



# TECHNICAL DATASHEET

## CHEMI-TECH C.R.

### Two Component Solvent Free Epoxy Coating



**Thortex Chemi-Tech C.R.** is a high performance solvent free coating designed for aggressive environments.

**Thortex Chemi-Tech C.R.** is based on a special liquid epoxy polymer reacted with a blend of amine and polyamino resins reinforced with inert pigments and silicas which produces a system with exceptional chemical and corrosion resistance.

**Thortex Chemi-Tech C.R.** offers excellent adhesion to steel and concrete and has outstanding abrasion and erosion resistance making it ideal for tanks, containment areas, steelwork and floors.

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

### SURFACE PREPARATION

**Steel Surfaces** - All surfaces to be coated 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 C3 / ISO 8503 / 1. 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 rash rusting.

**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 should be primed with either **Thortex Floor-Tech S.P. Primer** or **Thortex Uni-Tech M.C. Primer** in accordance with the product tech sheet.

### MIXING

**Thortex Chemi-Tech C.R.** 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

Application should not be carried out at temperatures below 5°C 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 C.R.** 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 **Thortex Chemi-Tech C.R.** into the primed surface to ensure good wetting of the surface.

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

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

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

**Theoretical Coverage Rate**

4 m<sup>2</sup>/litre at 250 microns dft (43 ft<sup>2</sup>/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** 3.5 parts base to 1.5 part activator by volume  
4 parts base to 1 part activator by weight

**Appearance** Base Viscous coloured liquid  
Activator Clear Amber liquid

**Drying & Cure Times**  
**at 20°C (68°F)**

Usable Life	45 minutes
Touch Dry	3-4 hours
Minimum Overcoating	3-4 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 (40°F) and 30°C (86°F).

**Food Contact** Meets USDA requirements for incidental food contact.

Meets FDA CFR 21.175.300 requirements for food contact.

Canadian Food Inspection Agency - Accepted Product.

FOR FURTHER INFORMATION PLEASE CONTACT

**PHYSICAL PROPERTIES**

<b>Abrasion Resistance</b> ASTM D 4060	60 mgm loss per 1000 cycles - 1 kg load - CS17 wheel
<b>Impact Resistance</b> ASTMG14	2.6 joules (23 in/lbs)
<b>Dry Heat Resistance</b> ASTMD2485	100°C (212°F)
<b>Water Vapour Permeability</b> ASTM D1653	3.75 x 10 <sup>-6</sup> perm.cm
<b>Salt Fog Resistance</b> ASTMB117	Excellent, unaffected after 10,000 hrs exposure
<b>Humidity Resistance</b> BS 3900 Part F2	Unaffected 5,000 hrs exposure
<b>Direct Pull Adhesion</b> ASTMD4541	98 kg/cm <sup>2</sup> (1400 psi) - Steel

**HEALTH AND SAFETY**

As long as normal good practice is observed **Thortex Chemi-Tech C.R.** 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.



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