



TECHNICAL DATA SHEET

CERAMI-TECH H.T.X.

Two Component High Temperature Service Epoxy Coating



Thortex Cerami-Tech H.T.X. is a high performance fluid grade engineering resurfacing compound specifically developed for high temperature immersion conditions and is ideal for tanks, vessels and equipment operating in high temperatures.

Thortex Cerami-Tech H.T.X. is based on a complex blend of phenolic epoxy resins and a special polyamino-amide curing system reinforced with abrasion resistant particles to produce a coating with a high level of temperature, abrasion and adhesion properties combined with optimum physical and mechanical strength.

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

SURFACE PREPARATION

All dirt and loose material should be scraped away. Oil and grease should be removed with **Thortex Universal Cleaner**. Surfaces should then be abrasive blast cleaned to a minimum Sa2½ BS7079 Part A1 1989 or equivalent with a minimum blast profile of 75 microns (3 mil) corresponding to 'Medium' in BS7079 Part C3/ISO8503/1. All loose abrasive dust and debris must be blown clear or vacuum cleaned away.

Existing steel surfaces which have corroded in a chemical environment may be contaminated by soluble iron salts within corrosion pits. To prepare these surfaces it is recommended that one of the following treatments be carried out prior to final dry abrasive blasting to the specified standard.

- Blasting with a mixture of clean water and abrasive.
- Initial dry blast cleaning to remove corrosion and surface coatings followed by high pressure clean water jetting (minimum 1000 psi/66 bar).

On sections of repairs which are not required to bond to the **Thortex Cerami-Tech H.T.X.** these surfaces should be treated with **Thortex Release Agent**.

MIXING

Thortex Cerami-Tech H.T.X. is a two component solvent free product supplied as a Base component and an Activator component which must be mixed together prior to use.

For optimum application properties the materials should be conditioned/warmed to a minimum temperature of 20°C (68°F) prior to mixing.

Mix the entire contents of the Base and Activator containers.

Alternatively measure four volumes of Base component and one volume of Activator into a clean container. The two components should be thoroughly mixed until completely streak free.

The mixed material 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

For ease of application and optimum performance surfaces should be at a minimum of 20°C prior to **Thortex Cerami-Tech H.T.X.** being applied.

The mixed material should be applied to the prepared area using a clean brush or squeegee. Application should be carried out as soon as possible after surface preparation is complete, and certainly the same day, otherwise flash blasting will be necessary before application.

Where necessary **Thortex Reinforcing Tape** should be stippled in to the mixed product and further material applied over the tape, ensuring the edges of the tape are overlapped.

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

Theoretical Coverage Rate1.04 m² / kilo at 750 microns dft (11.2 ft² per kilo at 30 mils)**Volume Capacity**

780cc (47.5 cu ins) per kilo

Recommended Film Thickness

Wet 750 microns (30 mils)

Dry 750 microns (30 mils)

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

PHYSICAL CONSTANTS

Mixing Ratio	Base	Activator	
	5	1	By weight
	4	1	By volume

Appearance	Base	Activator
	Light Grey/White	Amber Liquid

Drying & Cure times

at 20°C (68°F)	Usable Life	45 minutes
	Initial Set	6 hours
	Minimum Overcoating	6 hours
	Maximum Overcoating	24 hours

Allow to cure for at least 24 hours above 20°C before putting into service. The product is designed to post cure in service.

The ultimate heat distortion temperature of the material will be determined by the in service post curing conditions.

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).

Operating Temperature

	Maximum	Continuous
Dry Heat	250°C (482°F)	170°C (338°F)
Wet Heat	180°C (356°F)	150°C (302°F)

PHYSICAL PROPERTIES

Abrasion Resistance	0.086 ml loss per 1000 cycles -
ASTMD4060	1 kg load/CS17 wheel
Compressive Strength	142 Mpa (20730psi) post cured
ASTMD695	
Corrosion Resistance	5000 hours
ASTMB117	
Flexural Strength	67 Mpa (9700 psi) post cured
ASTMD790	
Heat Distortion Temperature	149°C (295°F)
ASTMD648	(Post Cured at 120°C for 24hours)
Tensile Shear	195 kg/cm ² (2800 psi)
Adhesion	(Grit Blasted Steel)
ASTMD1002	

HEALTH AND SAFETY

As long as normal good practice is observed **Thortex Cerami-Tech H.T.X.** can be safely used.

Protective gloves should be worn.

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

PACKAGING

Supplied in 800gm and 3kg 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