

Product Description

Revision Date 043004

MC-MioAluminum Primer is a universal, aluminum and micaceous iron oxide (MIO) primer for ferrous and non-ferrous metal substrates. This primer/sealer exhibits tenacious adhesion characteristics to marginally prepared surfaces when compared with most industrial coatings. Its aluminum and MIO pigment combination makes it an ideal surface tolerant primer with outstanding barrier protection against corrosive elements. It is used for direct to metal application and is suitable for application as a tie coat over most existing coatings including overcoating existing red lead.

Area of Use

Substrates

Over properly prepared:
 Ferrous Metal
 Galvanized Metal
 Corten Steel
 Aluminum/Non-Ferrous Metal

Possible Uses

Bridges
 Tank Exteriors
 Material Handling Equipment
 Pulp and Paper Mills
 Chemical Processing Facilities
 Water and Wastewater Treatment Facilities

Structural Steel
 Food Processing Facilities
 Refineries

Ready Reference Information

Resin Type: Urethane
Pigment Type: Aluminum flake and Micaceous Iron Oxide
Sheen: Flat
Colors: Aluminum
Volume Solids: 62.0% ± 2.0
VOC: <2.8 lb/gal (340 g/l)
 (Volatile Organic Content)

Theoretical Coverage: @1 mil DFT: 994 ft²/gal
 (@ 25 μm DFT: 24.4 m²/l)

Recommended Film Thickness

Wet: 2.4 - 3.2 mils (61 - 81 microns)
Dry: 1.5 - 2.0 mils (38 - 51 microns)

Recommended Coverage per coat:

497 ft²/gal at 2.0 mils DFT - 663 ft²/gal at 1.5 mils DFT
 (12.2 m²/l at 3.2 microns DFT - 16.2 m²/l at 2.4 microns DFT)

Thinning: MC-Thinner, MC-Thinner 100, MC-Thinner XMT
Clean up: MC-Thinner, MC-Thinner 100, MC-Thinner XMT

Drying Times and Temperatures

*At 50% Humidity	50° F/10° C		75° F/24° C		95° F/35° C	
	without PURQuik®	with PURQuik®	without PURQuik®	with PURQuik®	without PURQuik®	with PURQuik®
Tack Free	1 hr	--	30 min	--	20 min	--
Recoat Minimum ¹	6 hrs	1 hr	4 hrs	30 min	3 hrs	20 min
Full Cure	10 days	7 days	7 days	5 days	5 days	4 days

Refer to Wasser's PURQuik® Accelerator Product Data for additional information

*Humidity, temperature and coating thickness will affect recoat and curing times

1. On clean surface, no outer recoat window when overcoating with MC-MioAluminum Primer or MC-Ferromastic.

Product Features

Single Component Moisture Cure Urethane	Low VOC	Easy to apply by brush, roller or spray methods
No Mixing Errors.	Can be applied at 99% humidity	No Dew Point Restrictions (Substrate must be visibly dry)
No Pot Life	Can be applied in below freezing temperatures (no ice or frost)	Compatible with PURQuik® Accelerator for faster recoat and cure times.
Low viscosity for penetrating and sealing surfaces	Universal primer for any steel surface	

MC-MioAluminum Primer

Recommended Systems

Ferrous Metals (Overcoat):

1 st Coat: MC-MioAluminum Primer 2.8	1.5-2.0 mils DFT
2 nd Coat: MC-Ferromastic 2.8	3.0-5.0 mils DFT
Or MC-Ferrox B	
3 rd Coat: MC-Ferrox A 2.8	2.0-4.0 mils DFT
Or MC-Luster	
Total System DFT:	6.5-11.0 mils DFT

1 st Coat: MC-MioAluminum Primer 2.8 (Spot)	1.5-2.0 mils DFT
2 nd Coat: MC-MioAluminum Primer 2.8	1.5-2.0 mils DFT
3 rd Coat: MC-Ferrox A 2.8	2.0-4.0 mils DFT
Or MC-Luster	
Total System DFT:	5.0-8.0 mils DFT

Corten Steel:

