

Thixotropic stabiliser for cement grouts

Uses

- Stabilisation of cement grouts for pumping into cavities or fissures subject to water flow
- Tunnel annulus grouting in soft ground or rock
- Shaft grouting

Advantages

- Enables cement grouts to be used in moving water conditions
- Reduced wash-out saves cement
- Early invert support gives increased productivity in tunnel ring lining
- Can be used in marine environments in contact with sea water
- Gives production flexibility derived from controlled grout thixotropy

Description

A blend of water soluble, high molecular weight polymers, supplied as a white powder. Cebex 653 is designed for addition to cementitious grout mixes to enable them to be placed in moving water conditions without excessive wash-out of cement.

Cebex 653 is a tunnel annulus grout admixture used to produce an instantaneous gelation and fast set behind tunnel linings.

Specification clauses

Performance specification

All grouting must be carried out with an OPC grout at a water/cement ratio of 0.3 to 0.45 and incorporating a thixotropic admixture.

The admixture will ensure that the mixed grout is sufficiently thixotropic to avoid leakage and loss of grout. The admixture shall be added to the grout at a dose of 0.27 kg per 300 kg of cement.

The admixture must be stored, handled and placed strictly in accordance with the manufacturer's instructions.

Properties

Rapid gel

Cebex 653 will not significantly alter the initial hardness of a cement grout but the gelation, which occurs almost immediately after pumping has stopped, makes the grout appear to have reached its initial set instantaneously.

Setting times

Cebex 653 does not significantly affect the final setting times of cement based grouts.

Compressive strength

Grouts retain high compressive strengths even in moving water.

Application instructions

Dosage

One 0.27 kg plastic bag of Cebex 653 is required per 300 kg of cement.

Overdosing

Overdosing should be avoided to ensure the grout can be pumped.

Mixing

Mix grout until homogenous as usual then add Cebex 653 as a slow stream into the mixer. Mix for 30 seconds to disperse Cebex 653 through the grout.

Application

Mixes containing Cebex 653 may be produced in standard grout shear mixing equipment. The grout produced is highly thickened and only non-valved pumps are recommended for placement.

As the grout will thicken within 2 to 5 minutes, discharge should take place before this time. Holding tanks will require a discharge port of at least 75 mm to facilitate the passage of thickened grout.

Fosroc® Cebex 653

Estimating

Pack size

Cebex 653 is supplied in plastic bags containing 0.27 kg.

Storage

Cebex 653 has a shelf life of 12 months if kept in a dry store in its original packaging.

Precautions

Health and Safety

For further information refer to appropriate Product Safety Data Sheet.

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