

TECHNICAL DATA SHEET

R3 RESIN REINFORCED MORTAR

DESCRIPTION

PROLAT's **R3 RESIN REINFORCED MORTAR** is a resin-based, fiber-reinforced fast-setting repair mortar with high mechanical strength. It is non-shrinkable, suitable for 2-40mm layers. Its special composition gives it thixotropic behavior so that no molding is required on the vertical surfaces.

It is classified as PCC R3 type concrete repair mortar, according to EN 1504-3 standard.

APPLICATION AREAS

Ideal for the restoration of concrete surfaces as well as the cross-sections of concrete structural elements that have failures (nests, pores, small imperfections in corners and edges) or have suffered mechanical damage. It is suitable for the repair and filling of both vertical and horizontal surfaces such as floors, building facades, corners, beams with damage resulting from poor workmanship, impacts or oxidation of reinforcement as well as filling columns and walls by injection into formwork.

APPLICATION INSTRUCTIONS

Surface preparation

The cement mortar or concrete being repaired should be clean, structurally sound and free from dust, dirt, oil, grease or other materials that reduce adhesion. The substrate should be prepared by suitable mechanical means such as water blasting, sandblasting and the aggregates of the concrete should be visible. The steel should be free from rust, concrete residues, oils, greases, dusts and in general anything that can reduce adhesion or contribute to the oxidation of the reinforcement. In case there is oxidation on the surface, carefully clean with mechanical means until the rust is completely removed. Protect the cleaned reinforcement from oils, dusts and other contaminants before applying the mortar

Application

Mix the **R3 RESIN REINFORCED MORTAR** with an electric hand mixer at low speed (~ 300 r.p.m.) or with another mechanical mixer. Pour the appropriate amount of water into the mixing container and while slowly mixing, add the powder to the water and mix well for at least 3 minutes. Add additional water during mixing until a homogeneous, lump-free mixture is formed. 25 kg of dry mortar require 6.5-7.0 lt of water, depending on the desired workability.

Before applying the mortar, the surface should be soaked to saturation point and the water trapped in cavities removed with the help of a sponge. First apply a thin layer in such a way that cracks, holes and cavities are filled. Then apply the **R3 RESIN REINFORCED MORTAR**, condensing it well and to a thickness of 40mm. If additional layers are desired, apply them as soon as the previous one begins to dry to the point where the mortar does not stick to the hand.

CONSUMPTION

15kg/m²/cm

CLEANING

Clean the tools immediately after use with water.

STORAGE

12 months from the date of production in unopened package kept in a dry place

SAFETY

Read carefully the label of the product before use. Detailed instructions regarding hazards and safety are provided in the Safety Data Sheet, which is available upon request.

PACKAGING

25kg paper bag/1350Kg pallet.

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Technical Data (Measurement conditions 23°C and 50% R.H.):

Form	cementitious powder	Coherence	193 mm
Color	Grey	Compressive strength	27,2 N/mm ²
Water demand	7lt/25kg	Adhesion strength (28 days)	1,6 N/mm ²
Application temperature	from 5 °C to 35 °C	Flexural strength:	7,36 N/mm ²
Pot life	2hr	Thermal compatibility (50 freeze-thaw cycles)	≥ 1.5 MPa
Consumption	15kg/m ² /cm	Chloride ion content	≤ 0.05%
Specific gravity of dry mortar	1500 Kg/m ³	Elastic modulus	≥ 15 GPa
Specific gravity of wet mortar	1600 Kg/m ³	Capillary water absorption	≤ 0,14 kg/m ² min ^{0,5}
Application thickness	3-4 cm	Reaction to fire	Class A1
Carbonation resistance	Pass		



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NOTICE

The technical information and instructions provided in this datasheet referring to the application and end use of PROLAT products are based on the company's expertise and experience with the products to date. They are provided in good faith under the condition that the products are stored, used, and applied in accordance with PROLAT's instructions. However, given our inability to directly oversee conditions at construction sites or during product application, the company cannot guarantee the suitability of its products for specific purposes, nor does it assume any legal responsibility based on the information provided in this brochure, whether written, oral, or otherwise communicated. Users are advised to conduct a small test to assess the suitability of the products for their intended application and purpose of use. The company reserves the right to modify the properties of its products without prior notice.

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PROLAT S.A. Production of Minerals and Mortars Afroditis 50 - P. Faliro, PC:175 61, Greece DoP No: 033-PROLAT-CPR
EN 1504-3:2005 NB: 0437 R3 RESIN REINFORCED MORTAR Concrete repair product for structural repair PCC mortar (based on hydraulic cement, polymer modified) Compressive strength: class R3 Chloride ion content: ≤ 0.05% Adhesion: ≥ 1.5 MPa Carbonation resistance: Pass Elastic modulus: ≥ 15 GPa Thermal compatibility part 1: ≥ 1.5 MPa Capillary absorption: ≤ 0.5 kg·m⁻²·h^{-0.5} Dangerous substances: comply with 5.4 Reaction to fire: Euroclass A1