

# KEM BOND EP 1L N

## Epoxy Resin Based Old to New Concrete Bonding Agent

### Description

KEM Bond EP 1L N is a low viscosity variant of KEMBOND EP 1. It is specially formulated non-shrink, solvent free epoxy resin based system blended with fine inert fillers. It is supplied as a two component material in pre weighed quantities ready for on site mixing and use.

### Uses

- Bonding agent for old concrete to new freshly laid concrete and cement based repair products.
- As a primer for water based epoxy systems.

### Advantages

- **Quality:** Factory quality controlled pre-weighed quantities which reduce site errors.
- **Adhesion:** Excellent adhesion for bonding old concrete to new concrete in load bearing as well as non load bearing applications.
- **Waterproofing:** The cured interfacial surface is impermeable to water, moisture, chlorides etc. and thus provides water proofing barrier for the freshly laid concrete surface.
- Lower viscosity ensures ease of application in confined areas.

### Typical properties

**Workability @ 23°C:** 60 Min

**Open time@ 23°C:** 3-4 Hrs.

**Mixing Ratio :** 4.5 : 1

**Consistency :** Fluid paste

**Color of Mix :** Off white

**Brookfield viscosity Pa.s):** 3-4

**Density :** 1.4 ± 0.2

**Shear Strength:** Greater than 10 N/mm<sup>2</sup> as per **ASTM C – 882 – 05**, which exceeds tensile strength of concrete.

**Full Cure:** 7days

**Application Temp.:** 5°-30 °C.

**Linear Shrinkage :** 0.02%

**Comp. Strength :** 70 N/mm<sup>2</sup>

**Comp. Modulus to elasticity :** 3000 N /mm<sup>2</sup>

### Standards

STM C 881 – 87 – Type II & V. Grade 2 Class B & C. Bond Strength in accordance with ASTM C – 882 - 87.

### Chemical resistance

The cured surface of KEM BOND EP 1L N 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, chemical contamination, dust, laitance and loose concrete by scabbling or other non impact mechanical methods. Acid etching using mild acids may be done if above is not possible & Metal surfaces should be fully degreased & prepared by grit blasting surface finish. All reinforced bars should be coated with a corrosion resistant primer at the interface level. All freestanding water should be removed and the surface should be dewatered with some absorbent material.

**Mixing:** The total base and hardener components should be thoroughly mixed in the base container .

### Chembond Chemicals Limited

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### Application:

After mixing apply to the previously prepared substrate using a short haired stiff nylon brush, ensuring thorough wetting of surface. It is essential that the new concrete is laid whilst the coat of KEM Bond EP 1L N is still tacky i.e. generally about 3 to 4 hours depending on temperature and humidity conditions present during this operation.

Coverage: It is recommended at a spread rate of 2.5 to 3.5 m<sup>2</sup>/pack

### Packaging

It is available in 3 kg. Pack.

### 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.

### 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 & Shelf Life

**Storage:** Store in dry conditions upto 20°C.

**Shelf life:** 12 months.

### Health & safety

It should not come in contact with skin and eyes or be swallowed. Avoid prolonged inhalation with vapours. Some people are sensitive to epoxy resins, therefore protective goggles and barrier creams should be used. 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.

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