

## Techno Coat 151

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**Non toxic, epoxy resin protective coating for concrete & metal.**

### Uses

Provides a non toxic 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

### Advantages

Multi-purpose coating, due to non toxicity ,Low cost service life - resistant to mould growth, Chemical attack and abrasion  
Easy to clean, smooth gloss finish  
Easy to apply, solvent free, formulation makes it suitable for use in confined spaces

### Standards Compliance

BS 6920: WRC tests on Water Quality.  
ASTM D-570-81: Water absorption at 70°C.  
ASTM D-638-77a: Tensile strength.  
UK WFBS listed (8710051): Approved for use in contact with potable water.

### Description

Techno Coat 151 high gloss, non toxic, coating is based on solvent free, epoxy resins which contain pigments and fine fillers. It is supplied as a two pack material, in pre-weighed quantities ready for on site mixing and use.  
Techno Coat 151 is applied to dry, or damp, surfaces generally as a two coat application to give a final dft of 400 microns.  
It is available in blue and white to enable simple, visual checking for full coat application.

### Specification

The non toxic, epoxy resin coating shall be Techno Coat 151, a 100% solids, solvent free, protective coating.  
The coating shall be moisture tolerant and, when cured, shall be suitable for use in contact with potable water. It shall further possess excellent bond and chemical resistance properties.

### Properties

<b>Specific gravity</b>	Approx 1.64 (mixed)
Solids by weight @ 25°C	100 % (mixed)
@ 20°C	30 to 40 minutes
@ 35°C	15 to 20 minutes
Drying time:	@20°C @35°C
Touch dry	6 hrs 3 hrs
recoatable	6-18 hrs 3-12 hrs

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**Modern Technologies for Construction Chemicals**

**Factory: Wadi Elnatroun - First Industrial Area.**  
**Head Office: New Maadi - 3\288 St.**  
**Fax. & Tel.: 02-25200833 Mob. : 010 209 65554**  
[www.mtcchem.com](http://www.mtcchem.com)

fully cured 7 days 5 days  
Bond strength (ASTM 4541-85)  
Substrate failure first at 2 N/mm<sup>2</sup>

Chemical resistance  
(Test results with some common chemicals)

**Acids (m/v)**

Phosphoric acid <sup>1</sup>	10%	Very good
Lactic acid	1 %	Very good
Hydrochloric acid <sup>2</sup>	30%	Good

**Alkalis (m/v)**

Sodium Hydroxide	40%	Excellent
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**Solvents & organics**

Kerosene		Excellent
Petrol <sup>1</sup>		Very good
Gas oil <sup>1</sup>		Very good
Nickel plating solution <sup>1</sup>		Very good

**Aqueous solutions**

Distilled water		Excellent
Chlorinated water		Excellent
Harsh water		Excellent
Sewage water		Excellent

(1) **Note** - can cause some slight surface discoloration.

(2) **Note** - acceptable performance up to 7 days.

**Instructions for use**

**Preparation**

All surfaces should be clean, dry and free from dust. Wet substrates should be sponge-dried to remove all free surface water.

**Concrete surfaces**

All surface laitance should be removed by grit blasting or water jetting, to provide a suitable key for Techno Coat 151.

Following the preparation of a concrete surface, care should be taken to ensure that any exposed blow holes are filled with Techno Coat 151.

**Metal surfaces**

Any metal surfaces should be blasted to a bright finish, meeting the requirements of Swedish

Standard SA 2.5

**Priming**

Priming is not required *on* properly prepared surfaces.

**Mixing**

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

The entire contents of the hardener should be poured into the base container, and the two materials mixed thoroughly until both uniform color and consistency are obtained. 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 5 minutes.

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### **Application**

Whilst Techno Coat 151 can be applied to damp surfaces: running water must be excluded from the work area during both application and curing of the Product.

### **Hand application**

This can be suitably achieved by brush or roller. The first coat should be firmly applied and scrubbed well into the surface, ensuring that a continuous film results of uniform thickness.

The second coat will cover more readily than the first and should be applied within the over coating times mentioned above. It is further recommended that a contrasting colour is chosen for the second coat, to ensure unbroken coverage

### **Spray application**

Faster rates of application are possible using airless spray equipment but the local M.T.C. office should be contacted prior to application for technical advice.

### **Cleaning**

Tools and equipment should be cleaned with Techno Solvent 102 immediately after use.

### **Hot weather working practices**

Whilst the performance properties of Techno Coat 151 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:

- (1) Store unmixed materials in a cool (preferably temperature controlled) environment, avoiding exposure to direct sunlight.
- (2) 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.
- (3) For hard application ensure that there are sufficient operatives available to complete application within the pot life of the material.
- (4) Have a ready supply of Techno solvent available for immediate cleaning of tools after use.

### **Repairing and over coating**

Any applications of Techno Coat 151 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.

### **Limitations**

- A minimum application temperature of 5°C should be observed at all times Techno Coat 151 should not be applied on top of existing coatings, but can be applied on top of itself (see above).
- In high temperature conditions, of above 35°C. hot weather" working practices should be adopted (see Above).

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**Estimating  
Supply**

Techno Coat 151  
Techno solvent

2.5 kg packs.  
4 liter packs.

**Coverage**

Coverage figures quoted for Techno Coat 151 are theoretical, and based upon plain application to a properly prepared substrate. Since application conditions vary greatly, due to substrate porosity, quality of surface preparation, application thickness and wastage factors, the on-site figures may vary from those shown below.

Techno Coat 151: 3.0m<sup>2</sup> /kg @ 200 microns wft/coat.

**Storage**

**Shelf life**

Techno Coat 151 has a shelf life of 12 months, when stored in warehouse conditions below 25°C.

**Precautions**

**Health and safety**

Techno Coat 151 and Techno solvent should not come in contact with skin or eyes,

nor should they be swallowed.

Avoid inhalation of vapour and ensure adequate ventilation.

Some people are sensitive to resins, hardeners and solvents

Wear suitable protective clothing, gloves and eye/face

**Protection.**

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

**Fire**

Techno Coat 151 is non-flammable

Techno solvent is flammable. Keep away from sources of ignition. No smoking.

**Flash point**

Techno solvent: 33°C.

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