

MEGACRET-10

High-strength, fiber-reinforced repairing cement mortar for thin layers

Description

High-strength, fiber-reinforced, cementitious patching mortar enriched with polymers. It provides:

- Superior strength.
- Very good bonding to the substrate.
- Excellent workability.
- Reduced water permeability.
- Volume stability.

It is classified as a CC R3 mortar for concrete repairs, according to EN 1504-3. Certificate Nr. 2032-CPR-10.11.

Fields of application

MEGACRET-10 is suitable for highly demanding repairs in concrete elements. It is applied with a trowel or pneumatically with a gunite process on floors, walls, or ceilings in a thickness of up to 10 mm per layer.

Technical data

Form:	cementitious powder
Color:	grey
Water demand:	4.75 l/25 kg bag
Bulk density of dry mortar:	1.40 ± 0.10 kg/l
Bulk density of fresh mortar:	2.10 ± 0.10 kg/l
Compressive strength:	
• After 24 hours:	> 15.00 N/mm ²
• After 7 days:	> 30.00 N/mm ²
• After 28 days:	> 45.00 N/mm ²
Flexural strength:	> 7.00 N/mm ²
Elastic modulus	15.30 GPa
Carbonation resistance	Pass
Chloride ion content:	0.00 %
Adhesion:	≥ 1.60 N/mm ²

Thermal compatibility Part 1 (50 freeze-thaw cycles):	≥ 1.5 N/mm ²
Capillary water absorption:	0.46 kg·m ⁻² ·h ^{-0.5}
Reaction to fire:	Euroclass A1
Pot life:	2 h at +20°C
Max. thickness/layer:	1 cm

Directions for use

1. Substrate preparation

The substrate must be free of dust, grease or any foreign matter. Before application, the substrate has to be thoroughly dampened.

2. Application

A 25kg bag of MEGACRET-10 is gradually added into 4.75 kg of water under continuous stirring, until a homogeneous, tight mass is formed, appropriate for repair works. Either a low-speed mixer or a concrete mixer could be used for the mixing. The material should be applied (pressed) in the desired thickness – up to 1 cm per layer - with a trowel, or pneumatically with a gunite process. When a second layer is required, the surface of the first layer should be roughened to achieve better adhesion.

The final surface should be well protected from dehydration by being covered with wet cloths or polyethylene sheets, or repeatedly dampened for 48 hours.

Consumption

Approx. 17.5 kg/m²/cm of layer thickness.

Packaging

MEGACRET-10 is available in 25 kg paper bags.

Shelf-life - Storage

12 months from production date, if stored in original, unopened packaging, in places protected from moisture and frost.

Remarks

- Application temperature must be between +5°C and +30°C.
- At low temperatures and in case early strength development is required, it is recommended to mix the material with lukewarm water.
- If the required repairing thickness exceeds 1 cm, the fiber-reinforced repairing cement mortar MEGACRET-40 can be applied instead (up to 4 cm/layer).
- The product contains cement that reacts with water forming alkaline solutions, thus is classified as irritant.
- Consult the directions for safe use and precautions written on the package.



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EN 1504-3

Concrete repair product for structural repair CC mortar (based on hydraulic cement)

Compressive strength: class R3

Chloride ion content: $\leq 0.05\%$

Adhesion: ≥ 1.5 MPa

Carbonation resistance: Pass

Elastic modulus: 15 GPa

Thermal compatibility part 1: ≥ 1.5 MPa

Capillary absorption: $\leq 0.5 \cdot \text{kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$

Dangerous substances: comply with 5.4

Reaction to fire: Euroclass A1

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BUILDING CHEMICALS AND MORTARS

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