

## Grout CR

Castable, anti-leaching, shrinkage-compensated cement mortar



Composite, castable, anti-washout, controlled shrinkage cement mortar, superfluid consistency, based on high-resistance cements, superpozzolanic fillers (MICROSIL 90), polymeric modifiers, shrinkage resistant agents, specific additives, calcium silicate mineral fibres, selected silica aggregates.

**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

- Based on of thickened silica fume - three-dimensionally reinforced fibre with mineral and synthetic fibres - Provides high adherence and adhesion - dimensionally stable (shrinkage-compensated) - Provides high stability-physical chemical and resistance to chlorides and sulphates - suitable for underwater castings: it is anti-washout - high strength in terms of hydrostatic positive and negative thrust

### FIELDS OF APPLICATION

Repair and protective coatings of hydraulic structures, marine and underwater structures, and articles in critical situations: harsh chemical-physical, leaching water, marine atmosphere, etc. Filling of formwork for the containment of cast immersed in sea water.

### ALLOWED SUPPORTS

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

## PREPARATION OF SUPPORTS

In case of underwater application, the installation operations must be carried out within 8-10 hours of cleaning and "fouling" (accumulation and deposits of organic and inorganic particles on product surfaces) removal. 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 2/3 of total mixture water in the cement mixer, gradually add the product and the remaining water, until a homogeneous mixture of the required consistency is obtained. For sizable filling thicknesses, greater than 60 mm, Ghiaietto 6.10 (inert washed is selected with a particle size of from 6-10 mm) can be added in a percentage ranging from 20% to 40 %, on the basis of practical requirements. In some particularly demanding cases in terms of the resistance to the "dry-wet" cycle (for example, for the action of the tides) or for chemical attacks particularly strong, it would be advisable to add, in addition to the gravel, even thickened silica fume(MICROSIL 90), and in a variable amount depending on the thickness and construction-related need, to further improve the waterproofing and the mechanical strength of the product. In these cases, please contact our Technical Service. In the case of casts in water, make sure of perfect product hardening before removal of the formwork.


## APPLICATION METHODS

Brick trowel - Pour out - Finishing trowel - Pump - Spatula

## TOOL CLEANING

Water

## KEY FEATURES

- |  |   |
|--|---|
|  Highlighted product             |  Maximum diameter of aggregate: 5 mm |
|  Mix with water: 11-12 %         |  Nonflammable                        |
|  Pot-life: 120 min               |  Shelf-life: 12 months               |
|  Temperature of use: +5 / +35 °C |  UV-resistant                        |



## TECHNICAL SPECIFICATIONS

UNI EN 12190

Compressive strength after 1 day > **15 N/mm<sup>2</sup>**

UNI EN 12190

Compressive strength after 28 days > **80 N/mm<sup>2</sup>**

EN 196/1

Flexural strength after 7 days > **8 N/mm<sup>2</sup>**

UNI EN 13295

Resistance to carbonatation **0.5 mm**

UNI EN 13036-4

Skid resistance **54 mm**

pH > **12**

EN 13501-1

Reaction to fire **A1**

UNI EN 12390-8

Water penetration under pressure (5 bar for 72 hours) < **5 mm**

UNI EN 13687-1

Thermal compatibility  $\geq$  **2 MPa**

UNI EN 13057

Capillary absorption **0.15 kg·h<sup>0.5</sup>/m<sup>2</sup>**

UNI EN 12190

Compressive strength after 7 days > **60 N/mm<sup>2</sup>**

EN 196/1

Flexural strength at 1 day > **4 N/mm<sup>2</sup>**

EN 196/1

Flexural strength after 28 days > **11 N/mm<sup>2</sup>**

Resistance to the extraction of the steel bars with improved adhesion > **25 MPa**

UNI EN 13687-1

Determination of thermal compatibility **2.5 MPa**

UNI PdR 88:2020

Total recycled content  $\geq$  **4.8 %**

EN 13412

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

UNI EN 1542

Bonding force  $\geq$  **2 N/mm<sup>2</sup>**

UNI EN 1015-6

Density **2340 kg/m<sup>3</sup>**

UNI EN 1015-17

Chloride content < **0.01 %**

## CONSUMPTION

Approximately 20,50 kg/m<sup>2</sup> of Grout CR for every centimetre of thickness to be implemented (approximately 2050 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



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## 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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