



# MeCaWear 400



## SURFACE PREPARATION

Ensure that surface is clean, dry and uncontaminated. Precleaning of the surface is necessary in order to remove oil, wax or other foreign matter which may contaminate the abrasive media and impregnate itself into the blast profile. Always check for ionic salt contamination (chlorides and sulfates) and neutralize the surface as required. Proceed only if the substrate temperature is 5°F (3°C) above the dew point temperature and that the relative humidity is below 85% during surface preparation and coating application. Abrasive blast clean with angular abrasive media. **DO NOT USE** steel shot or non-angular media. For steel surfaces, blast to a Near White Metal Blast (SSPC-SP10; NACE 2; SA 2.5) with a minimum 3 mils (75 µm) depth profile. Blow down the surface before applying the coating to ensure it is free of dust and other loose contaminants.

For less severe service or emergency repairs, surface preparation by mechanical flapper wheel grinding (40 grit or coarser) and bristle blasting process is permitted. The surface must be clean with a rough profile of 2 mils (50 µm). Due to the slower rate of cleaning by mechanical means, these methods are ideally suited for smaller repair applications.

## MIXING INSTRUCTIONS

Mixing Ratio	
Volume	4 part Resin (A) : 1 part Hardener (B)
Weight	6.51 part Resin (A) : 1 part Hardener (B)
Ceramic bulk (C) to mixed resin:hardener is 2:1 by weight	

This is a three-component system. **COMPLETE UNIT MUST BE MIXED AND APPLIED AT ONE TIME. DO NOT MIX PARTIAL QUANTITIES FROM CONTAINERS OR PROPER RATIOS MAY NOT BE OBTAINED.** Ensure product temperature is between 73-85°F (23-30°C), pre mix Resin Part A and Hardener Part B individually, be sure that any settled material at the bottom of the can is dispersed. Slowly pour the contents of the Hardener into the Resin while mixing slowly. Pour a quarter of the hardener into the resin at one time and mix, once dispersed add the remainder of the Hardener in small increments while mixing until the full content has been added. Mix for 2 minutes until a uniform color and consistency is achieved.

To ensure complete mixing, scrape sides and bottom of container and continue mixing for an additional 1 minute. Pour the mixed components into a clean bucket and while mixing, with a mechanical mixer, begin to slowly add the Component C (bulk ceramic) to the mix. As the viscosity of the mixed material is very high, ensure that the proper heavy duty mixer and paddle is used. Consult with Castolin Eutectic on recommendations for suitable mixing equipment.

## APPLICATION INSTRUCTIONS

- 1) Once mixed, begin application immediately - no induction time is needed. This product will have a short working pot life and will develop exothermic heat due to the polymeric reaction. Contents on the mixing board may be portioned off into smaller containers to maintain pot life. The product may be applied by gloved hand or trowel. Work the material in a very thin layer to allow the polymer resin to “wet” out the surface to ensure proper adhesion. Once the surface is wet, begin to build up the coating to the specified thickness. Press down and work the coating as it is being applied to prevent air entrapment.
- 2) For large area applications, the use of MeCaWear 300 as a primer may be desirable to improve the surface wetting and coating bond strength to the surface.
- 3) This product has a pot life of less than 40 minutes, this will decrease depending on the mass and temperature. The higher the temperature and the larger the mass, the faster the product cure speed.
- 4) To improve the surface finish once the coating is applied, a gloved hand can be wet with water and used to smooth out the surface finish.
- 5) This coating may be topcoated with a slick surface finish coating in a contrasting color such as MeCaWear 300.

## INSPECTION

Immediately following the application of the coating visually inspect the coating for discoloration and areas of missed coating. These areas can be repaired immediately if the coating is tacky to touch.

Further inspection is to be performed once the coating has cured. Visually inspect the coating for discoloration, uncured coating, blisters, and other visual defects.

Mechanical removal and reapplication may be required depending on the defect type.

## CURING PERFORMANCE

FOR CHEMICAL SERVICE THE COATING MUST CURE FOR A FULL 7 DAYS. Force curing for 6 hours at 120°F (50°C) may be used to expedite chemical service. Spray temperature and substrate temperature will affect the coating cure time. The warmer the temperature the faster the reaction speed.

Curing Schedule	50°F	77°F	86°F
	10°C	25°C	30°C
Pot Life	40 minutes	30 minutes	20 minutes
Dry to Touch	4 hours	3 hours	1.5 hours
Dry to Handle	14 hours	10 hours	5 hours
Full Load Exposure	26 hours	20 hours	10 hours
Max. Recoat Time	60 hours	48 hours	36 hours

## STORAGE & CLEAN UP

- 1) Use commercial solvents (Xylene, Methyl Ethyl Ketone) to clean tools immediately after use.
- 2) Once the coating is dry, the material must be abraded off.
- 3) Keep containers tightly sealed. For cleanup, use M.E.K. or a 50:50 blend of M.E.K. and Xylol.
- 4) Long time storage should be between 50°F (10°C) and 80°F (27°C).

**DO NOT FREEZE.**

- 5) Use product within 2 years of receiving. Once the product lid is opened it must be resealed tightly. The shelf life will be reduced to 3 months.

## SAFETY

Before using any products, please refer to the Safety Data Sheet (SDS). Follow standard confined space entry and work procedures, if appropriate.

Wear eye safety protection and full skin protection including chemical resistant gloves. Use NIOSH approved respirator where mist occurs.

*Before applying this product, please refer to the Technical Data Sheet.*

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