



Fosroc Conbextra EP150

Free Flow Epoxy Resin Grout

Uses

Conbextra EP150 a free flow grout for use in situations where heavy static or dynamic loads are encountered. The gap between a base plate and substrate will need to be filled in such applications as reciprocating machinery, testing equipment, heavy crane and transporter rails, high speed turbines, centrifuges and drop forges.

Also for use in conditions where chemical spillage may be encountered. Typical situations could be met in steelworks, refineries, electroplating works and chemical plants.

Conbextra EP150 is especially suitable where extended working time and large volume pours, deep gaps or high ambient temperatures.

Advantages

- Low creep characteristics under sustained loading.
- Grouting under reciprocating or rotating equipment.
- Resistance to repetitive dynamic loads.
- Non-shrink and hence ensures complete surface contact and bond.
- High compressive, tensile and flexural strengths.
- Fast, convenient installation with early strength gain.
- Withstands a wide range of chemicals.



Docklands Light Railway

Description

Conbextra EP150 is a solvent free epoxy resin based product is designed for assisted and free-flow grouting of gaps from approximately 10 mm to 150 mm.

Conbextra EP150 is a three component systems consisting of base resin, liquid hardener and specially graded inert fillers. The components of the product is supplied in the correct mix proportions designed for whole pack mixing on site and no other materials should be added.

Technical Support

Fosroc offers a comprehensive range of high performance, high quality construction products. Fosroc offers a technical support package to specifiers and contractors as well as technical advice from staff with unrivalled experience in the industry.

Typical Properties

The following results are typical for the grout cured at 35°C.

Compressive strength (N/mm²) ASTM C579

7 days >100

Tensile strength (N/mm²)

ASTM C307, 7 days 16

Flexural strength (N/mm²)

ASTM C580, 7 days >26

Linear shrinkage (%)

ASTM C531, 7 days 0.019

Linear shrinkage

ASTM C531 <0.03%

Water absorption (%)

ASTM C413 <0.30

Conbextra EP150

Chemical Resistance

Conbextra EP150 product is resistant to oil, grease, fats, most chemicals, mild acids and alkalis, fresh and sea water. Consult Fosroc's Technical Department when exposure to solvents or concentrated chemicals is anticipated.

Pot Life

Ambient temperature affects the time for which bulk material will remain fluid. Typical values in minutes are enclosed below:

| | 24°C | 35°C |
|-------------------------|------|------|
| Conbextra EP150: | 150 | 105 |

For applications outside the above temperature ranges please contact your local Fosroc office.

Exotherm

All epoxy systems will develop an increase in temperature on mixing. Its extent will be a function of the volume to surface ratio, the ambient temperature as well as the mass and thermal conductivity of the surrounding materials. Contact Fosroc for specific data on each product.

Specification clauses

Supplier specification

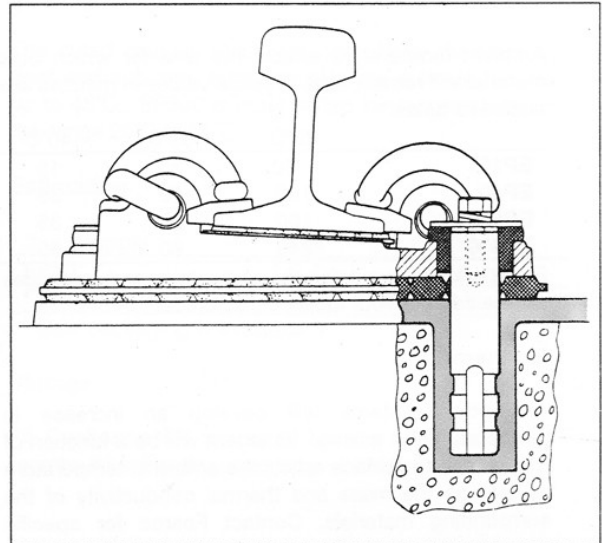
All epoxy resin grouting where shown on the drawings, must be carried out using the suitable grade of Conbextra EP150 product manufactured by Fosroc and used in accordance with the manufacturer's data sheet.

Performance Specification

All epoxy resin grouting where shown on the drawings must be carried out with a factory packed product. The hardened grout must have:

Compressive strength which exceeds 95 N/mm² at 7 days, tensile strength which exceeds 15 N/mm² at 7 days, and Flexural strength which exceeds 25 N/mm² at 7 day.

The storage, handling and placement of the grout must be in strict accordance with the manufacturer's instructions.



BS 80A resiliently supported baseplate incorporating Pandrol brand rail clips

Application Instructions

Preparation

Foundation surface

All contact surfaces must be free from oil, grease, free standing water or any loosely adherent material. Concrete surfaces should be cut back to a sound base. All dust must be removed and bolt holes or fixing pockets blown clean of any dirt or debris.

