

Cebex 100

Plasticised expanding grout admixture

Uses

Cebex 100 is an admixture for cementitious grouts where a reduced water/cement ratio and positive expansions are 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 grout high 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.

Standards compliance

Cebex 100 is a suitable pressure grouting admixture complying with BS: 8110 Part 1-1985, Section 8.9.4.6.

Description

Cebex 100, a plasticised expanding grout admixture is supplied as a powder. 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.

Technical support

Fosroc offers a comprehensive range of high performance, high quality concrete repair and construction products. In addition, Fosroc offers technical support service to specifiers, end-users and contractors, as well as on-site technical assistance in locations all over the country.

Properties

Chloride content	: Nil as per BS:5075
Compressive strength	: The plasticising action of Cebex 100 allows reduction of the water cement ratios of cementitious grouts whilst maintaining flow properties. This gives improvement in strength and long term durability when cured under restraint.
Setting Times	: Cebex 100 does not significantly alter the setting times of cement based grouts.
Expansion Characteristics	: The controlled positive expansion in unset grouts incorporating Cebex 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	: Cebex 100 is compatible with all types of portland cement. Cebex 100 may be used in mixes containing certain other Fosroc admixtures. Fosroc shall be contacted for further information.

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Specification clauses

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 grout admixture must be iron-free and chloride-free and shall be added to the cement grout in the proportion of 225g per 50kg of cement. The grout admixture shall provide an expansion of up to 4% in the plastic grout, by means of a gaseous system. The grout 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 Cebex 100 manufactured by Fosroc and applied strictly in accordance with the manufacturer's technical datasheet.

Application instructions

Mixing

For best results a mechanically powered grout mixer must be used. For quantities upto 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 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. The cement (and sand if required) shall be slowly added to Cebex 100. Mixing shall be continued for 5 minutes, making sure that a smooth even consistency is obtained.

Application

It shall be ensured that areas to be grouted are clean, sound, and then pre-wetted. The unrestrained surface area of the grout must be kept to a minimum. The grout shall be placed within 20 minutes of mixing to gain the full benefit of the expansion process. Usual placing or pumping procedures shall be adopted 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, concure* curing membrane or wet hessian.

Cleaning

Grouts mixed with Cebex 100 should be removed from tools and equipment with clean water immediately after use. Cured material should be removed mechanically or with Reebaklens, multi purpose cleaning agent.

Limitations

Cebex 100 is incompatible with High Alumina Cement.

Estimating

Packaging

Cebex 100 is supplied in 225 g packs.

Dosage

OPC	Concreting Sand	Water	Cebex 100	Approx. Yield
50kg	-	20-22 litres	225 g	36 litres
50kg	50 kg	22-24 litres	225 g	57 litres

Note : For grout, mortar or concrete mixes with an aggregate/ cement ratio more than 1, 4 x 225 g units of Cebex 100 per 100 kg of cement, shall be used.

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Effects of overdosing

Drastic overdosing of Cebex 100 increases expansion and may cause frothing.

Storage

Shelf life

Cebex 100 has a shelf life of 6 months if kept in a dry store in its original packing. High temperature and humidity storage may reduce this period.

Precautions

Health and Safety instructions

Cebex 100 is of low hazard.

Contact with the skin and eyes, or inhalation of dust should be avoided. Suitable protective clothing, gloves eye/face protection and dust mask should be worn. In case of contact with skin, it shall be washed with clean water. In case of contact with eyes, it shall be rinsed immediately with plenty of water and medical attention shall be sought immediately.

Additional information

Fosroc manufactures a wide range of products specifically designed for the repair and refurbishment of damaged reinforced concrete. This includes repair mortars, fluid microconcretes, chemical resistant epoxy mortars in addition to comprehensive package of protective coatings. In addition, a wide range of complementary products are available. This includes joint sealants, waterproofing membranes, grouts and anchors and specialised flooring materials.

*Separate data sheets are available on these products.

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Important note :

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