

FLOWCAST PT600

Plasticized Expanding Grout Admixture

Description

FLOWCAST PT600 is an admixture to produce cementitious flowable grouts where a reduced water/cement ratio and positive expansions are required.

FLOWCAST PT600 is a plasticized expanding grout admixture powder combining a plasticizing agent and powder expanding additive. The plasticizing agent enables a reduced water/cement ratio with consequent increased strengths and durability. The expansive medium balances the natural settlement and plastic shrinkage of the grout and aids stability and cohesion.

Features & Benefits

- Nullifies plastic shrinkage and settlement in properly designed cementitious grout due to gaseous expansion system.
- Ensure low permeability and long-term durability in service due to reduced water/cement ratio mixes in the grout mix.
- Placement or injection of the grout is easy due to high fluidity with low water/cement ratio.
- Free from metallic iron content. Does not corrode and cause staining or deterioration due to rust expansion in the grout.
- Attains high early strength without the use of chlorides.
- Reduces segregation of sand and aggregate and eliminates bleeding of water.
- Provide water tightness and protect from corrosions.
- Gives positive volumetric expansion of up to 4%
- Economical and easy to use.

Uses

FLOWCAST PT600 can be used in preparing:

- Grouts for filling the casings of post-tensioning cables in pre-stressed concrete.
- Mortars for anchoring reinforcing rods, tension rods or studs in concrete or rock.
- Slurries for filling cavities and cracks in rock or damaged concrete.

- Grouts for under structural base plates, machines base plates and crane rail tracks
- Grouts for block filling

Technical Properties

Appearance	Fine Powder
<u>Example of cement mixed with 6% FLOWCAST PT600</u>	
Wet Density	1,850 Kg/m ³ approx.
Fluidity (EN 445)	10-20 seconds (Initial) 10-20 seconds (after 30min)
Bleeding	None
Volume change	Up to +4% @ 24hrs
Chloride/ Nitrate content	Nil
Compressive strength	
After 3 days	≥35 N/mm ²
After 7 days	≥45 N/mm ²
After 28 days	60 N/mm ²
VOC	<2.0 g/L

All values are subject to 5-10% tolerance

Standard Compliance

- ASTM C580
- EN 445, 446 & 447
- BS 8110 Pt 1, Sec. 8 & BS 4551

Application Procedures

Surface preparation:

The area/duct to be grouted should be cleaned with water before the application of grout. Any free water must be drained out. Cable anchorages should be sealed before the duct grouting is carried out.

Mixing Instructions:

For best results a mechanically powered grout mixer is recommended. For quantities up to 50kg, a slow speed drill fitted with a high shear paddle is suitable. Large

quantities will require a high-volume drum mixer. It is essential that machine mixing capacity and labor availability is ready to enable the grouting operation to be carried out continuously. The water content should be accurately measured into the mixer. **FLOWCAST PT600** is dispersed preferably in the mix water or it can be added to the mix just prior to being placed. Recommended dosage rate is 4 – 6 % by weight of cement powder contained in the mix.

Application Instructions:

Ensured areas are clean, sound and pre-wetted. The unrestrained surface area of the grout must be kept to minimum. The grout should be pumped within max. 15 minutes of mixing to gain the full benefit of the expansion process. Normal pumping procedures shall be adopted ensuring a continuous operation.

For application during summer season, the following precautions should be considered:

- Use cool water for mixing the grout (temp. 20-25 C°).
- Try to eliminate application during the peak temperature of the day.
- Mix enough grout that can be produced during the open time.
- Store unused materials in a covered dry place.
- It is recommended to shade the working area during mixing and pumping of Grout.

Yield / Consumption

4 to 6% by weight of the cement powder contained in mix.

Packaging

FLOWCAST PT600 is available in 6 Kg bags.

Storage

Keep the product in dry and sheltered place at temperature between +5°C to +35°C. In these conditions and in closed original containers, the product will have a shelf life of at least 6 months.

Health and Safety

Wear gloves, goggles to avoid any contact with eyes and skin. In case of splashes in the eyes wash abundantly with warm water and consult a doctor.

For further information or particular use, contact SBI Technical Department.

Quality & Care

All products produced in SBI facilities are manufactured under a management system certified to conform to the requirements of the quality and environmental health & safety standards ISO 9001 & ISO 14001.

SBI products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. All SBI datasheets are updated on a regular basis. It is the user's responsibility to obtain the recent version.

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SALES OFFICE : Jebel Ali, Industrial 1
FACTORY : RAK, Jazerat Al Hamra

Tel.+971 4 880 2131
Tel. +971 7 2210066
www.sbi-me.com , info@sbi-me.com

