

# Conbextra EP75



constructive solutions

## Creep resistant, high strength, epoxy resin grout

### Uses

Provides a free flowing grout, for use where physical properties and chemical resistance of the hardened grout are of utmost importance. It is suitable for a wide range of heavy duty applications including:

- Underplate grouting to substantial structural elements.
- Base plate grouting in dynamic load situations such as turbines and other reciprocating machinery.
- Heavy industrial applications in steelworks, refineries chemical plants and electroplating works.
- Structural infill where very high strength is required.
- Rail track applications, to support heavy cranes, or on transporter rails.

### Advantages

- **Creep resistant** - to Improve resistance to deformation under constant loading.
- **Excellent durability** - high compressive, flexural and tensile strengths ensure a long working life.
- **Cost effective** - high early strength gain promotes minimum downtime and early commissioning of plant.
- **User friendly** - simple, full pack mixing to ensure that the performance characteristics are achieved.
- **Versatile** - suitable for a wide range of loading situations including repetitive dynamic loads.
- **Excellent in service performance** - non-shrink capability ensures full surface to surface contact.

### Description


Conbextra EP75 is a solvent free epoxy resin grout designed for grouting of gap widths of 10 to 75 mm. It is supplied as a three component system consisting of Component A, Component B and Component C. The components are supplied in the correct mix proportions designed for whole pack mixing on site.

### Specification

Where shown on the contract documents, the epoxy grout shall be Conbextra EP75 supplied by Fosroc. It shall provide good general chemical resistance, 7 day compressive strength of 100 N/mm<sup>2</sup>, and a compressive creep of 2.05 x 10<sup>-3</sup> mm/mm in accordance with ASTM C1181.

### Properties

|   |                               |
|---|-------------------------------|
| Pot life @, 23°C  | 75 minutes                    |
| Density   | 2090 kg/m <sup>3</sup>        |
| <b>Tensile Strength (ASTM C307)</b>                         |                               |
| 7 days  | 12 N/mm <sup>2</sup>          |
| <b>Flexural Strength (ASTM C580)</b>                        |                               |
| 7 days  | 26 N/mm <sup>2</sup>          |
| <b>Compressive Strength (ASTM C579)</b>                     |                               |
| 1 day   | 85 N/mm <sup>2</sup>          |
| 3 days  | 95 N/mm <sup>2</sup>          |
| 7 days  | 100 N/mm <sup>2</sup>         |
| <b>Maximum flow distance for a head of 100 mm at 20°C :</b> |                               |
| 35 mm gap   | 2000 mm                       |
| 70 mm gap   | 3500 mm                       |
| <b>Coefficient of thermal expansion</b>                     |                               |
| (ASTM C531)   | (2 - 5) x 10 <sup>-5</sup>    |
| <b>Compressive creep (ASTM C1181)</b>                       |                               |
| 1 year @ 60°C - 2.85N/mm <sup>2</sup>                       | 2.05 x 10 <sup>-3</sup> mm/mm |

|   |   |
|---|---|
| <br>2404 | <b>FOSROC İDEA YAPI<br/>KİMYASALLARI SAN. VE TİC. A.Ş.</b><br><br>Demirciler Organize Sanayi Bölğ. Mah.<br>Haldun Aksoy Cad. No:12/1 Gebkim OSB<br>Dilovası/Kocaeli<br>20 |
|   | 2404-CPR-TH1013   |
| <b>TS EN 1504-3</b><br>R4 Class<br>Structural Repair Mortar<br>( PCC )                      |   |
| DOP Number  | TR1504-3/017  |
| Compressive Strength  | ≥ 100 N/mm <sup>2</sup>   |
| Chloride Ion Content  | ≤ % 0,05  |
| Adhesion  | ≥ 2.0 N/mm <sup>2</sup>   |
| Restricted Shrinkage  | ≥ 2.0 N/mm <sup>2</sup>   |
| Modulus of Elasticity   | ≥ 20.0 GPa  |
| Capillary Water Absorption  | ≤ 0.5 kg/m <sup>2</sup> h <sup>0.5</sup>  |
| Fire Resistance   | Class: A1   |
| Dangerous Substance   | Compatible with<br>Clause5.4  |

# Conbextra EP75

## Instructions for use

### Preparation

#### Underplate grouting

The unrestrained surface area of the grout must be kept to a minimum. Generally, the gap between the perimeter formwork and the plate edge should not exceed 75 mm on the pouring side and 25 mm on the opposite side. Formwork on the flank sides should be kept tight to the plate edge. Air pressure relief holes should be provided to allow venting of any isolated high spots.

