



METAL-TECH X.G.

Two Component Epoxy Engineering Repair Compound

Thortex Metal-Tech X.G. is a high performance multi purpose synthetic metal repair compound which has been specifically developed for repairs requiring good mechanical strength combined with easy machining properties and where additional working time is essential during the application period.

Thortex Metal-Tech X.G. contains a complex range of epoxy resins combined with a polyamino-amine curing system reinforced with a phosphor steel alloy to enhance the corrosion and chemical resistance of the overall system.

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

SURFACE PREPARATION

Heavy contamination due to oil or grease must be removed using **Thortex Universal 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. 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 the surface.

Surfaces should be carefully degreased using **Thortex Universal Cleaner**. Cloths should be frequently changed to avoid spreading contamination. On deeply pitted surfaces or porous castings, **Thortex Universal 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 X.G.** must be coated with **Thortex Release Agent**.

MIXING

Thortex Metal-Tech X.G. is a two component material comprising base and activator components which must be mixed together prior to use.

Measure one volume of base component and one volume of activator component onto a clean mixing board or other suitable surface. The two components should then be thoroughly mixed until completely streak free.

The material should be used within 60 minutes of mixing at 68°F. This time will be reduced at higher temperatures and extended at lower temperatures.

APPLICATION

The mixed **Thortex Metal-Tech X.G.** should be pressed firmly onto the prepared area, working the material into any cracks and surface defects, taking care not to trap air in deeply pitted areas.

When required, **Thortex Reinforcement Tape** can be used to improve the mechanical properties, or to bridge large gaps. The reinforcing Tape should be impregnated with the **Thortex Metal-Tech X.G.** then stippled into the first layer of product applied to the repair. Further material should then be applied over the tape.

Once the **Thortex Metal-Tech X.G.** has reached initial set the material can be separated from surfaces treated with **Thortex Release Agent**.

Once the material has cured for a minimum of 12 hours at 68°F sanding, grinding and machining etc can be carried out using standard engineering facilities.

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

Volume Capacity

23.94 cu ins per kilo

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

PHYSICAL CONSTANTS

Mixing Ratio	Base	Activator	
	1	1	By volume
	1.15	1	By weight

Appearance	Base	Activator
	Dark Grey Paste	Light Grey Paste

Drying & Cure

times at	Usable Life	60 minutes
68°F	Initial Set	4 hours
	Machining	12 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 40°F and 86°F.

Food Contact Meets FDA requirements CFR 21.175.300 for food contact.

PHYSICAL PROPERTIES

Flexural Strength ASTMD790	8000 psi
Compressive Strength ASTMD695	10000 psi
Tensile Shear Adhesion ASTMD1002	2500 psi (Grit Blasted Steel)
Heat Distortion ASTMD648	140°F
Hardness (Shore D) ASTMD2246	85
Corrosion Resistance ASTMB117	5,000 hours

HEALTH AND SAFETY

As long as normal good practice is observed **Thortex Metal-Tech X.G.** 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 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.

**Thortex America, Inc.**

12 Iron Bridge Drive • Collegeville, PA 19426

Tel: 610 831 0222 • Fax: 610 831 1910

E-mail: info@thortex.comwww.thortex.com

FOR FURTHER INFORMATION PLEASE CONTACT