MAXKOTE

APPLICATION GUIDE

APG-REV2- 2022

M-CERAMIC 400 – HEAVY DUTY EPOXY CERAMIC WEAR COMPOUND – MEDIUM ABRASION

M-CERAMIC 400 - Heavy Duty Epoxy Ceramic Wear Compound - Medium Abrasion

Is a solvent free Heavy-Duty Epoxy Ceramic Wear Compound which contains 0.2mm – 1.5mm ceramic beads.

The product is ideal for resurfacing and protecting metallic surfaces subject to medium sliding abrasion. Typical uses include providing wear protection to pipe bends, valves, dredging pumps etc.

The material is supplied as a 2-component product (Part A & Part B), that requires mixing before use. Once mixed the product can be applied directly to prepared metal surfaces by squeegee or plastic applicator.

Typical Uses

- Rebuild Slurry & Dredging Pumps
- Protect Silo Cones & Centrifuges
- Wear Protection for Chutes & hoppers
- Repair Screw worn Screw Conveyors
- Reline Coal Pulverisers

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.

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:

- The base component is at a temperature between 15-25°C.
- The ambient & surface temperature is above 10°C.
- The ambient & surface temperatures are not less than 3°C above the dew point.

Mixing
Mixing full units or by part-mixing.

- If mixing the whole unit, please ensure as much of the base and activator is dispensed from the plastic container onto a clean plastic mixing surface.
- Mix using the spatula provided until a uniform material free of streaks is achieved.
- For part mixing, using a spatula place 3 equal measures from the base unit onto a clean plastic mixing surface.
- Clean the spatula thoroughly and then take 1 equal measure from the Activator unit and place alongside the Base measures. Mix as above.
- Once mixing is complete, use the mixed paste as soon possible after mixing.

Use all mixed material within 45 minutes at 20°C.
Product Application

- The mixed material should be applied directly to the prepared metal surface at a minimum thickness of 4mm using a spatula or applicator tool.

Technical Information

Appearance	Base	Dark grey paste
	Activator	Light grey paste
	Mixed	Dark grey paste
Mixing Ratio	By Weight	4:1
	By Volume	3:1
Density	Base	2.10
	Activator	1.40
	Mixed	1.96

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Volume Capacity		2920cc/5kg
Solids Content		100%
Sag Resistance	Nil at	15mm
Usable Life	10°C 20°C 30°C	80-90 minutes 40-45 minutes 20-25 minutes
Coverage	5kg at a nominal thickness of 4mm	0.73sqm/5kg
Cure Times @ 20°C	Minimum overcoating time Maximum overcoating time Full Cure	4 hours 8 hours 4 days
Storage Life	Unopened and stored in dry conditions (15-30°C)	5 years
Abrasion Resistance	Taber H10 Wheels/1 Kg load	66mm³ loss/1000 cycles
Adhesion Pull-Off	Test to ASTM D4541 on abrasive blasted mild steel with 75-micron profile	272kg/ cm² (3840psi)
Adhesion Tensile Shear	Tested to ASTM D1002 on abrasive blasted mild steel with 75-micron profile	148kg/ cm² (2100psi)
Compressive Strength	Tested to ASTM D 695	990kg/cm² (13985psi)
Corrosion Resistance	Tested to ASTM B117	5000 hours
Flexural Strength	Tested to ASTM D790	420kg/cm² (6000psi)
Hardness	Shore D to ASTM D2240	89

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Heat Resistance	Full immersion resistance water/ hydrocarbon immersion to 50°C Dry heat resistance Tested to ASTM D2485	Pass (no blisters) Pass 120°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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