

EstogROUT FP 70

High Strength, High Flow Dual Stage Shrinkage Compensated Grout

Description

EstogROUT FP 70 is a special formulated grout, which impart controlled expansion in both the plastic and hardened states.

EstogROUT FP 70 is a pumpable non-shrink, self-levelling, cementitious grouting mortar with extended working time to suit local ambient temperature. It is supplied as a ready to use dry powder.

The addition of a controlled amount of clean water produces a free-flowing precision grout for gap thickness up to 125mm. In addition, the low water requirement ensures high early strength and long-term durability. The filler grading minimizes segregation and bleeding over a wide range of application consistencies.

EstogROUT FP 70 has been tested by SIRIM BHD in accordance to ASTM C942:1999, on Compressive Strength Test and complied with the specification in this data sheet.

Uses

EstogROUT FP 70 is suitable for repairs to concrete structures and the following grouting works with clearance of 5mm or more:-

- Machine foundations
- Concrete anchors
- Rail beds / Bridge bearings
- Cavities / Gaps / Recesses
- Honeycombs

Advantages

- Easy to mix and apply
- Two step expansion in both the plastic and hardened states
- High Early Strength enables rapid installation and early operation of plant
- Excellent flow and flow retention
- Non-toxic and non-corrosive
- Chloride and hydrogen free gaseous expansion
- Impact and vibration resistant
- Suitable for pumping or pouring over a large range of application consistencies and temperatures.

Standards Compliance

- ASTM C191
- ASTM C940
- ASTM C942
- ASTM C1090

Physical Properties

Water Powder At 0.18	7 days	28 days
Compressive Strength (flowable at 25°C), N/mm ² ASTM C942:1999	> 55	> 65
Expansion Characteristics within 24 hour, % ASTM C940	0.5 – 2.0	
Expansion Characteristics at 28 Days, % ASTM C1090	0.0 – 0.4 %	
Setting Time at 25° C, hrs: ASTM C191		
Initial Set	2 – 4	
Final Set	4 – 6	
Aggregate Size	1.2mm maximum	
Fresh Weight Density	2200kg per m ³	

Application Instructions

Surface Preparation

Concrete surfaces should be clean, sound and free from oil, grease, laitance and loosely adhering particles.

Metal surfaces (iron and steel) should be free from scale, rust, oil and grease.

All absorbent surfaces must be well saturated with clean water, but be free of any surface water or puddles prior to the application of **EstogROUT FP 70**

Form a leak proof formwork as **EstogROUT FP 70** is a free flowing grout.

The gap width between the perimeter formwork and the plate edge should not exceed 150mm on the pouring side and 50mm on the opposite side. There should be no gap at the flank sides.

Mixing & Yield

The quantity of clean water required to add to a 25kg bag grout to achieve the desired consistency is

Consistency	Water	Yield
Trowelable	4.0 litres	13.15 litres
Flowable	4.5 litres	13.25 litres
Fluid	5.0 litres	13.80 litres

Refer to mixing ratio guide for water: grout ratio mix for 1 to 2 minutes with a slow speed drill (max. 500 RPM)

Application

After mixing, stir lightly with a spatula for a few seconds to release any entrapped air. The grout is then poured immediately into the prepared formwork.

When carrying out base plate grouting, maintain sufficient pressure head for uninterrupted mortar flow. The prepared formwork must be firmly in place and kept watertight.

When placing grout over a large area, it is important to maintain a continuous flow throughout. Organize proper work sequence to ensure uninterrupted flow. In large areas, pump **EstogROUT FP 70** with a heavy-duty diaphragm pumps. Screw feed and piston pumps may be used.

For sections thicker than 100mm, it is necessary to fill the **EstogROUT FP 70** with graded 10mm silt free aggregates to minimize temperature rise generated during the curing stage. The quantity of aggregates should not exceed 1 part aggregates to 1 part **EstogROUT FP 70** by weight. For such mixes, a conventional concrete mixer and pump may be used. To further ensure that air entrapped during mixing allowed to fully escaping, it may be necessary to make breather holes. Use steel rods or chains to assist the flow of grout where necessary.

Curing

On completion of the grouting operation, all exposed areas that are not to be cut back should be thoroughly cured. Apply suitable curing membrane such as Estocure WB or continuous application of water after initial set for curing purpose.

Packing & Size

EstogROUT FP 70	25kg bag
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Technical Support

Estop offers a comprehensive range of high performance, high quality of repair product for both new and existing concrete surfaces. In addition, the company offers a technical support package to specifiers, end-users and contractors, as well as on-site technical assistance.

Storage

EstogROUT FP 70 should be stored on pallets in dry conditions. Under these conditions, the product will have a shelf life of 12 months.

Precaution

EstogROUT FP 70 is alkaline and should not be in contact with skin and eyes. Avoid inhalation of dust during mixing. Wear gloves, goggles and dust mask.

Additional Information

Estop manufactures and offers a wide range of complementary products, which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.

Important Note

Estop products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which may be obtained on request. Whilst Estop endeavors to ensure that any advice, recommendation, specification or information in may give is accurate and correct, it shall not, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation or information given by it.