

Walltron Hydro-Epoxy

(Water compatible food grade epoxy)

DESCRIPTION:

Hydro-Epoxy is a two pack, solvent free Water Compatible epoxy resin material consists of base and hardener. The mixed material upon curing forms non-toxic hygienic tough film which is compatible with potable water and food stuff contacts. It is available in white colour. It is supplied in pre-measured quantities.

FEATURES / ADVANTAGES

- Food grade & Hygienic – Suitability to potable water and food stuff storage.
- Compatible with all substrates – Can be applied directly on to mild steel and concrete
- Reduces water permeability.
- Forms a smooth, glossy and to easy clean surface on curing.
- Abrasion resistant – Exceptional resistance to abrasion and to a wide range of chemicals
- Corrosion resistant – Does not contain any metallic particles
- Chemical resistant – Proven against a wide range of industrial chemicals.
- Nontoxic & ECO friendly hence can be used for drinking water tank and food grade areas application.

USES:

Hydro-Epoxy is used for lining and waterproofing potable water retaining structures and surfaces subject to contact with food stuffs. The cured film is resistant to corrosion, chemical attack and abrasion and is suitable for application to reservoirs, tanks, silos, water treatment works, breweries, dairies, meat and food processing plants. The cured film is non-toxic and meets the requirements of IS: 9833 - 1981. It can also be used as prime coat before interior and exterior top coat application. It can be used for water reservoirs structures like hatcheries and aquariums.

DESIGN CRITERIA

Hydro-Epoxy is designed to be applied in two coats to achieve a minimum total dry film thickness of 200 microns. To achieve the correct protective properties, Hydro-epoxy must be applied on to the substrate at the sprayed rates Recommended.

SPECIFICATION CLAUSES

Potable water / waterproofing lining the tank/reservoir lining shall be Hydro-epoxy, a two-pack epoxy coating specifically designed for contact with potable water. The cured film shall comply with the requirements of IS:9833 - 1981.

APPLICATION INSTRUCTIONS

Preparation Concrete surfaces

All surfaces must be smooth, sound and free from debris, loose or flaky material and areas of standing water. Surfaces must be free from contamination such as oil, grease, dust, loose particles and organic growth. Concrete surfaces must be fully cured, laitance free and free from any traces of shuttering, release oils and curing compounds. All surfaces should then be grit blasted to remove all foreign matter and open up blow-holes, and provide a suitable key for Hydro-epoxy. All blow holes and imperfections should be filled with Epoxy Base Putties / Epoxy Mortar.

Mixing:

The contents of the base should be stirred thoroughly to disperse any settlement. The entire contents of the hardener can should be poured into the base container and mixed thoroughly until a uniform consistency is obtained, taking particular care to scrape the sides and bottom of the container. It is recommended that mechanical mixing be employed, using a mixer or a heavy duty, slow speed electric drill fitted with a paddle.

APPLICATION PARAMETERS/PROPERTIES

Number of coats	2
Theoretical application rate per coat	0.1 litre per m ²
Theoretical wet film thickness/coat	90- 100 µ
Dry film thickness/coat	100 µ
Overcoating time @20°C	24 Hrs.
30°C	18 Hrs.
Fully Cured	07 Days @ 30°C
Min Application Temp.	10°C
Total Solid Contents %	PART A 75±2% PART B 64±2%
Specific Gravity- Mixed Density	1.365±0.05 gm/cc
Pot Life @30°C	45-60 (min)
Adhesive Bond Strength ASTM D4541	≥ 1N/mm ²
Mixing Ratio	1:1 By Weight

Any surfaces should be treated with two coats of Hydro-epoxy. The thoroughly mixed material should be applied with a suitable stiff nylon type brush. The first coat must be firmly applied and be well scrubbed into the surface, ensuring a uniform coating with a wet film thickness not less than 100 microns. The first coat should be allowed to become tack free before applying the second coat. The second coat should be applied exactly as above, again achieving a wet film thickness not less than 100 microns. For ease of overcoating, it is recommended that the first coat be white and the second coat be blue, or vice - versa. For cold weather working, it is recommended that Hydro-epoxy be stored in a heated building and removed immediately before use, as workability deteriorates and curing times increase at lower temperatures.

Cleaning

Hydro-Epoxy should be removed from tools and equipment with water or solvent immediately after use. Cured material can only be removed mechanically.

Limitations

Hydro-Epoxy is formulated for application to clean sound concrete. Hydro-epoxy should not be applied over existing coatings. Application should not be undertaken if the temperature is 10°C and falling, nor when the prevailing relative humidity exceeds 90%. Although Hydro-epoxy may be applied to damp concrete, there must be no standing or running water. **Hydro-Epoxy**, the final colour can vary with curing conditions, and in adverse conditions such as low temperature and/or high humidity, a white bloom may appear on the surface. However, this does not affect the performance of the coating.

Packaging

Hydro-epoxy 1 & 2 Kg pack

Coverage

Hydro-Epoxy covers 5.0 m² per kg per coat at 90-100 µ thickness. The coverage figure is theoretical - due to wastage factors and the variety and nature of substrates, practical coverage figures may be substantially reduced.

STORAGE

Shelf life

12 months if kept in dry store between 50°C and 30°C in the original, unopened containers.

Storing in dry conditions at temperatures between 5°C and 30°C in the original unopened containers is recommended.

If stored at high temperatures the shelf life may be reduced.

Precautions

Health and Safety instructions **Hydro-Epoxy** should not come into contact with skin and eyes or be swallowed. When using, adequate ventilation shall be ensured and inhalation of vapours shall be avoided. Some people are sensitive to resins, hardeners and solvents. Hence suitable protective clothing, gloves and eye protection shall be worn. The use of barrier cream provides additional skin protection. In case of contact with the skin, it shall be rinsed with plenty of clean water, then cleansed with soap and water. Solvent should not be used. In case of contact with eyes, it shall be rinsed immediately with plenty of water and medical advice shall be sought immediately. If swallowed medical attention shall be sought immediately - Vomiting should not be induced. Fire Hydro-epoxy is non-flammable.

FOR EXPERT CONSULTATION CALL:
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