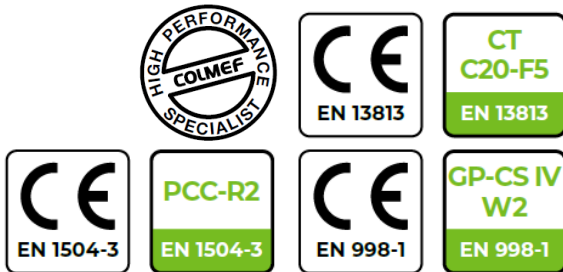
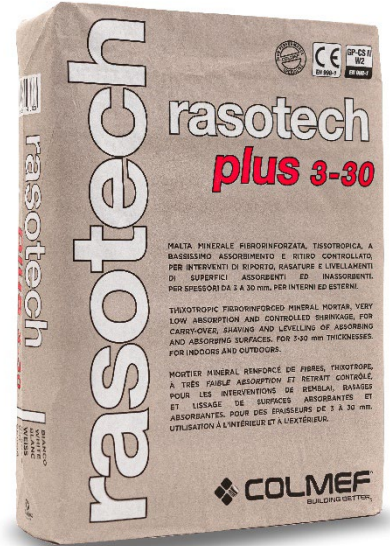


Rasotech Plus

3-30 mm

FIBER-REINFORCED MINERAL LEVELING MORTAR WITH EXCELLENT ADHESION, THIXOTROPIC, CONTROLLED SHRINKAGE, FOR HIGH-THICKNESS BUILD-UP AND SKIM COATING ON BOTH HORIZONTAL AND VERTICAL CEMENTITIOUS SURFACES, INCLUDING SURFACES DECORATED WITH COLORED COATINGS. APPLICABLE FROM 3 TO 30 mm. FOR INTERIOR AND EXTERIOR USE. HIGHLY WORKABLE, SHAPABLE PRODUCT SUITABLE FOR NON-STRUCTURAL REPAIR OF CONCRETE ELEMENTS.



TECHNICAL DATA SHEET - REVISION 01/2024

DESCRIPTION

RASOTECH PLUS 3-30 mm is a fiber-reinforced cementitious mortar with excellent adhesion to the substrate and controlled shrinkage, made from high-strength hydraulic binders, siliceous and limestone aggregates and special additives. When mixed with water, it becomes a highly workable thixotropic mortar, suitable for thick applications on both horizontal and vertical surfaces. It offers excellent workability, high adhesion to stable cementitious substrates, good adhesion also to stable plastic coatings provided they are well bonded, excellent compressive strength, excellent abrasion resistance and excellent resistance to weathering. It can be applied from 3 mm up to a maximum of 30 mm without showing shrinkage during hardening.

Conforms to European Standard EN 998-1 for general purpose mortars for internal/external plastering and rendering (GP) - Compressive strength class IV (CS IV) - Capillary water absorption W 2.

Conforms to European Standard EN 13813 ("Screed material and floor screeds") for cementitious screeds (CT), class C20-F5.

Conforms to European Standard EN 1504-3 ("Structural and non-structural repair") for non-structural repair mortars, class R2 (PCC), according to principle CR (concrete restoration).

FIELDS OF APPLICATION

RASOTECH PLUS 3-30 mm is used for high-thickness smoothing and leveling of cementitious renders to be repaired, for correcting out-of-plumb walls, and for reconstructing edges and moldings. It is suitable for repairing or preparing uneven substrates before laying ceramic coverings, parquet or resilient materials on walls or floors, or before decorating external facades. The product is suitable for leveling or smoothing any type of cementitious substrate.

