

MEGAGROUT-100

High-strength, non-shrinking pourable cast grout for repairs and strengthening

Description

High-strength, non-shrinking, pourable cement-based cast 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.

It is classified as a type B grout, according to ASTM C 1107-99 and as a CC R4 mortar for concrete repairs, according to EN 1504-3. Certificate Nr. 2032-CPR-10.11.

Carbonation resistance:	Pass
Chloride ion content:	0.00 %
Adhesion:	$\geq 2.90 \text{ N/mm}^2$
Thermal compatibility Part 1 (50 freeze-thaw cycles):	$\geq 2.70 \text{ N/mm}^2$
Capillary water absorption:	$0.48 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$
Reaction to fire:	Euroclass A1
Pot life:	1 h at +20°C
Max. thickness / layer:	10 cm

Fields of application

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

- Repairs in damaged concrete elements.
- Construction of concrete jackets at existing concrete elements.
- Filling cavities and hollows in concrete elements.

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 into 3 kg 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 kg 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.

Technical data

Form:	cementitious powder
Color:	grey
Water demand:	3.50 l/25 kg bag
Bulk density of dry mortar:	$1.75 \pm 0.20 \text{ kg/l}$
Bulk density of fresh mortar:	$2.35 \pm 0.20 \text{ kg/l}$
Compressive strength:	
• After 24 hours:	$> 50.00 \text{ N/mm}^2$
• After 7 days:	$> 65.00 \text{ N/mm}^2$
• After 28 days:	$> 80.00 \text{ N/mm}^2$
Flexural strength:	$> 10.00 \text{ N/mm}^2$
Elastic modulus:	36.30 GPa

MEGAGROUT-100

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.

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 of time (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.
- 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.



2032

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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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BUILDING CHEMICALS AND MORTARS

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