Fosroc Conbextra STD

(Formerly Conbextra EWG)



constructive solutions

Non shrink cementitious grout

Uses

Conbextra STD is used to grout gap thicknesses in the range of 10 to 100mm. Applications include grouting voids beneath baseplates, voids around below-ground tanks, bolt pockets, annular gaps and pipe line sleeves.

Advantages

- Non shrink and non metallic
- High compressive strength
- Fluid
- Extended workability
- Can be pumped or poured
- Chloride free

Description

Conbextra STD is supplied as a ready to use dry powder. The addition of a controlled amount of clean water will produce a fluid grout for pouring or pumping into voids.

Conbextra STD is a blend of Portland cements, graded aggregates and additives. The low water requirement produces a fluid grout of high strength with good workability.

Specification

All grouting of gap thicknesses, typically 10-100mm must be carried out with a pre-bagged, non shrink, cementitious grout supplied by a registered firm under the ISO 9002 Quality Assurance Scheme. The compressive strength of the grout shall be 70 N/mm² at 28 days. The grout must be stored, handled and placed in strict accordance with the manufacturer's instructions. No site batched additions to the pre-bagged grout shall be allowed.

Properties

Expansion characteristics

(ASTM C940)

The following properties were obtained at a water:powder ratio of 0.18 at 25°C:

| Test method | Typical result | |
|-------------------------------|---------------------------------|--|
| Compressive strength | Tolerance (±10%) | |
| (BS EN 196-1) | : 20 N/mm² at 1 day | |
| | 55 N/mm² at 7 days | |
| | 70 N/mm ² at 28 days | |
| Flexural Strength | : >10 N/mm² at 28 days | |
| (BS EN 196-1) | | |
| Initial set (BS EN 196: Sc.6) | : 4 hours & 20 Min. | |
| Final set (BS EN 196: Sc.6) | : 6 hours & 20 Min. | |
| | | |

: Up to 2% @ 24 hours

Standards compliance

Conbextra STD meets or exceeds the test requirements of ASTM C 1107.

Instructions for use

Preparation

The substrate must be free from oil, grease or any loosely adhering material. If concrete surfaces are defective or have laitance, they must be cut back to a sound base. Bolt holes and pockets must be blown clean of any dirt and debris.

Pre soaking

Soak concrete substrates for a minimum of two hours continuously prior to placing the grout. Immediately before placement all free water should be removed.

Baseplates

It is essential that this area is clean and free from oil, grease or scale. Air pressure relief holes should be provided to allow venting of any isolated high spots.

Formwork

The unrestrained surface area of the grout must be kept to a minimum. Generally the gap width between the perimeter formwork and the plate edge should not exceed 75mm on the pouring side and 25mm on the opposite side. There should be no gap at the flank sides.

Formwork should be made leak-proof by using foam rubber strip or mastic sealant beneath the formwork and between joints. Coat all formwork with Reebol*† to enable easy formwork release.

Mixing

For best results a mechanically powered grout mixer should be used. When quantities up to 50 kg are used, a slow speed drill fitted with a Fosroc Mixing Paddle (MR3) should be used. Larger quantities will require a high shear vane mixer. Do not use a colloidal impeller mixer.

To enable the grouting operation to be carried out continuously, it is essential that sufficient mixing capacity and labour are available. The use of a grout holding tank with provision to gently agitate the grout may be required.

Consistency of grout mix

The quantity of clean water required to be added to a 25kg bag to achieve the desired consistency are given below:

| Trowellable | : | 3.75 litres /25kg |
|-------------|---|-------------------|
| Flowable | : | 4.5 litres /25kg |
| | | |

Fosroc Conbextra STD

The selected water content should be accurately measured into the mixer. The total contents of Conbextra STD bag should be slowly added and continuous mixing should take place for 5 minutes. This will ensure that the grout has a smooth even consistency.

Placing

At 25°C place the grout within 45 minutes of mixing to gain the full benefit of the expansion process.

Conbextra STD can be placed in thicknesses up to 100mm in a single pour. Bolt pockets must be grouted prior to commencement of underplate grouting.

Pour or pump Conbextra STD from one point only to eliminate the entrapment of air. For pumping advice please contact Fosroc.

Curing

After formwork striking all exposed areas should be cured using Concure RB90, continuous application of water or with wet hessian. Any gaps or grouting slots should be cured immediately after grouting.

Cleaning

Conbextra STD should be removed from all tools and equipment with clean water immediately after use.

Cured product can be removed mechanically or with Fosroc Acid Etch*†.

Sampling procedure

Cementitious grouts cannot be tested as concrete. Special sampling procedure are required refer to your local Fosroc office for further details.

High temperature working

For temperatures above 35°C, special procedures need to be adopted, refer to your local Fosroc office for further advice.

Limitations

- At ambient temperatures above 35°C, the mixed grout should be placed immediately after mixing. Water with a temperature less than 20°C should be used for mixing.
- Grouts should not be placed in any unrestrained situation, i.e. base plate plinths, etc. Failure to comply may lead to crack development in the grout.

Estimating

| S | u | p | p | ly | , |
|---|---|---|---|----|---|
| ~ | | | | | 4 |

| Conbextra STD | : | 25kg bags | j bags | |
|---------------|---|----------------------|--------|--|
| Yield | | | | |
| Trowellable | : | 12.8 litres/25kg bag | | |
| Flowable | : | 13.6 litres/25kg bag | | |

Storage

Shelf life

Conbextra STD has a shelf life of 12 months if kept in a cool dry store in sealed bags and out of direct sunlight. Storage at high temperature will reduce shelf life.

Precautions

Health and safety

Conbextra STD contains cement powders that when mixed or become damp, release alkalis that can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes. Wear suitable protective clothing, gloves, eye protection and a dust mask. The use of a barrier cream provides additional skin protection. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. If swallowed, seek medical attention immediately - do not induce vomiting.

- * Denotes the trademark of Fosroc International Limited
- † See separate data sheet

Important note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard Conditions for the Supply of Goods and Service. All Fosroc datasheets are updated on a regular basis. It is the user's responsibility to obtain the latest version.



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