SUBSTRATE PREPARATION

New substrates must be stable, non-deformable and have already completed hygrometric shrinkage. Smooth, compact or low-absorbency surfaces, such as old ceramic coverings and polished cementitious screeds, must be

mechanically prepared and roughened or pretreated, after specific cleaning, with GRIPEX water-based adhesion promoter. On surfaces to be repaired, carefully remove degraded or detached material mechanically until a sound, consistent substrate is reached. Remove dust, lime, cement residues or anything that could impair adhesion. Old paints, thin renders, colored finishes and adhesives should be removed as completely as possible. Highly absorbent porous substrates must be treated with PRIMER A 16 water-based insulating primer to regulate absorption and promote adhesion. Low-strength porous and friable substrates must be treated with RASOTECH PRIMER CONSOLIDANTE water-based mineral consolidating impregnation for renders or EKOMAS for screeds. When repairing low-strength surfaces with widespread cracking or varying thicknesses required to restore the necessary flatness, the insertion of ARMOFLEX 330 fiberglass reinforcing mesh is always recommended.

APPLICATION

Pour about 6 liters of clean water into a container for each 25 kg bag of RASOTECH PLUS 3-30 mm and mix until a homogeneous, lump-free, trowelable mixture is obtained. Let it rest and briefly remix. Depending on the type of application, the mixing water may be adjusted to optimize application. The mortar remains workable for at least 60 minutes. The applicable thickness is from a minimum of 3 mm to a maximum of 30 mm. Application can be carried out mechanically with plastering machines on large surfaces and at high thicknesses, or manually with a trowel or spatula for filling, sealing, squaring and repairing edges. Due to its high thixotropy, it does not require formwork and may be applied in one or more coats until the desired thickness is reached. For large areas and high-thickness repairs, the use of cooperating reinforcement, either metal or alkali-resistant fiber such as ARMOFLEX 330, is recommended to provide a uniform response to stresses between the substrate and the repair mortar. To ensure perfect adhesion, apply good pressure and rework the product with a trowel or smooth spatula to regulate water absorption until perfect contact with the substrate is achieved, including complete embedding of any reinforcement. If a second coat is required, apply it before the previous coat has completely hardened and in any case within 5-6 hours. Level with an aluminum straightedge. At initial hardening, finish with a sponge float, metal spatula, or plastic or wooden float to the required finish. When ceramic tiles are to be laid, prepare a flat but rough and porous surface to provide greater assurance of adhesive bonding.

COVERAGE

1,5 kg/m² per mm of thickness.

RECOMMENDATIONS

- ◆ Do not apply on substrates subject to rising damp or on extremely flexible substrates.
- ◆ Do not apply on gypsum or similar substrates, wood, metal, etc.
- ◆ For application over old paints or plastic coatings, clean thoroughly beforehand and verify perfect adhesion to the substrate.
- ◆ Wash all equipment used for preparation and application with water before the product hardens. After setting, the mortar can only be removed mechanically.
- ◆ All work on exterior floors must be carried out with an adequate substrate slope to allow rainwater to drain away.
- ◆ The applied product must be protected for at least 24 hours from rain, washout, direct sunlight and frost.
- ◆ Wait for complete drying and hardening before applying adhesives or finishes.

PACKAGING

RASOTECH PLUS 3-30 mm is supplied in 25 kg polyethylene-coated paper bags on 1500 kg pallets. Store the product in dry areas in its original tightly sealed packaging. Under these conditions, its shelf life is at least 12 months.

SAFETY INSTRUCTIONS

The product contains cement which, in contact with body perspiration, produces an alkaline reaction that is irritating and sensitizing to the skin. Wear suitable clothing, gloves and protective goggles. For further information on safe use of the product, refer to the relevant Safety Data Sheet.

SPECIFICATION ITEM

High-thickness build-up, smoothing and leveling on cementitious surfaces, including surfaces decorated with colored coatings, using a fiber-reinforced mineral leveling mortar with excellent adhesion, thixotropic, fiber-reinforced, very low absorption and controlled shrinkage, for thicknesses from 3 to 30 mm, type RASOTECH PLUS 3-30 mm by Colmef Srl, classified R2 according to EN 1504-3 and CT-C20-F5 according to EN 13813. The material may be applied both vertically and horizontally, from a minimum thickness of 3 mm up to a maximum of 30 mm per coat, until a perfectly even and suitable substrate is obtained.

