1015-12*

Bonding force > **2.5 N/mm<sup>2</sup>**

Thermal conductivity **0.62 W/mK**

No bleeding according to UNI 8998

pH > **12**

*UNI EN 12190*

Compressive strength after 7 days > **70 N/mm<sup>2</sup>**

*UNI EN 196/1*

Flexural strength at 1 day > **7 N/mm<sup>2</sup>**

*UNI EN 196/1*

Flexural strength after 28 days > **12 N/mm<sup>2</sup>**

Darcy impermeability **10<sup>-10</sup> cm/s**

*EN 13142*

Static elastic modulus **25000 N/mm<sup>2</sup>**

*UNI EN 1015-6*

Density **2250 kg/m<sup>3</sup>**

*UNI EN 13057*

Capillary absorption **0.08**

*UNI EN 1542*

Chloride content **0.002 %**

## CONSUMPTION

Use approximately 1,800 kg of Grout Micro Fix for each cubic liter of volume to be filled.

## 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.

## 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.

