



## EmO Guard NT

**Solvent free, Nontoxic, epoxy resin, protective coating for concrete and metal**

### Uses

Provides a nontoxic coating to concrete and metal surfaces, which is both chemical and corrosion resistant. It is suitable for applications such as:

- Pipes and Tanks
- Reservoirs and water treatment works
- Grain silos and dairies
- Meat and food processing environments

### Advantages

- Solvent free – Nontoxic
- Resistant to mould growth
- Chemically resistant – good resistant to a wide range of chemicals
- Durable, low maintenance costs
- Hygienic – provides a seamless surface which is easily cleaned
- Attractive – Can be made in a wide range of colors up on request.

### Product Description

EmO Guard NT is a solvent free, non toxic system based on epoxy resins and curing agents specially selected for their ability to withstand chemical attack. The system consists of pre-weighed base and hardner components, supplied as two-component system. When laid, it provides a smooth, light reflective surface. It can be made available in a range of standard colors on request.

### 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.

Mixed specific gravity : 1.30g/cm<sup>3</sup>

Complete cure at 23<sup>0</sup> C at 35<sup>0</sup> C

: 7days 5 days

### Compressive strength

@25<sup>0</sup> C 7 days : 80 N/mm<sup>2</sup>

### Flexural strength

@25<sup>0</sup> C 7 days : 35 N/mm<sup>2</sup>

**Adhesion Strength** : (Concrete failure)

(ASTM D 412)

Application thickness : 200 microns/single coat

Water absorption : Nil

Shore D hardness : 85

### Chemical Resistance

EmO Guard NT is resistant to spillages of the following when tested accordance with ASTM D 1308 Cl. 3.1.2.

#### Acids (m/v)

HCL 25%	:	Resistant
H2SO4 25%	:	Resistant
Citric Acid 25%	:	Resistant
Acetic Acid 10%	:	Resistant

#### Alkalis (m/v)

NaOH 50%	:	Resistant
KOH	:	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
Sodium chloride (sat)	:	Resistant
Urea solution (Sat)	:	Resistant

### Standard Compliance

BS 6920 : Water Quality  
 ASTM D-570-81: Water Absorption

ASTM D -638 -77a: Tensile Strength

### Directions for Use

**Surface Preparation:** Ensure the concrete foundation surface is dimensionally stable and free of dirt, dust, oil, laitance, paint, curing compounds etc. Bolt holes and fixing pockets should be free from any dirt or debris. If possible a roughened surface is preferable to smooth surfaces. Metal surfaces must be free from rust, loose scaling and paint. Shuttering should be covered with polyethylene to ensure a clean release.

### Priming

Priming is not required on properly prepared surfaces

### Mixing & Application

Do not commence mixing until all surface preparation, cleaning and shuttering is complete. EmO Guard NT is supplied in pre-weighed units. Add the reactor to the base in a suitable forced action mixer; alternatively use a slow speed drill and paddle. Continue mixing until a completely homogenous material is obtained.

The first coat of EmO Guard NT should be applied using a good quality medium haired pile roller, suitable for epoxy application, or squeegee to achieve a continuous coating. Ensure that loose hairs on the roller are

removed before use. A minimum film thickness of 200 microns should be applied. This can be increased where specifications demand. When the base coat has reached initial cure, the top coat can be applied by medium haired roller, at minimum film thickness of 200 microns. Care should be taken to ensure that a continuous film is achieved.

Whilst EmO Guard NT can be applied to damp surfaces; running water must be excluded from the work area during both application and curing of the product.

#### **Glass Fibre Reinforcement**

EmO Guard NT may be used in conjunction with glass fibre reinforcement to increase coating thickness, or where it is necessary to bridge static cracks in the substrate.

The fabric should be laid directly onto the first coat whilst it is still wet, and should be pressed in and smoothed out with a suitable roller.

Second and subsequent coats may then be applied in accordance with the over coating times mentioned. Open weave glass cloth in the range of 100 to 300 gm/m<sup>2</sup> is considered most suitable for this application.

#### **Equipment care**

Clean all equipment promptly using **ELM Solvent EP**. Cured material will have to be mechanically removed.

#### **Packaging & Storage**

EmO Guard NT is available in factory, pre-weighted units of 5 liters. It has a minimum

shelf life of 12 months provided it is stored under cover, out of direct sunlight.

#### **Coverage**

5m<sup>2</sup>/liter @ 200 microns wft

#### **Health & Safety**

##### **Precautions**

**EmO Guard NT** does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately – do not induce vomiting. For further information refer to the Material Safety Data Sheet available for this product.

##### **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 Elmer 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.



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