TEC® BEAT ET

Coal-tar epoxy resin based coating for steel and concrete surfaces

Description

TEC® BEAT ET is based on solvented epoxy resins, with modified coal tar. And It is supplied as a two pack material in pre-weighed quantities ready for on-site mixing and use.

TEC® BEAT ET is applied as a two coat application. This is generally applied at a wet film thickness of 100 micron per coat, but can be applied at greater thicknesses to suit exposure conditions.

TEC® BEAT ET is also available in marine grade for applications necessitating biocidal and micro-biostatic effect.

Primary Applications

Provides chemical and abrasion resistance to prevent corrosion of concrete surfaces for applications such as :

* Seawater tanks, channels and intakes.
* Manhole linings.
* Sewage works and effluent treatment plants.
* Chemical processing.
* Foundation waterproofing.
* Jetties, piers and docks.

Features & Benefits

* Excellent resistance to all types of water
* 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

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

Technical Properties

TEC® BEAT ET	20°C	35°C
Potlife	2 hrs	1 ½ hrs
Time between coats	4 hrs	2 hrs
Initial hardness	24 hrs	16 hrs
Full cure	7 days	5 days
Below 20°C these times will be increased.		
Specific gravity (mixed material)	1.20	

Chemical Resistance

Tests were carried out in accordance with ASTM D543. Test was conducted at room temperature of 23°C and specimens were soaked in the solution for a period of 7 days.

Acids

Hydrochloric acid 10%	: Excellent
Sulphuric acid 10%	: Very good
Nitric acid 10%	: Very good
Phosphoric acid 10%	: Very good

Alkalis

Ammonia 15%	: Excellent
Sodium Hydroxide 25%	: Good

Solvents & organics

Oils, vegetable and minerals:	Excellent
Ferric Chloride 15%	: Very good

Specification Clauses

The protective coating shall be TEC® BEAT ET, as a chemically resistant prepacked, two part solvented, coal tar epoxy coating with a minimum of 45% volume solids. The total dry film thickness shall not be less than 100 microns and shall be capable of resistant to a range of industrial chemicals and all types of water. The cured film shall be tough and abrasion resistant. It shall be applied on the dry concrete or steel surfaces.

Application instructions

Preparation

Surface to be coated must be structurally sound, dry and free from loose material. All surface contamination must be removed. Grease and oil should be grit blasted or water jetted. Deeper penetration must be removed by mechanical means. Any laitence must be removed from concrete surface by etching with cleaning agent then wash off and dried. New concrete should be allowed to cure for atleast 28 days prior to application.

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 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,

TEC® BEAT ET

Application

A minimum 2 coat application is generally recommended to ensure a full, unbroken coating is achieved.

Brush application

Once mixed, the material should be immediately applied, ensuring that a continuous coating is obtained. The first coat is applied to achieve a uniform coating with a wet film thickness not less than 200 microns, and should be allowed to dry for at least 6 hours at 35°C before the application of the second coat.

The second coat should be applied between 6 hours and 4 days (at 35°C) after the application of the first coat, at 45°C this will be reduced to 3 hours. The second coat should be applied as above again achieving a wet film thickness not less than 200 microns.

Spray application

Where large areas are to be coated, it is advisable to consider spray application. Please Consult the TechnyChemy office for further details and recommendations.

Cleaning

Tools and equipment should be cleaned with Cleaning Solution immediately after use.

Hot weather working practices

Whilst the performance properties of TEC® BEAT ET at elevated temperatures are assured, application under such conditions can sometimes be difficult. It is therefore suggested that, for temperatures above 35°C, the following guidelines are adopted as a prudent working regime:

(i) Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.

(ii) Keep mixing and placing equipment cool, arranging shade protection if necessary. It is especially important to keep cool those surfaces of the equipment which will come into direct contact with the material itself.

(iii) For hand application, ensure that there are sufficient operatives available to complete application within the pot life of the material.

Estimating

Packaging

TEC® BEAT ET	4 Litres
Cleaning Solution	1 & 5 Litres

Coverage

TEC® BEAT ET, 4 Litre pack covers approximately 35 m^2/coat at a WFT of 100 microns. However, practical coverage depends on the nature and porosity of the substrate and application conditions.

Storage

6 months shelf life if stored in unopened containers below 35 deg.C.

Precautions

Health and Safety

Some people are sensitive to epoxy resin and coal tar products and may develop dermatitis on skin contact. Gloves and barrier creams should be used when handling cleaning SOLs and TEC® BEAT ET. If contact with the skin occurs, wash with soap and copious amounts of water. Solvent shall not be used. Direct contact with the eyes will cause irritation and may cause serious damage if left untreated. Any eye contamination should be washed thoroughly with plenty of water and immediate medical treatment sought. The use of goggles when mixing is recommended. Smoking to be avoided.

TECHNY CHEMY
New Era Construction Chemicals

Corporate Office:

No. 24, Patel Street, Ayyappa Nagar,
Tiruchirapalli - 620021, Tamilnadu,
India

Telephone. 0431-2458519, Telefax. 0431-2458590
Email. info@technychemy.co.in
www.technychemy.co.in

Works:

10B, Kanniyakudi Village, Kariyamanickam Post,
Manachanallur Taluk, Trichy - 621 005