



KEMGRIP EP2

Thixotropic 2 components solvent – free epoxy resin anchoring

Description

KEMGRIP EP2 is a solvent free 2-components epoxy based grouting to fix rebars and bolt into drilled or cast holes in concrete, with a remarkable vibration and impact resistance, a high pull and loading forces.

Where to use

- High strength corrosion resistance anchoring of bolts and bars from 12-51 mm. diameter into concrete, rock, masonry or brickwork where high speed of installation and early application of load is required.
- Permanent installation of reinforcement starter bars, foundation bolts, base plates, balustrades, barriers and safety fences, railway tracks, tie-back, anchors, reinforcement doweling abutments, ground anchors for towers, cranes, dock sills.

Advantages

- * Rapid strength gain..
- * Vibration resistant.
- * Corrosion resistant
- * Economic.
- * Can be placed underwater
- * Non-sag in vertical and over head applications.
- * High creep resistance under permanent load.
- * Shrinkage free-curing

Properties

Gel Time:

Temp°C.	Gel time min.	Minimum time before load Hours
23	60	24

Compressive Strength:

After the minimum time before load the grout typically attains a compressive strength in excess of 20 N/mm² and an ultimate compressive strength of 50 - 60 N/mm².

Bond strength to concrete :7-8 N/mm² at 23°C.

Bond strength to steel:15-20 N/mm² at 20°C.

Shear Strength: 30 N/mm²

Chemical Resistance: The cured resin is resistance to fresh and salt water, petrol, oils, grease and most acids, alkalis and solvents.

Specific Gravity: 1.95 ± 0.1 at 23°C.

Standards: ASTM C881 : Type VV, Grade 3 Classes B,C.

How to use

Hole preparation and formation:

- Optimum performance of KEMGRIP EP2 grouts requires rough surface , dust free holes.Use of rotary drills with air is recommended.
- Diamond drilled holes should be under-reamed unless necessary safety factors are incorporated.
- Holes diameter are 4 mm plus the bar diameter and the depth of the holes are 10 times the hole diameter according to ACI specification
- Cast holes should preferably be inverse dove tail configuration. If parallel sided holes are cast they should be rough to provide adequate keying.

Bar preparation:

All bars should preferably be degreased and all flaky rust removed.:

Mixing:

- A complete pack of binder (resin and hardener) and selected filler should be mixed in one operation. Mixing may be carried out manually or mechanically. When a smooth, even consistency is achieved the grout is ready for use and should be placed well within the gel time of the grout.
- Packs have been designed to produce practical and economic volumes of grout.
- Do not attempt to mix partial components.



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- The grout should be poured steadily into the prepared holes. The anchor bar is then pressed into the hole to the required depth. Slight agitation of the bar will assist in achieving a complete bond. The bar should be then left undisturbed in the required position until the resin is set.

Application

Condition during application:

At operating temperature above 40°C, the creep of KEMGRIP EP2 resin under load may become significant. Resin anchors should not be used where structural load bearing performance has to be maintained in anchors subjected to fire conditions.

Cleaning:

Any mixing drums, pumps, etc. should be cleaned using PROKEM special solvent within the pot life of the grout.

Theoretical Coverage:

2 kg/liter

Packaging:

The standard pack consists of a can of resin and hardener a plastic bag of pre-graded filler.

1 & 5 kg. pails (2components) A, B

Storage:

- KEMGRIP EP2 has a shelf life of 12 months at 20°C.
- KEMGRIP EP2 should be stored away from high temperatures.

Health and Safety

- Confined area must be well ventilated and no naked flames allowed. Contact with the skin should be avoided as certain sensitive skins may be attacked by contact with the resin occurs, the skin should be washed immediately with soap and water-not solvent.
- Use goggles- gloves and a breathing mask when applying.
- Eye splashes to be washed with plenty of water.
- If ingested seek medical advice.