Natural Cement

PRODUCT SHEET

GROUT 105

Description

GROUT 105 is a dry pre-blended grout that is resistant to chloride penetration consisting of a blend of natural cement based binder, specially selected dried graded aggregates all passing a 3500 micron sieve and retarders.

Uses

- Rod anchorage grout
- Grouting under base plates
- Setting holding down bolts
- Injection grout for waterproofing
- Ground stabilisation
- Void filling
- Grouting to sewers
- Self levelling screed
- Resistance to sea water where the resistance to chemicals and sea water is required.

Properties

- Excellent adhesion
- Low shrinkage
- Excellent resistance to pure water & sulphated water
- Excellent resistance to aggressive chemicals
- Very good cohesion & mixing
- Fine compact surface
- No curing membrane necessary
- Can be used in wet conditions
- Can be used under water
- Controlled setting
- Fine particle size for greater penetration
- Set down to zero.

GROUT 105

Method of use

Preparing the surface

Do not use on frozen or over heated substrates (outside the range of 0°c-30°c). Prepare the surface in advance to provide an adequate key. On glazed brickwork the joints should be raked out and the surface bush hammered to form a key. The surface to which the GROUT 105 is applied should be clean, free from dust and thoroughly dampened. Ensure that a 10mm minimum thickness of material is obtained.

Application

Mixing

To no more than 3.5 litres of clean water per bag, gradually add whilst mixing the GROUT 105. If one bag or less is to be used it can be mixed with a rose bud type paddle attached to an electric drill (900rpm, 1000w). Mix vigorously for at least 2 minutes after adding all the mixture to the water. GROUT 105 is designed to give a fluid mix but this only develps after sufficient mixing. The mix will appear dry at first. Continue mixing until fluidity develops.

For optimum results mix using conventional mixing machines.

General

Place the material as quickly as possible after mixing using traditional tools. A 10mm minimum thickness of the material is always necessary. Do not apply additional water to the surface during finishing as this may cause surface cracking. Once setting has started DO NOT attempt to remix or to smooth the surface, as this will cause the mechanical properties in particular strength and adhesion to be lost.

Setting times

GROUT 105 is designed to commence setting at 45 minutes and finish setting at 55 minutes at 20ºc. In winter GROUT 105 can be used down to 0ºc. The set will be slower but can be accelerated by using warm water. In very hot temperatures the set will be faster but can be slowed by using cold water.

Cleaning

GROUT 105 should be removed from tools and equipment with water immediately after use.

Storage

GROUT 105 is packaged in a polythene inner bag with a re-sealable tie within a stitch sealed woven polypropylene outer bag, which should be stored in dry conditions and will last for at least twelve months.

Yield

Generally 960 kg/m^3 of powder with a water/powder ratio of 14% will result in a bulk density of 2010kg/m^3.

How to specify

GROUT 105 shall be mixed and used all strictly in accordance with the manufacturer's instructions.

Precautions

We strongly recommend the use of GLOVES, GOGGLES and MASK. Please see MSDS sheet for full details.

Results

Temperature of materials	**5ºc**	**20ºc**
Spreading at ASTM cone (static)	240 - 260mm	240 - 260mm
Pot life	45 mins	45 mins
Setting time	57 mins	55 mins

Compressive strength (Mpa)

3 hours air	21	20
1 day water	37	45
7 days water	/	69
28 days water	/	86

Flexible strength (Mpa)

3 hours air	3.9	4.3
1 day water	/	5.8
7 days water	/	9.8
28 days water	/	11.8

Drying

24 hours	/	3.8% relative humidity

Shrinkage when drying (µM/M)

28 days		880

These data and results are given as examples only and are only accurate in relation to the aggregates used

Part financed by the European Community European Regional Development Fund and managed by Yorkshire Enterprise

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