



MATERIA RINFORZA - RZ 220

ECO-FRIENDLY MORTAR BASED ON HYDRATED LIME AND HYDRAULIC BINDERS DESIGNED FOR THE CREATION OF STRUCTURAL REINFORCED PLASTER. IDEAL FOR REINFORCING MASONRY OR BRICK ELEMENTS AND FOR LEVELLING STONE MASONRY SUPPORTS.

CODE RZ220-25
25 kg bag



MATERIA RINFORZA - RZ 220 is a highly workable and breathable mortar designed for application on new facades as well as historic and traditional masonry.

It can also be used for localized repair operations (patching, stitching) and for the construction of both exterior and interior walls according to the characteristics of their respective classes. Thanks to its compatibility and breathability, it ensures the maintenance of the thermo-hygrometric balance of masonry, following the principles of green building.

Its compressive strength, low elastic modulus, and high adhesive capacity make it particularly suitable for applications where a mortar with high bonding capacity and good mechanical resistance is required, compatible with low-grade masonry. It is applicable for both exterior and interior walls according to their respective class characteristics.

It can be applied by hand or using a suitable spraying machine after mixing. Thickness ranges from 8 mm to 30 mm.

Compatible for use with:

- Fibre Net's RI-STRUTTURA system;
- Fibre Net's C-MATRIX system;
- Fibre Net's H-PLANET system.



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INSTRUCTIONS FOR USE

Average consumption	14 kg/m ² per each cm
Mixing water	17/18 % (4,25/4,5 liters per 25 kg bag)
Granulometry	≤ 1,5 mm
Minimum thickness per layer	8 mm
Maximum thickness per layer	30 mm
Application temperature	+ 5 °C / + 35 °C
Packaging	25 kg bag
Storage	12 months in original, intact packaging, and protected from moisture

PERFORMANCE CHARACTERISTICS

MATERIA RINFORZA - RZ 220 meets the performance requirements set by the European standard **EN 998-1** for Renders for internal and external plastering for general use (GP) and those required by **EN 998-2** for Masonry mortars.

Properties	Value	Testing method
Class and type	CS IV - GP	EN 998-1
	M20	EN 998-2
Appearance	Powder	Internal method
Color	Whitish	
Apparent bulk density	1,80 ± 0,1 kg/L	
Apparent bulk density of the mixture	1,80 ± 0,1 kg/L	EN 1015-6
Operating temperature	-30 °C / +90 °C	
Application	Mechanical/Manual	
Water absorption by capillarity	$W_2 \leq 0,2 \text{ Kg/m}^2 \cdot \text{h}^{0,5}$	EN 1015-18
Water vapor permeability	15 /35	EN 1015-19
Compression strength - 28 days	≥ 20 MPa	EN 1015-11
Flexural strength - 28 days	≥ 4,0 MPa	EN 1015-11
Adhesion to brick substrate	≥ 0,5 MPa (FP: A)	EN 1015-12
Adhesion to concrete substrate	≥ 1,0 MPa (FP: A)	EN 1015-12
Elastic modulus in compression	≤ 15 GPa	EN 13412
Chloride content	≤ 0,05 %	EN 1015-17
Thermal conductivity λ_{10dry} (P = 50 %)	0,83 W/m · K	EN 1745
Fire reaction euroclass	A1	EN 13501-1

METHOD OF USE

USE AS TILE GROUT

PREPARATION OF THE SUBSTRATE

Assess the absorption of the bricks and/or blocks used and, if necessary, wet them before use. Also, verify the compatibility of the elements to be used in combination with the mortar.

MIXING

The preparation can be carried out using a mixer, drill, or horizontal manual mixer, with the addition of 17/18% clean water (4.25/4.5 liters per 25 kg bag), or with automatic dosing in the case of using plastering machines for premixed materials.

PRODUCT USAGE

As tile grout, the application thickness should be between 5 mm and 10 mm. It is also suitable for concrete or brickwork repair and patching, forming fillets at wall to floor junctions.

USAGE AS PLASTERING MORTAR

PREPARATION OF THE SUBSTRATE

The substrate must be solid, clean, and free from friable parts, dust, and salt efflorescence. Otherwise, proceed to remove all parts and substances that may affect the adhesion of the product. Any cracks and cavities in the substrate must be filled and patched before application. Before application, especially in the presence of high ambient or wall temperatures, saturate the substrate with water, removing any excess water afterwards.

If necessary, apply a non-covering slurry at least 24 hours before applying the mortar.

MIXING

The preparation can be done using a mixer, drill, or manual horizontal mixer, with the addition of 17/18% clean water (4.25/4.5 liters per 25 kg bag), or with automatic dosing in the case of using plastering machines for premixed materials.

APPLICATION METHOD - INSTALLATION INSTRUCTIONS

The mortar can be applied with a suitable pump for traditional mortars and with a trowel, following the normal rules and precautions required for plastering and masonry mortars. If the use of F.R.P. (Fiber Reinforced Polymer) reinforcement systems such as Fibre Net is planned, adhere to the manufacturer's system instructions, ensuring that the net is embedded in the middle of the plaster layer.

When used as plastering mortar, the minimum thickness is 8 mm, and the maximum thickness is 30 mm per layer.

For thicknesses greater than 30 mm (even localized ones), consider using anti-shrinkage mesh to counteract the onset of cracks and apply the product in layers, applying the next layer over the previous one without smoothing it with a trowel.

SMOOTHING

In the case of plastering, if a smoother finish is required, it is possible to apply lime-based skim coats with different granulometry, following the instructions provided by the respective manufacturer.

CURING

To ensure proper curing of the plaster, especially when the application surface is exposed to sunlight or wind, mist water onto the exposed surface in the first 48 hours.

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FINISHING

If you prefer to apply only one layer of paint, wait approximately 7 days for each cm of plaster thickness before applying the coating. If no form of decoration is planned, in the case of exposure to rain, protect the plaster with a transparent, breathable, and water-repellent treatment.

SAFETY INSTRUCTIONS

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

WARNINGS

Do not apply at ambient temperatures and substrate temperatures below +5°C or above +35°C. Do not add cement, lime, or aggregates. Wet the substrates during hot periods. Protect the mortars from frost, high temperatures, excessive sunlight, and wind during the curing period. Store in a dry place.

SPEIFICATION CLAUSE

MATERIA RINFORZA – RZ 220 is a pre-mixed structural mortar based on hydrated lime and cement, highly breathable, with compressive strength ≥ 20.0 MPa, and compliant with UNI EN 998-1 class CS IV and UNI EN 998-2 class M20 in system 2+, compatible with consolidation systems according to the RISTRUTTURA and H-PLAN systems - Composite Reinforced Mortar (C.R.M.) technique for gravitational, wind, and seismic actions, and with the C-MATRIX system for finishing and leveling internal and external surfaces of buildings.

For further information on specification clauses, cost analysis, construction details, and maintenance plans, please contact our Technical Office.

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