

Fosroc® Conbextra BB92-IN



constructive solutions

Free flow, High strength, Non Shrink, Cementitious precision grout

Uses

Conbextra BB92-IN is designed for precision grouting of Foundations subjected to static & Dynamic loads. Its specifically suitable for grouting base frame of metal wind turbine foundations and also horizontal & vertical joints of precast wind turbine towers, filling of voids in narrow or congested spaces especially where the grout needs to be pumped long distances without bleeding or segregation. It is also used for coupler grouting in precast.

Advantages

- High early & Ultimate compressive strength
- Excellent flow characteristics and rheology permits pumping
- Dynamic Load resistant
- Non Shrink
- Prepacked material overcomes onsite batching variations

Description

Conbextra BB92-IN is supplied as ready to use dry powder which is blend of Portland Cement, graded fillers and chemical additives which impart a controlled expansion in plastic state, while minimising water demand.

Technical support

An experienced technical advisory team is available to give technical service on request.

Technical Properties

Test method	Typical result @27°C
W/P ratio	: 0.11 to 0.12
Mixed Density	: 2.4 kg/litre
Expansion	: 0-2%
Thickness applicable	: 10-300 mm
Final Set	: < 5 hours
Initial flow (BS 890 Cone)	: 240-280 mm
Pot life	: > 45 Mins
Flexural Strength (BS 4551, 40x40x160mm)	: > 4 N/mm ² @ 1 day : > 10 N/mm ² @ 7 days : > 12 N/mm ² @ 28 days
Split Tensile Strength	: > 5.5 Mpa

The above results corresponds to a W/P ratio of 0.12

Compressive Strength (ASTM C109) 50mm cubes	
Age	W/P - 0.12
1 day	30 N/mm ²
7 days	75 N/mm ²
28 days	90 N/mm ²

Note: The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary, dependent on actual site conditions.

Fatigue

Product has been Tested for stress fluctuation of 95 kg/cm² and 530 Kg/cm² for 2 million cycles at the rate of 330 cycles per minute to assess the Fatigue behaviour. The specimen did not show any distress and the results comply with requirements of Model code 1990 & 2010.

Application instructions

Surface Preparation

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut back to a sound base. Bolt holes and fixing pockets must be blown clean of any dirt or debris.

Pre Soaking

Several hours prior to placing, the concrete substrates should be saturated with fresh water. Immediately before grouting takes place any free water should be removed with particular care being taken to blow out all bolt holes and pockets.

Base Plate

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

Levelling Plates

If these are to be removed after the grout has hardened, they should be treated with a thin layer of grease.

Formwork

The formwork should be constructed leak-proof given the high fluidity of grout. This can be achieved by using foam rubber strip or mastic sealant beneath the constructed formwork and between joints. In some cases it is practical to use sacrificial semi dry sand and cement formwork the formwork should include outlets for presoaking. Un restrained surface area should be kept to a minimum, Generally the width of the gap between the perimeter of the casing and the plate should not exceed 150mm at the discharge side and 50mm on the opposite side. There should be no holes in the sides.

Mixing

For best results use a mechanical powered grout mixer should be used. When quantities upto 50Kg are used, slow speed drill (400-500Rpm) fitted with a paddle is suitable, large quantities will require a heavy duty mixer. Place the water into the mixer and add the contents of the Conbextra BB92-IN bag. Mix for 5 minutes to ensure uniform consistency.

Note: During the first two or three minutes, the mixture will have a hard consistency. Add 2.75 to 3.0 Liters of water to a 25kg bag to obtain a fluid grout.

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Placement

In order to maximize the expanding effect is convenient to place the grout within 15minutes of mixing, Conbextra BB92-IN can be placed upto thickness of 10mm to 300mm. The Bolts should be fixed with mortar or resin before pouring.

It is essential that the discharge/pumping is continuous. Always make sure to have enough grout before starting and controlling the time of mixing and the time needed to prepare the next batch. The discharge must always be performed from the same side of the bed to prevent the formation of air pockets.

Efforts will be made to the advancing front of the grout is uniform. In case of pumping, prior lubrication of all equipment by a cementitious slurry composed of two parts of cement and water in sufficient quantity for the circuit to be in contact with the grout be lubricated. Grout should be pumped after lubrication, eliminating the initial slurry used for lubrication.

Curing

To complete the operation, air exposed areas should be cured. This should be done by Concure curing membrane, continuous application of water and/or wet hessian.

Cleaning

All tools and equipment can be cleaned simply with water immediately after use, if the material is hardened clean mechanically or with a solution of Fosroc Acid etch.

Packing

Conbextra BB92-IN	:	25 kg and
		500 kg jumbo bag

Yield

Allowance should be made for wastage when estimating quantities required. The approximate yield per 25kg bag for different consistency is:

Consistency	Flowable
Yield (litres)	11.5

Storage

Conbextra BB92-IN has a shelf life of 6 months kept in a dry store in sealed bags. If stored in high temperature and high humidity locations the shelf life may be reduced.

Precautions

Health and Safety

Conbextra BB92-IN is alkaline and should not come in contact with skin and eyes. Avoid inhalation of dust during mixing.

Use Gloves, goggles and mask. If there is contact with skin, wash with water, Splashes in the eyes should be washed immediately with clean water and consult a Doctor. Do not induce vomiting.

Fire

Conbextra BB92-IN is not flammable.

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.

For additional information, please refer to product SDS.

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