MC-Ferrox A 2.8

Product Description

MC-Ferrox A is Wasser's micaceous iron oxide (MIO), moisture-cure, aliphatic, matte-finish, urethane topcoat. It provides the superior resistance to UV, weathering, and abrasion. The MIO in this topcoat gives it outstanding barrier protection and reinforces its film strength, enhancing inter and intra-coat adhesion properties. MC-Ferrox A is protection that gives the coating system the ability to effectively exceed typical coating system service life while retaining its aesthetic appearance, even in harsh environments.

Area of Use

Substrates
Over properly prepared:
Ferrous Metal
Galvanized Metal
Aluminum/Non-Ferrous Metal
Metallized
Previously Existing Coatings

Possible Uses
Bridges
Tank Exteriors
Material Handling Equipment
Pulp and Paper Mills
Chemical Processing Facilities
Pipes
Hydropower Facilities
Water and Wastewater Treatment Facilities
Structural Steel
Food Processing
Refineries
Marine/Port Facilities
Offshore Platforms
Work Boats

Ready Reference Information

Resin Type: Aliphatic Urethane

Pigment type: 2.0 – 4.0 lbs./gal Micaceous Iron Oxide depending on color

Sheen: Flat

Colors: Standard and various colors
See color chart. Not available in white or safety colors.

Volume Solids: 62.0% ± 2.0

VOC: < 2.8 lb/gal (340g/l)
(Volatile Organic Content)

Theoretical Coverage: At 1 mil DFT: 994 ft^2/gal
(At 25µm DFT: 24.4 m^2/l)

Recommended Film Thickness:
Wet: 3.2-6.4 mils (81-163 microns)
Dry: 2.0-4.0 mils (51-102 microns)

Recommended Coverage Per Coat:
249 ft^2/gal at 4.0 mils DFT – 497 ft^2/gal at 2.0 mils DFT
(6.1 m^2/l at 102 microns DFT – 12.2 m^2/l at 51 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 hour	--	30 minutes	--	20 minutes	--
Recoat Minimum[1]	10 hours	1 hour	8 hours	30 minutes	6 hours	20 minutes
Full Cure	10 Days	7 days	7 days	5 days	5 days	4 days

*Humidity, temperature and coating thickness will affect recoat and curing times
[1]No outer recoat window on clean surfaces
Refer to Wasser's PURQuik® Accelerator Product Data for additional information

Product Features

- Single component Moisture Cure Urethane
- No mixing errors, no pot life
- Easy to apply by brush, roller or spray methods
- Maintains build on edges, threads, and weld seams
- Low VOC
- Impact and abrasion resistant
- Resistant to UV and weathering
- Recommended primer/topcoat for galvanized surfaces
- Can be applied at 99% relative humidity (substrate must be visibly dry)
- No dew point restrictions above 32°F (substrate must be visibly dry)
- Can be applied in below freezing temperatures (no ice or frost)
- No outer recoat window on clean surfaces
- Compatible with PURQuik® Accelerator for faster recoat and cure times

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Recommended Systems

Ferrous Metals (New Construction / Full Removal):

1st Coat: MC-Zinc	3.0-5.0 mils DFT
2nd Coat: MC-Ferrox B	3.0-5.0 mils DFT
3rd Coat: MC-Ferrox A	2.0-4.0 mils DFT
Total System DFT:	8.0-14.0 mils DFT

1st Coat: MC-Miozinc	3.0-5.0 mils DFT
2nd Coat: MC-Ferrox B	3.0-5.0 mils DFT
3rd Coat: MC-Ferrox A	2.0-4.0 mils DFT
Total System DFT:	8.0-14.0 mils DFT

Ferrous Metals (Overcoat):

1st Coat: MC-Miozinc (Spot Prime)	3.0-5.0 mils DFT
2nd Coat: MC-Miomastic	3.0-5.0 mils DFT
3rd Coat: MC-Ferrox A	2.0-4.0 mils DFT
Total System DFT:	8.0-14.0 mils DFT

Aluminum/Non-Ferrous Metal/Galvanized Metal:

1st Coat: MC-Ferrox B	3.0-5.0 mils DFT
2nd Coat: MC-Ferrox A	2.0-4.0 mils DFT
Total System DFT:	5.0-9.0 mils DFT

1st Coat: MC-CR	3.0-4.0 mils DFT
2nd Coat: MC-Ferrox A	2.0-4.0 mils DFT
Total System DFT:	5.0-8.0 mils DFT

Note: Use over recommended primers or intermediates for ferrous metal. Not recommended for direct to ferrous metal applications.

