MC- Universal Primer 100 DTM

WASSER

W081.71 005

Product Description

MC-Universal Primer 100 DTM meets strict VOC specifications for industrial maintenance coatings. This non-metallic Direct to Metal (DTM) primer is ideal for protecting SSPC-SP-6 blasted steel, pitted steel or steel with complex geometry. Primarily used as a full steel primer, or as a spot primer. The Low environmental impact, and it's ability to provide excellent corrosion protection and film build in a non-metallic metal primer, make this the primer of choice in power plants, and other installations, where a non-metal containing primer for Ferrous-metal substrates is required. When applied to properly prepared steel surfaces, **MC-Universal Primer 100 DTM** is a versatile primer for hydroblasting, wet or dry abrasive blasting, or hand and power tool surface preparation.

Area of Use

Substrates

Over properly prepared
Ferrous Metal
Corten Steel
Galvanized Metal
Ductile Iron
Non-Ferrous Metal

Possible Uses

Power Generation Facilities
<300°F
Hydropower Facilities
Tank Exteriors
Refineries
Pulp and Paper Mills
Chemical Processing Facilities
Pipes Bridges
Water and Wastewater Treatment Facilities
Steel Pipe under Insulation
Material Handling
Structural Steel
Work Boats
Marine/Port Facilities
Offshore Platforms
Food Processing Facilities
Equipment
Highway Bridges

Ready Reference Information

Resin Type:	Urethane
Pigment Type:	Proprietary Blend
Sheen:	Flat
Colors:	Off white
Volume Solids:	62.0% +/- 2
VOC: (Volatile Organic Content)	<0.8 lb/gal (100 g/l)

Theoretical Coverage: @1 mil DFT: 994 ft^2/gal
(@ 25 micron DFT: 24.3 m^2/l)

Recommended Film Thickness
Wet: 6.5 – 9.0 mils (165 - 228 microns)
Dry: 4.0 – 5.5 mils (101 - 139 microns)

Recommended Coverage per coat:
248 ft^2/gal at 4.0 mils DFT – 190 ft^2/gal at 5.5 mils DFT
(6.0 m^2/l at 101 microns DFT – 4.7 m^2/l at 139 microns DFT)

Thinning: MC-Thinner, MC-Thinner 100, or MC-Thinner XMT
Clean up: MC-Thinner, MC-Thinner 100, or 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	3 hrs	1 hr	2 hrs	30 min	1 hr	20 min
Recoat Minimum[1]	8 hrs	2 hrs	6 hrs	1 hr	4 hrs	45 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
- Contains no metallic pigment to interfere with external cathodic protection systems
- No need for continuous agitation
- Easy to apply by brush, roller or spray methods
- VOC Compliant at less than 100 g/l
- Immersion & Non-immersion Service
- Impact and Abrasion Resistant
- Maintains build on edges, threads, and weld seams
- Compatible with PURQuik® Accelerator for faster recoat and cure times
- No Dew Point Restrictions (Substrate must be visibly dry)
- Can be applied at 99% humidity over visibly dry substrate
- Can be applied in below freezing temperatures (no ice or frost)

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Recommended Systems

Ferrous Metals (Full Removal Non-Zinc):

1st Coat: MC-Universal Primer 100 DTM	4.0-5.5 mils DFT
2nd Coat: MC-Universal Primer 100 DTM	4.0-5.5 mils DFT
3rd Coat: MC-Ferrox A	2.0-4.0 mils DFT
Or MC-Luster	
Total System DFT:	10.0-15.0 mils DFT

Ferrous Metals (Overcoat):

1st Coat: MC-Universal Primer 100 (Spot Prime)	4.0-5.5mils DFT
2nd Coat: MC-MioMastic 100	3.0-5.0 mils DFT
3rd Coat: MC-Ferrox A	2.0-4.0 mils DFT
Or MC-Luster	
Total System DFT:	9.0-14.5 mils DFT

