

KUT EPOXY MORTAR-HB

High Build Epoxy Resin Mortar

REP-12-1110



DESCRIPTION

KUT EPOXY MORTAR - HB is a special blend of fillers and solvent free epoxy resin, designed for speedy and permanent repairs to concrete, particularly in vertical or overhead situations. The mixed material is applied to a suitably prepared surface and quickly cures to form an impermeable repair unaffected by most forms of chemical attack. It is supplied as a three pack material in pre-weighed quantities ready for on-site mixing and use.

USES

For speedy and permanent repairs to concrete structures, especially in overhead and vertical situations where "High Build" repairs are required and impermeability to water and resistance to aggressive chemicals is essential. For emergency repairs to concrete columns, lintels and roof-beam faces, to provide a dense impermeable finish and protect the embedded reinforcing steel.

ADVANTAGES

Speed: Early development of strength and hardness.

Quality: Pre weighed quality controlled materials.

Chemical Resistance: Resistant to a wide range of acids, alkalis and industrial chemicals.

Waterproofing: Cures under damp conditions and cured surface is impermeable to water.

Thickness: Possible to use in high build layers in overhead and vertical situations.

TYPICAL PROPERTIES

Pot life: 90 minutes at 20°C, 40 minutes at 35°C.

Initial Hardness: 24 hours.

Full Cure: 7 days. Below 20°C the curing time will be increased.

Minimum Application Temperature: 5°C.

Density: Typically 2040 kg/M³

CHEMICAL RESISTANCE

Performance of **KUT EPOXY MORTAR - HB** blocks continually immersed at 20°C.

Citric Acid 10%	: Excellent
Tartaric acid 10%	: Excellent
Acetic Acid 5%	: Satisfactory
Nitric Acid 10%	: Good
Hydrochloric acid 25%	: Excellent
Sulphuric acid 10%	: Very good
Sugar solutions	: Very good
Lactic acid	: Very good
Hydrocarbons	: Very good
Phosphoric acid 50%	: Very good
Sodium hydroxide 50%	: Excellent
Diesel fuel/petrol	: Excellent

MECHANICAL CHARACTERISTICS

Test Method	KUT EPOXY MORTAR-HB	Typical Value Concrete
Compressive strength	ASTMC-579	42 N/mm ² 30 N/mm ²
Flexural Strength	ASTMC-580	16 N/mm ² 6 N/mm ²
Tensile Strength	ASTM C 307	7 N/mm ² 3 N/mm ²
Water Absorption	ASTM D 570	0.4% 5.0%

INSTRUCTION FOR USE

Surface Preparation: All grease, oil, chemical contamination, dust, laitance and loose concrete must be removed by scabbling or light bush hammering to provide a sound substrate.

Metal surface should be de-greased followed by grit blasting to BS 4232: Second Quality or SA2.5. (SIS 05 59 00).

Priming: Before application of **KUT EPOXY MORTAR-HB**, a primer must be used. The use of **KUT EPOXYPRIMER "N"** or **KUT EPOXY PRIMER "W"** is recommended. Refer respective product data sheet for more details.

Mixing: Mechanical mixing is necessary. The total FULL base and hardener components should be thoroughly mixed in the base container and then emptied into a paddle mixer. Add



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the aggregate slowly with the mixer running and continue for 2 to 3 minutes until all the components are thoroughly blended.

APPLICATION

The mixed material should be used at once. It should be applied to the primed surface, with wood float, pressing the mortar firmly on to the primer to ensure positive adhesion. In areas where application by trowel is difficult, the mortar may be applied and compacted by gloved hands, ensuring that each layer is properly kneaded into previous layers and that no weak interface is produced. Thickness upto 50mm per layer may be applied where large area are being rendered, a chequerboard application technique should be used. The maximum thickness for smaller repairs, may increase to 75mm where additional support is available from reinforcing bars and concrete shoulders. If subsequent layers need to be applied, they should follow between 8 and 24 hour later at 20°C or between, 4 and 8 hours later at 35°C. The surface of the first layer should be left roughened to provide a mechanical key for subsequent applications. Priming should always carried out between layers. The compacted repair should be worked to an acceptable finish with a wood-float steel float to conform with existing profiles.

Note: For horizontal repairs which will be subjected to trafficking **KUT EPOXYMORTAR-GP** should be used.

Packaging & Yield: **KUT EPOXYMORTAR-HB** is available 10.5kg packs which yields 10 litres giving a theoretical coverage of 2.0m² at 5mm thickness.

PRECAUTIONS

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

Storage: Store in dry conditions upto 20°C. Shelf life - is 12 months.

PERFORMANCE STANDARDS

ASTM-C 881 - Type I & Grade 3, Class B&C
Passes ASTM-C 883 & ASTM-C 884.

HEALTH AND SAFETY

KUT EPOXYMORTAR-HB 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 plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately. Do not induce vomiting.

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