

ECMAGROUT 301

General purpose, Non-shrink, Free-flow, Cementitious Grout

Description

ECMAGROUT 301 is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce a free-flowing, non-shrink cement mortar. The material is based on Portland cements, graded aggregates and fillers, and additives which impart controlled expansion characteristics in the plastic state, while minimizing water demand. The low water requirement ensures high early strength and long-term durability.

Areas of Application

ECMAGROUT 301 is used for repairs to damaged reinforced concrete elements, particularly where access is restricted and where vibration of the placed material is difficult. It is suitable for various anchoring of reinforcing steel bars, Machine and steel column foundation, free flow grouting of machine base plates, crane and transporter rails, bearing pads etc.

Advantages

- Non-Shrink – Controlled Gaseous expansion system compensates for shrinkage and settlement in the plastic state. When cured, will continue to occupy its original volume within the confines of the voids in which it has placed
- Free Flow - Can be pumped or poured into restricted locations.
- Highly fluid to allow for placement without vibration.
- Pre-packed to overcome site-batched variations.
- Rapid strength gain to facilitate early reinstatement.
- High ultimate strengths and low permeability of cured repair.
- Contains no chloride admixture.

Technical Specification

The following results were obtained at a Water/Powder ratio of 0.18 @ 30°C.

Appearance	Grey
Physical State	Free Flow Powder
Compressive Strength (N/mm ²) as per IS 4031 Part - 6	
1 Day	>10
3 Days	>18
7 Days	>30
28 Days	>50
Fresh Wet Density Kg/m ³	2300±100
ECMA GROUT 301 Required for 1 m ³ Volume Kg	1900 - 2100
Unrestrained expansion as per ASTM C 827	0.5 – 2.0 %

To build higher grouting thicknesses, addition of dry & washed aggregates of high compressive strength is possible up to 100% by weight. But it is advised to conduct site trials to achieve desired flow, strength, etc.



Application Instructions

Surface Preparation: The substrate surface must be free from oil, grease or any loosely adhering materials. The surface must be scabbled or sandblasted to remove all weak cement laitance. Surface laitance and unsound concrete must be chipped away so that a reasonable rough, but strong sound surface is achieved. Several hours prior to placing grout, the concrete substrates should be saturated with clean water.

Mixing: Use mechanically powered grout mixer or drum mixture of suffices capacity with a slow speed drill (250-400 rpm) fitted with a paddle. Larger quantities will require a heavy-duty mixer. Mix 4- 5 Minutes until homogeneous flowable mix is obtained and make sure that no unmixed powder is left at the bottom of the mixture.

Type of Mix	Water Powder Ratio	Water Required For 25 Kg Bag
Plastic	0.16	4.00 Ltr
Pourable	0.17	4.25 Ltr
Flowable	0.18	4.50 Ltr

Application

ECMAGROUT 301 should be placed within half an hour of mixing. Flowable mix may be used with low pressure cement grouting equipment or may be hand rodded into restrained sections. High points must be adequately vented to allow entrapped air to escape. Plastic mortar may be rodded into place. Consistency can range from thick cream to smooth plastic. For large volume of placement areas ECMAGROUT 301 may be pumped with a heavy-duty diaphragm pump, screw or any other standard pump.

Curing: After completion of the grouting operation, exposed areas should be thoroughly cured. This should be done by the use of ECMCURE curing Compound or continuous application of water.

Packaging

25 Kg HDPE Bags.

Shelf Life

06 Months in original unopened sealed condition.

Storage & Handling

Material should be stored in Cool and Dry shade, protected from moisture and water. Please do not use hook and handle carefully during transport.

Safety Precautions

Wear all PPE's at the of Application like Safety boot, Safety Goggle, Hand Gloves, Mask and avoided with contact of Skin and Eyes. Any direct skin contamination with the hardeners should be washed off immediately with soap and water.

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