

Product Data/

Application Instructions

- Unique, high-solids, high-build, multifunctional coating
- Low VOC
- High-gloss, self-priming coating
- Excellent gloss retention
- Direct to metal and concrete in selected environments
- Outstanding abrasion, reverse and direct impact resistance
- Good chemical and stain resistance
- Tough and flexible coating

MC-3050 displays high gloss and excellent color and gloss retention during extended service periods. The direct-to-metal capabilities of MC-3050 provide a single-coat system at reduced installation cost for use in protected environments. Compatible over prepared, smooth cold-rolled steel and abrasive blasted hot-rolled steel.

MC-3050 has excellent adhesion to concrete providing a durable, glossy, easy-to-clean flooring system. May be used over MC-3000 as a durable, weather-resistant topcoat for extra heavy duty service; over zinc-rich epoxy coatings as a direct topcoat; over intact, old paint as a maintenance product.

MC-3050's curing time may be adjusted with Blome Accelerator for convenient application at low temperatures or when faster cure is required. A full color range is available in the Blome Rapid Response color system to provide timely delivery.

Typical Uses

- Structural steel
- Tanks
- Piping
- Industrial plants
 - Power Wastewater treatment
 - Pulp and paper Chemical and petrochemical
 - Food and beverage
- Concrete walls and floors
- Marine
 - Decks Topside and superstructures on ships
 - Boottops Barges and offshore platforms

Physical Data

Finish Gloss
Color See color chart

Yellow, red and orange colors will fade faster than other colors due to the replacement of lead-based pigments with lead-free pigments in these colors.

Components 2
Curing mechanism Solvent release and chemical reaction

Volume solids (ASTM D2697 modified) 73% ± 3%
Dry film thickness per coat 5 mils (125 microns)

Coats 1
Theoretical coverage ft²/gal m²/L
1 mil (25 microns) 1171 29
5 mils (125 microns) 234 5.7

VOC lb/gal g/L
mixed 2.2 264
mixed/thinned (1-pt/gal) 2.7 323
mixed/thinned/accelerated 3.01 360
mixed/accelerated 2.5 304

Temperature resistance (dry) °F °C
continuous 200 93
intermittent 250 121

Flash point (SETA) °F °C
cure 122 50
resin 110 43
mixed 115 46
Blome Thinner #2 78 25
Blome Thinner #3 2 -17
Blome Accelerator 94 34

Qualifications

USDA – Incidental food contact
Tint and custom colors
NFPA – Class A

Typical Properties

Physical

Impact resistance (ASTM D2794) @ 5 mils			
direct	140 in • lbs	15.8 N • m	
reverse	150 in • lbs	15.6 N • m	
Taber abrasion			
1 kg load/1000 cycles	weight loss		
CS-17 wheel	60.2 mg		
Elongation (ASTM D522)		>32%	

Chemical Resistance Guide

	Splash and Spillage	Fumes and Weather	
Environment			
Acidic	E	E	
Alkaline	E	E	
Salt solutions			
Acidic	E	E	
Neutral	E	E	
Alkaline	E	E	
Seawater	E	E	
Fresh water	E	E	
Solvents		G	E
Petroleum products	E	E	
F-Fair	G-Good	E-Excellent	NR-Not Recommended

This table is only a guide to show typical resistance of MC-3050. Contact your Blome representative for your particular corrosion protection needs.

Typical Systems

Substrate	Primer	Finish Coat
Steel	none	MC-3050
Galvanizing	none, 3000/3010	MC-3050
Aluminum	none, 3000/3010	MC-3050
Concrete		MC-3050
Masonry	none, 3000/3010	MC-3050

*Other Blome epoxy primers are also acceptable.

Refer to specific primer's product data sheets and application instructions for detailed application and surface preparation information.

Apply test patch to intact coating to confirm compatibility and adhesion. When MC-3000 is used as a primer for MC-3050 the maximum topcoat time is one month; MC-3010 – 7 days, 3000 with Blome Accelerator – 14 days. Clean and roughen surface if topcoat time is exceeded.

Over zinc primers use a mist coat/full coat application procedure to prevent application bubbling.

Environmental Conditions

Temperature air or surface	°F	°C
MC-3050	40 to 120	4 to 49
MC-3050 w/accelerator	32 to 120	0 to 49

Surface temperature must be at least 5°F (3°C) above dew point to prevent condensation.

Low Temperature Application

At low temperatures or when a fast cure is required Blome accelerator can be added to mixed MC-3050 resin and cure. **Do Not** apply MC-3050 with Blome Accelerator when surface temperature is over 120°F.

