MC-Zinc

WASSER

Product Description

Revision Date 043004

MC-Zinc is a proven, high-performance, single-component, moisture-cure urethane zinc primer that has 83% zinc in the dry-film. When used as part of a high-performance, new construction or maintenance coating system, this primer offers maximum resistance to rust and corrosion undercutting on various steel surfaces.

Area of Use

Substrates

Over properly prepared:
Ferrous Metal
Galvanized Metal

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 Facilities
Refineries
Marine/Port Facilities
Offshore Platforms
Work Boats

Ready Reference Information

Resin Type: Urethane

Pigment Type: 83% Zinc in the dry film

Sheen: Flat

Colors: Standard Grey

Volume Solids: 62.0% ± 2.0

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

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

Recommended Film Thickness
Wet: 4.8 - 8.0 mils (122 - 203 microns)
Dry: 3.0 - 5.0 mils (76 - 127 microns)

Recommended Coverage per coat:
199 ft^2/gal at 5.0 mils DFT - 331 ft^2/gal at 3.0 mils DFT
(4.87 m^2/l at 127 microns DFT - 8.11 m^2/l at 76 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. No outer recoat window on clean surfaces.

Product Features

Single Component Moisture Cure Urethane

No Mixing Errors. No Pot Life

Zinc stays in solution. No need for continuous agitation

Easy to apply by brush, roller or spray methods

Low VOC

Immersion & Non-immersion Service

Impact Resistant

Abrasion Resistant

Can be applied at 99% humidity

Can be applied in below freezing temperatures (no ice or frost)

No Dew Point Restrictions
(Substrate must be visibly dry)

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
Or MC-Luster	
Total System DFT:	8.0-14.0 mils DFT

Ferrous Metals (Immersion):

1st Coat: MC-Zinc	3.0-5.0 mils DFT
2nd Coat: MC-Tar	5.0-7.0 mils DFT
3rd Coat: MC-Tar	5.0-7.0 mils DFT
Total System DFT:	13.0-19.0 mils DFT

Ferrous Metals (Ballast Tank):

1st Coat: MC-Zinc	3.0-5.0 mils DFT
2nd Coat: MC-Tar	5.0-7.0 mils DFT
3rd Coat: MC-BallastCoat	3.0-4.0 mils DFT
Total System DFT:	11.0-16.0 mils DFT

1st Coat: MC-Zinc	3.0-5.0 mils DFT
2nd Coat: MC-BallastCoat	3.0-4.0 mils DFT
3rd Coat: MC-BallastCoat	3.0-4.0 mils DFT
Total System DFT:	9.0-13.0 mils DFT

Galvanized Metal:

1st Coat: MC-Zinc (Spot Repair)	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
Or MC-Luster	
Total System DFT:	8.0-14.0 mils DFT

Two-Coat System Option

1st Coat: MC-Zinc (Spot Repair)	3.0-5.0 mils DFT
2nd Coat: MC-Aluminum	1.5-2.0 mils DFT
Total System DFT:	4.5-7.0 mils DFT

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

Adhesion: 1510 psi
(ASTM D4541)

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

Salt Fog Resistance: Passes 20,000 hrs.
(ASTM B117) MC-Zinc/MC-Tar/MC-Tar

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

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

Compatible Coatings

Primers:
MC-Miozinc 2.8 (spot field touch-up only)
MC-Miozinc 200 (spot field touch-up only)

Intermediates:

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-Clear	
MC-Aroshield	
MC-Ballastcoat	
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 to SSPC-SP6/NACE No. 3 Commercial Blast Clean finish. For minimum surface preparation use conscientious power tool cleaning methods in accordance with SSPC-SP3 to remove corrosion and loose or failing paint (feather edges of sound, existing paint back to a firm edge).

Blast cleaning methods should produce a surface profile of 1.0 - 2.0 mils (25-50 microns).

Galvanized 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 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

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.

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-Zinc 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: 2400-2800 psi
Hose: ¼" to ⅜"
Tip Size: .013-.021
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, 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)
Tested in accordance with AASHTO R31 Standard
Passes 20,000 hrs ASTM B117 in MC-Zinc/MC-Tar/MC-Tar immersion System
Class B Slip Coefficient Rating
Qualified for use in USDA and FDA inspected facilities

Ordering Information

Product Numbers: W01.6 Standard Grey
W01.0080 Pink

Package Size: 1 gallon and 3 gallon pails (Standard Grey)
3 gallon pails (Pink)

Shelf Life: **12 months from date of shipment** when stored unopened at 75°F (24° C)

Shipping Information

Flash Point:	80°F (27°C)
Weight/gallon:	24.3 ± 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, Modified Polymeric 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.

W01.6

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