TECHNICAL DATA SHEET

CONBEXTRA EPR (tg)

Low Exotherm, tropical Grade Epoxy Grout

Uses

Free-flow grout for use in situations where heavy dynamic or mobile loads are encountered, e.g. reciprocating machinery, testing equipment, heavy crane and transporter rails, high speed turbines, centrifuges and drop forges.

For single application repair and grouting of machinery bases and foundations, so as to minimize labor and downtime. Also for use in conditions where chemical spillage may be encountered. Typical situations could be met in refineries, electroplating works and chemical plants.

Advantages

- Low creep characteristics under sustained loading
- Resistant to repetitive dynamic loads
- Non-shrink and hence ensures complete surface contact and bond
- High compressive, tensile and flexural strengths
- Fast, convenient installation with rapid strength gain
- Withstands a wide range of chemicals
- **LOW EXOTHERM – Can be used at elevated tropical temperatures and at thicker sections**

Description

CONBEXTRA EPR (tg) is a low Exotherm epoxy resin based product designed for free-flow grouting of gap thicknesses from 10 to 300 mm in tropical conditions, and can be used up to 500mm in certain applications. It is a three-component system consisting of base resin, liquid hardener and specially graded inert fillers

Properties

The following results are typical for the hardened grout at 20°C.

Test method for Typical result	**Properties**
Compressive strength (BS 6319, Part 2: 1983) -	
3 days:	> 65 N/mm²
7 days:	> 83 N/mm²
28 days	> 100 N/mm²
Density:	2025 kg/m³
Tensile strength (BS 6319, Part 7: 1985) -	
7 days:	14.2 N/mm²
Flexural strength (BS 6319, Part 3: 1990) -	
7 days:	32.5 N/mm²
Secant modulus (BS 6319, Part 6: 1984):	13.3 kN/mm²

Chemical resistance

CONBEXTRA EPR (tg) is resistant to oil, grease, fats, most chemicals, mild acids and alkalis, fresh and sea water. Consult **SCL (TRINIDAD) LIMITED's** Customer Service Department when exposure to solvents or concentrated chemicals is anticipated.

Pot life

Ambient temperature affects the time for which bulk material will remain fluid. Being a Low Exotherm, Tropical Grade, the product is specially designed to be used at temperatures of 20 to 30 °C and should be placed within 30 minutes of mixing.

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Specification clauses

Supplier specification
All epoxy resin grouting where shown on the drawings, must be carried out using **CONBEXTRA EPR (tg)** manufactured by SCL (TRINIDAD) LIMITED 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 manufactured by a registered firm. The hardened grout must have a compressive strength which exceeds 85 N/mm² at 7 days, a tensile strength which exceeds 14 N/mm² at 7 days and a flexural strength which exceeds 31 N/mm² at 7 days.
The storage, handling and placement of the grout must be in strict accordance with the manufacturer's instructions.

Application instructions - Preparation

Foundation surface
All contact surfaces must be completely dry and free from oil, grease, or any loosely adherent material. Concrete surfaces should be scarified or 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 leak-proof as **CONBEXTRA EPR (tg)** is a free-flowing grout. 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.

Mixing
Pour all the contents of the hardener pack into the base container. Mix using a slow speed power drill and paddle until homogeneous.

Pour all the resultant liquid into a container with a capacity of 18 to 25 litres. Slowly add all the filler provided for each pack. Mix continuously using a slow speed power drill and paddle for 5 minutes or until a uniform color is achieved in the grout. Leave to stand for 2 minutes before grouting to remove any entrapped air.

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

Cleaning
All tools and equipment should be cleaned immediately after use with SCL (TRINIDAD) LIMITED's **Speklean**. Spillages should be absorbed with sand or sawdust and disposed in accordance with local regulations.

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.

Conbextra EPR (TG)	Gap thickness	Hydrostatic head	Maximum flow
°C	(mm)	(mm)	(mm)
20	12	100	900
20	35	100	2000

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Limitations - Temperature

Preconditioning

All components of the product should be kept in a cool place away from sources of heat or direct sunlight before mixing. Pre conditioning all three parts (Base Hardener and filler) in airconditioned storage for 24 hours is recommended.

During application

Grouting may be carried out without special precautions at ambient temperatures from 20°C to 30°C. If thick section grouting is being undertaken, the work area should be tented and shaded, and consideration given to grouting in the early evening to minimise the resultant exotherm.

In service

The cured grout, which is completely resistant to frost and sub-zero temperatures, is suitable for use up to 45°C.

Supply

CONBEXTRA EPR (tg): 16 litre packs containing base, hardener and aggregate.

Storage

CONBEXTRA EPR (tg) has a shelf life of 12 months if kept in dry, cool conditions

Precautions

Health and safety

In common with most epoxy resin systems, **CONBEXTRA EPR (tg)** will react exothermically when mixed and left in bulk. The heat generated may be excessive and can lead to vapour emission and splash damage to adjacent surfaces.

To reduce the risk of Exotherm, these products should only be mixed when ready for use and then applied without delay. Any unused residue should be poured onto a disposable impervious surface, in a well-ventilated area, to allow cure before disposal.

CONBEXTRA EPR (tg) Contains resins which may cause sensitization 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.

Speklean: Non-Flammable water based liquid. Wear suitable protective clothing, gloves and eye/face protection. Use only in well ventilated areas.

Fire

Product is not readily flammable.

Flash point

Speklean: N/A

For additional information see the CONBEXTRA EPR(tg) Application Guide and Product Safety Data Sheet.

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