

MEGAGROUT-100

High strength, pourable, non-shrink grout for repair and strengthening works

Description

High strength, non-shrink, pourable cement-based grout with special additives. It provides:

- Very good fluidity without segregation.
- High initial and final strength.
- Efficient bonding to steel and concrete.
- Resistance to impact and vibration.
- Low water permeability.

Certified according to EN 1504-3 and classified as a CC R4 mortar for concrete repairs. CE marked. Certificate No.: 2032-CPR-10.11. Classified as a type B grout according to ASTM C 1107-99.

Fields of application

MEGAGROUT-100 is applied at a thickness of up to 100 mm and is suitable for:

- Repair work in damaged concrete elements.
- Construction of concrete jackets at existing concrete elements.
- Filling of cavities in concrete elements.

Technical data

Form:	cementitious powder
Color:	grey
Grain size:	up to 3 mm
Water demand:	3.50 l/25 kg bag
Bulk density of dry mortar:	1.60 ± 0.10 kg/l
Bulk density of fresh mortar:	2.35 ± 0.10 kg/l
Compressive strength:	
• After 24 hours:	> 50.00 N/mm ²
• After 7 days:	> 65.00 N/mm ²
• After 28 days:	> 80.00 N/mm ²
Flexural strength:	> 10.00 N/mm ²
Elastic modulus:	36.30 GPa
Carbonation resistance:	Pass
Chloride ion content:	0.00 %
Adhesion:	≥ 2.90 N/mm ²

Thermal compatibility Part 1 (50 freeze-thaw cycles):	≥ 2.70 N/mm ²
Capillary water absorption:	0.48 kg·m ⁻² ·h ^{-0.5}
Reaction to fire:	Euroclass A1
Pot life:	1 h at +20°C
Max. thickness/layer:	10 cm

Directions for use

1. Substrate preparation

The substrate must be clean, free of dust, grease, etc. Furthermore, it must be roughened, in order to ensure proper bonding of the grout on it. Before application, the substrate should be thoroughly dampened.

2. Application

After being hydrated, MEGAGROUT-100 is a fluid, fine-grained material, and part of it may escape the joints between particular elements of the formwork. Therefore, formwork joints must be sealed with AQUAFIX rapid-setting cement or RAPICRET fast-setting patching mortar.

MEGAGROUT-100 is gradually added to 3.0 l of water and mixed well with a low speed mixer (300 rpm.), until a uniform fluid mass is formed. An additional quantity of up to 0.50 l of water is added under stirring, until the desired fluidity is achieved. The mixture is then poured, taking care to avoid air entrapment. In every case, it must be ensured that the grout has filled the whole space between the formwork and the existing construction.

Surfaces formed with MEGAGROUT-100, exposed to open air, must be kept wet for at least 24 hours, covered with wet cloths or polyethylene sheets.

Consumption

Approx. 21.5 kg/m²/cm of layer thickness, or 2.1 kg for filling 1 l of volume.

Packaging

MEGAGROUT-100 is available in 25 kg paper bags.

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Shelf life – Storage

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

Remarks

- Temperature during application must be between +5°C to +30°C.
- Material that has started to set must not be softened again with water.
- The product keeps its fluidity for approx. 60 minutes, at temperatures between +15°C and +25°C.
- At high temperatures, the product should be stored in a cool place and mixed with cold water in order to achieve the appropriate fluidity for a sufficient period (about 60 minutes).
- At low temperatures and whenever early strength development is required, it is recommended to mix the material with lukewarm water and protect it from cold by placing thermal insulating covers around the formwork.
- Due to cement content, MEGAGROUT-100 reacts with water forming alkaline solutions, thus is classified as irritant.
- Please consult the safety instructions written on the packaging before use.



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DoP No.:MEGAGROUT-100/1209-03

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: ≥ 20 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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