



Cerami-Tech EG

Data Sheet and Application Guide

Product Description

Thortex Cerami-Tech EG has been specifically developed as a ceramic filled repair system for rebuilding and repairing equipment requiring good mechanical strength, combined with abrasion and erosion resistance.

Product Features

- Designed for application by trowel or spatula.
- Designed for use to repair cracked pump housings, worn impellers, propellers, guide vanes, valves, and tube sheets.
- Excellent adhesion to correctly prepared metal surfaces.

Surface Preparation

Heavy contamination due to oil or grease must first be removed using solvent-based cleaner. All loose material, rust and surface contaminants, including existing coatings, must be removed and the surface roughened by using an angle grinder, needle gun or abrasive blasting, with abrasive blasting being preferred for optimum performance.

Where grinding or needle gunning is used, the surface should be cross-scored to improve adhesion. Care must be taken, when angle grinding, to avoid polishing rather than roughening metal surfaces. Where possible abrasive blasting is the preferred surface preparation, especially in fluid flow repairs.

When treating existing equipment which may be salt impregnated due to service conditions, surfaces should first be wet blasted then dry blasted and tested for presence of salts. This process should be repeated until all salts are removed.

Surfaces should finally be carefully degreased using solvent-based cleaner. Cloths should be frequently changed to avoid spreading contamination. On deeply pitted surfaces or porous castings, solvent-based cleaner should be worked into the surface by brush and washed off using excess cleaner.

Parts (for example, threads or bearing surfaces) which must remain in position during application but must not adhere to the product must be coated with Thortex Release Agent prior to application of the Thortex Cerami-Tech EG.

Product Mixing

The product is a two component 100% solids material comprising Base and Activator components which must be mixed together prior to use. 1 volume of Base component and 1 volume Activator component should be measured onto a clean mixing board or other suitable surface. The two components should then be thoroughly mixed until completely streak free.

The mixed material should be used within 25 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

Application Procedures

Application should not be carried out at temperatures below 5°C (40°F) nor when relative humidity exceeds 85% or when the surface to be repaired is less than 3°C (5°F) above the dew point.

The mixed material should be pressed firmly onto the prepared area, care should be taken to avoid air entrapment on deeply pitted surfaces. Application should be carried out as soon as possible after surface preparation is complete, and certainly the same day, otherwise brush blasting may be necessary before application. Where necessary Thortex Reinforcement Tape should be stippled into the mixed product and further material applied over.

Where a second layer of Thortex Cerami-Tech EG is required, this application must be carried out within the initial set time for the first layer, if this is not possible surfaces will require thorough abrasion or abrasive blasting prior to any subsequent material being applied.

Machining will cause excessive tool wear so care should be taken to finish the repair to the required size or dimensions. Forms treated with Thortex Release Agent can be used to minimize machining.

Once the product has reached initial set the material can be separated from surfaces treated with Thortex Release Agent.

All equipment must be cleaned IMMEDIATELY after use with solvent-based cleaner.

Properties

Property	Value
Color	Grey
Ratio	1:1 By volume 1.2:1 By weight
Drying & Cure times at 20°C (68°F)	
Useable life	25 mins
Initial Set	60 mins
Full Mechanical Cure	5 days
Volume Solids	100%
Film Thickness	Up to 12 mm (.47 in)
Volume Capacity	417cc (25.4 cu ins) per kilo
Flexural Strength	70 Mpa (10000 psi)
Compressive Strength	105 Mpa (15000 psi) Heat
Distortion Temperature	90°C (195°F) post cured 24 hrs @ 100°C (212°F)
Abrasion Resistance	0.06 mg loss per 1000 cycles, 1 kg load, CS17 wheel (ASTM D4060)
Tensile Shear Adhesion	17.24 Mpa (2500 psi)

Packaging and Storage

Supplied in 2 kilo units.

Use within 2 years of date of manufacture. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

Handling and Safety Precautions

Read all Health Hazard, Precautionary and First Aid, Material Safety Data Sheet, and/or product label prior to handling or use.

Ordering Information/Customer Service

For ordering technical or product information, or a copy of the Material Safety Data Sheet, please contact us:

Phone: 610-831-0222

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