

Kemgrip EP2

Thixotropic Two Components Solvent – Free Epoxy Resin

Description	Kemgrip EP2 is a solvent-free, two-components, epoxy-based structure and adhesive mortar that produces high-performance strength and chemical resistance. Kemgrip EP2 is scientifically formulated to fix rebars and bolts into drilled or cast holes in concrete, with remarkable vibration and impact resistance, a high pull, and loading forces, it can be used as a structure adhesive due to its high adhesion properties Standards: ASTM C881: Types IV & V, Grade 3 Classes B, C, C900, E488 Kemgrip EP2 is approved by the National Organization For Potable Water & Sanitary Drainage for sewerage applications	
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, and ground anchors for towers, cranes, and dock sills	
Advantages	• Rapid strength gains • Vibration-resistant • Corrosion resistant • Structure Adhesive and mortar for, concrete elements, ceramic, steel and iron, wood and glass • Economic • Can be placed underwater (Special Grade) • Non-sag in vertical and overhead applications • High creep resistance under permanent load • Shrinkage free-curing	
Properties		
Bond strength to concrete @ 23 °C.	4 - 5 N/mm ²	
Bond strength to steel @ 20 °C.	15 - 20 N/mm ²	
Shear Strength	2180 Kg (D 16mm)	
Specific Gravity @ 23 °C	1.8±0.1	
Tensile strength	20 N/mm ²	
E-modulus	12800 N/mm ²	
Pull out strength	7266 Kg (D 16 mm) 7055 Kg (D 18 mm)	
Compressive Strength	> 60 N/mm ²	
Gel time in min	60	
Final Cure	7 days	LEED NC-2016, IEQC 4.3, LEM
Mixing	• A complete pack of (resin and hardener) should be mixed • 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	



Surface Preparation	Adhesion use: • The substrate must be sound and all loose particles must be removed • Steel substrates must be de-rusted similar to Sa 2.5 • The substrate surface must be clean, dry and free from all contaminants such as dirt, oil, grease, existing surface treatments and coatings etc. Anchoring use: • Hole preparation and formation: Optimum performance of Kemgrip EP2 grouts requires rough surfaces and dust free holes • Use of rotary drills with air is recommended • Diamond drilled holes should be under-reamed unless necessary safety factors are incorporated • Cast holes should preferably be inverse dovetail configuration • If parallel-sided holes are cast, they should be rough to provide adequate keying • Clean out the hole and brush with a bristle brush • Blow out the remaining dust from the bottom of the hole and ensure that the surface is clean and dry • Bar preparation: All bars should preferably be degreased and all flaky rust removed using KEMCLEAN
Application	Adhesion use: • Use a thin layer adhesive, by applying the mixed adhesive to the prepared surface with a spatula, trowel, notched trowel • press uniformly using props for at least 12 hours Anchoring use: • 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 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
Theoretical coverage	1.8 Kg/m ² / mm
Packaging	The standard pack consists of a can of resin and hardener and a plastic bag of pre-graded filler 1, 5 & 20 Kg pails - 2 Components (A+B)
Shelf life & Storage	Kemgrip EP2 has a shelf life of 12 months at 20 °C Kemgrip EP2 should be stored away from high temperatures
Precaution	• Mixed epoxy resins will develop temperature during their curing period. This could result in heat generation and possible smoking if the material is unused and kept in bulk • Holes diameters are 4 mm plus the bar diameter and the depth of the holes are 10 times the hole diameter according to ACI specification Care should be taken to use all mixed materials within the stated pot life or provide a well-ventilated place away from other materials until any exothermic reaction has taken place and the product can be disposed of properly

Health and Safety

- Confined area must be well ventilated and no naked flame 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 are to be washed with plenty of water
- If ingested seek medical advice

Additional Information

PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure

PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range. For our customer's satisfaction

PROKEM reserves the right to change the properties of its products

All orders are accepted subject to our current term of sale & delivery

Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request

PROKEM extends technical services to include after-sales support to assist users in the proper handling of our products