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Rapid Setting Super Metal Repair Paste

ThistleBond 'Rapid Setting Super Metal Repair Paste' is a high performance rapid curing metal engineering grade repair compound specifically developed for rapid turn round of metal repairs where excellent mechanical strength and easy machining properties are required.

ThistleBond 'Rapid Setting Super Metal Repair Paste' is formulated on a complex blend of polyether and polyester urethane resins combined with a polyamine catalyst curing system reinforced with a phosphor steel alloy which enhances the corrosion and chemical resistance of the whole system.

ThistleBond 'Rapid Setting Super Metal Repair Paste' can be applied to any damaged metal component as well as glass, fibreglass and composites and is ideal for rapid repairs to pipes, tanks, radiators, threads, sumps, casings and ducting.

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 first be removed using **ThistleBond 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 metal surfaces.

Where possible, abrasive blasting is the preferred surface preparation, especially in fluid flow repairs.

Surfaces should finally be carefully degreased using **ThistleBond 'Cleaner'**. Cloths should be frequently changed to avoid spreading contamination. On deeply pitted surfaces or porous castings, **ThistleBond '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 must not adhere to **ThistleBond 'Rapid Setting Super Metal Repair Paste'** must be coated with **ThistleBond 'Release Agent'** prior to application of the **ThistleBond 'Rapid Setting Super Metal Repair Paste'**.

MIXING

ThistleBond 'Rapid Setting Super Metal Repair Paste' is a two component solvent free material comprising resin and hardener components which must be mixed together prior to use.

Measure 1 volume of resin component and 1 volume hardener component 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 3 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

APPLICATION

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

When a reinforcing tape is being used to strengthen the repairs the tape should either be impregnated with **ThistleBond 'Rapid Setting Super Metal Repair Paste'**, or the tape should be layed over the **ThistleBond 'Rapid Setting Super Metal Repair Paste'** surface and stippled into the material before it cures, then additional **ThistleBond 'Rapid Setting Super Metal Repair Paste'** applied over the surface.

Once the **ThistleBond Rapid Setting Super Metal Repair Paste** has reached initial set, the material can be separated from the surfaces treated with **ThistleBond 'Release Agent'**.

When **ThistleBond 'Rapid Setting Super Metal Repair Paste'** is being used to repair leaking pipes, the flow through the pipe should be turned off until the repair is finished. Any leaking liquid must be wiped off the surface to ensure the surface is completely clean and dry before application commences.

All equipment must be cleaned IMMEDIATELY after use, with **ThistleBond 'Cleaner'**.

Volume Capacity

570cc (34.7cu ins) per kilo

PHYSICAL CONSTANTS

Mixing Ratio	Resin	Hardener
	1	1 By Volume
	4	3 By Weight

Appearance	Resin	Black Paste
	Hardener	White Paste

Drying & Cure Times at 20°C (68°F)	Usable Life	3 minutes
	Initial Set	10 minutes
	Machining	30 minutes
	Full Mechanical	2 hours

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 Requirements CFR 21.175.300 for food contact.

Operating Temperature

	Maximum	Continuous
Dry Heat	250°C (480°F)	120°C (248°F)
Wet Heat	120°C (248°F)	70°C (158°F)

FOR FURTHER INFORMATION PLEASE CONTACT

PHYSICAL PROPERTIES

Flexural Strength	500 kg/cm ² (7100 psi)
ASTMD790	
Compressive Strength	860 kg/cm ² (12200 psi)
ASTMD695	
Tensile Shear Adhesion	175 kg/cm ² (2500 psi)
ASTMD1002	Grit Blasted Steel
Heat Distortion	52°C (125°F)
ASTMD648	
Hardness (Shore D)	80
ASTMD2246	
Corrosion Resistance	5,000 hrs
ASTMB117	

HEALTH AND SAFETY

As long as normal good practice is observed **ThistleBond 'Rapid Setting Super Metal Repair Paste'** can be safely used.

The wearing of rubber gloves is advisable during use.

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

PACKAGING

Supplied in 0.175kg 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. Detailed specifications are available on request from the company.



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