

MEGACRET-40 FAST

Fast-setting, high-strength, fiber-reinforced repairing cement mortar

Description

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

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

It is classified as a CC R4 mortar for concrete repairs, according to EN 1504-3. Certificate Nr. 2032-CPR-10.11.

Fields of application

MEGACRET-40 FAST is suitable for highly demanding repairs in concrete elements and generally wherever high strength and fast application are necessary. It is an ideal solution when repair works take place at low ambient temperatures ($\geq +5^{\circ}\text{C}$) due to its fast setting properties.

It is applied with a trowel or pneumatically with a gunite process on floors, walls or ceilings.

Technical data

Form:	cementitious powder
Color:	grey
Water demand:	4.60 l/25 kg bag
Bulk density of dry mortar:	1.40 \pm 0.10 kg/l
Bulk density of fresh mortar:	2.10 \pm 0.10 kg/l

At +5°C:

- Compressive strength:
- After 24 hours: $> 6.00 \text{ N/mm}^2$
- Flexural strength:
- After 24 hours: $> 2.00 \text{ N/mm}^2$

At +20°C:

Compressive strength:

- After 24 hours: $> 25.00 \text{ N/mm}^2$
- After 7 days: $> 40.00 \text{ N/mm}^2$
- After 28 days: $> 45.00 \text{ N/mm}^2$

Flexural strength:

- After 24 hours: $> 5.00 \text{ N/mm}^2$
- After 7 days: $> 8.00 \text{ N/mm}^2$
- After 28 days: $> 9.00 \text{ N/mm}^2$

Elastic modulus: 21.3 GPa

Carbonation resistance: Pass

Chloride ion content: 0.00%

Adhesion: 2.05 N/mm^2

Capillary water

absorption: $0.33 \text{ kg}\cdot\text{m}^2\cdot\text{h}^{-0.5}$

Reaction to fire: Euroclass A1

Pot life: 15 min at $+20^{\circ}\text{C}$
40 min at $+5^{\circ}\text{C}$

Max. thickness / layer: 4 cm

Directions for use

1. Substrate preparation

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

2. Application

A 25 kg bag of MEGACRET-40 FAST is gradually added into 4.60 l 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. Mixing time should not exceed 1 min. It is recommended to mix a small quantity every time, because of the short working time (about 15 min. at $+20^{\circ}\text{C}$). The material should be applied (pressed) in the desired thickness - up to 4 cm per layer - with a trowel or pneumatically with a gunite process.

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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-40 FAST is available in paper bags of 25 kg.

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^oC and +30^oC.
- The product contains cement, which 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 R4

Chloride ion content: ≤ 0.05%

Adhesion: ≥ 2.0 MPa

Carbonation resistance: Pass

Elastic modulus: 21.3 GPa

Thermal compatibility part 1: ≥ 2.0 MPa

Capillary absorption: ≤ 0.5·kg·m⁻²·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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