1 st Coat: MC-MioAluminum Primer 2.8	1.5-2.0 mils DFT
2 nd Coat: MC-Ferromastic 2.8	3.0-5.0 mils DFT
Or MC-Ferrox B	
3 rd Coat: MC-Ferrox A 2.8	2.0-4.0 mils DFT
Or MC-Luster	
Total System DFT:	6.5-11.0 mils DFT

Aluminum/Galvanized/ Non-Ferrous Metals:

1 st Coat: MC-MioAluminum Primer 2.8	1.5-2.0 mils DFT
2 nd Coat: MC-Ferrox A 2.8	2.0-4.0 mils DFT
Or MC-Luster	
Total System DFT:	3.5-6.0 mils DFT

Note: Severely pitted steel or aggressive surface profiles may require additional MC-MioAluminum Primer coating application.

***Other Systems are available and appropriate. Contact your Wasser Representative for any questions.**

Performance Testing Data

Dry Heat Resistance:

Continuous: 250°F (120°C)

*Contact Wasser High-Tech Coatings for detailed testing of this product

Compatible Coatings

Intermediates:

MC-Ferromastic	
MC-Ferrox B 2.8	MC-Ferrox B 200
MC-Miomastic 2.8	MC-Miomastic 200
MC-CR 2.8	MC-CR 200

Topcoats:

MC-Ferrox A 2.8	MC-Ferrox A 200
MC-Luster 2.8	MC-Luster 200
MC-Shieldcoat 2.8	MC-Shieldcoat 200
MC-Aroshield	
MC-Tar 2.8	MC-Tar 200
MC-Aluminum	

Coating Accelerator:

PURQuik[®] Coating Accelerator

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Surface Preparation

Ferrous Metal

Use SSPC-SP1 solvent cleaning to remove oil and grease or other contaminants prior to employing surface preparation methods.

Blast Clean surfaces for immersion or severe service projects to SSPC-SP10/NACE No. 2 Near White Metal finish.

Prepare surfaces for non-immersion or atmospheric service projects using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement SSPC-SP 12 LPWC with SSPC-SP2 and 3 Hand and Power Tool Cleaning or SSPC-SP6/NACE No. 3 Commercial Blast Clean methods where areas show excessive corrosion, or loose and failing paint (feather edges of sound, existing paint back to a firm edge).

Areas cleaned to bare metal should exhibit a surface profile that will support mechanical coating adhesion. Aggressive surface profile may require additional coating application to ensure proper coverage.

Corten Steel

Prepare surfaces using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods. Supplement SSPC-SP 12 LPWC with SSPC-SP2 and 3 Hand and Power Tool cleaning where areas show excessive corrosion. Use SSPC-SP1 solvent cleaning to remove oil and grease prior to surface preparation methods.

Aluminum/Galvanized/Non-Ferrous Metals

Prepare surfaces using SSPC-SP1 Solvent Cleaning and SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement weathered galvanized surface preparation with SSPC-SP2 and 3 Hand and Power Tool cleaning to remove excessive corrosion and impart surface profile on bare metal. Supplement new galvanized surface cleaning with mechanical abrasion to impart surface profile and support mechanical adhesion.

Good Practices

MC-MioAluminum Primer is designed for application to tightly adhering rust. Heavy pack rust must be removed.

The surface to be coated must be dry, clean, dull, and free from dirt, grease, oil, heavy rust, mill scale, salts or any other surface contaminants that interfere with adhesion.

Ensure welds, repair areas, joints, and surface defects exposed by surface preparation are properly cleaned and treated prior to coating application.

Areas of oxidation after surface preparation and prior to coating application, should be prepared to specified standard

Consult the referenced standards, SSPC-PA1 and your Wasser Representative for additional information or recommendations.

Application Information

MC-MioAluminum Primer can be applied by brush, roll, airless spray and conventional spray application. Follow proper mixing instructions before applying.

Mixing:

Material temperature must be 5° F above the dew point. Before opening and agitating.

Power mix thoroughly prior to application.

Do not keep under constant agitation.

Apply a 3-6 oz solvent float over material to prevent moisture intrusion and cover pail.

