

CONCRETE ROCK

Tech. Sh. FS31-33

**LINEA
FRP SYSTEM**

Technologies and
materials for consolidation



CE
EN 1504-3

Ready-mixed and ready-for-use cementitious compound no shrink mortars for patching, restoring of concrete

Description

CONCRETE ROCK is a non-shrink, fibre-reinforced product not containing expansible metallic substances or chloride, characterized by high mechanical resistance in short or long seasoning periods and suitable for restoration work in concrete (type V) structures, for anchoring purposes (e.g. metal supports, bars etc.) and application on the horizontal plane (type H). CONCRETE ROCK is marked CE according with EN 1504-3.

Uses

CONCRETE ROCK is a thixotropic, fibre-reinforced mortar, suitable for patching and/or restoration work in structures in concrete such as beams, pillars, slabs, sills and panels. This product is also suitable for sealing the folds/faults between brickwork and/or stone in ruined masonry and for the creation of reinforced slabs in static consolidation work in seriously weakened masonry. Concrete Rock V is suitable for application with C-NET carbon net and STEEL NET G steel fabric UHTSS in the cycles of concrete reinforcement SRG.

The CONCRETE ROCK H version is a fluid mortar suitable for patching in ruined flooring, for injection for the purpose of restoring and consolidating heavily damaged masonry and anchoring etc.

Advantages

With its particular formulation and with optimum grading aggregates, the product is characterized by its durability, impermeability and high degree of anti-carbonation and chemical and mechanical resistance. CONCRETE ROCK is free from shrinkage and bleeding. It can be applied in various thicknesses between 10 and 40 mm in once with the appropriate techniques (70 mm for CONCRETE ROCK H). It is characterized by excellent anchoring to cementitious supports and reinforcement bars (concrete thickness). For greater thicknesses the user is advised to contact the **G&P intech technical department**.

Technical data

	CONCRETE ROCK V	CONCRETE ROCK H
Sp. gr. of powder (g/cm ³)	1.75	1.95
Workability at 20°C (min)	>40	>40
Setting time at 20°C (start min)	120	>60
Resistance to compression 28 days (MPa)	50	70
E-modulus 28 days (GPa)	20	20
Adhesion test on concrete 28 days (MPa)	>2	>2.5
Min temp for use (°C)	5	5
Water ratio (% in weight)	15 -16	14 -15

Instruction for use

CONCRETE ROCK V

The surface to be covered must be thoroughly cleaned and any dust, loose material, grease or oil must be removed before applying.

Thoroughly clean with brushes any exposed reinforcement or support bars and wet the surfaces which are to come into contact with the product until totally soaked. In order to obtain saturation of support porosity (by suction) start this operation a few hours before application of the product.

Any excess water, at surface level or in cavities, must be removed, using compressed air and/or a sponge, immediately before application. Exposed reinforcement bars and structural metal must be treated with FERROSAN.

Mix together in a cement mixer the required quantity of water and product and keep stirring for 3 to 5 minutes. The amount of water used can vary according to the temperature and humidity of working environment.

Apply with a trowel when doing patching work or with a sprayer in the case of restoration of large surfaces.

When applied, keep the product protected and humid for the subsequent 24 hours to avoid rapid dehydration of the mortar.

CONCRETE ROCK H

Preparation of the supporting surface must be carried out as in the previous case.

For restoration work of concrete flooring a coat of RESIN 78 bonding resin must be previously applied in a quantity of 300-500 g/sq.m. After mixing, apply CONCRETE ROCK H and smooth over after a few hours.

For anchoring of tie-bars and plates etc., pour the product into the prepared holes or apertures.

In case of high thickness CONCRETE ROCK H can be mixed with aggregates at the rate of 30% maximum. Ask to the technical department of the company.

Yield

The average consumption of CONCRETE ROCK V is 18 Kg/m²/cm of thickness of applied product. CONCRETE ROCK H has a consumption of 20 Kg/m²/cm.

Colour

Cement grey.

Packing

25 Kg bags.

Caution

Avoid creating high-thickness vertical layers. If the weight of product becomes excessive, tearing and cracks may appear. Care must be taken when mortar is applied on windy or very hot days.

To avoid very rapid evaporation of the water it is necessary to keep surfaces humid and protected.

Do not apply CONCRETE ROCK when the temperature falls below 5°C or is likely to fall to such levels in the following 24 hours.

Storage

Shelf-life of 12 months when stored in the original sealed packaging in dry place.



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