



KUT EPOXY COATING UW

Under Water Epoxy Coating System

PPC – 11 - 0104

DESCRIPTION

KUT EPOXY COATING UW is a high performance solvent free epoxy resin based paint. It is a two component material supplied in pre weighed quantities, ready for mixing & use on site. The material can be applied directly to damp, wet or underwater concrete and to metal surface. One or two coat application depending upon the requirement is recommended with a minimum coating thickness of 150 microns. It is available in White, Sky Blue & Oxide Yellow colours. White and Sky Blue will tend to Yellow. All other properties would remain unaffected.

USES

KUT EXPOXY COATING UW is used as a corrosion coating for concrete or metal in applications where surfaces are either underwater or damp or are wet and cannot be dried out. It can be used for marine structures, basements, tunnels, docks and harbours, aqua ducts, dams, drilling rigs, sewage works and splash zone area applications.

ADVANTAGES

Quality : Factory quality controlled pre-weighed quantities which reduce site errors.

Adhesion : Excellent bonding and curing underwater and on damp or wet surfaces. Equally effective on dry surfaces.

Durability : It can withstand conditions of high temperature, marine environment and UV exposure.

Maintenance : It withstands steam cleaning and high pressure water jetting thus permitting easy clean up and maintenance.

TYPICAL PROPERTIES

- **Pot Life** : 60 minutes at 25° C above and underwater.
- **Cure Time** : Tack free In 6-8 Hrs. and full cure 7 days @ 25° C.

- **Time between coats** : 8 - 24 hrs.
- **Initial hardness** : 24 hrs @ 25° C
- **Minimum Application Temperature** : 5° C.

Cured films of **KUT EPOXY COATING UW** are unaffected by water, chlorinated water, 20% brine, marsh water, sewage water, kerosene, sea water, 10% sodium hydroxide solution. Surface discolorations may take place in contact with petrol and gas oil.

INSTRUCTION FOR USE

Surface Preparation : All surfaces to be treated with **KUT EPOXY COATING UW** should be clean and free from dust or loose material. All laitence in concrete surfaces should be removed by either grit blasting etching with **KUT ACID ETCH** or wire brushing. All steel surfaces should be shot blasted or wire brushed to remove all mill scale and rust. All underwater surfaces should be cleaned free of slime, algae or other contamination such as oil or grease. Free surface water need not be removed, but running water must be temporarily stopped during the coating and curing period. Where excessive seepage or leaks occurs, **ASPEC** technical department should be consulted for advice.

Mixing : The entire contents of the hardener can should be poured into the resin container and the two materials mixed thoroughly until a uniform consistency is obtained it is recommended that mechanical mixing is employed using a stirrer in a heavy duty slow speed electric drill. Where the material is to be a applied underwater mixing must be carried out thoroughly above water. The mixed material can then be taken or sent below water for use.



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Brush Application: For the majority of requirements, the use of stiff nylon brush is recommended. Where a large horizontal area such as a floor slab has to be coated, a long handle deck scrubber be used with advantage. For coating of large areas underwater, pressure fed brush equipment is recommended for maximum ease and efficiency. In all cases, the first coat must be firmly applied and be well scrubbed into the surface. The second coat, which will flow and cover more readily than the first should be applied 8 – 24 hours later. Where an appreciable time lapse occurs between coats. e.g. work carried out in a tidal zone or in sewage penstocks at off-peak times, it is essential that the previous coat is cleaned free of any contamination and lightly abraded before applying the next coat. Care should be taken to ensure that a continuous coating is obtained.

Use of glass fibre reinforcement: A glass fibre mat may be used to increase coating thickness or where it is necessary to bridge fine cracks in the substrate. The mat should be laid directly onto the first coat whilst it is still wet and should be pressed in and smoothed out with a stiff nylon brush or split washer roller. Second and subsequent coats may then be applied as necessary allowing 8 - 24 hours between each coat.

Felt Plate Method :

- This is the only effective method to apply coatings underwater during strong water movements (storm, tider) where all coatings and putties fail.
- Take “insituform” grade felt, cut to size of underwater repair to be made.
- Glue the said felt to thin steel sheet with felt coating side on steel. Use carpet grade adhesive strips to glue.
- Soak felt with mixed **KUT EPOXY COATING ‘UW’**
- Give soaked plate to the diver who will install it over area to be coated with mix soaked size on the substrate to be coated. This plate shall be pressed on the substrate for minimum 12 hrs using suitable clamping till the **KUT EPOXY COATING ‘UW’** has cured.

Repairing and Over coating :

Areas which have been previously coated with **KUT EPOXY COATING UW** and which have been damaged can be readily over coated by first abrading the surface using a steel wire brush or medium coarse wet applied abrasive paper. Overcoating may then be carried out as for new work, Damaged or wornout concrete may be repaired using a mortar mix of **KUT EPOXY COATING UW** mixed with **KUT SILICA NO.1** and applied by trowel. Allow to set for 24 hours prior to brush coat of **KUT EPOXY COATING UW**.

PACKAGING & COVERAGE

KUT EPOXY COATING UW - 2.5 kg pack consisting of base and hardener. **KUT SILICA NO.1** if required is supplied separately in 25 kg. Bags. Coverage approximately 1.5 - 2m²/kg per brush coat.

Coverage is approximate depending upon the nature of the substrate. Two coat application is normally necessary and recommended.

PRECAUTIONS

1. **Cleaning** : Tools and equipment should be cleaned with **KUT SOLVENT EP**.
2. **Storage** : Shelf life of at least 12 months if stored between 5° C and 35° C
3. **Fire** : **KUT EPOXY COATING UW** is not flammable but will burn in a fire. **KUT SOLVENT EP** is flammable and has a flashpoint of 33° C. Do not expose to naked flames or other sources of ignition. **NO SMOKING**. Containers should be tightly sealed when not in use. In the event of fire, extinguish with CO₂ or foam.
4. **Disposal** : Spillages of component products should be absorbed onto earth, sand or other Inert material and transferred to a suitable vessel. Disposal of such spillages or empty packaging should be In accordance with local regulations.

HEALTH AND SAFETY

KUT EPOXY COATING UW and **KUT SOLVENT EP** should not come in contact with skin and eyes or be swallowed. Avoid inhalation of solvent vapours. Some people are sensitive to epoxy resins, hardeners and solvents. Gloves, goggles and barrier cream should therefore be used. Ensure adequate ventilation and if working in enclosed areas, suitable breathing apparatus is recommended. If mixed resin comes in contact with skin it must be removed before it hardens with a resin removing cream or with soap and water. **DO NOT USE SOLVENT**. Contamination of skin with any of the above component products should be, removed immediately with soap and water. Should accidental eye contamination occur with any of the above products, 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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