



KEM BOND EP 1

Epoxy resin based old to new concrete bonder

Ref. CR/BA-V1-0112

Description

KEM Bond EP 1 is a solvent free epoxy resin based system bonding agent for bonding old concrete to new freshly placed concrete. It is supplied as a two component system, which is ready for onsite mixing and use.

Uses

- As a bonder for old concrete to new freshly placed concrete and cement based repair products.

Advantages

- Pre-weighed components, ready for onsite mixing and use avoids site errors.
- Excellent adhesive bond between old concrete and new concrete in load bearing as well as non load bearing applications.
- Since the cured interfacial surface is impermeable to water, moisture, chlorides and other salts etc., KEM Bond EP1 provides water proofing barrier for the freshly laid concrete.

Typical properties

Pot Life : 4- 5 hrs. @ 25°C.

Open Time: 2 to 8 hours depending on temperature and humidity.

Bond Strength : Greater than 10 N/mm² As per **ASTM C – 882 – 05**, which exceeds tensile strength of concrete.

Full Cure: 14 days

Minimum Application Temp.: 5°C.

Standards

ASTM C 881 – 10 – Type II & V.
Grade 2 – Class B & C.

Bond Strength in accordance with

ASTM C – 882 - 05.

Chemical resistance

The cured surface of KEM Bond EP 1 is resistant to most aqueous systems, sewage, fresh water, sea water, mild alkalis, mineral oils, vegetable oils, fats, ammonia and formaldehyde.

Direction for use

Remove all grease, oil, contamination, dust laitance and loose concrete by scrubbing, wire brushing or other suitable methods. Metal surfaces should be fully degreased followed by grit blasting to **SA2.5 (SIS 05 5900) or equivalent**. All reinforced bars should be coated with a corrosion resistant primer at the interface level. Any free – standing water should be removed and the surface shall be dabbed with some absorbent material.

Mixing: The total quantity of base and hardener components should be thoroughly mixed in the base container and transferred to other container before application, to ensure proper mixing.

Application: After mixing apply to the previously prepared substrate using a short haired stiff nylon brush, roller or trowel, ensuring thorough wetting of surface. In order to achieve a good bond, it is essential that the new concrete is laid whilst the coat of KEM Bond EP 1 is still tacky i.e. generally between 2 to 4 hours depending on temperature and humidity conditions present during this operation.

Coverage: Normally 2.5 to 3.5 m²/kg depending on surface profile.

Packaging

3 Kg.

Precautions

Cleaning: Spillages should be absorbed with sand or earth etc. and disposed of in accordance with local regulations. Clean tools and equipment with water / solvents immediately after use.



Storage

Store under shade in dry conditions up to 20°C. Shelf life is 12 months, in original unopened packing.

Health & safety

Uncured material of KEM Bond EP1 should not come in contact with skin and eyes and must not be swallowed. Avoid prolonged inhalation of vapors. Some people are sensitive to epoxy resins and hardeners, therefore protective goggles and barrier creams should be used. Although, the product is free of volatile compounds it contains amines. Therefore it is advised to ensure adequate ventilation and if working in enclosed areas, suitable breathing apparatus must be used. If this material comes in contact with skin it must be removed before it gets dried by washing with soap and water. If contamination occurs with the above primer, wash well with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately. Do not induce vomiting.

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 & would always be available for product demonstrations & product performance monitoring.

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