

Aliphatic Polyurethane Enamel

DESCRIPTION AND USES

MC-4055 is a high gloss, two-component, aliphatic polyurethane enamel with excellent gloss and color retention. It is resistant to water, impact, and abrasion. MC-4055 is easy to clean.

MC-4055 is used as a deluxe finishing coat for protection of structural steel in severely corrosive environments where light-fastness and gloss retention are required.

PACKAGING/COVERAGE

MC-4055 is available in 1 gallon and 5 gallon units

TYPICAL PROPERTIES

Color	White, grey (plus custom colors)
Gloss	High gloss
Solids by Volume	63% ± 1%
Density	10.8 lbs./gal (1.3 kg/L)
Flash Point	81 °F/27 °C
VOC	312 g/L (2.6 lbs./gal)
Mix Ratio (resin:hardener)	4:1 (by volume)
Maximum temperature exposure	248 °F/120 °C (dry)
Pot Life @ 68 °F/20 °C	1.5 hours
Cure Schedule @ 68 °F/20 °C	Dust free: 4 hours Dry to touch: 8 hours Full Cure: 7 days

COVERAGE

Dry Film Thickness – Mils (Microns)	2 - 3 (50-75)
Wet Film Thickness – Mils (Microns)	3 - 5 (75-125)
Coverage (2 mils DFT) – Ft ² /Gal (M ² /L)	505 (12.6)

STORAGE AND SHELF LIFE

Keep MC-4055 components tightly sealed in their original containers until ready for use, Store at 40°F to 90°F, out of direct sunlight. MC-4055 has a shelf life of 1 year, in original, unopened containers. MC-4055 curing agent is sensitive to moisture. Containers must be tightly closed.

TEMPERATURE

Use MC-4055 only where application and curing can proceed at temperatures above 14°F (-10°C). The temperature of the surface must also be above this limit. At temperatures below freezing, ensure that the surface is free of ice. The components should be 59°F (15°C) or above. Apply only on a dry and clean surface with a temperature above the dew point to avoid condensation.

SURFACE PREPARATION

Surfaces must be dry and free of dirt, dust, oil, grease, chemicals and contaminants immediately prior to applying MC-4055. Abrasive blast steel surfaces to a near white metal finish with a 2 to 3 mil anchor profile. (Ref. SSPC-SP-10)

APPLICATION EQUIPMENT

MC-4055 may be applied spray, brush or roller. For spray equipment, use the following:

- Airless Spray
- Pump 30:1 or higher
- Nozzle pressure 2220 psi
- Hose 1/4"ID
- Tip size 0.017-0.019 inch

MIXING AND APPLICATION

Stir the resin thoroughly for 1-2 minutes prior to adding the curing agent. Add curing agent to resin while stirring and mix for an additional 2-3 minutes.

Film thickness: Normal film thickness (DFT) is 2 – 3 mils (50 – 75 microns). Other film thicknesses may be specified depending on purpose and area of use. This will alter the coverage and may influence drying times and recoat intervals.

CURING

Curing Properties vs. Temperature

Surface Temperature -		<u>14 °F</u>	<u>32 °F</u>	<u>50 °F</u>	<u>68 °F</u>	<u>86 °F</u>
Dry to Touch -		3 days	36 hours	16 hours	8 hours	6 hours
Time to condensation/rain resistance -		7 days	3 days	32 hours	16 hours	12 hours
Full Cure -		2 months	1 month	14 days	7 days	5 days
Recoat Window	Min -	6 days	3 days	32 hours	16 hours	12 hours
	Max*-	None	None	None	None	None

*Recoating: A completely clean surface is required to ensure intercoat adhesion, especially at long recoat intervals. Any dirt, oil, and grease must be removed with suitable detergent followed by (high pressure) fresh water cleaning. Salts can be removed by fresh water hosing. To check the quality of the surface cleaning, a test patch is recommended before actual recoating.

CLEANUP

Before material cures, tools and equipment should be cleaned using hot, soapy water. After MC-4055 begins to cure, xylene or MEK will be required.

SAFETY PRECAUTIONS

Flammable liquid: Keep away from heat, sparks, flames and other ignition sources. Avoid contact with skin and eyes. Do not breathe vapors. Wear chemical goggles, rubber gloves, and clothing to protect skin. When spraying in confined areas, wear a supplied air respirator and make provisions for forced air ventilation. When spraying in open areas, a NIOSH approved respirator suitable for organic vapors can replace supplier air. Refer to Blome material safety data for more information.

WARRANTY

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. Our material data sheets and other literature are to be considered accurate and reliable, but are used as guides only. WE GIVE NO WARRANTY OR GUARANTEE, WHETHER OF MERCHANTABILITY OR FITNESS OF PURPOSE OR OTHERWISE, AND WE ASSUME NO LIABILITY IN CONNECTION THEREWITH. We are happy to give suggestions for applications; however, the user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for consequential or incidental damages. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole option, to repayment of the purchase price of the non-conforming goods.

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Supersedes all previous literature