# **KUT SUPERCOAT No. I**

## Polymer Modified General Purpose Repair Mortar

REP-06-1110



#### **DESCRIPTION**

**KUT SUPERCOAT No. I** is supplied as a ready to use dry powder requiring the addition of only clean water to produce at the job site a highly cohesive fibre reinforced easily applied repair mortar.

**KUT SUPERCOAT No. I** is formulated on a blend of portland cement, Microsilica, non-metallic reinforcing fibres, selected graded aggregates, water reducing chemicals, shrinkage compensating agents and new technology synthetic resin dry polymers.

**KUT SUPERCOAT No. I** mixed mortar delivers excellent adhesive and cohesive characteristics. It is a low porosity and long durability mortar which provides special resistance to the passage of water, the ingress of chlorides and polluted industrial dampness and can be used in both vertical and overhead applications. It is recommended for repair of damaged structural concrete exposed to marine environmental corrosive conditions in both inland and offshore installations.

## **USES**

**KUT SUPER COAT No. I** has been formulated specially to repair damaged structural concrete and all types of masonry under a wide range of normal, industrial and marine environmental exposures. It is used for reinstatement of damaged concrete, walls, soffits and columns in overhead as well as vertical applications.

It is recommended for internal as well as exterior application for inland and offshore marine environments.

It will provide great value to contractors involved in general repair works of structural concrete for port authorities, airports and military installations.

## **ADVANTAGES**

**Easy to use:** Can be trowel applied and workability is retained for approximately 20 minutes.

Non-shrink: Shrinkage compensated.

**Constant quality:** Locally manufactured, always fresh products, factory quality controlled prepacked material eliminates batching variations.

**Durability:** This special blend of materials delivers high quality and superior durability.

**Adhesion:** Excellent to sound concrete substrates and steel reinforcement.

**Iron free:** Contains no metallic iron to introduce future deterioration due to rust expansion.

**Chloride free:** Good early strength development without the use of chlorides.

**Fibre reinforced:** Minimised plastic Shrinkage.

## **TYPICAL PROPERTIES**

**Compressive strengths: BS 4550** at 25°C at a water-powder ratio 0.12.

Age	Compressive strength
(days)	(N/mm <sup>2</sup> )
7	29
28	42

**Flexural Strength: BS1881** at 25°C 5 N/mm<sup>2</sup> at 28 days.

Wet density: BS  $1881 - 1750 \text{ kg/M}^3$  giving a yield of 15 litres per 25 kg bag at mortar consistency.

**Bond strength: BS 6319** slant/shear - substrate concrete with **KUT FLEXIBOND** slurry primer @28 days 45 N/mm<sup>2</sup>.

## **APPLICATION**

**Planning:** Ensure that competent assessment on the extent of repair has been made defining area and depth.

**Surface preparation:** care should be taken to ensure all surfaces are completely free from laitance, dust, grease, plaster, paint, corrosion and deleterious substances. Cut back concrete at edge of repair to a minimum depth of 10mm.





Do not feather edge. Use mechanical or hand tools. Clean concrete by grit blasting or water jet blasting. Corroded reinforcing steel should be exposed around its full circumference and cleaned to remove any loose scale and corrosion deposits to a bright steel condition. Grit blasting may be used for this purpose.

**Steel Primer:** Exposed rebars and steel work should be primed with a slurry coat of **KUT SUPERCOAT No. I** mixed with **KUT FLEXI BOND** or alternatively use a good quality epoxy zinc rich primer.

**Concrete primer:** Concrete should first be well soaked with water to reduce the absorbency. All concrete surfaces must be primed with a slurry coat of **KUT SUPERCOAT No. I** mixed with **KUT FLEXI BOND** and scrubbed into the surface of exposed concrete. **KUT SUPERCOAT No. I** should be applied when the primer slurry is still tacky

**Mixing:** Pour 3 to 3.5 litres of clean water in a mixer and gradually add 25 kg bag of powder stirring with a slow speed electrical drill fitted with a paddle or preferably a mechanical mixer. Mix only as much as can be used within the pot life of the product. Mix 3 to 5 minutes after all the powder is added to obtain a smooth lump free mortar.

**Placing:** Place the mortar by hand or by trowel ensuring that it is well consolidated and compacted behind the reinforcing steel. It can be installed in several layers to achieve a maximum thickness of 100mm.

**Curing:** When the repair mortar is set, or after about 8 to 10 minutes apply a brush coat of **KUT FLEXIBOND**. Additional curing membranes are not required. Protect the surface with wet rags or burlap after the final coat of **KUT FLEXIBOND** has dried to a colourless film.

**Packaging: KUT SUPERCOAT No.** I is available in 25 kg bags.

**Coverage:** A 25 kg pack after mixing with the correct quantity of water will produce 15 litres of mortar and will cover 3.3 m<sup>2</sup> at 5 mm thickness.

#### **PRECAUTIONS**

**Cleanin**: All equipment must be cleaned with water immediately after use. Mixes containing this product must not be emptied into drainage systems.

**Protection:** All works must be protected from rain and frost until fully hardened.

**Storage:** Shelf life is 12 months when stored in dry conditions at moderate temperature and humidity.

**Fire resistance: KUT SUPERCOAT No. I** is not flammable.

#### PERFORMANCE STANDARDS

The applicable standards for conformance and testing are:

BS - 4550 BS - 1881

#### **HEALTH AND SAFETY**

**KUT SUPERCOAT No. I** is non-toxic but is mildly alkaline. Gloves should be worn during application. Splashes to the skin or eyes should be removed with clean water. In the event of prolonged irritation, seek medical advice.

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