#### Formwork

The formwork should be constructed to be leak proof as Conbextra EP75 is a free flow grout. This can be achieved by using foam rubber strip or mastic sealant beneath the constructed formwork and between joints.

For free flow grout conditions, it is essential to provide a hydrostatic head of grout. To achieve this a feeding hopper should be used please consult your local Fosroc office for more details.

#### Foundation surface

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

#### Base plate

If delay is likely before placing steel base plates, it is recommended that the underside and edge are coated with Nitoprime 31 to prevent rust formation and ensure bonding with the Conbextra EP75 grout. All metal surfaces should be cleaned to a bright finish in accordance with Swedish Standard SA 2½ or equal. Nitoprime 31 can be applied directly onto newly cleaned steel surfaces even if they are damp.

### Mixing

The entire contents of the Component B can should be poured into the Component A container and mixed until homogeneous. Place the mixed base and hardener into a suitable forced action mixer making sure that the entire volume is poured in. Add the Component C and mix for 2-3 minutes or until uniform colour is achieved. Once mixed, the material must be used within the specified pot life (see under Properties). After this time, unused material will have stiffened and should be discarded.

### Placing

Ensure that the grout can be placed within its pot life. Continuous grout flow is essential. Sufficient grout must be available prior to starting and the time taken to pour a batch must be regulated to the time taken to prepare the next one. Pouring should be from one side of the void to eliminate air entrapment. The hydrostatic head must be

maintained at all times so that a continuous grout front is achieved.

### Cleaning

All tools and equipment should be cleaned immediately after use with Fosroc Solvent 102\*.

### Limitations

For underplate grouting, failure to adhere to "Instructions for use", may result in cracking & edge uplifting.

### Hot weather working

Whilst the performance of Conbextra EP75 at elevated temperatures is assured, application under such conditions can sometimes be difficult. It is therefore suggested that, for temperatures above 35°C, the following guidelines are used:

- Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- Keep mixing and placing 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.
- Try to eliminate application in the middle of the day, and certainly avoid application in direct sunlight.
- Ensure that there are sufficient operatives available to complete application within the material's pot life.

| Packaging              |                            |
|------------------------|----------------------------|
| Conbextra EP75         | 25 kg set                  |
| Component A (Base)     | 4,4 kg                     |
| Component B (Hardener) | 1,1 kg                     |
| Component C (Filler)   | 19,5 kg                    |
| Consumption            |                            |
| Conbextra EP75         | 2,09 kg/m <sup>2</sup> /mm |

### Storage

When stored in warehouse conditions below 35°C, Conbextra EP75 will have a shelf life of 12 months.



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## Precautions

### Health and safety

Some people are sensitive to epoxy resin so gloves and a barrier cream should be used when handling these products. If contact with the resin occurs, it must be removed before it hardens with a resin removing cream . Follow by washing with soap and water. Do not use solvent. The use of goggles is recommended but should accidental eye contamination occur, wash thoroughly with plenty of clean water and seek medical treatment immediately.

### Fire

Conbextra EP75 and Nitoprime 31 are not flammable.

## Additional Information

Fosroc manufactures a wide range of complementary

Products which include :

- waterproofing membranes & water stops
- joint sealants & filler boards
- cementitious & epoxy grouts
- specialized flooring materials

Fosroc additionally offers a comprehensive package of products specifically designed for the repair and refurbishment of damaged concrete. Fosroc's 'Systematic Approach' to concrete repair features the following :

- hand-placed repair mortars
- spray grade repair mortars
- fluid micro-concretes
- chemically resistant epoxy mortars
- anti-carbonation/anti-chloride protective coatings
- chemical and abrasion resistant coatings

For further information on any of the above, please consult your local Fosroc office - as below.

*\* 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.

### MACON ATEE

Απόλλωνος, Λυγαριά Πυλαίας  
55535, Θεσσαλονίκη

τηλέφωνο:  
+30 2310 428 900

φαξ:  
+30 2310 415 100

email:  
info@macon.com

[www.macon.gr](http://www.macon.gr)

[www.fosroc.com](http://www.fosroc.com)