

EXOCEM RAPID

Fast-setting Thixotropic Cement Mortar



Ruredil
Technical data
sheet

The Material

EXOCEM RAPID is a premixed product containing cement, selected aggregates, admixtures, and materials to control shrinkage in its plastic phase (UNI 8996) and its hardened phase (UNI 8147). With the addition of water, a thixotropic mortar is obtained that adheres strongly to concrete, bricks, and iron, durable and suitable for structural high strength repairs, with no shrinkage.

Material Properties

- Accelerated hardening with beginning of setting within 20 minutes;
- High compressive and flexural strength;
- Easy and fast placement and finishing;
- Elastic modulus and thermal expansion coefficient similar to that of concrete;
- No shrinkage cracks;
- No bleeding.

Fields of Application

EXOCEM RAPID is recommended for all applications where a strong acceleration of mortar hardening is required after placement.

In particular for:

- Anchoring of metal items;
- Repair of concrete and masonry damaged items;
- Repair of damaged edges of pillars, beams, edges, etc.

Application Procedure

Preparation of the Substrate

The substrate must be carefully cleaned from dust as well as any traces of oil, grease, or rust. Remove any damaged concrete from the surface and/or roughen the surface. This is required to ensure perfect adhesion of EXOCEM RAPID.

Saturation with Water

Moisten the substrate by saturating it with water, taking care to remove any excess water.

Material Preparation

As the product is a fast-setting mortar, it is advisable to mix a quantity of product that can be used within about 15 minutes.

Pour about 90% of the water in the mix; start the mixer adding EXOCEM RAPID without interruption; mix for 2-3 minutes; add the remaining water, if necessary, to reach the desired



Compliant with EN 1504-3 Standard

EXOCEM RAPID complies with the requirements set by the UNI EN 1504/9 standard ("Products and systems for protection and repair of concrete structures: definitions, requirements, quality control, and conformity assessment. General principles for the use of products and systems") and the minimum requirements of the EN 1504-3 standard ("Structural and non-structural repair") for class R3 structural mortars.

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The safety data sheet and the voice of the tender can be downloaded from www.ruredil.it

consistency, and mix for 2-3 more minutes.

In hot climates, small increases in water content can be acceptable, while the opposite occurs in cold and damp conditions.

Placement

Apply EXOCEM RAPID with a trowel. Finishing can be done by smoothing the surface with a wooden or plastic float.

It is advisable to apply the product at temperatures between +5°C and +40°C; low temperatures (<5°C) considerably slow down mortar setting; with high temperatures (>40°C), the mortar will rapidly become unworkable.

Technical characteristics

Technical Specifications of the Mortar	
Mix water per 100 kg of dry premixed product	18 - 20 liters
Consistency of the mortar (EN 13395-1)	170 +/- 10 mm
Specific density of wet mortar (EN 1015-6)	1.95 ± 0.05 g/cc
Volume of wet mortar per 100 kg of dry premixed product	Approx. 61 liters
Yield (consumption of dry premixed product)	Approx. 16.4 kg/m ² /cm
Contrasted expansion 1 day	>0.04%
Compressive Strength 1; 28 days (EN 12190)	>5.5; >32 MPa
Bending Strength 1; 7; 28 days (EN 196-1)	>1.2; >1.8; >3.7 MPa
Elastic Modulus - after 28 days (EN 13412)	>16 GPa
Adhesion to concrete after 28 days (EN 1542)	>4 MPa
Reaction to fire (EN 13501-1)	Euroclasse A1

Storage

EXOCEM RAPID must be kept in its sealed original packages at a temperature between +5°C and +40°C, in a roofed and dry room. Once opened, use all the content of the package, as the product may be affected by humidity due its cement content.

Safety Information

It is recommended to read the technical documentation and the health and safety sheet before using the product. EXOCEM RAPID is a cement product. It may cause irritation of the skin and eyes. It is recommended to wear always appropriate protection clothing, gloves, and goggles.

Note

Do not use EXOCEM RAPID for

- Remaking of surfaces the thickness of which is less than 5 mm;
- Remaking of large surfaces;
- Items in formworks.

DATA SHEET

Chemical-physical specifications:

Specific density: 1.95 +/- 0.05 (wet mortar)
Consistency: 170 +/- 10 mm (wet mortar)



Our company has obtained the ISO 9001:2008 certification from ICMQ and Certiquality for: "Design, production and commercialization of special and chemical products for the building industry". Our quality system is based on catalogue sales and constitutes a contractual instrument between our company and customers. With the aforesaid contractual instrument Ruredil guarantees that the product which constitutes the subject matter of the supply is in compliance with the chemical-physical specifications indicated in the present catalogue data sheet. This type of sale releases the manufacturer from issuing analysis certificates which only guarantee the specific performance of the supply itself.

Approximate composition:

Product containing cement, aluminum oxides, river silica, selected aggregates, and admixed with natural polymers.

Definition of performance:

Fast-setting thixotropic cement mortar

Packaging

25 kg bags

Yield (consumption of dry premixed product)
Approx. 16.4 kg/m²/cm

Code

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