



Conbextra EPHT*

Epoxy resin free flow grout

Uses

A free flowing epoxy grout where the mechanical properties and heat resistance of the hardened grout must be of the highest order.

Applications include heavy duty supports beneath crane and transporter rails, high speed turbines and centrifuges, drop forges, reciprocating machinery and other operating or test equipment subject to heavy dynamic or repetitive loads. Suitable for high temperature works up to 160°C.

Advantages

- Suitable for use in high temperature operating environments with continuous service temperatures up to 160°C.
- High flexural strength and adhesion to substrate ensure excellent performance under dynamic load situations.
- High early strength performance allow minimum down time and early commissioning of plant.
- Simple mixing and free flowing properties ensure a convenient application and total bearing support.
- Withstands attack by a wide range of chemicals, acids and alkalis.
- Epoxy resin adheres to contact surfaces with no loss of bond.
- High compressive and tensile strengths ensure durability and long term service.
- Designed for low creep characteristics under sustained loading and elevated temperatures.
- Pre-measured, factory controlled materials allow reproducible flow and mechanical properties.

Description

Conbextra EPHT is a solvent free epoxy resin based product designed for free flow grouting of gap widths from 10 mm to 120 mm particularly and where high service temperatures are present. The components of Conbextra EPHT are supplied in the correct mix proportions designed for whole pack mixing so that flow and mechanical properties are consistent.

Technical support

Fosroc offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

Specification

Performance specification

All grouting (specify details and areas of application) must be carried out with a prepackaged epoxy grout. The grout must be mixed on site using the entire contents of a pack, base plus hardener (and aggregate if specified).

The compressive strength of grout with supplied aggregate must not be less than 75 N/mm² at 7 days. Compressive strength for the grout without aggregate is to be not less than 55 N/mm². The grout must be able to resist in-service temperature up to 160°C.

Properties

Data quoted is typical for this product, but does not constitute a specification.

Pot life

The time for which complete packs once mixed, remain fluid will vary with temperature. Typical values are:

@ 20°C	:	150 minutes
@ 30°C	:	90 minutes
@ 40°C	:	50 minutes

Exotherm

The temperature rise developed in the mixed grout is a function of the volume to surface area ratio, the ambient temperature, and the thermal conductivity of the surrounding substrates. The temperature increase of Conbextra EPHT under insulated (i.e. no heat sink) condition is typically 17°C for a 1 kg batch.

Temperature limitations

During application, grouting may be carried out at ambient temperatures from 20°C to 65°C. In service, Conbextra EPHT is suitable for continuous use at temperatures up to 160°C. For applications or services outside these temperature ranges contact your local Fosroc office.

Compressive strength gain

Tested in accordance with BS 4551, BS 2782 & BS 6319 where applicable. Conbextra EPHT must be post cured at an elevated temperature before being subjected to high loads. Post curing at 80°C for 3 hours followed by 2 hours at 120°C will ensure that the Conbextra EPHT is fully cured and capable of offering maximum creep resistance. Post curing at lower temperatures is also acceptable however a longer curing period will be required.

Compressive strength : 110 Mpa @ 2 days @ 35°C

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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.

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

Foundation surface

This 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 or fixing pockets must be blown clean of any dirt or debris.

Steel surfaces

All steel surfaces must be substantially clean and dry.

Mixing

The entire contents of the base and hardener should be poured into a suitable container and mixed for 2 minutes with a slow speed drill fitted with spiral mixing blade. Slowly add the fillers to the mixed base and hardener while continuing to mix for a further 3 minutes using a forced action mixer. 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

Place the grout within the pot life of the material. 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 is to be from one side of the void entry to eliminate the entrapment of air.

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 with Fosroc Solvent 102* immediately after use.

Estimating

Supply

Conbextra EPHT	:	14 litre packs
Fosroc Solvent 102	:	4 & 20 litre cans

Storage

Conbextra EPHT has a shelf life of 12 months if kept in a dry condition at 20°C.

Precautions

Health and safety

Some people are sensitive to epoxy resin so gloves and a barrier cream such as Kerodex 71, Rozalex 9, Debba-Wet Work or similar 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 such as Kerocleanse 22 or Rozalex 42. 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

Solvent 102 is flammable.

Flash point

Fosroc Solvent 102	:	33°C
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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.

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