



KEM GROUT EP 3

Non Shrink, high strength, Flowable Epoxy Grout

Description

KEM GROUT EP 3 is a 100% solid, three components flowable, non-shrink epoxy grout which is easy to place. It has high strength and creep resistance and very high effective bearing area. Due these properties and extremely high water, oil, fuel and chemical resistance, it is best suited for oil field, refinery and petrochemical equipment grouting, as well as pile cap waterproofing applications.

Uses

- KEM GROUT EP 3 is used for most grouting applications, particularly those requiring chemical resistance and heavy duty resistance to vibrational, reciprocating and other types of dynamic and mobile loads.
- Typical Applications include but are not limited to, crane and transporter rails, Heavy duty compressors, turbines and centrifuges, rock crusher and pulping machines and other critical equipment.
- It is also used for anchoring steel bars in 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.
- Low creep characteristics under continuous loads.

Typical Properties

Volume change, ASTM C-827: 0.00% shrinkage after set.

Effective Bearing Area: 95% minimum.

Compressive strength: ASTM C-579 Method B:

75 N/mm²- 24 hrs

103 N/mm² - 7 days.

Tensile strength: ASTM C-307: 13 N/mm².

Flexural strength: ASTM C-580: 33 N/mm².

Coefficient of Linear thermal expansion

ASTM C-531: 15x10⁻⁶ in/ in°F.

Bond to concrete: Concrete failure.

Impact strength: Better than concrete

Flow: Flow is dependent upon gap width, grout head, substrate profile and temperature. At 20°C and at 20 cm head and average gap widths (50 mm), the flow is in excess of 1m.

Standards

The applicable specifications for performance and testing are:

ASTM C - 827

ASTM C - 579

ASTM C - 580

ASTM C - 307

ASTM C - 531

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.

Pour the hardener into the base container and mix thoroughly for 3 minutes. Pour the mix into a suitable clean and dry tub and add the filler gradually whilst mixing with a slow speed drill and paddle. Alternatively use a mechanical mixer for 2 to 5 minutes until a consistent grout is obtained. Pour the grout into position, as quickly as possible, preferably within 5 minutes of mixing.



When pouring the grout, ensure that sufficient grout is available to maintain a grout head until the pour is complete. Grout should be poured from one side to avoid air entrapment. Rods and metal chains may be used to facilitate placement.

When working in large open areas and in large grout pours additional good quality clean and dry aggregates of size 3/8" size may be added. The proportions depend upon gap dimension and consistency requirement. A maximum of 10 kgs of these aggregates can be used per pack of KEM Grout EP 3. The strengths obtained are generally 5-10% higher than normal.

KEM Grout EP 3 shall never be water cured. 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 may be 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 completely dry.

Packaging

21 kg Pack, Yield 10 litres.

Storage and Shelf life

Storage: Store in dry conditions upto 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.

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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 3 should not come in contact with skin and eyes or be swallowed. Avoid prolonged inhalation of vapours. Some people are sensitive to epoxy resins, therefore, protective gloves, goggles and barrier cream 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. Do not induce vomiting.

Limitation of Liability:

This information is based on our current level of knowledge. It is given in a good faith but it is not intended to guarantee any particular properties. The users must satisfy themselves that there are no circumstances requiring additional information or precautions or the verification of details given herein.