

TEC[®] BEAT CR

Corrosion resistant, solvent free epoxy resin coating for concrete and metal surfaces



Description

TEC[®] BEAT CR is a two pack, solvent free, epoxy resin material. It is supplied in pre-measured quantities ready for site mixing and use. The material cures to provide a smooth, hygienic and anti-corrosive which is also suitable for contact with potable water and foodstuffs. It is available in blue and white and grey colours.

Primary Applications

TEC[®] BEAT CR is used for lining and waterproofing potable, acid water retaining structures and metal surfaces against to contact with acids. TEC[®] BEAT CR is resistant to corrosion, chemical attack and abrasion and is suitable for application to reservoirs, tanks, silos, water treatment works, breweries, dairies and meat and food processing plants. The cured film is non-toxic and meets the requirements of IS :9833 - 1981.

Features & Benefits

- Compatible with all substrates – Can be applied directly on to metal steel and concrete
- Aesthetic – 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 – Excellent anti-corrosive and waterproofing properties
- Chemical resistant – Proven against a wide range of industrial chemicals
- Solvent free & Non – toxic - No odour during application and can be used in confined areas.

Technical support

Techny chemy provides a technical advisory service supported by a team of specialists in the field.

Design criteria

TEC[®] BEAT CR 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, TEC[®] BEAT CR must be applied on to the substrate at the coverage rates recommended.

Technical Properties

Volume solids	100%	
Viscosity	Pourable, spreadable liquid	
Pot life	@ 20 °C 60-80 mins.	@ 30°C 45 mins.

The Techny Chemy office should be consulted for resistance data to specific chemicals.

Specification clauses

Acid, Potable water / waterproofing lining

The tank/reservoir lining shall be TEC[®] BEAT CR, 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 flaking 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 TEC[®] BEAT CR.

Metal surfaces

All surfaces should be grit blasted to obtain bright metal surface. The lining work should be programmed so that newly cleaned metal is coated as soon as possible before the formation of rust or scale.

Mixing

The contents of the base can 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,

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TEC BEAT CR

using a mixer or a heavy duty, slow speed electric drill fitted with a paddle.

Application

Number of coats	: 2
Theoretical application rate per coat	: 0.1 litre per m ²
Theoretical wet film thickness	: 100 microns
Over coating time (hours)	: @ 20 ⁰ C @30 ⁰ C 24 18
Fully cured	: 7 days @ 30 ⁰ C
Minimum application temperature	: 10 ⁰ C

Surfaces should be treated with two coats of TEC[®] BEAT CR.

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 over coating, 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 TEC[®] BEAT CR can be stored in a heated building and removed immediately before use, as workability deteriorates and curing times increase at lower temperatures.

Cleaning

TEC[®] BEAT CR should be removed from tools and equipment with Cleaning Sol, solvent immediately after use. Cured material can only be removed mechanically.

Limitations

TEC[®] BEAT CR is formulated for application to clean sound concrete and metal steel.

TEC[®] BEAT CR should not be applied over existing coatings. Application should not be undertaken if the temperature is 10⁰C and falling, nor when the prevailing relative humidity exceeds 90%.

Although TEC[®] BEAT CR may be applied to damp concrete, there must be no standing or running water.

TEC[®] BEAT CR, 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.

Estimating

Packaging

TEC [®] BEAT CR	1 & 4 litre pack
Cleaning Solution	5 and 20 litre cans

Coverage

TEC[®] BEAT CR covers 10.0 m² per litre per coat at 100 micron 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 30⁰ C in the original, unopened containers.

Storing in dry conditions at temperatures between 5⁰C and 30⁰C in the original unopened containers is recommended. If stored at high temperatures the shelf life may be reduced.



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