



CERAMI-TECH C.R.

Two Component Epoxy Ceramic Coating

Thortex Cerami-Tech C.R. is a high performance solvent free coating designed for use as a resurfacing and lining system to improve the efficiency in fluid flow environments.

Thortex Cerami-Tech C.R. is based on a specifically selected blend of epoxy resins and non toxic polyamino curing agents reinforced with carbide and inert flow enhancing pigments which produces a system with optimum physical and mechanical strengths and excellent resistance to erosion and corrosion.

Thortex Cerami-Tech C.R. is simple, safe and easy to use and its excellent low friction surface improves flow rates in pumps and pipelines which makes it an ideal choice for the protection of waterboxes, tube sheets, pumps, impellers, valves and heat exchangers.

Thortex Cerami-Tech C.R. is approved for contact with potable water.

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

SURFACE PREPARATION

Heavy contamination due to oil or grease must be removed using with **Thortex Universal Cleaner**.

Surfaces to be coated should then be abrasive blast cleaned to a minimum Sa2½ BS7079 Part A1 : 1989/ISO 850-1: 1988 to give medium blast profile as defined by BS 7079: Part C3 1989/ISO 85031 1988.

Equipment which has become salt impregnated due to service conditions should first be wet blasted then dry abrasive blasted and checked for presence of salts. This process should be repeated until the salts are removed.

Alternatively the surface should be sweated using a blow torch or heat gun to bring salts up to the surface. The surface should once again be blast cleaned. This procedure should be repeated until no further impregnated salts are present.

Care should be taken on pitted surfaces to ensure that all contamination is removed from the bottom.

MIXING

Thortex Cerami-Tech C.R. is a two component product supplied as a base component and an activator component which must be mixed together immediately 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 material must 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 when air and substrate temperatures are below 7°C nor when relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point.

Thortex Cerami-Tech C.R. can be applied by brush or roller, with brush application being preferred for the first coat of a two coat application. Good quality brushes or short to medium pile roller should be used.

Thortex Cerami-Tech C.R. should be worked into the surface to ensure complete wetting of the surface. On deeply pitted surfaces, care should be taken to avoid air entrapment in the pitted areas.

Best application results are obtained with a minimum substrate temperature of 15°C with 20°C being the ideal temperature.

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

Theoretical Coverage Rate

2.7m²/kilo at 250 microns dft (29 ft²/kilo at 10 mils dft)

Recommended Film Thickness

Wet 250 microns (10 mils)

Dry 250 microns (10 mils)

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

PHYSICAL CONSTANTS

Mixing Ratio	Base	Activator	
	2	1	By volume
	4	1	By weight

Appearance	Base	Thixotropic Coloured Liquid
	Activator	Clear 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 (40°F) and 30°C (86°F).

Food Contact Meets USDA requirements for incidental food contact. Meets FDA requirements CFR 21.175.300 for food contact.

Potable Water DWI and BS6920 approved for cold water service.

PHYSICAL PROPERTIES

Abrasion Resistance	0.08 ml loss per 1000 cycles
ASTM D4060	
Shore D Hardness	85
Tensile Shear Adhesion	175 kg per cm ² (2500 psi)
ASTM D1002	(Grit Blasted Steel)
Corrosion Resistance	Excellent, unaffected after 10,000
ASTM B117	hours exposure
Flexural Strength	570 kg/cm ² (8100 psi)
ASTM D790	
Compressive Strength	700 kg/cm ² (10000 psi)
ASTM D695	
Impact Resistance	40 Joules (355 in lbs)
ASTM D256	

HEALTH AND SAFETY

As long as normal good practice is observed **Thortex Cerami-Tech C.R.** 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 1 and 3 kg 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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