

Product Description

PoreX 100 is supplied as a powder admixture. The material is a combination of a plasticising agent and a gas producing expansion medium. The plasticising agent allows the use of a reduced water/cement ratio with consequent increased strengths and durability. The expansive medium counteracts the natural settlement and plastic shrinkage of the grout and aids stability and cohesion. Sufficient restrained expansion is developed to ensure a high degree of interfacial contact.

Uses

PoreX 100 is an admixture for cementitious grouts where a reduced water/cement ratio and positive expansion is required. Applications include bed grouting, duct grouting, non-shrink infilling and jointing.

Advantages

- Gaseous expansion system compensates for plastic shrinkage and settlement in properly designed cementitious grout.
- Reduced water/cement ratio mixes in the grout mix ensures low permeability and long term durability in service.
- Gives high grout fluidity with low water/cement ratio, thus making placement or injection of the grout easy.
- No metallic iron content to corrode and cause staining or deterioration due to rust expansion in the grout.
- Composition allows high early strength development in grouts, without the use of chlorides.

Specification

Performance specification

All grouting (specify details and areas of application) must be carried out with a cement based grout incorporating a plasticised, expanding powder admixture. The admixture must be iron-free and chloride-free and shall be added to the grout in the proportions 225 g of admixture per 50 kg of cement. The admixture shall provide an expansion of up to 4% in the plastic grout, by means of a gaseous system. The admixture must be stored, handled and mixed strictly in accordance with the manufacturer's instructions.

Supplier specification

All grouting (specify details and areas of application) must be carried out using a cement based grout, incorporating PoreX 100 manufactured by Technokem and applied strictly in accordance with the manufacturer's technical data sheet.

Properties

Chloride content	: Nil to BS 5075
Compressive strength	: The plasticising action of PoreX 100 allows reduction of the water / cement ratio of cementitious grouts whilst maintaining now properties. This gives improvement in strength and long term durability when cured under restraint.
Setting times	: PoreX 100 does not significantly affect the setting times of cement based grouts.
Expansion characteristics:	The controlled positive expansion in unset grouts incorporating PoreX 100 overcomes plastic settlement when measured in accordance with ASTM C827. An unrestrained expansion of up to 4% is typical.
Time for expansion	: 15 minutes - 2 hours. Temperatures above 20 °C may slightly reduce these times.
Compatibility	: PoreX 100 is compatible with all types of Portland cement. PoreX 100 may be used in mixes containing certain other Techno Addplast admixtures. Consult Technokem for further information.

Instructions for use

Mixing

For best results proper paddle mixer must be used. For quantities up to 50 kg a slow speed drill fitted with a high shear paddle is suitable. Larger quantities will require a high shear vane mixer.

It is essential that machine mixing capacity and labour availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of a holding tank with provision for gentle agitation to maintain fluidity. The selected water content should be accurately measured into the mixer. Slowly add the cement (and sand if required) and PoreX 100. Mix continuously for 5 minutes, making sure that a smooth even consistency is obtained.

Application

Areas to be grouted should be prepared to ensure substrates are clean, sound, and then pre-wetted. The unrestrained surface area of the grout must be kept to a minimum. Place the grout within 20 minutes of mixing to gain the full benefit of the expansion process. Adopt usual placing or pumping procedures ensuring a continuous operation.

Curing

On completion of the grouting operation, any exposed areas which are not to be cut back should be thoroughly cured by means of water application, Techno Cure curing membrane or wet hessian.

Cleaning

Grouts mixed with PoreX 100 should be removed from tools and equipment with clean water immediately after use. Remove cured material mechanically.

Limitations

PoreX 100 is not compatible with High Alumina Cement.

Estimating

Supply

PoreX 100 : 5 kg packs & 225 g tins

Dosage

OPC	Concreting sand	Water	Conbex 100	Approx yield
50 kg	-	20-22 litres	225 g	36 litres
50 kg	50 kg	22-24 litres	225 g	57 litres

Note: For grout, mortar or concrete mixes with an aggregate/ cement ratio more than 1, use 4x225 g units or 900 g of PoreX 100 per 100 kg of cement.

Effects of Overdosing

Overdosing of PoreX 100 increases expansion and may cause frothing.

Storage

PoreX 100 has a shelf life of 12 months if kept in a dry store in its original packaging. High temperature and humidity storage may reduce this period.

Health & Safety

PoreX 100 is of low hazard.

Contact with the skin and eyes, or inhalation of dust should be avoided. Wear suitable protective clothing, gloves, eye/ face protection and dust mask. After contact with skin, wash off with clean water. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.

For further information see Product Material Safety Data sheet.

PoreX 100

Plasticised expanding grout admixture

Important: Technokem products are guaranteed against defective materials and are sold subject to its standard terms and conditions of sale. It is the Customer's responsibility to satisfy themselves by checking with the Company whether the information is still current at the time of use. The customer must be satisfied that the product is suitable for the use intended. All products comply with the properties shown on current Technical Literatures. However, Technokem does not warranty or guarantee the installation of the products as it does not have any control over installation or end use of the product. All information and particularly the recommendation relating to application and end use are given in good faith.

For Complaints/Suggestions:

Please write to our Customer Care Executive at

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