



TECHNICAL DATA SHEET

CHEMI-TECH U.W.

Two Component Solvent Free Epoxy Coating



Thortex Chemi-Tech U.W. is a specially formulated high performance solvent free coating designed for use as a corrosion resistant lining for structures operating in underwater environments.

Thortex Chemi-Tech U.W. is based on a special liquid epoxy resin, reacted with a blend of hydrophilic polyamino resins reinforced with inorganic pigments which produces a coating with excellent abrasion and erosion resistance that can be applied in wet/underwater conditions.

Thortex Chemi-Tech U.W. is easy to apply by brush or roller and offers excellent corrosion protection to structures operating in aggressive immersion or semi-immersion environments such as platforms, jetties, piers etc.

Thortex Chemi-Tech U.W. achieves full chemical cure even when applied underwater.

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

SURFACE PREPARATION

Steel Surfaces - Surfaces to be coated should be clean and free from oils, bacteria and algal growth. For optimum performance surfaces should be abrasive blast cleaned to a minimum Sa2½ in accordance with BS7079 Part A1:1989 or equivalent with a blast profile corresponding to 'Medium' in accordance with BS7079 Part C2. All loose abrasive dust and debris must be blown clear or vacuum cleaned away. Steel surfaces do not require priming but should be coated within 4 hours of blast cleaning to prevent rusting.

Underwater zones should be hydroblasted or prepared by air driven grinders, needle guns and/or chizzles.

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.

MIXING

Thortex Chemi-Tech U.W. 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 45 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

APPLICATION

Thortex Chemi-Tech U.W. can be applied by brush or roller when used above water, using good quality brushes or short to medium pile rollers.

For underwater application with **Thortex Chemi-Tech U.W.** short bristle brushes should be used with the product being worked into the substrate to ensure thorough wetting out.

In areas requiring a slip resistance finish, then **Thortex H.D.** or **W.D. Grit** should be incorporated into the first coat of a two coat system.

For large applications **Thortex Chemi-Tech U.W.** can be applied by dual feed hot airless spray equipment, full technical details can be supplied on request from the **Thortex Technical Centre**.

Note: Ideally when applying **Thortex Chemi-Tech U.W.** underwater, water temperatures should be a minimum 10°C for optimum properties, however application can be carried out at temperatures down to 5°C.

All equipment should be cleaned IMMEDIATELY after use with **Thortex Universal Cleaner**.

Theoretical Coverage Rate4 m²/litre at 250 microns dft (43 ft²/litre at 10 mils dft)**Recommended Film Thickness**

Wet 250 microns (10 mils)

Dry 250 microns (10 mils)

Note: Normally applied as a two coat system to achieve a nominal film thickness of 500 microns.

Detailed working recommendations are available from the Technical Centre on request.

PHYSICAL CONSTANTS

Mixing Ratio 2 parts base to 1 part activator by volume

Appearance Base Coloured Thixotropic Liquid
Activator Clear Amber Liquid

Drying & Cure

Times at 20°C/68°F	Usable Life	45 minutes
	Touch Dry	6 hours
	Minimum Overcoating	6 hours
	Maximum Overcoating	48 hours
	Full Cure	7 days

Volume Solids 100%

V.O.C. Nil

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

PHYSICAL PROPERTIES

Abrasion Resistance ASTMD4060	1 ml loss per 1000 cycles
Direct Pull Adhesion ASTMD4541	63 kg/cm ² (900 psi)
Impact Resistance ASTMG14	2.6 joules (23 ins lbs)
Salt Fog Resistance ASTMB117	Unaffected after 10,000 hrs
Tensile Strength ASTMD1002	175 kg/cm ² (2500 psi)
Water Vapour Permeability ASTMD1653	3.75 x 10 ⁻⁶ perm.cm
Dry Heat Resistance ASTMD2485	135°C (275°F)

HEALTH AND SAFETY

As long as normal good practice is observed **Thortex Chemi-Tech U.W.** can be safely used.

Protective gloves should be worn.

Vapour masks should be worn for spray application.

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

PACKAGING

Supplied in 5 litre packs

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.



www.thortex.co.uk

Thortex Division of E. Wood Ltd.
Standard Way, Northallerton, N. Yorks. U.K. DL6 2XA
Tel: +44(0)1609 780170 Fax: +44(0)1609 780438 & 777905
E Mail: thortex@ewood.co.uk
Buy online: www.thortex.co.uk/shop

FOR FURTHER INFORMATION PLEASE CONTACT