

REC REPAIR M-316

Non shrink high strength thixotropic repair mortar

PRODUCT

Rec Repair M-316 is a ready to use mortar fiber-reinforced. It is made of sand (reconstituted grain size range), special cement, fibres, and special additives that provide special properties: non-shrinking, thixotropic, very high strength, excellent bond to rough and damp surfaces, compactness; its closed porosity slows down carbonation. It has low permeability and is extremely durable. The formulation of Rec Repair M-316 provides excellent strength, making it a high quality all purpose mortar for different applications including repair of high strength concrete.

PROPERTIES

- Non-shrinking
- Very High strength
- Normal setting
- Thixotropic: It can be applied in a thick layer
- Prevents steel reinforcements from corrosion

SCOPE OF USE

- Repair of concrete surfaces, honeycombing, edges of steps and all types of load bearing situations.
- Restoring the structure of damaged construction: columns, slabs, vault, mats and dam overflows.
- Reinforcing of weakened structures such as balconies, pedestals and cornices.

CHARACTERISTICS	
Active ingredients	hydraulic binders, synthetic fibres, without any chlorides or metal particles
Appearance	Grey powder
Grain size	0 to 3.15mm
Mixing water	6.25 to 6.75 liters/50kg bag 3.125 to 3.375 liters/25kg bag
Yield	25 liters / 50 kg bag 12.5 liters / 25 kg bag
Fresh Density(Kg/m ³)	2230 (BS 1881:83)
Thickness	5 to 50mm in one coat

Compressive Strength: 1 day (BS EN 196-1) 7 days (BS EN 196-1) 28 days (BS EN 196-1)	30N/mm ² 52N/mm ² 70N/mm ²
Flexural Strength: 1 day (BS EN 196-1) 7 days (BS EN 196-1) 28 days (BS EN 196-1)	4.5N/mm ² 5.5N/mm ² 6.5N/mm ²

Pull Off Strength: 28 days (BS 1881 Part 207)	>1.3 N/mm ²
Length Change: 28 days (ASTM C 157-03)	0.041%
Tensile Strength: 7 days (BS 6319 -7- 1985) 28 days (BS 6319 -7- 1985)	1.8 N/mm ² 3.8 N/mm ²

APPLICABLE STANDARDS

BS EN 196 Part 1
BS 1881 Part 207
ASTM C 157-03
BS 6319 - Part 7- 1985
BS 1881: 83

INSTRUCTIONS FOR USE

SUBSTRATE PREPARATION

Rec Repair M-316 may be applied on sound concrete, masonry, rock or similar materials.

Remove damaged concrete and laitance by chipping with a pick or cold-chiselling to get a rough surface. The area must be surrounded by clean edges. Do not feather edges.

The surface must also be free from any trace of grease or oil.

Brush or scrape corroded steel with a metal brush, or sand it to remove all rust particles. Remove dust from all surfaces to be fixed.

Saturate the surface with water by copiously spraying just before application, and if possible, 6 hours before application as well.

PRODUCT PREPARATION

Mix a 50kg bag Rec Repair M-316 with 6.25 to 6.75 litres of clean water until a smooth paste is obtained (mix 3.125 to 3.375 lit. of water with a 25kg bag)

PRODUCT APPLICATION

Rec Repair M-316 can be applied:

- Manually with a trowel
- By using a dry or wet spraying machine
- Or by pumping

Rec Repair M-316 must be used within one hour from mixing. Re-mixing with an extra amount of water is forbidden. After application, protect the surface by covering with properly secured plastic sheeting. Ideal application temperature is between +5°C and +35°C. If the application temperature is higher than 35°C, make sure to use cool water to keep the mixed mortar temperature below 30°C.



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PRECAUTIONS

For thickness more than 50mm, it is recommended to apply Rec Repair M-316 in 2 layers. When the first coat is applied it must be directly roughened to increase bonding with the second coat.

STORAGE

12 months after manufacturing date in original and non-open packaging, under cover, in dry condition, away from humidity, protected from extreme temperatures and direct sunlight.

SAFETY PRECAUTIONS

The product contains cement powders which, when mixed with water, release alkalis that could be harmful to the skin. It is preferable that the application be done in a ventilated area, and to wear protective gear for hands, eyes and respiratory system and to avoid breathing of the dust.

Splashes on the skin should be washed away by cleaning thoroughly with soap and water. In case of contact with eyes, wash thoroughly with clean water and seek medical attention. If swallowed, do not induce vomiting and seek medical attention. The product is non-flammable.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

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