Polygrout NS

Non-shrink free flow cementitious grout

shrinkage compensated grout of excellent workability and performance.

CHARACTERISTICS

- Free flowing
- Shrinkage compensated
- Premixed and properly packed to avoid site variation and errors
- Excellent bond strength to concrete and steel
- Adjustable consistency
- Impact resistant.
- Non shrink property of the grout provides maximum contact with bearing surface
- Can be used up to 80mm thickness between plate and foundation
- It is watertight and withstands chemically aggressive agents

DESCRIPTION

Polygrout NS is a cementitious non shrink grout which when mixed with water gives a free flowing shrinkage compensated grout of excellent workability and performance. Polygrout ns is a blend of selected cement, graded fillers and chemical additives. These special additives imparts controlled expansion in plastic state at the same time minimize water requirement.

FIELDS OF APPLICATION

base plate grouting of:

- machinery and equipment foundations
- repair of pre–cast concrete
- for anchoring of bolts, dowels etc
- sealing of tie rod holes

APPLICATION INSTRUCTIONS

Surface preparation

The surface should be clean, free of dust, demolding agents, oil, paint etc. Saturate the area to be grouted with water at least 24 hours prior to grouting. The surface should be damp, but strictly free of standing water. Whenever form work or shutter is used, make sure that all the joints are sealed properly to avoid grout loss.

Mixing

Mixing should be done using a drill fitted with a mixing paddle or a grout mixer. Add 2.75 - 3.25 litres of clean cool water in a container. Add Polygrout NS slowly and mix continuously for a minimum of 5 minutes to obtain a smooth, uniform lump free 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 air pockets. the following measures shall be taken while placing the grout:

- grouting operations should be preferably carried out in a shaded condition.
- 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.

Polygrout NS can be poured from minimum 10mm up to 80mm in one single pour. However, for depths greater than 80mm it is recommended to add well graded aggregates of 5 to 8mm (up to 50%) to the grout in order to reduce the heat generated during the exothermic reaction when the grout is mixed and poured for larger depths. Cover the exposed areas immediately after placing with a polythene sheet, to protect from drying winds.

YIELD

Polygrout NS: 12.1l./25kg bag (w/p ratio of 0.12)

CURING

Upon achieving its final set, proper curing with water or curing compound shall be done.

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 NS	25kg bag

TECHNICAL SPECIFICATION

Typical properties achieved with 0.12 w/p ratio

PROPERTIES	VALUES	TEST STANDARDS
Colour & appearance	Grey powder	-
Mixed density, [g/cc]	2.31± 0.02	ASTM D 1475
Initial setting, [hours]	4	-
Final setting, [hours]	10	-
Compressive strength, @28 days, [N/mm²] @7 days, [N/mm²]	 >60 >50	 ASTM C 579
Tensile strength, @ 28 days, [N/mm²]	 >2	 ASTM C 307
Flexural strength, @ 28 days, [N/mm²]	 >6	 ASTM C 580
Shear bond to concrete @28 days, [N/mm²]	 >3.5	 BS 6319
Restrained expansion @7 days, [%]	 up to 0.04	 BS 8110
Water permeability @ 5 bar pressure	 <10 mm	 BS EN 12390
Flow@ initial @ 15 minutes	>22 mm >20 mm	
Application temperature, [°C]	 5-45	

All values given are subject to 5-10% tolerance

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