



EmO Guard CT

Solvent free, coal tar extended epoxy resin coating.

Uses

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

- Sea water tanks, channels and intakes
- Manhole linings
- Sewage works and effluent plants
- Chemical processing
- Foundation water proofing
- Jetties, piers and docks

Advantages

- Low cost service life – excellent chemical and abrasion resistance, does not support bacterial growth.
- Cost saving – primer less system
- Added value system – acts as an impermeable water proof coating.
- Versatile usage – can be applied to green concrete by brush, roller or spray

Product Description

EmO Guard CT is based on solvent free epoxy resins, modified with coal tar. It is supplied as a two pack material in pre-weighed quantities ready for on-site mixing and use.

EmO Guard CT is applied as two coat application. It is generally applied at a wet film thickness of 200 microns per coat, but

can be applied at greater thickness to suit exposure conditions.

Specification

The corrosion resistant coating shall be **EmO Guard CT**, a coal tar extended, 100% solids, epoxy resin coating. The coating shall possess a high-build capability, to facilitate varying application thickness. It shall further possess excellent bond and chemical resistance properties and shall comply to BS 7542 & ASTM C 309 curing efficiency standards.

Typical Properties

The values given below are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

Color	:	black/ brown
Solids by weight @25 ⁰ c	:	100%
Mixed specific gravity	:	1.3 g/cm ³
Pot life	:	75 mins @ 25 ⁰ c
Tack free time	:	2 to 3 hrs@ 35 ⁰ c
Over coating time	:	6 hrs @ 35 ⁰ c
Complete cure	:	@25 ⁰ C @35 ⁰ C
	:	7days 5 days

Curing efficiency	: 93%	(BS 7542)
Water Absorption	:	<0.01%
Impact resistance	:	passed
Bond Strength	:	Min 1N/mm ²
Water permeability over 3 months	:	Nil@ 2 bar pressure
Salt spray test (BS 1881 pt 124)	:	Nil @ 200 microns tested over 1000 hrs

Chemical Resistance

Tests were carried out in accordance with ASTM D 543. Test was conducted at room temperature of 23^oc and specimens were soaked in the solution for a period of 7 days

Acids (m/v)

HCL 10%	:	Resistant
H2SO4 10%	:	Resistant
Nitric Acid 10%	:	Resistant
Phosphoric Acid 10%	:	Resistant

Alkalis (m/v)

NaOH 10%	:	Resistant
KOH 10%	:	Resistant

Solvents & Organics

Petrol	:	Resistant
Skydrol	:	Resistant
Diesel	:	Resistant
Brake fluid	:	Resistant

Engine oil	:	Resistant
Ethylene glycol	:	Resistant
Propylene glycol	:	Resistant
Kerosene	:	Resistant

Aqueous solutions

Water (tap, distilled, potable):	:	Resistant
Sea Water	:	Resistant
Raw Sewage	:	Resistant

Technical Support

ELMRR provides a comprehensive technical support service to specifiers, end users and contractors and is able to offer on-site technical assistance.

Instructions for use

Preparation

All surfaces to be treated with **EmO Guard CT** must be clean and free from dust or loose material.

Concrete surfaces

All laitance must be removed by grit blasting, or other suitable removal methods following the preparation of concrete surface, care should be taken to ensure that any surface irregularities are filled with EmO Seal NF 10

Metal Surfaces

Any metal surfaces should be grit blasted to a bright finish, meeting the requirements of Swedish standard SA2 ½ or equal

Priming

Concrete surfaces

Priming is not required on properly prepared concrete surfaces.

Metal surfaces

All metal surfaces should be coated immediately after preparation. If this is not possible and to eliminate formation of rust, prime the metal surface using EmO Guard MP.

Mixing

The contents of the resin should be thoroughly stirred to disperse any possible settlement.

The entire contents of both the hardener and resin cans should be poured in to a suitable sized mixing vessel.

It is recommended that the two components are mixed together mechanically using a slow speed electric drill.

Mixing should be carried out continuously for 3 to 4 minutes, until a uniform consistency is achieved.

Although **EmO Guard CT** is a non-solvented product, it is still recommended that mixing should take place in an open, well-ventilated area.

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 35⁰c before the application of the second coat. The second coat should be applied between 6 hours and 4 days (at 35⁰c) after the application of the first coat, at 45⁰c 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 to be coated, it is advisable to consider spray application.

Hot weather working practices

Whilst the performance properties of **EmO Guard CT** at elevated temperatures are assured, application under such conditions can sometimes be difficult. It is therefore suggested that, for temperature above 35⁰c, the following guidelines are adopted as a prudent working regime:

1. Store unmixed materials in a cool environment, avoiding exposure to direct sunlight.
2. Keep mixing and placing equipment cool, arranging shade protection if needed. It is especially important to keep cool those surfaces of the equipment which will come in to contact with the material itself.

3. Try to eliminate application in the middle of the day, and certainly avoid application in direct sunlight.
4. For hand application, ensure that there are sufficient operatives available to complete application with in the pot life of the material.

Repairing and over coating

Any application of **EmO Guard CT** which have become damaged can be readily over coated.

The existing surface should well abraded, using a stiff wire brush, or similar to ensure that a good mechanical bond will be achieved between the two layers.

Over coating works can then proceed as for new work, always ensuring that the prepared substrate is free from any moisture.

Limitations

1. **EmO Guard CT** should not be applied over other existing coatings, but can be applied on top of itself.
2. For cold weather working (down to 5°C), it is recommended that materials are stored in a heated building and only removed immediately before use. Accelerated heating methods are not to be utilized under any circumstances.
3. In contact with moisture/ high humidity during cure, the color of the coatings will change to brown/red.

Estimating

Supply

EmO Guard CT : 5 Ltr Pack

EmO Guard MP : 5 Ltr Pack

Coverage

EmO Guard CT : 5.0 m²/ ltr

Thickness per coat : 200 microns

EmO Guard MP : 10 m²/ ltr

Health & Safety

Precautions

EmO Guard CT and EmO Guard MP should not come in to contact with eyes or skin, nor should they be swallowed. Avoid inhalation of vapors and ensure adequate ventilation. Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye/face protection.

Should accidental skin contact occur, remove immediately with a resin removing cream such as kerocleanse standard grade skin cleanser or rozaklense industrial skin cleanser, followed by washing with soap and water – do not use solvent

In case of contact with eyes, remove immediately with plenty of water and seek medical advice



Important note

ELMRR endeavors to ensure that the technical information contained herein is true, accurate and represents our best knowledge and experience. No warranty is given or implied, as ELMRR has no control over the conditions of use and the competence of any labor involved in the application are beyond our control. As all ELMRR technical data sheets are updated on a regular basis it is the customer's responsibility to check that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended.

FIRE

EmO Guard CT	:	Flammable
ELMIERE Solvent EP	:	Flammable
EmO Guard MP Primer	:	Flammable

Manufactured By:

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