Cebex EN

Plasticising and hydrogen free expansion grout admixture

Uses

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

Cebex EN Meets the EN447 - 2007 Requirements of Grouts for Prestressing tendons.

Advantages

- Hydrogen free expansion system compensates for plastic shrinkage and settlement in properly designed cementitious grout.
- Reduced water / cement ratio 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.

Description

Cebex EN a plasticising and hydrogen free expansion grout admixture is supplied as a powder admixture. Cebex EN 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 to BS : 5075

Compressive strength :The plasticising action of Cebex EN allows reduction of the water/cement ratio of cementitious grouts whilst maintaining flow properties. This gives improvement in strength and long term durability when cured under restraint.

Setting Time :Cebex EN may slightly retard the setting times of cement based grouts depending on the cement and ambient temperature.

Expansion characteristics :The controlled positive expansion in unset grouts incorporating Cebex EN overcomes plastic settlement when measured in accordance with ASTM C827. An unrestrained expansion of upto 2% is typical.

Time of expansion:15 minutes - 2 hours. Tempertures above 20^{0}C may slightly reduce these times.

Compatibility : Cebex EN is compatible with all types of portland cement. Cebex EN may be used in mixes containing certain other Fosroc admixtures. Consult Fosroc for further information.

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. 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 Cebex EN. 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 as early as possible after 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, Concure curing membrane or wet Hessian.

Cebex EN

Clean

Grouts mixed with Cebex EN should be removed from tools and equipment with clean water immediately after use. Cured material should be removed mechanically or with Reebaklens.

Limitations

Cebex EN is incompatible with High Alumina Cement. Required expansion may not be achieved, if grout is bleeding.

Estimating

Packing

Cebex EN is supplied in 225 gm packs.

Dosage

OPC	Concreting sand	Water	Cebex EN	Approx. Yield
50kg	-	**	225g	36 litres

** Best determined by site trials. As a guide suggested W/P is 0.35 to 0.40.

Effects of overdosing

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

Storage

Shelf life

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

Cebex EN 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. Any contact with skin, should be washed with clean water. Incase of contact with eyes, should be rinsed immediately with plenty of water and sought medical attention.

BERGER
Trusted Worldwide

Berger Fosroc Limited
Corporate Address:
'Berger House', House # 08, Road # 02, Sector # 03, Uttara Model Town, Dhaka 1230, Bangladesh.
telephone(Hunting) : +880248953665, **fax :** +880248951350,
e-mail : enquiry.bangladesh@bergerfosroc.com, **website** : www.bergerfosroc.com

FOSROC