TECHNICAL DATA

Conforms to Standard:	EN 998-1
Class:	GP-CS IV W2
Conforms to Standard:	EN 13813
Class:	CT-C20-F5
Appearance:	powder
Color:	gray white
Apparent density (kg/m ³):	1300
Bulk density EN 1015-10 (kg/m ³):	1541
Mixing ratio:	~ 6 liters of water per 25 kg of powder
pH value:	≥ 12
Maximum particle size (mm):	1,2
Mix flow (%):	60
Pot life:	1 h
Waiting time between coats:	max 6 h
Waiting time before laying ceramic material:	24-48 h depending on applied thickness
Waiting time before laying parquet and resilient materials:	28 days
Moisture resistance:	excellent
Ageing resistance:	excellent
Compatibility with adhesives:	excellent
Acid resistance:	poor
Permitted application temperature:	from +5 °C to +35 °C

FINAL PERFORMANCE according to EN 998-1 Class GP-CS IV W2

	Requirements	Results	Test method
Compressive strength at 28 days (N/mm ²):	CS I (from 0,4 to 2,5) CS II (from 1,5 to 5,0) CS III (from 3,5 to 7,5) CS IV (≥ 6)	≥ 20,0 (Cat. CS IV)	EN 1015-11
Flexural strength (N/mm ²):	-	7,3	EN 1015-11
Adhesion to substrate (N/mm ²):	declared value and failure pattern	≥ 1,0 (FP) A	EN 1015-12
Capillary water absorption (kg/m ² min ^{0,5}):	Wc 0 (not specified) Wc 1 (c ≤ 0,40) Wc 2 (c ≤ 0,20)	Wc 2	EN 1015-18
Water vapor permeability coefficient (μ):	-	< 35,9	EN 1015-19
Thermal conductivity (W/mK):	-	λ (10,dry) = 0,71	EN 1745

FINAL PERFORMANCE according to EN 13813 Class CT-C20-F5

	Results	Test method
Compressive strength at 28 days (N/mm ²):	> 20,0	EN 13892-2
Flexural strength at 28 days (N/mm ²):	> 7,0	EN 13892-2
Residual moisture at 28 days (%):	≤ 2	
Reaction to fire:	Class A1fl	EN 13501-1

FINAL PERFORMANCE according to EN 1504-3 Class R2-PCC

	Requirements	Results	Test method
Compressive strength after 28 days (MPa):	≥ 15	> 20,0	EN 12190
Flexural strength after 28 days (MPa):	not required	> 7,3	EN 12190
Chloride ion content (%):	≤ 0,05	< 0,01	EN 1015-17
Direct tensile adhesion (MPa):	≥ 0,8	> 0,8	EN 1542
Resistance to carbonation:	dk ≤ control concrete [MC(0,45)]	Pass	EN 13295
Compressive elastic modulus (GPa):	not required	> 9,0	EN 13412
Thermal compatibility measured as adhesion according to EN 1542 - Bond strength after 50 cycles (MPa): - freeze-thaw cycles: - thunder-shower cycles: - dry thermal cycles:	≥ 0,8 ≥ 0,8 ≥ 0,8	> 0,8 > 0,8 > 0,8	EN 13687-1
Capillary absorption (kg/m ² ·h ^{0,5}):	≤ 0,5	< 0,24	EN 13057
Reaction to fire:	Euroclass	Class A1	EN 13501-1

DATA MEASURED AT +23 °C - 50% R.H. AND NO VENTILATION

The information and recommendations above are based on our best experience. However, we cannot accept responsibility for any incorrect use of the products. We therefore recommend that users assess whether the product is suitable for the intended use and in any case carry out preliminary tests. Always refer to the latest updated version of the technical data sheet, available at www.colmef.com.

FOR FURTHER INFORMATION OR SPECIAL USES, CONTACT COLMEF TECHNICAL ASSISTANCE SERVICE.

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