



TECHNICAL DATASHEET

CHEMI-TECH E.P.

Two Component Solvent Free Epoxy Coating



Thortex Chemi-Tech E.P. is a high performance solvent free epoxy lining designed for use as a heavy duty chemical resistant coating for concrete and metal surfaces.

The **Thortex Chemi-Tech E.P.** formulation utilises a special blend of epoxy resins and a polyamino-amide curing system reinforced with a blend of inert pigments and inorganic fillers to produce an economical coating system with good physical properties and chemical resistance.

Thortex Chemi-Tech E.P. offers exceptional application and film build enabling high film thicknesses in a minimum number of coats to produce a system with a high degree of resistance to attack by aqueous chemicals and is suitable for the protection of concrete tanks, containment dykes, sewage treatment equipment, concrete channels below ground pipework, tank pad areas, storage pits etc.

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

SURFACE PREPARATION

Steel Surfaces: For immersion conditions, surfaces should be abrasive blast cleaned to a minimum Sa2 1/2 BS7079 Part A1, 1989 or equivalent. For other applications, particularly where blast cleaning is not practical, manual cleaning using needle gun, mechanical wire brush or grinder should be carried out. All oil and grease contamination must be removed using **Thortex Universal Cleaner**.

Concrete and Porous Mineral Surfaces: Abrasive cleaning should be used to remove laitence and other loose powdery material taking care not to expose the aggregate. Surfaces should then be swept or vacuumed to remove any resultant dust and debris. Surfaces should now be sealed with **Thortex Floor Tech S.P. Primer** in accordance with the product tech sheet.

Non Porous Mineral Surfaces: Surfaces should be detergent cleaned to remove contamination and loose material then primed with **Thortex Uni-Tech G.P. Primer** in accordance with the product tech sheet.

Existing Coatings: Any loose and flaking coatings should be chipped away. Firmly adhered coatings should be lightly abraded then detergent washed to remove loose dust and any grease or oil contamination. Surfaces should now be primed with **Thortex Uni-Tech G.P. Primer** in accordance with the product tech sheet.

All prepared surfaced must be dry, concrete surfaces should have a maximum moisture content of 7%.

MIXING

Thortex Chemi-Tech E.P. is a two component material comprising a base component and activator component which must be mixed together prior to use.

Both components should be thoroughly stirred to incorporate any slight separation prior to mixing. Whilst continually stirring the base, the activator component should be slowly added with mixing continuing until completely homogeneous.

After mixing fully, the material should be transferred to another container with the original container scraped clean into this new container and further mixing then carried out to ensure complete incorporation.

The mixed material must be used within 45 minutes 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 7°C (45°F) nor when relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point.

Thortex Chemi-Tech E.P. can be applied by brush, roller or squeegee.

For roller or squeegee application, the **Thortex Chemi-Tech E.P.** should be spread evenly over the surface to give a film thickness of 250 microns (10 mil).

For brush application, a small test area should be carried out to establish a technique to ensure that the correct thickness is achieved. Even brush strokes should be used to give a uniform coating thickness.

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

Theoretical Coverage Rate

4m²/litre at 250 microns dft (43 ft²/litre at 10 mil 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 Black thixotropic liquid
Activator Opaque thixotropic liquid

Drying & Cure Times

at 20°C (68°F)	Usable Life	45 minutes
	Touch Dry	6 hours
	Minimum Overcoating	6 hours
	Maximum Overcoating	3 days
	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 (40°F) and 30°C (86°F).

Food Contact Canadian Food Inspection Agency - Accepted product.

PHYSICAL PROPERTIES

Abrasion Resistance ASTMD4060	40 mgm weight loss per 1000 cycles - 1 kg load - CS17 wheel
Impact Resistance ASTMG14	2.6 Joules (23 in lbs)
Dry Heat Resistance ASTMD2485	121°C (250°F)
Direct Pull Adhesion ASTMD4541	63 kg/cm ² (900 psi) - steel 35 kg/cm ² (500 psi) - concrete (concrete failure)
Water Vapour Permeability ASTMD1653	4.6 x 10 ⁻⁶ perm.cm
Salt Fog Resistance ASTMB117	Excellent, unaffected after 10,000 hours exposure
Humidity Resistance BS 3900 Part F2	Inaffected after 5,000 hours exposure

HEALTH AND SAFETY

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

Protective gloves should be worn during use.

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

PACKAGING

Supplied in 5 and 20 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.



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FOR FURTHER INFORMATION PLEASE CONTACT