



STRUTTURA RASO FINO - RF 248

STRUCTURAL, SINGLE-COMPONENT, POLYMER-MODIFIED, MEDIUM-FAST-SETTING
MORTAR WITH SYNTHETIC FIBRES FOR REHABILITATION, SMOOTHING AND FINISHING
OF CONCRETE ELEMENTS

CODE RF248-25
25 kg bag



STRUTTURA RASO FINO - RF 248 is a mortar suitable for rehabilitation, smoothing and finishing work on degraded concrete elements in infrastructural, road, railway, civil, industrial and hydraulic structures.

It has excellent compressive and flexural strengths, good adhesion to substrates, high thixotropy, excellent resistance to weathering and freeze-thaw cycles, and a good finish.

It can be used for localised applications where is necessary to reconstitute the concrete cover of reinforcement, reconstruct beam and column edges, balcony frontal surfaces, stringcourses, cornices and mouldings, correct slight imperfections, air bubbles that came to the surface during casting, voids caused by poor concrete compaction, lack of flatness, lack of cover.

It may be applied by hand and by suitable spraying machine after mixing. Thickness may varies from 1 mm to 3 mm in one or two coats with possible application of glass fiber mesh.

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INFORMATION FOR USE

Average consumption	1.5 kg/m ² for each mm of applied thickness
Color	Grey
Mixing Water	22 - 24% (5.5 - 6.0 liters per 25 kg bag)
Granulometry	≤ 0,6 mm (EN 12192-1)
Minimum layer thickness	1 mm
Maximum layer thickness	3 mm
Maximum overall thickness	10 mm
Application temperature	+ 5 °C / + 35 °C
Resting time of the mixture	5 min
Mixture lifespan	3 hours
Packaging	Polyethylene-lined paper bag of 25 kg
Storage	12 months in the original, intact packaging and protected from moisture.

PERFORMANCE CHARACTERISTICS

STRUTTURA RASO FINO - RF 248 meets the performance requirements specified in the European standard **EN 1504-3** for structural repair products for concrete of class **R3** and **PCC** (polymer-modified cement) repair mortars.

Properties	Value	Test Method
Bulk density of hardened products	1,5 kg/L	EN 12190
Chloride ion content	≤ 0,05 %	EN 1015-17
Elastic modulus	16,1 GPa	EN 13412
Adhesion to concrete at 28 days	≥ 2,0 MPa	EN 1542
Thermal compatibility - Freeze -thaw cycles with de-icing salts - after 50 cycles (measured as adhesion according to EN 1542)	≥ 2,0 MPa	EN 13687-1
Thermal compatibility - thunder-shower cycling (Thermal shock cycles) - after 30 cycles (measured as adhesion according to EN 1542)	≥ 2,0 MPa	EN 13687-2
Thermal compatibility - Dry thermal cycles - after 30 cycles (measured as adhesion according to EN 1542)	≥ 2,0 MPa	EN 13687-4
Capillary absorption	≤ 0,1 kg·m ⁻² ·h ^{-0,5}	EN 13057
Thermal conductivity (λ) - tabulated value	0,93 W/m·K	EN 1745
Compressive strength at 1, 7, and 28 days	≥ 12,0 / 28,0 / 40,0 MPa	EN 12190
Flexural strength at at 1, 7, and 28 days	≥ 4,0 / 7,0 / 8,0 MPa	EN 196-1
Accelerated carbonation resistance	Test passed	EN 13295
Reaction to fire	Class E	EN 1504-3

METHOD OF USE

SUBSTRATE PREPARATION

The substrate must be clean and free of loose parts. Wash and lightly roughen the application surface through sandblasting or hydro-sandblasting until all powder, salts and residues of previous concrete processing have been removed. If the surface shows slight dusty flaking due to surface friability of the concrete, consolidate beforehand. Moisten the surface before the application.

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When rehabilitating iron coverings on exposed reinforcement, it is always necessary to remove rust from exposed or surfacing reinforcement by wire brushing or sandblasting. Treat surfacing reinforcement bars with **INTEGRA FERRO - FR 718** or **INTEGRA FERRO - FR 720** (passivating coatings by **Fibre Net SpA**) applied in two coats.

The saturation of the substrate is a fundamental condition to ensure the best adhesion of the mortar.

MIXING

Do not begin mixing the product if the ambient or substrate temperature is below 5°C or above 35°C.

STRUTTURA RASO FINO - RF 248 shall be mixed with approximately 5.8 liters of clean water per 25 kg until obtaining a homogeneous lump free mixture of an adequate consistency is obtained. It is advisable to first add about 2/3 of the total water, introduce the contents of the bag into the container, and after initial homogenization of the mixture, add the remaining amount of water.

Allow the batch to slake for about five minutes, stir briefly, and apply using a spatula to the surface to be finished or spray using a piston or auger mixer/spraying machine (do not use normal continuous plastering machine).

APPLICATION

STRUTTURA RASO FINO - RF 248 - When applied by hand, spread two coats of the product, the second one about 5 hours after the first one. If applied by spraying, proceed with a single coat with a thickness of 2 - 3 mm, then smooth using a steel American trowel.

Finally finish with a sponge trowel. If the substrate to be levelled is uneven and has variations in thickness, it is advisable to incorporate A.R. fiberglass mesh into the first coat.

CURING

After the product has set, take care of the application by spraying water spray onto the surface at regular intervals within the first 24 - 48 hours after work.

FINISHING

21 days the application of **STRUTTURA RASO FINO - RF 248** mortar, it is possible to paint and varnish.

SAFETY INSTRUCTIONS

During handling and application, wear protective clothing, gloves, goggles, and dust masks. In case of skin contact, wash with soap and water. If in contact with eyes, rinse thoroughly with water and seek medical attention if irritation persists. For safety information and guidance on product usage and storage, the user should refer to the latest Safety Data Sheet.

WARNINGS

Do not apply at temperatures below +5°C or above +35°C.

Do not apply on frozen substrates or substrates subject to frost in a period of less than 24 hours.

Do not apply on gypsum, loose, or crumbling surfaces.

Do not execute overall thicknesses of more than 10 mm.

Do not add any kind of materials, aggregates, and/or complementary materials to the product, nor resume mixing the mixture if the product is hardening, as this may compromise its characteristics.

Do not apply on large surfaces without providing contraction joints.

Avoid letting the product dry excessively and/or rapidly, and prevent application in strong wind or excessive sunlight.

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SPECIFICATION ITEM

STRUTTURA RASOFINO - RF 248 - Pre-mixed, polymer-modified, synthetic-fiber-reinforced cement-based mortar for smoothing and finishing work on degraded concrete elements of infrastructural, road, railway, civil, industrial and hydraulic structures.

Applicable manually and by using a suitable spraying machine after mixing. Thickness ranges from 1 mm to 3 mm per layer, for an overall thickness of up to 10 mm, with the potential application of fiberglass mesh. The product meets the performance requirements specified in the European standard **EN 1504-3** for structural repair products for concrete using repair mortars of **R3** class and **PCC** type (polymer-modified hydraulic cement). Additionally, the product must comply with the detailed requirements outlined in the "**Performance Characteristics**" table.

For further information on specification sections, cost analysis, construction details, and maintenance plans, please contact the Technical Department of Fibre Net SpA.

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