

## ProTXcoat 307

### Polyurethane coating for tanks

**307** is a high performance solvent free polyurethane coating designed for use as a lining system for tanks, containment areas and steelwork.

**307** is based on a complex blend of high molecular weight polyols and urethane polymers blended with inert pigments and silicas reacted with an amine accelerated isocyanate resin which produces a system with exceptional abrasion, erosion, chemical and corrosion resistance.

**307** offers a high degree of flexibility and is suitable for use on steel, concrete, aluminium, GRP, galvanised or mineral surfaces subject to chemical attack.

#### SURFACE PREPARATION

**Steel Surfaces** - Heavy contamination due to oil or grease must first be removed using MEK (Methyl Ethyl Ketone). Surfaces should then be abrasive blast cleaned to a minimum Sa2½ - Sa3 BS7079 Part A1 : 1989 or equivalent with a blast profile of 75 – 125 microns corresponding to 'Rough' in ISO 8503/1. All loose abrasive dust and debris must be blown clear or vacuum cleaned away.

Existing steel surfaces which have corroded in a chemical environment may be contaminated by soluble iron salts within corrosion pits. To prepare these surfaces it is recommended that one of the following treatments be carried out prior to final dry abrasive blasting to the specified standard.

- a) Blasting with a mixture of clean water and abrasive.
- b) Initial dry blast cleaning to remove corrosion and surface coatings followed by high pressure clean water jetting (minimum 1000 psi/66 bar).

**Concrete Surfaces** - All concrete to be coated should either be lightly abrasive blast cleaned using wet or dry abrasive techniques or alternatively high pressure water jetting. Care must be taken not to expose the aggregate in the concrete. All dust and abrasive material shall be removed from the surface prior to coating. Concrete surfaces should have a maximum moisture content of 7% prior to any coating being applied.

Concrete surfaces must be primed with ProTXcoat 302 epoxy primer in accordance with the product tech sheet.

#### MIXING

**307** is a two component material comprising base and activator components which must be mixed together prior to use. Stir the contents of the base component, continue stirring and gradually add the total contents of the activator container, stir the combined mix until completely homogeneous.

The mixed materials should be used within 20 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

#### APPLICATION

Application should not be carried out at temperatures below 2°C nor when relative humidity exceeds 85% or when the surface to be coated is less than 3°C below the dew point.

**307** is suitable for application by brush or roller, using good quality brushes or short to medium pile rollers. On concrete surfaces it is important to stipple the **307** into the primed surface to ensure good wetting of the surface.

For large applications **307** can be applied by dual feed hot airless spray equipment, full technical details can be supplied on request from the **ProTXcoat Technical Centre**.

### Recommended Film Thickness per coat

Wet 500 microns (20 mils)

Dry 500 microns (20 mils)

## PHYSICAL CONSTANTS

**Mixing Ratio** 3 parts base to 1 part activator by volume

**Appearance** Base Viscous coloured liquid  
Activator Dark brown liquid

### Drying & Cure Times at

<b>20°C (68°F)</b>	Usable Life	20 min
	Touch Dry	4 hours
	Hard Dry	8 hours
	Minimum Overcoating	4 hours
	Maximum Overcoating	24
	hours Full Cure	7 days

**Volume Solids** 100%

**V.O.C.** Nil

### Shelf Life

Use within 2 years if purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

## HEALTH & SAFETY

As long as normal good practice is observed **307** can be safely used.

Protective gloves should be worn during use.

A fully detailed **Safety Data Sheet** is either included with the material or is available on request.

### Abrasion Resistance

130 mgm weight loss per1000 ASTMD4060  
cycles-1kg load- CS17 Wheel

### Impact Resistance

19.75 Joules (175 in lbs) ASTMD256

### Direct Pull Adhesion

63 kg/cm<sup>2</sup> (900 psi) - steel ASTM D4541  
35 kg/cm<sup>2</sup> (500 psi) - concrete  
(Concrete Failure)

### Dry Heat Resistance

100°C (212°F) ASTMD2485

### Water Vapour Permeability

5.6 x 10<sup>-6</sup> perm.cm  
ASTM D1653

### Salt Fog Resistance

Excellent, unaffected after 10,000 ASTM B117 hours exposure

### Tensile Strength

200 kg/cm<sup>2</sup> (2825 psi) ASTMD638

### Scratch Resistance

No failure 2.5 kg (5.5lbs) load BS 3900 P



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PHYSICAL PROPERTIES

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