



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 chisels.

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 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 Center**.

Note: Ideally when applying **Thortex Chemi-Tech U.W.** underwater, water temperatures should be a minimum 50°F for optimum properties, however application can be carried out at temperatures down to 41°F.

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

Theoretical Coverage Rate43 ft²/liter at 10 mils dft**Recommended Film Thickness**

Wet 10 mils

Dry 10 mils

Note: Normally applied as a two coat system to achieve a nominal film thickness of 20 mils.

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

PHYSICAL CONSTANTS

Mixing Ratio 2 parts base to 1 part activator by volume

Appearance Base Colored Thixotropic Liquid
Activator Clear Amber Liquid

Drying & Cure**Times at**

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 30°F and 86°F.

PHYSICAL PROPERTIES

Abrasion Resistance ASTMD4060	1 ml loss per 1000 cycles
Direct Pull Adhesion ASTMD4541	900 psi
Impact Resistance ASTMG14	23 ins lbs
Salt Fog Resistance ASTMB117	Unaffected after 10,000 hrs
Tensile Strength ASTMD1002	2500 psi
Water Vapor Permeability ASTMD1653	3.75 x 10 ⁻⁶ perm.cm
Dry Heat Resistance ASTMD2485	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.

Vapor 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 liter 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.

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