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

Performance Testing Data

System*: MC-Zinc
MC-Ferrox B
MC-Ferrox A
*At 75°F and 50% RH 7 day min. cure

Abrasion Resistance: 147 mg loss
(ASTM D4060 – CS-17 Wheel, 1,000 cycles/kg load)

Prohesion: (ASTM G85 @ 5000 hrs)
Blistering: None
Scribe Rate: 9.0

Adhesion: (ASTM D4541)
1510 psi

Impact: (ASTM 2794)
Direct: 160
Reverse: 20

Dry Heat Resistance:
Continuous: 250°F (120°C)

*Contact Wasser Corporation for detailed testing of this product

Compatable Coatings

Primer:

MC-Zinc 100	MC-Zinc 2.8
MC-Miozinc 100	MC-Miozinc 2.8
MC-Prepbond 100	MC-Prepbond 2.8

Intermediates:

MC-Ferrox B 100	MC-Ferrox B 2.8
MC-Miomastic 100	MC-Miomastic 2.8
MC-CR 100	MC-CR 2.8

Topcoats:
MC-Antigraffiti 100

Coating Accelerator:
PURQuik® Coating Accelerator

Surface Preparation

Ferrous Metal

Apply to clean, dry, Wasser recommended primers. Refer to the primer Product Data for additional information.

Aluminum/Galvanized/Non-Ferrous Metal

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 SP3 Hand and Power Tool cleaning to remove excessive corrosion and impart surface profile on bare metal. Spot prime clean, bare metal with Wasser recommended primer. Supplement new galvanized surface cleaning with mechanical abrasion to impart surface profile and support mechanical adhesion.

Previously Existing Coatings

Prepare surfaces using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods to remove surface contamination. Supplement SSPC-SP 12 LPWC with SSPC-SP1 Solvent Cleaning and SSPC-SP2 and SSPC-SP3 Hand and Power Tool clean areas of corrosion and loose or flaking paint (feather edges of sound, existing paint back to a firm edge). Spot prime clean, bare metal with Wasser recommended primer. Sand glossy surfaces to provide profile. Apply a test sample to a small area to determine coating compatibility.

Good Practices

MC-Ferrox A is designed for application to a variety of substrates and tightly adhering, previously existing coatings. Apply a test

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sample to a small area to determine coating adhesion and/or compatibility. Spot prime any areas cleaned to bare metal with a Wasser recommended primer.

The surface to be coated must be dry, clean, dull, and free from dirt, grease, oil, 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.

When surfaces are cleaned to bare metal, areas of oxidation after surface preparation and prior to coating application, should be prepared to specified standard prior to applying the Wasser recommended primer.

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

Application Information

MC-Ferrox A 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:	2100 - 2800 psi
Hose:	¼" to ⅜"
Tip Size:	.013 - .019
Filter Size:	60 mesh (250 μm)

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

Conventional Spray: (DeVilbis 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 or 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.

Certifications and Qualifications

VOC Compliant (National Standards – Industrial Maintenance Coating)

Tested in accordance with AASHTO R31 Standard

Qualified for use in USDA and FDA inspected facilities

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Ordering Information

Product Numbers: W23.60 Standard Grey
Consult Wasser's color chart for additional colors

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:	75.2°F (24°C)
Weight/gallon:	13.9 ± 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, Methyl-n-Amyl Ketone, Isophorone Diisocyanate, Homopolymer HDI

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.

W23.60

Note: Ingredients and VOC/VOS may vary for products with catalysts, tint bases, and other colors
Wasser Corporation's liability on any claim of any kind, including claims based upon Wasser Corporation'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 allowable for the products or part thereof that give rise to the claim. In no event shall Wasser Corporation be liable for consequential or incidental damages. Published Product Data Sheets are subject to change without notice. Contact your Wasser Representative for current Product Data Sheets.

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