

T-GUARD[®] EC 200

Solvent-free, Epoxy Resin Based Coating for Potable Water Retaining Structures



T-Guard[®] EC 200 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 tough finish which is suitable for contact with potable water and foodstuffs. It is available in the colours blue and white.

Uses

T-GUARD[®] EC 200 is used for lining and waterproofing potable water retaining structures and surfaces subject to contact with foodstuffs. 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 and meat and food processing plants. The cured film is non-toxic and meets the requirements of IS: 9833-1981.

Benefits

- **Food grade & Hygienic**– CFTRI approved for suitability to potable water and food stuff storage.
- **Compatible with all substrates**– Can be applied directly on to mild steel and concrete
- **Aesthetic**– Forms a smooth, glossy and easy to 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 resistance against a wide range of industrial chemicals.
- **Solvent free & non-toxic**- No odour during application and can be used in confined areas.

Technical support

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

Design criteria

T-GUARD[®] EC 200 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, T-GUARD[®] EC 200 must be applied on to the substrate at the coverage rates recommended.

Properties

Mixed Density	1.4-1.5 gm/cc	
Volume Solids	100%	
Viscosity	Upto 600 cps	
Pot Life	At 20°C	At 30°C
	60-80 mins	35-50 mins
Adhesive Bond Strength with Concrete	Exceeds 1N/mm ²	

The local Thermax office should be consulted for resistance data to specific chemicals.

Specification clauses

Potable water / Water proofing lining

The tank/reservoir lining shall be T-Guard[®] EC 200, a two pack epoxy coating specifically designed for contact with potable water. The cured film shall comply with the requirements of IS: 9833 - 1981.

Instructions for use

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. Provide a suitable key for T-Guard[®] EC 200.

All blow holes and imperfections should be filled with Maxtreat[®] EPG / Maxtreat[®] EFC.

Steel surfaces

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

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

Number of coats	: 2
Theoretical application rate per coat	: 0.1 litre per m ²
Theoretical wet film (thickness/coat)	: 100 microns
Over-coating Time	: @ 20°C @ 30°C 24hrs 18hrs
Fully cured	: 7days @ 30°C
Minimum application temp.	: 10°C

Any surface should be treated with two coats of T-GUARD[®] EC 200. 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 a 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 T-GUARD[®] EC 200 be stored in a heated building and removed immediately before use, as workability deteriorates and curing times increase at lower temperatures.

Cleaning

T-GUARD[®] EC 200 should be removed from tools and equipment with Cleaning Sol, solvent immediately after use. Cured material can only be removed mechanically.

Limitations

T-GUARD[®] EC 200 is formulated for application to clean sound concrete and steel.

T-GUARD[®] EC 200 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 T-GUARD[®] EC 200 may be applied to damp concrete, there must be no standing or running water.

T-GUARD[®] EC 200, the final colour can vary with curing conditions. In adverse conditions such as low temperature and/or high humidity, a white bloom may appear on the surface.

Health and safety instructions

T-GUARD[®] EC 200 and cleaning solution should not come into contact with skin or eyes or be swallowed. When using cleaning sol, adequate ventilation is to be ensured and inhalation of vapours should be avoided.

Some people are sensitive to resins, hardeners and solvents. Hence suitable protective clothes should be worn. Barrier creams may be used for additional skin protection.

In case of contact with skin wash with plenty of water and then cleanse with soap and water. Solvent should not be used.

In case of contact with eyes rinsing with water and seeking medical advice shall be done.

If swallowed medical advice shall be sought and vomiting not induced.

Fire

T-GUARD[®] EC 200 is non-flammable. Cleaning sol is flammable.

So, precautions must be taken by keeping away sources of ignition and prohibiting smoking.

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Storage

12 months if kept in dry store between 5°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.

Packing

T-GUARD[®] EC 200- 4 litre pack
Cleaning Sol- 5 and 20 litre cans

Coverage

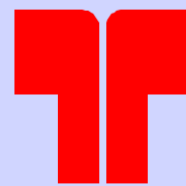
T-GUARD[®] EC 200 covers 20.0m² per litre per coat at 100 micron thickness DFT. The coverage figure is theoretical due to wastage factors and the variety and nature of substrates, practical coverage figures may be substantially reduced.

Other Segments:

- Concrete Admixtures • Surface Treatments • Grouts & Anchors • Repair & Rehabilitation
- Protective Coatings • Industrial Flooring • Waterproofing • Sealants • Adhesives

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THERMAX

Thermax Limited
Environment House, Plot No. 90-92
BG Block, MIDC, Bhosari,
Pune 411 026, India.
Tel: +91-20-67156000
Fax: +91-20-27120206
Customer Care: 18002090115 (India toll free)
Email : enquiry@thermaxglobal.com

Ahmedabad

Tel: +91-79-26575408 • Fax: +91-79-65577270

Bengaluru

Tel: +91-80-22371721 • Fax: +91-80-22371726

Chennai

Tel: +91-44-24303400 • Fax: +91-44-24353841

Delhi

Tel: +91-11- 46087200 • Fax: +91-11- 26145311

Hyderabad

Tel: +91-40-23253700 • Fax: +91-40-23253799

Kolkata

Tel: +91-33-66070800 • Fax: +91-33-66070999

Mumbai

Tel: +91-22-67542222 • Fax: +91-22-22040859

Thermax World-wide

UK, USA, UAE, Germany, Belgium, Denmark, Russia
Saudi Arabia, Thailand, Malaysia, Bangladesh,
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