MC-Universal 100
primer/tie-coat/intermediate

WASSER® ADVANCED COATINGS TECHNOLOGY

Product Description

MC-Universal 100 is non-metallic Direct to Metal (DTM) primer, ideal for protecting non-ferrous metal, pitted steel or steel with complex geometry. Primarily used as a full metal primer, or as a spot primer, MC-Universal 100 is suited for priming concrete for atmospheric and immersion service. The Low environmental impact, and it's ability to provide excellent corrosion protection in a non-metallic metal primer, make this the primer of choice in maintenance painting for plants and other facilities. When applied to properly prepared surfaces, MC-Universal 100 is a versatile primer for hydro-blasting, wet/dry abrasive blasting, or hand and power tool surface preparation.

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, mitt, or spray method
- VOC Compliant at less than 100 g/l
- Non-immersion and Immersion Service (with the appropriate top-coat)
- Impact and Abrasion Resistant
- Compatible with PURQuik® Accelerator for faster re-coat and cure times
- No Dew Point Restrictions (Substrate must be visibly dry)
- Can be applied at 99% relative humidity over visibly dry substrate
- Can be applied in below freezing temperatures (no ice or frost)

Area of Use

Substrates

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

Possible Uses

- Power Generation Facilities
- Hydro-power Facilities
- Tank Exteriors
- Refineries
- Pulp and Paper Mills
- Chemical Processing Facilities
- Water and Wastewater Treatment Facilities
- Steel Piping
- Material Handling
- Structural Steel
- Work Boats
- Marine/Port Facilities
- Offshore Platforms
- Food Processing Facilities
- Heavy Equipment
- Bridges

Ready Reference Information

Resin Type: Single Component Moisture Cure Aromatic Urethane

Pigment Type: Proprietary Blend

Sheen: Flat

Colors: Off white, gray and red-oxide

Volume Solids: 62.0% ± 2.0%

VOC: <0.8lb/gal (100 g/l)
(Volatile Organic Content)

Theoretical Coverage:
At 1 mil DFT: 994 ft^2/gal
At 25 µm DFT: 24.3 m^2/l

Recommended Film Thickness:
Wet: 4.8 – 8.1 mils (122 - 206 µm)
Dry: 3.0 – 5.0 mils (76 - 127 µm)

Recommended Coverage Per Coat:
332 ft^2/gal at 3.0 mils DFT – 199 ft^2/gal at 5.0 mils DFT
(8.1 m^2/l at 76 µm DFT – 4.9 m^2/l at 127 µm DFT)

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

*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 hours	1 hour	2 hours	30 minutes	1 hour	20 minutes
Re-coat Minimum[1]	8 hours	2 hours	6 hours	1 hour	4 hours	45 minutes
Full Cure	10 days	7 days	7 days	5 days	5 days	4 days

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

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Recommended Systems*

Economical Two-Coat System

1st Coat: MC-Universal 100	3.0-5.0 mils DFT
2nd Coat: MC-Luster	2.0-4.0 mils DFT
OR MC-Ferrox A	
Total System DFT:	5.0-9.0 mils DFT

Ferrous Metals (Full Removal Non-Zinc):

1st Coat: MC-Universal 100	3.0-5.0 mils DFT
2nd Coat: MC-Universal 100	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 (Overcoat):

1st Coat: MC-Universal 100 (Spot Prime)	3.0-5.0mils 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:	8.0-14.0 mils DFT

Galvanized Metal:

1st Coat: MC-Universal 100 (Spot Repair)	3.0-5.0 mils DFT
2nd Coat: MC-Universal 100	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

Concrete:

1st Coat: MC-Universal 100 (Thinned 15-20%)	3.0-5.0 mils DFT
2nd Coat Options:	
MC-Luster 100	2.0-4.0 mils DFT
MC-Ferrox A 100	
MC-Tar 100 (2 coat Immersion Service)	5-7 mils DFT ea

**Wasser Polyflex Polyurea/Polyaspartic may be substituted as a top-coat for all of the above systems depending on the application.* 10-90 mils DFT

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

Compatible Coatings

Intermediates:	**Topcoats:**
MC-Universal 100	MC-Ferrox A 100
MC-Miomastic 100	MC-Luster 100
MC-Ferrox B 100	MC-Shieldcoat 100
MC-CR 100	MC-Tar 100
	MC-Ballastcoat 100
	MC-Anti-graffiti 100
	MC-Clear 100
Coating Accelerator*	Polyflex 102, 103 and 106
PURQuik® Accelerator	Rapid Thane Polyaspartic products
	All Wasser Polyflex Polyurea products

**Use only with a Wasser recommended intermediate*

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 severe or immersion service projects to SSPC-SP10/NACE No. 2 Near White Metal finish. Prepare surfaces for atmospheric service projects to SSPC-SP6/NACE No. 3 Commercial Blast Clean finish. For minimum surface preparation use conscientious SSPC-SP2 hand tool cleaning or SSPC-SP3 power tool cleaning methods 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 be used to prepare ferrous metal surfaces for atmospheric service projects.

Surface preparation methods should produce a surface profile of 1.5 - 3.5 mils (38.1-88.9 µms).

Corten/Weathering Steel

Prepare surfaces using SSPC-SP12/NACE No. 5 Low Pressure Water Cleaning methods. Supplement SSPC-SP 12 LPWC with SSPC-SP2 and SP3 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 SP3 Hand and Power Tool cleaning to remove excessive corrosion and impart surface profile on bare metal. Supplement new galvanized surface cleaning with SSPC-SP16 to impart surface profile and support mechanical adhesion.

Concrete/CMU

The surface must be dry, free of surface contaminants, and in sound condition. Grease, and oil should be removed by ASTM D4258-83 (Re-approved 1999) and release agents should be removed by ASTM D4259 - 88 (Re-approved 1999). Refer to SSPC-SP13/NACE No 6 Mechanical or Chemical Surface Preparation methods for preparing concrete to suitable cleanliness for intended service. Surface preparation methods should impart a minimum of CSP1 profile for mechanical adhesion to occur. Ensure surface is thoroughly clean (all traces of latence removed) and dry prior to coating application. For atmospheric service allow a minimum 7 days cure time for new concrete and 14 days for immersion service prior to preparation and application.

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-Universal 100 can be applied by brush, roll, mitt, 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, MC-Thinner 100, or MC-Thinner XMT.

Airless Spray:

Pump Ratio:	28 - 40:1
Pressure:	2400-2800 psi
Hose:	¼" to ⅜"
Tip Size:	0.013-0.017
Filter Size:	60 mesh (250 µm)

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

Conventional Spray/HVLP:

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: If necessary, reduce with MC-Thinner, MC-Thinner 100, or MC-Thinner XMT.

Reducer:

MC-Thinner, MC-Thinner 100, or MC-Thinner XMT. If desired, thin up to 15% 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, or 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 and frost free. On applications below 33° F (0.5° C), Steel temperatures should be 5°F above the dew point temperature. 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^{0}F (4 - 38^{0}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
VOC Compliant (National Standard for Industrial Maintenance Coating, Ozone Transportation Commission and SCAQMD Rule 1113 IM Coating effective 1/1/04)

Performance Testing Data
Contact Wasser Corporation for detailed testing of this product

Ordering Information

Product Numbers:	W081.71 Off white W081.35 Red-Oxide W081.0011 Gray
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!

Intended for professional use only. Obtain and Read Wasser's Safety Data Sheet for this before using.

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 Wasser's Safety Data Sheet for this before using.

INTENDED FOR PROFESSIONAL USE ONLY.

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

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