

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

Description

Pourable, high-strength, non-shrinking 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 blows and vibrations.
- 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-CPD-10.11.

Carbonation resistance:	Passes
Chloride ion content:	0,00 %
Adhesion strength:	≥ 2,90 N/mm ²
Thermal compatibility Part 1 (50 freeze-thaw cycles):	≥ 2,00 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

Fields of application

MEGAGROUT-100 is applied in thickness of up to 100 mm and it's suitable for:

- Repairs in damaged concrete elements.
- Grouting in thin concrete jackets at existing concrete elements.
- Filling cavities and hollows in concrete elements.

Directions for use

1. Substrate

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. Thorough dampening of the substrate before application is recommended.

2. Application

MEGAGROUT-100 after hydration is a fluid and 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-revolution 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 all the spaces 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 ± 0,20 kg/l
Bulk density of fresh mortar:	2,35 ± 0,20 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

MEGAGROUT-100



Surfaces formed by 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 lit 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, storage of the bags in a cool place is recommended, as well as mixing the material with cold water in order to achieve the appropriate fluidity for a sufficient length of time (about 60 minutes).
- At low temperatures and whenever fast development of strength is required, mixing of the material with lukewarm water and protection from cold by putting thermal insulating covers over the formwork are recommended.
- The product contains cement, which reacts as alkaline with water and is classified as irritant.

- Consult the directions for safe use and precautions written on the packaging.



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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%

Adhesive Bond: ≥ 2,0 MPa

Carbonation resistance: Passes

Elastic modulus: 36,3 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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