Galvanized Metal:

1st Coat: MC-Universal Primer (Spot Repair)	4.0-5.5 mils DFT
2nd Coat: MC-Universal Primer 100 DTM	4.0-5.5 mils DFT
3rd Coat: Ferrox A	2.0-4.0 mils DFT
Or MC-Luster	
Total System DFT:	10.0-15.0 mils DFT

Two-Coat System Option

1st Coat: MC-Universal Primer 100 DTM	4.0-5.5 mils DFT
2nd Coat: MC-Luster	2.0-4.0 mils DFT
OR Ferrox A	
Total System DFT:	6.0-9.5 mils DFT

***Other Systems are available. Contact your Wasser Representative to answer any questions.**

Surface Preparation

Performance Testing Data

System: **MC-Universal Primer 100 DTM**

@75°F and 50% RH 7 day min. cure

Abrasion Resistance: 198 mg loss
(ASTM D4060 – CS-17 Wheel, 1,000 cycles/kg load)

Adhesion: 500 psi
(ASTM D4541)

Impact:
Direct: 30 lbs.
Reverse: 2

Salt Fog Resistance (ASTM B117@ 2000 hrs):
Blistering (ASTM D-714): 10 (None)
Scribe Rate (ASTM D-1654) Procedure A: 8.0
Unscribed Rate (ASTM D-1654) Procedure B: 9.0

Dry Heat Resistance
Continuous: 325°F (163°C) Intermittent to 375°F (191°C)

*Contact Wasser Corporation for detailed testing of this product

Compatible Coatings

Primers:

MC-Zinc 100
MC-Miozinc 100
MC-Ferroclad 100
MC-Prepbond 100

Coating Accelerator
PURQuik™ Accelerator

Intermediates:
MC-Miomastic 100
MC-Ferrox B 100
MC-CR 100

Topcoats:
MC-Ferrox A 100
MC-Luster 100
MC-Shieldcoat 100
MC-Tar 100
MC-Ballastcoat 100
MC-Anti-graffiti 100

Polyflex:
Polyflex 102 Rapid Thane Polyaspartic
Polyflex 201 PW
Polyflex 202 High Chem
Polyflex 301
Polyflex 401

Application Information

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 severe service projects to SSPC-SP10/NACE No. 2 Near White Metal finish. High Pressure Water Jetting to SSPC-SP12/NACE No. 4 to WJ2/NV2 may also be used for surface preparation.

Prepare surfaces for 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).

High Pressure Water Cleaning SSPC-SP12/NACE No.5 to a minimum WJ3/NV2 may also used to prepare ferrous metal surfaces for atmospheric service projects.

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

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.

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.

Ductile Iron

Consult Wasser's MC-Ferroclad Application Guide Section 4 for ductile iron surface preparation guidelines.

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.

MC-Universal Primer 100 DTM 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 2-4 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, or MC-Thinner XMT.

Airless Spray:

Pump Ratio: 28-40:1
Pressure: 2400-2800 psi
Hose: ¼" to ⅜"
Tip Size: .015-.019
Filter Size: 60 mesh (250 □m)

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

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: 3/8" ID; 50' Max

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

Reducer: MC-Thinner, MC-Thinner 100, or MC-Thinner XMT. Reduction is typically not required. If desired, thin up to 8% with MC-Thinner or MC-Thinner 100. MC-Thinner XMT is an exempt solvent specially formulated for Series 100 MCU. Thin in accordance with local and federal regulatory standards.

Clean up: MC-Thinner, MC-Thinner 100, or MC-Thinner XMT. 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: 20º-100º 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 40-100ºF (4-38ºC). 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

VOC Compliant (National Standard for Industrial Maintenance Coating, and SCAQMD Rule 1113 IM Coating effective 1/1/04)

Ordering Information

Product Numbers: W081.71 Off white

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:	80°F (26.6°C)
Weight/gallon:	11.93 ± 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.

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