



POLYGROUT HD

High Strength Free Flow Cementitious Grout

TDS_Polygrout-HD_GCC_1209

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POLYGROUT HD is a tropicalised version, high strength free flow cementitious non shrink grout. It is suitable for precision grouting of gaps above 20 mm thick between base plate and foundations. It is a blend of selected cement, graded fillers and chemical additives. These special additives impart controlled expansion in both plastic state and hardened state and at the same time minimizes the water requirement. This low water demand ensures that the grout achieves high early strength and at the same time the controlled expansion compensates the initial shrinkage.

CHARACTERISTICS

- ▶ Shrinkage compensated.
- ▶ Specially formulated tropicalised version for high ambient temperature applications.
- ▶ Premixed to avoid site variations and errors.
- ▶ Excellent bond to steel and concrete.
- ▶ High early strength development.
- ▶ Adjustable consistency, excellent extended workability and specially formulated for deep grouting.

FIELDS OF APPLICATION

Used for heavy duty grouting for:

- ▶ Generators
- ▶ Turbines
- ▶ Crane rails
- ▶ Pre-cast elements
- ▶ Presses
- ▶ Anchor bolts
- ▶ Heavy machinery base plates, etc.
- ▶ Pile head waterproofing and re-profiling

APPLICATION INSTRUCTIONS

Surface preparation

All the surfaces should be structurally sound, clean, free of dust, demoulding agents, oil, paint etc. Saturate the area to be grouted with clean water 24 hours prior to application. The surface should be damp but free of standing water. The bolt holes and other areas should be free from water. Whenever form work or shuttering is used, make sure that all the joints are sealed properly to avoid grout loss.

Mixing

Add the powder to the water and mix using a heavy duty slow speed drill (300-400rpm) fitted with a heavy duty paddle mixer. Mix for 2-3 minutes ensuring a lump free and homogenous mix. Use 4 – 4.5 litres of water for a free flowing grout, 3.25 – 3.75 litres for a plastic consistency, 2.5 – 3 litres for a mortar consistency.

NOTE:

Unopened bags are to be kept in a shaded area, Water used for mixing should be below 25° C particularly in high ambient temperature conditions.

Placing

Grouting should be done continuously. Therefore make sure that sufficient grout is prepared before starting. While filling voids, grout should be poured from one end to avoid entrapment of air. The following measures are to be taken while placing the grout:

- ▶ Grouting operations should preferably be carried out in a shaded condition and avoid grouting at the hottest time of the day.
- ▶ Place the grout within 15 minutes of mixing to obtain best results.
- ▶ Grouting should not be done in free & unrestrained areas as the gaseous expansion of the grout will lead to development of cracks.

Curing

Cover the exposed areas immediately after placing with a polythene sheet to protect it from direct sun and drying winds.

Proper curing is essential on the exposed areas of the grout. Use of a curing compound (POLYURE AC) or damp hessian/burlap is recommended.

CLEANING

Clean all tools with water after use. Hardened materials can be removed mechanically only .

STORAGE & SHELF LIFE

Store in a cool, dry place and keep away from all sources of heat and sunlight. In tropical climates, store in air condition rooms. The shelf life is up to 12 months in un-opened condition and if stored as per recommendations. Excessive exposure to sunlight, humidity and UV will result in the deterioration of the quality of the product and reduce its shelf life.

HEALTH & SAFETY

As with all construction chemical products caution should always be exercised. Protective clothing such as gloves and goggles shall be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

SUPPLY

POLYGROUT HD | 25 kg bag

* Refer to website for TDS

TECHNICAL SPECIFICATION

PROPERTIES	VALUES
Appearance	Grey Powder
Compressive strength, [ASTM 579] 7 days, [N/mm ²] 28 days, [N/mm ²]	>50.0 >65.0
Flexural strength [ASTM 580] @28 days, [°C]	>10
Application temp, [°C]	+5 to +45
Service temp, [°C]	-5 to +50
As per test (ASTM -878-C)	
This has an expansion value of about 0.05%. Expansion occurs both in plastic and in early hardened stage. The expansion exhausts mainly during the first 12 hours of curing.	
Bond to Steel Plain bars @28 days [4 N/mm ²]	>3
Deformed bars @28 days [4 N/mm ²]	>2

All values given are subject to 5-10% tolerance

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Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23 °C and 50 % relative air humidity unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

Manufactured in G.C.C.

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