



HERAGROUT RCC

Non-shrink, fiber-reinforced, thixotropic mortar for repairing concrete.



TECHNICAL FEATURES

HERAGROUT RCC is a single-component, fiber-reinforced thixotropic cementitious mortar, composed of high-strength cementitious binders, selected siliceous and carbonate mineral fillers, synthetic polymers and special additives, mixed together according to the quality standards of the **HERAKEM** research laboratory. The particular mineralogical composition of the product ensures restorations with high compactness and excellent dimensional stability, without the risk of cracks, lesions and cracks. The special fibers present in the mortar increase the thixotropic effect and constitute a real reinforcement armor, favoring the development of greater resistance to shrinkage in the plastic phase and consequently allowing the application of the product even at high thicknesses. Once hardened, **HERAGROUT RCC** has high adhesion characteristics to old concrete as well as good impermeability, high mechanical resistance to bending and compression, modulus of elasticity, coefficient of thermal expansion and vapor permeability all similar to a good quality concrete.

FIELD OF APPLICATION

HERAGROUT RCC is particularly suitable for the non-structural restoration of concrete surfaces, horizontal and vertical, internal and external. It can be applied with a spatula or trowel with layers of material in thicknesses ranging from a minimum of 10 mm to a maximum of 40 mm. **HERAGROUT RCC** is used for the volumetric reconstruction of the concrete cover of elements damaged by iron oxidation, such as the edges of pillars and beams, balcony fronts, cornices, moldings; for the regularization of surface defects such as gravel nests, casting joints, holes in the formwork spacers, outcropping irons. Also suitable for restoring surfaces subject to severe abrasion such as canals, industrial floors, ramps, etc.

PREPARATION OF THE SUBSTRATE

Remove all deteriorated concrete, deteriorated or flaking parts, cement laitance and any other traces of dirt, up to the solid and resistant substrate. Check the degree of "carbonation" of the substrate using a reagent called phenolphthalein which, in small drops placed on the surface, will reveal how far the removal of the concrete is pushed. Remove the substrate until the drop of phenolphthalein in contact with the concrete takes on a purple color, this reaction identifies the achievement of the ideal basic range for the restoration. Thoroughly roughen all mineral surfaces to be covered. Thoroughly clean the oxidized reinforcing rods with mechanical means (hydro-sandblasting or brushing) until the oxide present on the rods is completely removed and, before they become oxidized again, continue with the brush application of the **HERAGROUT FER** anti-corrosive passivating mortar taking care that the entire surface of the irons is completely covered. Thoroughly wet the area to be restored with clean water until the concrete is completely saturated, taking care, when starting the work, to eliminate any stagnation.

MIX PREPARATION

HERAGROUT RCC can be mixed with a cement mixer or with a low speed mixer, depending on the quantities to be prepared; it is not recommended to prepare the dough by hand. Mix with clean, fresh water in the ratio of 15 ÷ 17%, slowly adding the powder to the liquid until a homogeneous and lump-free mixture is obtained; it is recommended not to exceed the mixing times. Leave the mixture to rest for a few minutes and then mix again briefly. Please note: the water / dust ratio must be carefully observed to avoid excessive dimensional shrinkage and loss of mechanical strength. The mortar thus obtained can be used for about 60 minutes (time interval calculated at a temperature of about 22 ° C).

APPLICATION

The application is carried out with a spatula or trowel without the need for formworks even vertically; the maximum permissible thickness is 40 mm per layer. Apply **HERAGROUT RCC** after treating the irons with **HERAGROUT FER** and wet the previously roughened surfaces to excess. If necessary, apply a second layer of **HERAGROUT RCC**, carry out the operation before the previous layer has finished setting (no more than 4 hours at + 23 ° C). Smooth with a plastic trowel to eliminate micro-cracks and make the surface completely closed. After application, especially in hot periods and windy days, it is advisable to keep the work carried out moistened to ensure the complete maturation of the applied product, by nebulizing water on the surfaces.

CLEANING

The tools used for laying can be cleaned with water before the mortar hardens; subsequently, cleaning can only take place by mechanical removal.

ITEM OF SPECIFICATIONS

For the cortical restoration of reinforced concrete, apply a fiber-reinforced thixotropic mortar with controlled shrinkage, with normal setting times in compliance with the standard **EN 1504-3** class **R2-PCC** type **HERAGROUT RCC** by **HERAKEM Srl**, after adequate preparation and verification of the substrate. Consumption per cm of thickness 19 kg/m² per cm of applied thickness.

WARNINGS

- Operating temperature + 5 ° C / + 35 ° C;
- Apply only on surfaces with roughness greater than 3 mm;
- Apply only on surfaces previously wet to excess, avoiding creating stagnation;
- Do not add sand, cement or anything else;
- Do not apply on frozen or thawing substrates;
- Do not use the product if it is already hardening;
- Do not use for formwork casting and for fillings;
- Do not apply on painted or gypsum-based substrates;
- Do not apply on smooth concrete substrates, roughen the surface and add any contrasting irons;
- In order to ensure adequate protection of the metal reinforcements from the aggression of atmospheric agents, create a thickness of mortar with a concrete cover function of no less than 20 mm;
- Keep the bags in their packaging intact, away from the sun and away from humidity.

TECHNICAL DATA *(at +22±1°C and 55±5% R.H.)

Appearance	powder	Pot life of the mix	60 minutes
Density of the powder	approx. 1300 kg/m ³	Density of the mix	1950 kg/m ³
Grain size	≤ 3 mm	Waiting time between one coat and the other	max 4 hours
Solid residue	100%	Applicable thickness per coat	40 mm
Storage	12 months in original packaging	Minimum thickness	10 mm
Flammability	no	Compressive strength after 28 days	>30 MPa
Customs heading	38245090	Flexural strength after 28 days	>7 MPa
Consistency of the mix	thixotropic plastic	Adhesion to concrete	>1 MPa
Mixing ratio	17÷18 %	Compression elastic modulus	about 14 GPa

Consumption	19 kg/m ² per cm of applied thickness	Packaging	25 kg bag
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PRODUCT FOR PROFESSIONAL USE ONLY

All the data and indications given in this technical data sheet, although resulting from laboratory tests carried out and from our direct application experiences, due to the infinite number of variables linked to the construction site conditions, are to be considered, in any case, purely indicative. Therefore, before applying the product, the user is required to establish whether it is suitable for the use envisaged by him, in the specific hygrothermal and application conditions foreseen at the time of use and, in any case, he assumes all responsibility for it. We are not liable for damage to people or things deriving from improper use of the product. We reserve the right to modify the data contained therein as a result of improvements and technical progress.