

## Grout 2 HP

Rheoplastic, structural, anti-shrinkage mortar with very high resistance



Grout 2 HP is a pourable, fiber-reinforced mortar, used for structural restoration operations, anchoring of steel bars and strands, reinforced micropiles, tie rods, riveting. The formulation contains very fine high-strength cements, micro-silicas with pozzolanic activity, aggregates in a rational granulometric curve (0.1 ÷ 1.8 mm), special antisegregative additives. The product is mixed with 11% -12% of water, working vigorously and prolonged mechanical mixing. The special formulation of Grout 2 HP gives the castings mechanical strength, fracture energy, exceptional durability and very high chemical-physical resistance.

**CUSTOMS CODE:** 3824 5090

**COMPONENTS:** Single-component

**APPEARANCE:** Powder

**AVAILABLE COLORS:** Gray

**PACKAGING AND DIMENSIONS:** Bag 25 kg - Pallet: 50 x (Bag 25 kg)

### FEATURES AND BENEFITS

Grout 2 HP has a workability time of about 60-90 minutes, after which the setting process is triggered followed by progressive hardening. The plastic and hygrometric shrinkage is extremely low thanks to the presence of Readymesh PM-060 multifilament synthetic fibers, which give volumetric stability. The performances that make Grout 2 HP unique are: • very high compressive mechanical strengths (> 90 MPa at 28 days), • very high mechanical resistance to bending-traction (> 12 MPa after 28 days), • excellent durability and resistance to chemical attacks.

### FIELDS OF APPLICATION

Grout 2 HP is used for structural restoration operations, anchoring of steel bars and strands, reinforced micropiles, tie rods, riveting. Particularly suitable in operations where high mechanical performance is required after short curing (compressive strength at 3 days > 60 MPa) and in operations carried out in severe exposure environments (XC - XS - XF), characterized by aggression from sulphates, chlorides and nitrates. The material can also be used for repairs in anchoring areas subject to high stresses.

### ALLOWED SUPPORTS

Concrete - Bricks - Steel

### PREPARATION OF SUPPORTS

The application surfaces must be clean, free of dirt, crumbly and incoherent parts, dust, etc., suitably saturated with water until reaching the condition of "saturated with dry surface". 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

It is strongly recommended, for optimal performance of site operations, to use a vertical axis mixer with planetary movement or a double horizontal helicoid. The powder is mixed with drinking water to the extent of 11% - 12%, referring to the total weight of the mortar (about 2.75 liters per 25 kg bag) until a homogeneous mixture is obtained. Mixing time: about 4 minutes with a high efficiency mixer. The anchoring can be filled with a single screw pump, for mortars. Pumping must be carried out at a controlled speed in order to ensure a low working pressure. In case of restorations, the surface must be protected, after application, by polyethylene sheets or anti-evaporation treatments.

## APPLICATION METHODS

Pour out

## TOOL CLEANING

Water

## KEY FEATURES

↔ Max. recommended thickness: 15 cm

→← Min. recommended thickness: 2 cm

🕒 Pot-life: 30 min

🌡 Temperature of use: +5 / +35 °C

🌀 Maximum diameter of aggregate: 2 mm

🌀 Mix with water: 11-12 %

🕒 Shelf-life: 12 months

☀ UV-resistant

## TECHNICAL SPECIFICATIONS

UNI EN 12190

> **35 N/mm<sup>2</sup>**

UNI EN 12190

Compressive strength after 28 days > **90 N/mm<sup>2</sup>**

Breaking load longitudinal **4 N/mm<sup>2</sup>**

UNI EN 13057

Capillary absorption **0.38 kg•h<sup>0.5</sup>/m<sup>2</sup>**

Setting time **3-4 h**

EN 13412

Static elastic modulus **30000 N/mm<sup>2</sup>**

UNI EN 12190

Compressive strength after 3 days > **60 N/mm<sup>2</sup>**

EN 196-1

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

UNI EN 13892-3

Wear resistance **0.8 cm<sup>3</sup>/50cm<sup>2</sup>**

UNI EN 1015-6

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

UNI EN 1542

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

Reaction to fire **A1**

## CONSUMPTION

Approximately 20 kg / m<sup>2</sup> of Grout 2 HP for each centimeter of thickness to be created (approximately 2000 kg for each cubic meter).

## STORAGE AND CONSERVATION

Protect from freezing. 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.



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Update of **04-07-2022**  
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**Total pages of this document: 3**

## PHOTO GALLERY



## ADDITIONAL CONTENT



## 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.

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Update of **04-07-2022**  
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