

# Cebex 653

## 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.

## Estimating

### Pack size

Cebex 653 is supplied in plastic bags containing 0.27 kg.

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## 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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