Application Data

Applied over Prepared or primed steel, aluminum, galvanizing, masonry and primed concrete

Surface preparation	
steel	SSPC-SP 6 or 10
aluminum	Alodine®, Alumiprep® or light abrasive blast
galvanizing	Galvaprep® or light abrasive blast
concrete	See specific primer
masonry	ASTM D4261
previously coated surface	SSPC-SP1, 3 or 7

Appearance will vary depending on substrate and application method.

Mixing ratio (by volume)	1 part cure to 4 parts resin			
Pot life (hours)	°F/°C			
	90/32	70/21	50/10	32/0
MC-3050	1 ½	2 ½	5	-
MC-3050 w/Blome Accelerator	½	1	2	4

Using 1/2 pt Blome Accelerator per mixed 5 gallon MC-3050

Environmental Conditions

Temperature-Air or surface	°F	°C
MC-3050	40 to 120	-4 to 49
MC-3050 w/Accelerator	32 to 120	0 to 49

Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation.

Drying time (ASTM D1640) (hours)	°F/°C			
	90/32	70/21	50/10	32/0
touch	1	2 ½	4	-
w/Accelerator	½	¾	1	2 ½
through	5	10	72	-
w/Accelerator	2	3	6	10

Recoat time (hours)	°F/°C				
	90/32	80/26	70/21	50/10	32/0
minimum	4	5 ½	8	48	-
w/Accelerator	1 ½	1 ¾	2	4	8
maximum	12	24	168	168	-
w/Accelerator	6	8	12	24	48

Drying times are dependent on air and surface temperatures as well as film thickness, ventilation and relative humidity. Maximum recoating time is highly dependent upon actual surface temperatures - not simply ambient air temperatures. Surface temperatures should be monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window.

Roughen surface or use Amerase™ if maximum recoat time is exceeded.

Thinner	Blome Thinner #2
Equipment cleaner	Blome Thinner #3

Adhere to all application instructions, precautions, conditions and limitations to obtain the maximum performance. For conditions outside the requirements or limitations described, contact your Blome representative.

Surface Preparation

Coating performance is, in general, proportional to the degree of surface preparation. All surfaces must be clean, dry and free of oil, grease, dirt, salt deposits or other contamination.

1. To provide a smooth appearance to the MC-3050 coating Blome flow control additive may be used. See Product Data Sheet for more information.
2. For faster drying at low temperatures, Blome Accelerator can be used with all MC-3050 products.

Steel – Mill scale and rust must be removed. Abrasive blast hot-rolled steel to SSPC-SP6 and rusted and pitted steel to SSPC-SP10. Clean cold-rolled steel to SSPC-SP1 using vapor degreasing or solvent emulsion to remove all oil, grease and contamination. Solvent wipe is not satisfactory. Contact Blome for compatible phosphate surface treatments.

Aluminum – Remove oil, grease or soap film with neutral detergent or emulsion cleaner; treat with Alodine® 1200 or Alumiprep® or blast lightly with fine abrasive.

Galvanizing – Remove oil or soap film with neutral detergent or emulsion cleaner; treat with Galvaprep® Amchem Products or blast lightly with fine abrasive.

Amercoat 68HS – Wash off water soluble contaminants; remove oil, grease, etc., with a neutral detergent or emulsion cleaner. Solvent wipe is not satisfactory.

Concrete – Clean concrete and masonry surfaces, abrasive blast (ASTM D4259) or acid etch (ASTM D4260). Fill concrete voids with Nu-Klad® 114A or 965. Fill masonry block with Amerlock® 400BF block filler.

Coated surface – Clean by low pressure water cleaning (1000 psi or greater) water blast, abrasive blast (SSPC-SP7), solvent emulsion cleaning (SSPC-SP1) or power tool cleaning (SSPC-SP3). Surface must be clean, dry and free of oil, grease, dirt or other contamination. Apply test patch to confirm compatibility and adhesion.

Application Equipment

Power mixer – Jiffy mixer powered by an air or explosion-proof electric motor.

Airless and electrostatic spray – Standard equipment Graco, DeVilbiss, Nordson-Bede, Speeflo or others having a 28:1 or higher pump ratio and a fluid tip with a 0.015- to 0.021-inch (0.38- to 0.53-mm) orifice.

Conventional, air-assisted airless and electrostatic spray – Devilbiss, Binks or Graco production spray equipment with moisture and oil trap in the main air supply line.

