



KEM GROUT EP 4

Heavy Duty Epoxy Grout

Ref: GA/EG-V1-0112

Description

KEM GROUT EP 4 is a 100% solids three component epoxy grout. It provides high strength and creep resistance combined with the highest effective bearing area which makes it ideal for final positioning of critically aligned machinery within close tolerances.

Uses

- It is used for all grouting applications, especially those requiring chemical resistance and heavy duty resistance to vibrational and other dynamic and mobile loads and to support sole plates in all types of foundation designs.
- Applications include crane and transporter rails, compressors, high speed turbines and centrifuges, rock crushers and pulping machines and other heavy duty equipment. It can also be used for anchoring steel bar with concrete.

Advantages

- Dynamic load resistance due to high flexural, tensile and compressive strengths and excellent adhesion to concrete and metal surfaces.
- Rapid installation and strength gain leading to early commissioning.
- Excellent chemical resistance to most acids, alkalies, oils, petrol and water.
- It contains no non reactive diluents which could interfere with the curing mechanism or which could cause material loss during or after cure. Machinery may be positioned at its final elevation before pouring because the shrinkage is negligible. Critical alignments are maintained during machinery operation due to its high dimensional stability and resistance to creep and vibration.
- High impact resistance.
- Unaffected by weathering and freeze / thaw cycling.

- Locally manufactured, factory quality controlled ensures constant quality.

Typical Properties

Linear Shrinkage (ASTM C - 531): 0.0002 mm/mm.

Effective Bearing Area: 95% minimum.

Compressive strength: ASTM C-579: 121 N/mm² - 7 days.

Tensile strength: ASTM D-638: 13 N/mm²

Coefficient of Linear Thermal Expansion:

ASTM D-696: $22.5 \times 10^{-6}/^{\circ}\text{C}$.

Bond to concrete: Concrete failure.

Impact Strength: Better than concrete.

Standards

The applicable specifications for performance and testing are:

ASTM C - 579

ASTM C - 531

ASTM D - 638

ASTM D - 696

Direction for use

Clean the concrete, removing any loose material, laitance, grease and oil. Fix standard formwork ensuring that the area is grout tight. The metal surfaces should be grease and oil free and any rust or paint should be removed by grit blasting or wire brushing.

Precondition Base, Hardener and filler to 20°C to 25°C for 24 hours before mixing. Pour the hardener into the base can, mix thoroughly to get a uniform mix. Pour the mix into a suitable clean tub and add the filler gradually whilst mixing with a low speed drill and paddle. Alternatively use a mechanical mixer for 2 to 5 minutes until a consistent grout is obtained. Pour the grout quickly into position. When pouring the grout ensure that sufficient grout is available to maintain a grout head until the pour is complete. Grout is poured from one side to avoid air entrapment. Rod and plungers may be used to facilitate placement.



KEM GROUT EP 4 is quick curing, relative to cement grouts, but the cure is thermally gentle. This allows thick pours to be made without causing the stress cracks often associated with a hot - curing epoxy grout.

KEM GROUT EP 4 may be used in any thickness greater than 30 mm (1.25") however individual pours should not exceed 20 cm (8") in thickness and 1.5m in length.

Do not wet cure KEM GROUT EP 4 It is a chemical curing material. All surfaces, equipment, and tools may be cleaned with lacquer thinner, ketones, or similar solvent before grout hardens. In-service operation may begin immediately after minimum required grout strengths have been achieved. Final finishing of exposed surfaces is aided by applying a very light mist of solvent just before material becomes unworkable.

Limitations: Do not apply at temperatures less than 5° C. Ensure that all surfaces are substantially dry. Ensure that the filler is added to the mixed base and hardener immediately after mixing to reduce the heat evolved.

Packaging

32 kg pack, and yield 13.4 litres.

Storage and Shelf life

Storage: Store in dry conditions up to 20° C. Shelf Life 1 year.

Technical Service

Chembond has established itself in various fields on the basis of its dependable technical service. For this purpose, we maintain a well equipped laboratory for research & quality assurance of all products. Our experienced personnel are always on call and would always be available for product demonstrations and product performance monitoring.

Safety precautions

Cleaning: Spillages should be absorbed with sand or earth etc. and disposed in accordance with local regulations.

Fire resistance: The product is not flammable but will burn in a fire.

KEM GROUT EP 4 should not come in contact with skin and eyes or swallowed. Avoid prolonged inhalation of vapours. Some people are sensitive to epoxy resins, therefore, protective gloves, goggles and barrier creams should be used. Ensure adequate ventilation and if working in enclosed areas, suitable breathing apparatus must be used. If mixed resin comes in contact with skin, it must be removed before hardening with a resin removing cream, followed by washing with soap and water, Contamination of skin by non resin based products should be removed immediately with soap and water. Should accidental eye contamination occur with any of the above products, wash well with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately.

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