

### M-METAL 200 – METAL EPOXY LIQUID – STANDARD CURE

#### M-METAL 200 - Metal Epoxy Liquid - Standard Cure

Is a 2-part Metal Epoxy Liquid that when mixed provides a smooth pour-able epoxy fluid.

The mixed material is ideally suited for repair such as Resurfacing Head and Tail Rollers or Filling Pitting Corrosion on steel and other metal surfaces etc.....

Once mixed, the material can be applied up to a maximum film thickness of 3.0mm without slumping. Whilst the product is still wet aluminium oxide aggregates may be added to create tough anti-slip finishes.

The normal application method is by short, bristled brush, plastic applicator, or spatula. Once cured M-METAL 200 – Metal Epoxy Liquid can be drilled tapped, machined, or sanded to achieve the desired profile of the repair.

#### Typical Uses

- Filling pitting corrosion
- Resurfacing worn Pump Housings
- Scored Hydraulic Rams & Pistons
- Resurfacing Head & Tail Rollers
- As an Anti-slip System for Steel Steps & Walkways

#### Application Guide

##### Surface Preparation - Grit-Blast

- All oil and grease must be removed from the surface using an appropriate cleaner such as MEK or similar type solvent.
- All surfaces must be abrasive blasted to **ISO 8501/4 Standard SA2.5 (SSPC SP10/ NACE 2)** minimum blast profile of 75 microns using an angular.
- Once blast cleaned, the surface must be degreased and cleaned using MEK or similar type solvent.
- All surfaces must be coated before gingering or oxidation.

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### Surface Preparation - Manual

- All oil and grease must be removed from the surface using an appropriate cleaner such as MEK.
- All surfaces must be mechanically abraded using handheld grinders to ISO 8501/4 ST3 (SSPC SP3 ST3).
- Once abraded, the surface must be degreased and cleaned using MEK or similar type material.
- All surfaces must be repaired before gingering or oxidation occurs.

### Environmental Checks

Prior to mixing, please ensure the following:

- Warm the Base component to 15-25°C before mixing
- Do not apply the material when the ambient or substrate temperature is below 5°C or less than 3°C above dew point.

### Mixing

- Mix both Part-A and part-B together in full units as supplied. For small quantities use a mixing ratio of **3:1** by volume or **8:1** by weight
- When mixing both materials, it is very important to have a uniform colour that is streak free. Once mixing is complete, use the mixed paste as soon possible after mixing.

Use all mixed material within 20-25mins at 20°C.

### Product Application

- As a **Fairing Coat** for filling badly pitted or scarred surfaces apply the material using a rubber float across the repair surface ensuring the product is pressed into any holes or cracks. The maximum wet film thickness this material can be applied onto a vertical surfaces without sagging is 3mm.
- As an **Anti-Slip Systems** for conveyor rollers, steps, or ramps, apply the product to the surface at a wet film thickness of 500 microns and then broadcast a suitable aggregate onto the surface (Aluminium Oxide or equivalent). Once cured brush off any excess aggregate.
- As a **Resurfacing** material to repair worn or damaged surfaces the application should be carried out in two coats. The material must be applied at a target wet film thickness of 250 microns per coat.

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### Over-coat Times

- Minimum – the applied material can be over-coated as soon as it is touch dry.
- Maximum – the over-coating time should not exceed 6 hours.

Where the maximum over-coating time is exceeded, the material should be allowed to harden before being abraded or flash blasted to remove surface contamination.

### Technical Information

Appearance	Base Activator Mixed	Dark grey paste Amber fluid Mid grey fluid
Mixing Ratio	By Weight By Volume	8:1 3:1
Density	Base Activator Mixed	2.70 1.00 2.50
Volume Capacity		440cc/kg
Solids Content		100%
Slump Resistance	Nil at	3mm
Usable Life	10°C 20°C 30°C	50-60 minutes 25-30 minutes 15-20 minutes
Coverage	1kg at a thickness of 1.0mm	0.4m <sup>2</sup>
Cure Times @ 20°C	Movement without load or immersion: Machining and light loading: Full loading: Immersion:	1.5 hours 2.0 hours 2 days 3 days
Storage Life	Unopened and stored in dry conditions (15-30°C)	5 years

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Adhesion	Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75-micron profile	185kg/cm <sup>2</sup> 2630psi
Compressive Strength	Tested to ASTM D 695	1075kg/ cm <sup>2</sup> 15,300psi
Corrosion Resistance	Tested to ASTM B117	Minimum 5000 hours
Flexural Strength	Tested to ASTM D790	703kg/cm <sup>2</sup> 10,000psi
Hardness	Rockwell R to ASTM D785	100
Heat Distortion	Tested to ASTM D648 at 264psi fibre stress.	20°C Cure 58°C 100°C Cure 98°C
Heat Resistance	Suitable for long-term water immersion at temperatures up to Intermittent contact with pressurised steam up to 120°. Resistant to dry heat more than 200°C dependant on load.	70°C 120°C 200°C
Chemical Resistance	The product resists attack by a wide variety of inorganic acids, alkalis, salts, and organic media.	

### Legal Notice

The data contained within this Technical Data Sheet is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control.

It is the responsibility of the customer to determine the products suitability for use.

Maxkote accepts no liability arising out of the use of this information or the product described herein.

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