

RC 340



One component multipurpose repair and patching mortar

- ▷ **Suitable for structural repairs up to 30 mm**
- ▷ **High mechanical strength**
- ▷ **High adhesion on concrete and primed tiles**
- ▷ **Thixotropic, easy application even on ceilings**
- ▷ **High resistance to ageing**
- ▷ **Ideal substrate prior to PLANOCOLOR SYSTEM**

Description

RC 340 is a ready to use cement-based, fiber reinforced, thixotropic mortar. It can be easily applied on horizontal and vertical surfaces for structural concrete repairs. It has high mechanical strength with adhesion to most construction materials and provide a smooth finish.

Certifications

CE marking with Declaration of Performance (DoP) C04378-CPR-2020402 as repair mortar for structural repair of concrete in buildings and civil engineering works, Class R3 according to EN 1504-3:2005.

VOC emission classification GEV-Emicode EC1^{PLUS}, license number 13735/14.02.20

Uses

RC 340 is suitable for:

- Concrete restorations on horizontal or vertical surfaces, Principle 3, Method 3.1 & 3.3
- Concrete repair and reprofiling, Principle 4, method 4.4 of EN 1504-9. Increasing the bearing capacity of the concrete structure by adding mortar
- Suitable for preserving or restoring passivity, Principle 7, Method 7.1 & 7.2 of EN 1504-9. Increasing cover with additional mortar or concrete or replacing contaminated or carbonated concrete
- Levelling ceilings, horizontal or /and vertical surfaces with a thickness of 5 – 30 mm in one single layer
- Spot restorations up to 50 mm – filling gaps and minor defects
- Substrate levelling prior to the application of PLANOCOLOR decorative coatings

Technical Data

Product Identity

Form	Powder
Color	Grey
Chemical substance	Portland cement, aggregates, special additives, fibers
Bulk density	1,6 ± 0,1 kg/L
Storage	12 months on dry area in the original sealed packaging

Application data (+23°C & 50% R.H.)

Mixing ratio	4,0 - 4,5 L of water for 25kg
Density of fresh mortar	2,0 ± 0,1 kg/L
Application temperature	from +5°C up to +35°C
Pot life	≈ 45 – 60 minutes at +20°C
Walkability	after 3-4 hours

Final performance according to EN 1504-3:2005

	Performance	Requirement	Method
Compressive strength	≥ 45 N/mm ²	≥ 25 N/mm ²	EN 12190
Flexural strength	≥ 8 N/mm ²	No requirement	EN 12190
Chloride ion content	≤ 0,02 %	≤ 0,05 %	EN 1015-17
Adhesive bond	≥ 2,0 N/mm ²	≥ 1,5 N/mm ²	EN 1542
Carbonation resistance	passes		EN 13295
Elastic modulus	≥ 22 GPa	≥ 15 GPa	EN 13412
Thermal Compatibility Part 1: Adhesion after freeze and thaw cycles	≥ 1,8 N/mm ²	≥ 1,5 N/mm ²	EN 13687-1
Capillary absorption	≈ 0,4 kg /m ² √h	≤ 0,5 kg /m ² √h	EN 13057
Dangerous substances (Cr6+)	Comply with 5.4		EN 196-10
Reaction to fire	A1	Class	EN 13501

Application Procedure

Substrate Preparation

Remove deteriorated and loose concrete parts until the substrate is solid, strong and rough with a minimum tensile strength of 1,5 N/mm². Surfaces must be clean, free of dust, dirt, oil, grease, rust and other elements that might compromise adhesion. Oxidized reinforcing steel must be recoated with NOVAFER, but after prior use Novamix RUST CONVERTER or cleaned by sandblasting or wire brushing in small surfaces. Cracks in the concrete must be bonded with the two-component epoxy adhesive NOVAMIX EPO FLUID. Before using RC 340, soak the substrate with water and remove excess by means of a sponge or air. For more information, please refer to the corresponding Product Data Sheets.

Preparation of the mix

Mix the content of the 25kg paper bag containing RC 340 with 4,0 - 4,5 liters of clean and fresh water by means of appropriate electrical stirrer at low speed for 3 min, until a uniform mortar free of lumps is obtained. During hot periods and in general, it is recommended to avoid direct sunlight exposure of the materials (in powder or liquid form) before use, otherwise the working time is reduced. For small quantities mixing can be performed also by hand.

Application

The mixture is applied by means of a flat trowel, in horizontal and vertical surfaces. The maximum application thickness is 30 mm per layer and for ceilings is 15 mm. When higher thickness is required, apply subsequent coats when the preceding layer starts to harden. The mortar should be applied within 1 hour from the start of mixing under normal conditions. After this period, do not try to mix again with water. Low temperatures extend the life of the mortar while high temperatures drastically reduce workability. After application of RC 340 it should be left to cure in a relatively moist environment. Protect the fresh mortar from rapid drying by suitable means. For smoothing surfaces prior to the application of PLANOCOLOR MICROCEMENT or PLANOCOLOR GRANULATES coatings it is recommended waiting 3-10 days depending on the application thickness. For applications of humidity stable coverings such as ceramic tiles usually 24-48 hours is enough.

Recommendations

- Avoid applications during direct sunlight exposure and/or strong wind and rain
- Apply only upon solid and well-prepared rough substrate
- Do not add water or additives once the mix starts to set
- Do not apply upon existing expansion or movement joints of the substrate
- Do not add cement, gypsum, lime or other materials that might affect the properties of the mortar
- Do not apply upon substrates subjected to rising humidity
- Do not exceed 30 mm in thickness per layer and 15 mm in case of applications on ceilings
- Do not apply when temperature of the substrate and environment is lower than +5°C and higher than +35°C
- Do not apply upon anhydrite-based substrates, metal surfaces or resilient substrates

- Always ensure that that humidity level is lower than what the covering requires
- Application must be done by professional applicators

Consumption

Consumption of RC 340 is 18 kg/m²/cm thickness.

Cleaning

Tools, buckets, tiles etc. can be cleaned with fresh and clean water as long as RC 340 mix is still fresh. After hardening occurs, cleaning can take place by mechanical means.

Storage

RC 340 remains stable for 12 months from production date inside its original sealed packaging, stored in protected dry area in temperature between +5°C and +35°C.

Packaging

Multi-layer paper bags of 25 kg or plastic bag of 5 kg

Safety instructions

For information and instructions regarding disposal and safe handling, users should refer to the latest Safety Data Sheet of the product containing ecological, toxicological and other safety related data.

Legal notes

The technical data and recommendations contained or listed in this leaflet are the result of laboratory measurements, of our current knowledge and experience. All the above-mentioned information and specifications should in any case be considered as indicative, as they may differ from each other. The Company makes every effort to ensure the accuracy of the information provided herein. Product specifications, prices and availability are subject to change without notice and may differ from those shown.

In practice, variations in materials, substrates and on-site implementation conditions are such that no warranty can be given or implied, as to the merchantability or suitability of the materials for a particular purpose and for the exact conditions of each project. Anyone interested of using the product must be sure beforehand that the product is suitable for the intended use and in any case, the user is solely responsible for any consequences due to the use of the product. Among other things, the Company is not responsible for any normal wear or tear from environmental or other inappropriate conditions. We reserve the right to revise or change the data herein without prior notice. Restrictions and disclaimers apply to the extent permitted by applicable law. The Company has a Technical Support Department, which is the only one responsible for providing technical advice and solutions to deal with problems. Requests to the Technical Support Department are addressed and answered, only in writing.

For the latest and a valid version of the Technical Data Sheet, the user of the material must refer to our website www.novamix.gr or directly to the QR Code of the product.



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