

Method Statement

Conbextra EP10(M)

Section A : General Comments

This method statement should be read in conjunction with the “Application criteria” section of the Conbextra EP10(M) data sheet(s). Please refer to the local Fosroc office for advice on selection of the most appropriate product for your application.

High temperature working

It is suggested that, for temperatures above 35°C, the following guidelines are adopted as good working practice:

- (i) Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- (ii) Keep equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment, which will come into direct contact with the material itself.
- (iii) Try to avoid application during the hottest times of the day.
- (iv) Make sufficient material, plant and labour available to ensure that application is a continuous process.

Equipment

It is suggested that the following list of equipment is adopted as a minimum requirement

<i>Protective clothing</i>	:	Protective overalls
	:	Good quality gloves, goggles and face mask
<i>Preparation equipment</i>	:	Electric or pneumatic breaker
	:	Hammer and chisel
<i>Mixing equipment</i>	:	Forced Action Mixer, Fosroc mixing paddle
<i>Application equipment</i>	:	Formwork, Pouring equipment

Application - points of note

Fosroc operates a policy to encourage the use, where possible, of approved or licensed applicators. This ensures that works are completed satisfactorily so that the long term performance of the materials is assured. For contractors who wish to apply the materials themselves Fosroc is also able to offer technical assistance and training.

Section B : Application Method

1 0 Surface Preparation.

Attention to full and proper preparation is essential to successful grouting.

- 1.1 The substrate surface must be free from oil, grease or any loosely adherent material.
- 1.2 If the concrete surface is defective or has laitance, it must be cut back to a sound base.
- 1.3 Bolt holes or fixing pockets must be blown clean of any dirt or debris.
- 1.4 All steel surfaces should be shot blasted free of rust and flaky mill scale to SA2½ or equal. Cleaned surfaces must be protected by the application of Nitoprime 25.

2.0 Bearing plate/base plate

- 2.1 The underside of the base plate should be clean and free from oil, grease, rust, scale or other loosely adherent material. It is recommended that the underside and edges are coated with Nitoprime 25 to prevent rust formation and ensure bonding with the Conbextra EP10(M) grout.
- 2.2 It maybe necessary to provide air pressure relief holes to allow venting of any isolated high spots.

3.0 Formwork - General

- 3.1 Before fixing any formwork, ensure that the area to be grouted is clean.
- 3.2 The formwork itself must be constructed to be leak-proof, to prevent any possible grout loss. This can be achieved by using foam rubber strip or mastic sealant beneath the formwork, and at any joints in the formwork.
- 3.3 The formwork should also be constructed in such a way as to keep the final, unrestrained surface area of the grout to a minimum, to avoid problems with cracking at a later stage.
- 3.4 For free flow grout conditions, it is essential to provide a hydrostatic head of grout. A feeding hopper system is recommended for such situations.
- 3.5 It should be fixed in such a way as to allow easy stripping, without causing damage or distress to the grout.
- 3.6 All dirt and debris to be removed from the grout area before the last piece of formwork is fixed.

4.0 Formwork - Geometry

4.1 Pouring side

- set up so that grout will be poured the shortest distance across the base plate
- erected a maximum of 75 mm from the base plate edge

4.2 Open side

- set up directly opposite the pouring side
- erected a maximum of 25 mm from the plate edge

4.3 Flanking sides

- set up flush with the plate edge
- close attention to 'grout tightness' of the formwork

5.0 Mixing

5.1 The entire contents of the hardener can should be poured into the base container and mixed until homogeneous.

5.2 Place the mixed base and hardener into a suitable forced action mixer. Ensure that the entire volume is poured in.

5.3 Add the aggregate and mix for 2-3 minutes or until uniform colour is achieved.

5.4 Under no circumstances should part packs be used, as this will change the resin: powder ratio, adversely affecting material performance and automatically invalidating Fosroc's standard product guarantee.

6.0 Placing (For Baseplates)

It is essential that the machine mixing capacity, material supply and labour availability is adequate to enable the grouting operation to be carried out continuously.

6.1 Immediately prior to placement, ensure that all surfaces are dry.

6.2 Any bolt pockets must be grouted prior to grouting between the substrate and the base plate.

- 6.3 Continuous grout flow during the grouting operation is essential. Sufficient grout must be available prior to starting, and time taken to pour a batch must be regulated to the time taken to prepare the next one.
- 6.4 The mixed grout should be poured only from one side of the void to eliminate the entrapment of air. The grout head must be maintained at all times so that a continuous grout front is achieved.
- 6.5 When the grout reaches the open side of the formwork, and rises above the underside of the base plate, pouring should continue slowly down the length of the base plate until completed.
- 6.6 Conbextra EP10(M) has a pot life of 40 min @ 35°C and 90 min @ 20°C. After mixing, Conbextra EP10(M) should be used within the pot life period or else the material will harden and therefore will have to be discarded.

7.0 Pressure grouting of construction joints and cracks

- 7.1 Drill holes along the crack at intervals of 500 mm and fix nozzles using 12 mm dia.
- 7.2 The remaining length of the crack / Joint should be sealed with Epoxy mortar
- 7.3 The mixed grout is pumped in through the nozzles using a Lilly pump or any other hand pump maintaining pressure in range of 3 to 5 kg/m² till the material jets out of the adjacent nozzle.
- 7.4 The pumping is stopped and the nozzle is then tied up to allow the grout to set.
- 7.5 The pumping operation is then resumed from another nozzle till all the nozzles are covered.
- 7.6 The grouting operation should be carried out continuously so that no air gaps are formed.
- 7.7 The grout should be placed within 20 minutes of mixing.
- 7.8 After the grout has set, the nozzles should be cut flush with the surface and the surface sealed with epoxy mortar.
- 7.9 The PVC nozzles shall be sealed off with a quick setting water proofing agent like Renderoc Plug after the injection operation is over.

8.0 Finishing

- 8.1 Wherever possible unrestrained areas are to be avoided. These have a tendency to crack and/or debond, due to their unrestrained nature.

9.0 Protection

- 9.1 On completion of the grouting operation, all areas of grout should be protected from solar heat gain by providing shade over the whole area.

Section C : Approval and variations

This method statement is offered by Fosroc as a 'standard proposal' for the application of Conbextra EP10(M). It remains the responsibility of the Engineer to determine the correct method for any given application.

Where alternative methods are to be used, these must be submitted to Fosroc for approval, in writing, prior to commencement of any work. Fosroc will not accept responsibility or liability for variations to the above method statement under any other condition.