Brush – Natural bristle. Maintain a wet edge.

Roller – Solvent resistant. Level any air bubbles with a bristle brush.

When brush or roller applied, multiple coats may be needed to achieve dry film thickness.

Application Procedures

1. Flush equipment with Blome Thinner #3.
2. Stir resin thoroughly, add cure and mix until uniform. Do not mix more material than will be used within pot life time. Mixing ratio is 4 parts resin to 1 part cure by volume.

Pot life (hours)	°F/°C			
	90/32	70/21	50/10	32/0
MC-3050	1 ½	2 ½	5	-
MC-3050 w/Accelerator	½	1	2	4

3. If thinning is necessary, add up to 1 pint Blome Thinner #2 per gallon of MC-3050.
4. When applying by spray, adjust pressures for equipment configuration and environmental conditions to ensure proper atomization.
5. Apply a wet coat in even, parallel passes; overlap each pass 50 percent.

Drying time (ASTM D1640) (hours)	°F/°C			
	90/32	70/21	50/10	32/0
touch	1	2 ½	4	-
w/Blome Accelerator	½	¾	1	2 1/2
through	5	10	72	-
w/Blome Accelerator	2	3	6	10

Using 1/2 pt Blome Accelerator per 5 gal MC-3050

Recoat time (hours)	°F/°C				
	90/32	80/26	70/21	50/10	32/0
minimum	4	5 ½	8	48	-
w/ Accelerator	1 ½	1 ¾	2	4	8
maximum	12	24	168	168	-
w/Accelerator	6	8	12	24	48

Roughen surface or use Amerase™ if maximum recoat time is exceeded.

Note: When applying directly over organic zinc at full thickness, bubbling may occur. A mist coat/full coat technique may be required to prevent application bubbling.

6. For colors, application of 8-mil wet film thickness (thinned) will normally provide 5-mil dry film thickness, Clear coat at 5-mils WFT will normally provide 3-mil DFT.
7. Clean all equipment with thinner or Blome Thinner #3 immediately after use.

Note: Moisture sensitive – Keep cure container tightly closed. Repeated moisture exposure will cause gellation and gassing; handle bulged containers with caution, lids may eject forcibly.

Repair

Spot blast or power tool clean bare substrate to the requirements shown under surface preparation. Feather edges of intact coating. Remove dust, dirt and contamination before recoating.

Shipping Data

Packaging units	1 gal	-	5 gal
cure	0.20 gal in 1-qt can		1 gal in 1-gal can
resin	0.80 gal in 1-gal can		4 gal in 5-gal can

Shipping weight (approx)	lb	kg
1-gal unit		
cure	2.2	1.0
resin	11.0	5.0
5-gal unit		
cure	10.4	4.7
resin	55.0	25.0

Shelf life when stored indoors at 40 to 100°F (4 to 38°C)	
resin	1 year from shipment date
cure	1 year from manufacturer date

Numerical values are subject to normal manufacturing tolerances, colors and testing variances. Appearance will vary depending on substrate and application method. Allow for application losses and surface irregularities. See application instructions for complete information and safety precautions.

This mixed product is nonphotochemically reactive as defined by the South Coast Air Quality Management District's Rule 102 or equivalent regulations..

Safety Precautions

Read each component's material safety data sheet before use. Mixed material has hazards of both components. Safety precautions must be strictly followed during storage, handling and use.

Limitation of Liability

Blome's liability on any claim of any kind, including claims based upon Blome's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or part thereof which gives rise to the claim. **In no event shall Blome be liable for consequential or incidental damages.**

Due to Blome's policy of continuous product improvement, the information contained in this Product Data/Application Instructions sheet is subject to change without notice. It is the Buyer's responsibility to check that this issue is current prior to using the product. For the most up-to-date Product Data/Application Instructions always refer to the Blome International Performance Coatings & Finishes website at www.blome.com.

Warranty

Blome warrants its products to be free from defects in material and workmanship. Blome's sole obligation and Buyer's exclusive remedy in connection with the products shall be limited, at Blome's option, to either replacement of products not conforming to this Warranty or credit to Buyer's account in the invoiced amount of the nonconforming products. Any claim under this Warranty must be made by Buyer to Blome in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify Blome of such nonconformance as required herein shall bar Buyer from recovery under this Warranty.

Blome makes no other warranties concerning the product. No other warranties, whether express, implied, or statutory, such as warranties of merchantability or fitness for a particular purpose, shall apply. In no event shall Blome be liable for consequential or incidental damages.

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