

# T-GUARD<sup>®</sup> CTE 65

Coal Tar Epoxy Resin Based, High Build and High Performance Protective Coating



Thixotropic pitch extended epoxy amine adduct formulation containing reinforcing inert fillers and special blend of solvents. T-GUARD<sup>®</sup> CTE 65 is supplied as a two-component system comprising a special blend of epoxy resins and a separate low viscosity amine hardener.

## Uses

T-GUARD<sup>®</sup> CTE 65 provides protection to concrete and steel structures against corrosion from aggressive environments. Suitable for tanks above ground or in totally submerged conditions such as pipe linings. Particularly useful in sewage, effluent plants and dock and harbour installations.

## Benefits

- High film build in single application
- Easily applied by brush or spray
- Provides long term corrosion protection
- No priming necessary in most cases
- Chemical and abrasion resistant
- Economic and versatile product

## Technical Support

Thermax offers technical support service to specifiers, end users and contractors, as well as on-site technical assistance in locations all over the country.

## Design Criteria

T-GUARD<sup>®</sup> CTE 65 is designed to be applied in two coats to achieve minimum total dry film thickness of 350 microns. To achieve the correct protective properties, T-GUARD<sup>®</sup> CTE 65 must be applied at the coverage rates given overleaf.

## Properties

<b>Mixed Density</b>	Approx. 1.52 gm/cc
<b>Volume Solids (Mixed)</b>	65%
<b>Recommended Thickness in 2 Coats</b>	
<b>Dry Film Thickness (DFT)</b>	350 microns
<b>Wet Film Thickness (WFT)</b>	530 microns

**Note:** In very hot or very cold conditions lower application of thickness is advised to avoid solvent entrapment. Recommended DFT can be obtained in one coat by airless spray. Other methods will give lower film build.

<b>Number of Coats</b>	1-3 coats depending on application conditions and method	
	<b>20°C</b>	<b>35°C</b>
<b>Pot Life</b>	4 hours	90 min
<b>Touch Dry Time</b>	4 hours	2 hours
<b>Fully Dry</b>	7 days	4 days
<b>Recoating Time</b>	24 hours	18 hours
<b>Application Temperature</b>	20°C-40°C Outside this temperature, consult Thermax for guidance.	
<b>Adhesion Bond Strength (ASTM D 4541)</b>	>3MPa	
<b>Salt Spray @ 500 hours (BS 1881)</b>	Passes	
<b>Accelerated Weathering @ 500 hours (ASTM D 4587)</b>	Passes	

## Chemical Resistance

The fully cured coat is resistant to the following.

Water  
Sea Water  
Effluent Water  
Ground Water  
Sewage Water  
Distilled Water  
Atmospheric Conditions  
Exhaust and Sewage Gases  
Dilute Mineral Acids and Alkalis  
Many Organic Solvents  
Barnacles and Organic Growths

## Specification Clauses

### Corrosion, Chemical and Abrasion Resistant Lining

The chemical and abrasion resistant coating shall be T-GUARD<sup>®</sup> CTE 65, a high build, pitch extended epoxy amine adduct, two pack system, specifically designed to provide a tough, impermeable and corrosion resistant film.

## Instructions for Use

### Surface Preparation

#### Concrete

Surface should be clean, dry, free from laitance, loose particles and previous coatings. This should be achieved by blast cleaning, water jetting, wire brushing or grinding. Blow holes, if any, should be filled with a suitable putty like MAXTREAT<sup>®</sup> EPG.

#### Steel

Any rust, millscale and other impurities should be removed from the substrate by blast cleaning to SA 2 ½.

#### Hot Dip Galvanised Steel

Galvanised steel should be lightly blast cleaned or cold phosphated. When the galvanised process includes quenching in an aqueous chromate solution, T-GUARD<sup>®</sup> CTE 65 can be applied directly to the substrate, provided it is clean and dry.

### Mixing

Mix both components until a homogenous mixture is obtained. It is important that both components are intermixed thoroughly and that no traces of the components remain unmixed. If necessary adjust the viscosity by adding up to 5% of Cleaning solution to the base component before mixing with hardener.

### Application

T-GUARD<sup>®</sup> CTE 65 may be applied by brush or spray to give uniform finish. Faster rates of application are possible using airless spray equipment. A minimum nozzle pressure of 140 bar with an orifice size of 0.65 - 0.79 mm has been found suitable. Upto 5% by volume Cleaning Solution may be added to ease spray application.

### Cleaning

Tools should be cleaned with Cleaning Solution immediately after use.

### Health and Safety Instructions

Some people are sensitive to epoxy resins, so gloves and a barrier cream should be used when handling these products. If contact with the resin occurs, it must be

removed, before it hardens, with a resin removing cream followed by washing with soap and water. Solvent should not be used. The use of goggles is recommended but should accidental eye contamination occur, it shall be washed thoroughly with plenty of water and medical treatment shall be sought immediately. Ensure good ventilation and do not smoke during use.

### Fire

T-GUARD<sup>®</sup> CTE 65 and Cleaning Solution are flammable. Do not smoke or use near naked flame.

### Storage

#### Shelf Life

6 months if stored at 30°C. Store in a cool dry place in unopened tins.

### Packing

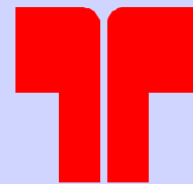
T-GUARD<sup>®</sup> CTE 65 is supplied in 18L packs. Cleaning Solution is supplied in 5 and 20 litres plastic containers.

### Coverage

**Theoretical Coverage:** 1.80-1.90 m<sup>2</sup>/litre for 350 microns DFT.

**Practical Coverage:** Practical coverage may vary depending on substrate condition and application method.

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