TECHNICAL DATA SHEET

www.thortex.co.uk

CERAMI-TECH H.G.

Two Component Ceramic Epoxy Repair Compound

Thortex Cerami-Tech H.G. is a high performance abrasion resistant metal repair compound specifically developed for use where resistance to sliding abrasion is required.

Thortex Cerami-Tech H.G. is based on a complex of epoxy resins and polyamino-amide curing system reinforced with carbide and ceramic particles to produce a coating with a high level of adhesion, abrasion and erosion resistance combined with optimum physical and mechanical strength.

Thortex Cerami-Tech H.G. has excellent adhesion to most metallic surfaces in one easy application and offers outstanding protection to chutes, hoppers, pipe elbows, chippers, valves, pumps and equipment subject to aggresive attack from dry solids and slurries.

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

SURFACE PREPARATION

All dust 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 blast profile of 75 microns (3 mil) corresponding to 'Medium' in BS7079 Part C3/ISO 8503/1. All loose abrasive dust and debris must be blown clear or vacuum cleaned away.

Equipment that 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, surfaces should be warmed with a blow torch or similar to bring salts up to the surface. The surface should once again be blast cleaned. This procedure must be repeated until no further sweating of impregnated salt is evident.

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

MIXING

Transfer the entire content of the base and activator containers onto a clean mixing board. Alternatively, measure three volumes of base component and one volume of activator onto a clean mixing surface. The two components should be thoroughly mixed until streak free. The use of a small trowel is advisable for easy mixing.

The mixed material should be used within 60 minutes of mixing at 20°C (68°F). The 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 90% or when the surface to be repaired is less than 3°C above the dew point.

The prepared surface must be dry and free from condensation. The mixed material should be applied to the prepared area, using a trowel or float.

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.

The mixed **Thortex Cerami-Tech H.G** should be applied by spatula or pallet knife to the surface, pressing firmly into the surface to avoid air entrapment.

In areas where a second layer of **Thortex Cerami-Tech H.G** is required, this application must be carried out within the initital set time for the first layer, otherwise surfaces must be flash blasted before further application.

Machining of **Thortex Cerami-Tech H.G.** will cause excessive tool wear so care should be taken to finish the repair to the required size or dimensions.

Formers treated with **Thortex Release Agent** can be used to minimise machining.

Once the **Thortex Cerami-Tech H.G.** has reached initital set the material can be separated from surfaces treated with **Thortex Release Agent**.

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

Volume Capacity
563cc (33 cu ins) per kilo

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

PHYSICAL CONSTANTS

Mixing Ratio	**Base**	**Activator**	
	3	1	By volume
	4	1	By weight
Appearance	Base	Dark Grey Paste	
	Activator	Off White Paste	
Drying & Cure Times at 20°C/68°F	Usable Life		60 minutes
	Initial Set		3 hours
	Machining Time	8 hours	
	Full Mechanical	5 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 FDA CFR 21.175.300 requirements for food contact.

PHYSICAL PROPERTIES

Compressive Strength ASTM D695	1055 kg per cm^2 (15000 psi)
Flexural Strength ASTM D790	420 kg per cm^2 (6000 psi)
Tensile Shear Adhesion ASTM D4060	140 kg per cm^2 (2000 psi) (Abrasive Blasted Mild Steel)
Abrasion Resistance ASTM D4060	20 mg loss per 1000 cycles (1 kg load CS 17 wheel)
Heat Distortion ASTM D648	60°C (140°F)
Hardness (Rockwell R) ASTM D785	100
Corrosion Resistance ASTM B117	5000 hours

HEALTH AND SAFETY

As long as normal good practice is observed **Thortex Cerami-Tech H.G.** does not present a hazard during use.

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

PACKAGING

Supplied in 1.5 and 5kg packs.

FOR FURTHER INFORMATION PLEASE CONTACT

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