Brush/Roller:

Brush: Natural Fiber

Roller: Natural or synthetic fiber cover

Nap: ¼" to ⅜"

Core: Phenolic

Reduction: Typically not required. If necessary, reduce with MC-Thinner 100.

Airless Spray:

Pump Ratio: 28-40:1

Pressure: 1800-2000 psi

Hose: ¼" to ⅜"

Tip Size: .011-.015

Filter Size: 60 mesh (250 µm)

Reduction: Typically not required. If necessary, reduce with MC-Thinner or MC-Thinner 100.

Conventional Spray: (DeVilbiss MBC, JGA or equivalent)

Fluid Nozzle: E Fluid Tip

Air Cap: 704 or 765

Atomizing Air: 45-75 lbs.

Fluid Pressure: 15-20 lbs.

Hose: ½" ID; 50' Max

Reduction: Typically not required. If necessary, reduce with MC-Thinner or MC-Thinner 100.

Reducer: MC-Thinner, MC-Thinner 100, (if VOC regulations restrict thinning, use MC-Thinner XMT). Reduction is typically not required. If necessary, thin up to 10% with recommended thinner. Thin in accordance with local and federal regulatory standards.

Clean up: MC-Thinner, MC-Thinner 100. If Wasser thinners are not available, use MEK, MIBK, Xylene, a 50:50 blend of Xylene and MEK or MIBK, or acetone for clean up only. Do not add unauthorized solvents to a Wasser coating.

Application Conditions:

Temperature: 20°-100° F (-8°-38° C)

This temperature range should be achieved for ambient, surface and material temperature. Substrate must be visibly dry. MC-Thinner 100 is recommended for spray application in temperatures above 90°F.

Relative Humidity: 6%-99%

Coating Accelerator: PURQuik® Accelerator. See Wasser's PURQuik® Accelerator Product Data for information.

Storage: Store off the ground in a dry, protected area in temperature between 40-100°F (4-38°C). MCU containers must be kept sealed when not in use. Use a solvent float to reseal partial containers.

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Certifications and Qualifications

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VOC Compliant (National Standards – Industrial Maintenance Coating)

Qualified for use in USDA and FDA inspected facilities

Ordering Information

Product Numbers: W07.80 Aluminum
Package Size: 1 gallon and 5 gallon pails
Shelf Life: 12 months from date of shipment when stored unopened at 75°F (24° C)

Shipping Information

Flash Point: 78°F (25°C)
Weight/gallon: 9.8 ± 1.0 lbs.
DOT HAZARD CLASS: 3
DOT PACKAGING GROUP: III
DOT LABEL: FLAMMABLE LIQUID
DOT SHIPPING NAME: PAINT
DOT PLACARD: FLAMMABLE LIQUID
UN/NA NUMBER: 1263

Safety Precautions

DANGER!

VAPOR AND SPRAY MIST HARMFUL. OVEREXPOSURE MAY CAUSE LUNG DAMAGE. MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION, EFFECTS MAY BE PERMANENT, MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS HEADACHE OR NAUSEA. CAUSES EYE, SKIN, NOSE AND THROAT IRRITATION. FLAMMABLE LIQUID AND VAPOR.

CONTAINS: Petroleum Distillates, Xylene, Ethylbenzene, Modified MDI, 4,4'-Diphenylmethane Diisocyanate

NOTICE: Reports have associated repeated and prolonged occupational over-exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST. **Use Only With Adequate Ventilation.** Do not breathe dust, vapors or spray mist. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Keep away from heat, sparks and flame. Vapor may cause flash fire.

KEEP OUT OF REACH OF CHILDREN

FIRST AID: If affected by inhalation of vapor or spray mist, remove to fresh air. If breathing difficulty persists or occurs later, consult a physician and have label information available. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, get medical attention immediately. If swallowed, do not induce vomiting. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean or destroy contaminated shoes.

Keep container closed when not in use. If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.

WARNING: This product contains a chemical known to the state of California to cause cancer and birth defects, or other reproductive harm.

Obtain and Read the Material Safety Data Sheet Before Using.
INTENDED FOR PROFESSIONAL USE ONLY.

W07.80

Note: Ingredients and VOC/VOS may vary for products with catalysts, tint bases, and other colors

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