



TECHNICAL DATA SHEET CERAMI-TECH EG



Two-component ceramic, epoxy repair compound

Thortex Cerami-Tech EG is a multifunctional, high-performance metal repair compound specifically developed for the reconstruction of metal components in flow conditions damaged by erosion and corrosion.

The formulation of **Thortex Cerami-Tech EG** uses a complex mixture of epoxy resins and a polyamine curing system, reinforced with carbides and ceramic particles to produce a coating with a high level of abrasion and erosion resistance combined with optimum physical and mechanical strength.

Thortex Cerami-Tech EG can be applied to any damaged component in one simple application and is ideal for rebuilding pump bodies, impellers, propellers, vanes, valves, tube plates, water tanks, rudders, heat exchangers, etc.

Before proceeding, please read the following instructions carefully to ensure correct understanding of the application procedure.

SURFACE PREPARATION

Scrape away all dust and loose materials. Remove oil or grease contamination with **Thortex Universal Cleaner**. Sandblast surfaces to ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2) or equivalent with a 75 micron blasting profile. Blow or vacuum all dust and debris.

Equipment that is impregnated with salt due to working conditions must first be wet blasted, then dry blasted with abrasive sand and checked for salt. Repeat the process until the salt contamination is completely removed.

Alternatively, the surfaces must be heated with a heat torch or heat gun to bring the salt to the surface. Then sandblast the surface again. Repeat this procedure until there is no more salt impregnation.

Surfaces that are not to be in contact with **Thortex Cerami-Tech FG** must be treated with **Thortex Release Agent**.

MIXING

Thortex Cerami-Tech EG is a two-component product supplied as a base and activator that must be mixed before use.

Transfer the entire contents of the base and activator containers onto a clean mixing board or other suitable surface. Alternatively, measure three volumes of base and one volume of activator on a clean mixing board. The two components must be mixed thoroughly until there are no more streaks. The mixed material must be used within 25 minutes after mixing if at 20°C. Less time at higher temperatures and more time at lower temperatures.

APPLICATION

Do not apply at temperatures below 5°C or with relative humidity above 85%, or when the surface to be coated is less than 3°C above dew point.

The mixed material must be pressed firmly onto the prepared surface, taking care not to form air bubbles on heavily painted surfaces. Apply as soon as possible after surface preparation, and certainly on the same day, otherwise quick sandblasting will be necessary before application.

Where necessary, insert **Thortex Reinforcement Tape** into the mixed product and then apply the material to the tape. For large areas, overlap the tape.

Where necessary, insert **Thortex Reinforcement Tape** into the mixed product and then apply additional material to the tape. For large areas overlap the tape.

In areas where a second coat of **Thortex Cerami-Tech EG** is required, this application must be carried out within the curing time of the first coat, if this is not possible, the surfaces will require thorough abrasion or sandblasting before application of any material.

Machining **Thortex Cerami-Tech FG** causes excessive tool wear so care must be taken to finish the repair to the desired dimensions. Moulds treated with **Thortex Release Agent** can be used to minimise the need for machine tooling.



Once **Thortex Cerami-Tech EG** has cured, the material can be separated from the treated surfaces with **Thortex Release Agent**.

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

Specific volume 406 cm³/kg

Detailed instructions are available from the Technical Centre on request.

PHYSICAL CONSTANTS

Mixing ratio	Base	Activator
In Volume	3	1
In Weight	5	1

Aspect

Base	coloured paste
Activator	amber liquid

Drying and curing time at 20° C

Time of use	25 minutes
Hardening	1,5 Hours
Working time	2 Hours
Full polymerization	3 days

Solids Volume 100%

Volatile Organic Substances None

Shelf Life

Use within 5 years from the date of purchase. Store in original sealed containers at a temperature between 5° and 30°C.

PHYSICAL PROPERTIES

Compressive strength 1089 kg/cm²
ASTM D695 (13.650psi)

Shear Tensile Adhesion 188 kg/cm²
ASTM D1002 (blasted steel)

Flexural strength 703 kg/cm²
ASTM D790

Heat distortion 90°C
ASTM D648

Rockwell hardness 100
ASTM D785

Abrasion resistance 0,06ml*
ASTM D4060
*loss at 1000 wheel cycles CS17 1 kg load

HEALTH AND SAFETY

If the usual rules of caution are used, **Thortex Cerami-Tech EG** is safe to use.

Protective gloves and other recommended personal protective equipment should be used during use. Before mixing and applying the material, make sure you have read and fully understood the safety data sheet.

PACKAGE

Available in 2 and 3 kg packs

Health and safety

The information contained in this data sheet is to be considered as general information only. It is given in good faith without any liability on the part of the manufacturer for the use which will be made of the product or this information, since this is beyond the control of Thortex Italia. The user must determine the suitability of the product by his own technical tests.

Legal notes

The data in this data sheet are provided for information only and are believed to be reliable at the time of issue. We cannot accept responsibility for results obtained by others for which methods we have no control. It is the responsibility of the customer to determine the suitability of the product for use. Thortex UK accepts no liability arising from the use of this information or the product described herein.

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