## A.W.F. E.M. ALL PURPOSE METAL

AWF All Purpose Metal is a high performance multi purpose synthetic metal repair compound specifically developed for metal repairs requiring good mechanical strength combined with easy machining properties.

AWF All Purpose Metal can be applied to any damaged component in one easy application and is ideal for repairing worn shafts, oversized bearing housings, cracked cases and blocks, damaged flanges, sloppy keyways and scored rams.



Heavy contamination due to oil or grease must first be removed using AWF All Purpose Cleaner. All loose material, rust and surface contaminents including existing coatings, must be removed and the surface roughened by using an angle grinder, needle gun or abrasive blasting. Where grinder or needlegun is used the surface must 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 fluid flow repairs. Surfaces should finally be carefully degreased using AWF All Purpose Cleaner.

Parts (for example threads or bearing surfaces) which remain in position during application but must not adhere to All Purpose Metal must be coated with AWF Release Agent or similar prior to application of E.M. All Purpose Metal.



AWF E.M. All Purpose Metal is a two part material consisting of a Base & Activator Resin. Measure 3 volumes of base component and 1 volume activator component onto a clean mixing board or other suitable surface. The two components should then be thoroughly mixed until streak free. The mixed material should be used within 25 minutes of mixing at 20°C. This time will be reduced at higher temperatures and extended at lower temperatures.

Mixing ratio:	<u>Base</u>	<b>Activator</b>	
	3	1	by volume
	5	1	by weight



Drying, Curing times@ 20°C.

Initial set: 60 mins Machining: 2 hours Full mechanical: 3 days



Once you have mixed the Base & Activator together, you have approximately 25mins to use the mixed material

## **APPLICATION DETAILS.**

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

When AWF E.M. All Purpose Metal 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 E.M. All Purpose Metal begins to cure.

When reinforcing tape is being used to strengthen the repairs, the tape should either be impregnated with E.M. All Purpose Metal or the tape should be layed over the E.M. All Purpose Metal surface and stippled into the material before it cures, then additional E.M. All Purpose Metal applied over the surface.

Once the E.M. All Purpose Metal has reached 'initial set' the material can be separated from the surfaces treated with AWF Release Agent. Once E.M. All Purpose Metal has cured for a minimum of 2 hours at 20°C sanding, grinding, machining etc can be carried out using standard engineering practice.

When machining the material, a typical lathe set up would be:

Surface cutting speed: 200ft/minute Feed rate (roughing) 50 thou/rev (finishing) 10 thou/rev

All equipment must be cleaned immediately after use with AWF All Purpose Cleaner.

Appearance: Base: Black Paste

Activator: Light Grey Paste

Volume solids: 100% V.O.C.: Nil



N/A



10°C



Use within 5 years of purchase.

Store at temperatures between 5° and 30°C.



As long as good practice is observed AWF All Purpose Metal can be safely used. Protective gloves should be worn during use.

A fully detailed Material Safety Data Sheet is available on request.

If you have any questions or queries regarding this data sheet or the application of this product, please contact us <u>before</u> you use the product.