Steel surfaces

All steel surfaces should be shot blasted free of rust and flaky mill scale. Cleaned surfaces may be protected by the application of Nitoprime 28.

Formwork

The formwork should be constructed to be leakproof as Conbextra EP150 product is free flowing grouts. Loss of grout once the material is placed, but not hardened, will result in incomplete filling of the gap.

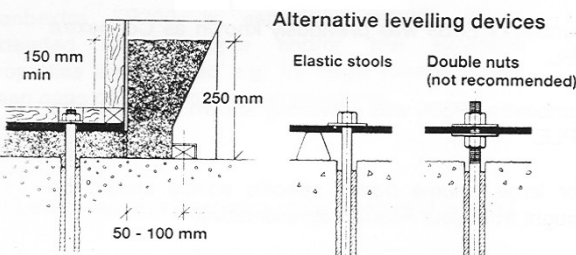
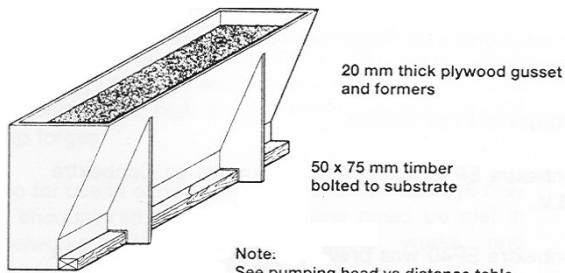
For free flow grout conditions it is essential to provide a hydrostatic head of grout. To achieve this a feeding hopper system should be used.

Conbextra EP150

For deep section placing in inaccessible, extended widths chains may be used to encourage lateral movement and complete filling of the gap, thus eliminating air pockets. For further information please contact Fosroc for specific advice.

Typical on-plate shutter system

Removable hopper: For larger pours the grout may be hand placed or pumped into a removable hopper (trough).



Mixing

Pour all the contents of the hardener pack into the base container. Mix using a slow speed power mixer until homogeneous.

Pour all the resultant liquid into a container with a capacity of 15-25 litres. Add all the filler provided for the product. Mix using a slow speed power mixer for two minutes or until a uniform colour is achieved in the grouts.

Placing

The mixed grout should be poured steadily from one side only to eliminate the entrapment of air.

Continuous grout flow is essential.

Sufficient grout must be available prior to starting.

The time taken to pour a batch should be regulated to the time taken to prepare the next batch.

Flow Characteristics

The maximum distance of flow is governed by the gap thickness, the head of grout applied and the ambient

temperature. The following table gives typical data for flow design.

| | °C | Gap thickness (mm) | Hydrostatic head (mm) | Maximum flow (mm) |
|-------|----|--------------------|-----------------------|-------------------|
| EP150 | 35 | 35 | 100 | 1200 |
| | 35 | 70 | 100 | 2000 |

Cleaning

All tools and equipment should be cleaned immediately after use with Fosroc Solvent 102. Spillages should be absorbed with sand or sawdust and disposed in accordance with local regulations.

Hot weather working

Whilst the performance of Conbextra EP150 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:

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

Limitations

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.

Temperature

Duration application

Conbextra EP150 grouting may be carried out without special precautions at ambient temperatures from 5°C to 25°C.

Conbextra EP150 at temperatures below 20°C the cure rate may be slow, but will go to completion provided the temperature remains above 5°C.

Careful planning of shuttering should be made to reduce exposed surfaces of epoxy grout and shoulders to an absolute minimum. Exposure to cyclic temperature changes is likely to cause cracking and peeling in unrestrained grout. Please contact Fosroc for further details.

Conbextra EP150

Estimating

| Supply | Size | Yield |
|------------------|--------|-----------|
| Conbextra EP150: | 92 Kgs | 46 Litres |

* Bulk packaging is available
Storage

Conbextra EP150 product has a shelf life of 12 months if kept in dry conditions at 25°C.

Precautions

Fire

Fosroc Solvent 102 is flammable. In the event of fire extinguish with CO₂ or foam.

Health and Safety

Conbextra EP150: Contains resins which may cause sensitisation by skin contact. Avoid contact with skin and eyes and inhalation of vapour. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide additional skin protection. Should accidental skin contact occur, remove immediately with a resin removing cream, followed by soap and water. **Do not** use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately. Do not induce vomiting.

Fosroc Solvent 102 Flammable liquid. Flash point 33°C.

Keep away from sources of ignition - non smoking. Wear suitable protective clothing, gloves and eye/face protection. Use only in well ventilated area.

For additional information see relevant Material Safety 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 Services, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification of information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it.

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