



Data Sheet and Application Guide

Product Description

Thortex Metal Tech EG is a specifically developed high performance metal compound that provides good mechanical strength combined with easy machining properties.

Product Features

- Combines good machining characteristics with good mechanical properties.
- Designed for application by trowel or spatula at thicknesses up to 12 mm (.47 in.).
- Provides outstanding cold weld capabilities.
- Designed for use to repairs to cracked casting and rebuilding worn shafts, bearing housings and flanges.
- Excellent adhesion to correctly prepared metal surfaces.

Surface Preparation

Heavy contamination due to oil or grease must first be removed using solvent-based cleaners. 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.

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.

Surfaces should finally be carefully degreased using solvent-based cleaners. Cloths should be frequently changed to avoid spreading contamination. On deeply pitted surfaces or porous castings, the 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 Thortex Metal Tech EG must be coated with Thortex Release Agent prior to application of the Thortex Metal Tech EG.

When treating existing equipment which may have become 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.

Product Mixing

Thortex Metal Tech EG is a two component solvent free material comprising Base and Activator components which must be mixed together prior to use. Measure 1 volume of Base component and 1 volume Activator 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

The mixed material should be pressed firmly onto the prepared area, working the material into any cracks and surface defects.

When Thortex Metal Tech EG is being used to bond two surfaces together, both surfaces should be coated with the material. The two pieces should then be pressed firmly together and clamped in position until the product has set, any excess material squeezed out should be scraped away before the product begins to cure.

When Thortex Reinforcement Tape is being used to strengthen the repairs the tape should either be impregnated with Thortex Metal Tech EG or the tape should be laid over the product surface and pressed into the material before it cures, then additional material applied over the surface. Where additional applications are required to build up thickness, the additional application must be carried out within the initial set time of the previous application, otherwise the surface of the previous application must be abraded.

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 |
| Hard Dry for machining | 2 hours |
| Full Mechanical Cure | 3 days |
| Volume Solids | 100% |
| Film Thickness | Up to 12 mm (.47 in) |
| Volume Capacity | 410 cc (25 cu ins) per kilo |
| Flexural Strength | 70 Mpa (10000 psi) |
| Compressive Strength | 109 Mpa (15500 psi) Heat |
| Distortion Temperature | 90°C (195°F) post cured 24 hrs @ 100°C (212°F) |
| Tensile Shear Adhesion | 17.24 Mpa (2500 psi) |

Packaging and Storage

Supplied in 1 and 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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