Technical Datasheet

MEGAGROUT-INJECT 2-20

Low-shrink cementitious grout

Description

MEGAGROUT-INJECT 2-20 is a one-component, highly flowable cementitious grout, used for low shrinkage and high strength grouting.

Fields of application

MEGAGROUT-INJECT 2-20 is used for:

- Grouting in concrete, rock, subsoil or masonry cracks, in order to restore the initial monolithic character of the structural element.
- Grouting in the pipes of embedded prestressing tendons.
- Filling cavities in the subsoil or rocks where bonding rods are to be embedded.
- Sealing rigid structural joints or joints in precast structural elements.

Technical data

Form:	cementitious powder
Color:	grey
Water demand:	6 l/ 20 kg bag
Bulk density of dry mortar:	1.1 ± 0.10 kg/l
Bulk density of fresh mortar:	2.1 ± 0.10 kg/l
Flexural strength:	
• After 24 hours:	> 7.00 N/mm^2
• After 7 days:	> 8.00 N/mm^2
• After 28 days:	> 9.00 N/mm^2
Compressive strength:	
• After 24 hours:	> 35.00 N/mm^2
• After 7 days:	> 60.00 N/mm^2
• After 28 days:	> 70.00 N/mm^2
Chloride ion content:	0.00%
Adhesion:	≥ 2.80 N/mm^2
Reaction to fire:	Euroclass A1
Pot life:	3 h at +20^{0}C
Crack width:	2-20 mm

Directions for use

1. Substrate preparation
The substrate must be clean, free of materials that may hinder adhesion, such as dust, grease, etc. and without water ponding.

2. Mixing and application
A 20 kg bag of MEGAGROUT-INJECT 2-20 is added into 6 lt of water under continuous stirring, with a low-speed mixer, until a uniform fluid mass is formed. It is recommended to first add 80% of the total water and add the mortar gradually, under stirring. During the mix, you may add the rest of the water.
For filling wider cracks, MEGAGROUT-INJECT 2-20 may be mixed with quartz sand at a ratio of up to 1:2 by weight (MEGAGROUT-INJECT 2-20:sand). In that case, the quantity of mixing water will be 8.4 lt, and the mechanical properties of the final product will be changed.

Consumption

Approx. 1.6 kg of MEGAGROUT-INJECT 2-20 is required for filling 1 l of volume.

Packaging

MEGAGROUT-INJECT 2-20 is available in 20 kg bags.

Shelf-life - Storage

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

MEGAGROUT-INJECT 2-20

Remarks

- Temperature during application must be between +5ºC to +30ºC.
- 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 +15ºC and +25ºC.
- 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.

Mechanical properties MEGAGROUT-INJECT 2-20 with quartz sand 0-2 mm:	
Flexural strength:	
• After 24 hours:	> 4,0 N/mm^2
• After 7 days:	> 7,0 N/mm^2
• After 28 days:	> 8,0 N/mm^2
Compressive strength:	
• After 24 hours:	> 16,0 N/mm^2
• After 7 days:	> 33,0 N/mm^2
• After 28 days:	> 43,0 N/mm^2

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Concrete injection product

U (F2) W (8) (1/2/3) (5/30) (1)

Force transmitting and filling of cracks
0.8 mm
Dry and wet cracks
5°C to 30°C

Adhesion by tensile bond strength:1,4 N/mm^2 (cohesive failure)
Adhesion by slant shear strength: monolithic failure

Volumetric shrinkage: <1%

Workability: Crack width from 0..8 mm

Moisture state of the crack: dry and non dry

Chloride content: < 0,2%

Durability: Pass

Corrosive behaviour : deemed to have no corrosive effect

Dangerous substances: comply with 5.4

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