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 its 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 Description

MC-Universal 100 is a Single Component Moisture Cure Aromatic Urethane primer. It contains no metallic pigment to interfere with external cathodic protection systems. It requires no continuous agitation and is easy to apply by brush & roller, mitt, or spray method. It is VOC Compliant at less than 100 g/l, Non-immersion and Immersion Service (with the appropriate top-coat), Impact and Abrasion Resistant, and compatible with PURQuik® Accelerator for faster re-coat and cure times. It is not necessary to use continuous agitation. It can be applied at 99% relative humidity over visibly dry substrate. It can be applied in below freezing temperatures (no ice or frost).

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)

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 ft²/gal  
At 25 μm DFT: 24.3 m²/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 ft²/gal at 3.0 mils DFT – 199 ft²/gal at 5.0 mils DFT  
(8.1 m²/l at 76 μm DFT – 4.9 m²/l at 127 μm DFT)

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

<table>
<thead>
<tr>
<th><em>At 50% Humidity</em></th>
<th>50°F/10°C</th>
<th>75°F/24°C</th>
<th>95°F/35°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tack Free</strong></td>
<td>Without PURQuik®</td>
<td>With PURQuik®</td>
<td>Without PURQuik®</td>
</tr>
<tr>
<td></td>
<td>3 hours</td>
<td>1 hour</td>
<td>2 hours</td>
</tr>
<tr>
<td><strong>Re-coat Minimum¹</strong></td>
<td>8 hours</td>
<td>2 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td><strong>Full Cure</strong></td>
<td>10 days</td>
<td>7 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

1*Humidity, temperature and coating thickness will affect re-coat and curing times. Refer to Wasser’s PURQuik® Accelerator Product Data for additional information.

¹No outer re-coat window on clean surfaces.
MC-Universal 100
primer/tie-coat/intermediate

**Recommended Systems***

**Economical Two-Coat System**

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

**Ferrous Metals (Full Removal Non-Zinc):**

1st Coat: MC-Universal 100  
2nd Coat: MC-Universal 100  
3rd Coat: MC-Ferrox A  
Or MC-Luster  
Total System DFT: 3.0-5.0 mils DFT  

**Ferrous Metals (Overcoat):**

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

**Galvanized Metal:**

1st Coat: MC-Universal 100 (Spot Repair)  
2nd Coat: MC-Universal 100  
3rd Coat: MC-Ferrox A  
Or MC-Luster  
Total System DFT: 3.0-5.0 mils DFT  

**Concrete:**

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

***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 ea

**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 latex 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.

**Topcoats:**

- MC-Ferrox A 100  
- MC-Luster 100  
- MC-Shieldcoat 100  
- MC-Tar 100  
- MC-Ballastcoat 100  
- MC-Anti-graffiti 100  
- MC-Clear 100

**Compatible Coatings**

**Intermediates:**

- MC-Universal 100  
- MC-Miomastic 100  
- MC-Ferrox B 100  
- MC-CR 100

**Coating Accelerator**

- PURQuik® Accelerator

**Use only with a Wasser recommended intermediate**
MC-Universal 100

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. Do not keep under constant agitation. Apply a 3-6 oz solvent float over material to prevent moisture intrusion and cover pail.

Brush/Roller:

<table>
<thead>
<tr>
<th>Brush:</th>
<th>Natural Fiber</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roller:</td>
<td>Natural or synthetic fiber cover</td>
</tr>
<tr>
<td>Nap:</td>
<td>¼” to ½”</td>
</tr>
<tr>
<td>Core:</td>
<td>Phenolic</td>
</tr>
<tr>
<td>Reduction:</td>
<td>Typically not required. If necessary, reduce with MC-Thinner, MC-Thinner 100, or MC-Thinner XMT.</td>
</tr>
</tbody>
</table>

Airless Spray:

<table>
<thead>
<tr>
<th>Pump Ratio:</th>
<th>28 - 40:1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure:</td>
<td>2400-2800 psi</td>
</tr>
<tr>
<td>Hose:</td>
<td>½” to ⅛”</td>
</tr>
<tr>
<td>Tip Size:</td>
<td>0.013-0.017</td>
</tr>
<tr>
<td>Filter Size:</td>
<td>60 mesh (250 μm)</td>
</tr>
<tr>
<td>Reduction:</td>
<td>Typically not required. If necessary, reduce with MC-Thinner, MC-Thinner 100, or MC-Thinner XMT.</td>
</tr>
</tbody>
</table>

Conventional Spray/HVLP:

<table>
<thead>
<tr>
<th>Fluid Nozzle:</th>
<th>E Fluid Tip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Cap:</td>
<td>704 or 765</td>
</tr>
<tr>
<td>Atomizing Air:</td>
<td>45 - 75 lbs.</td>
</tr>
<tr>
<td>Fluid Pressure:</td>
<td>15 - 20 lbs.</td>
</tr>
<tr>
<td>Hose:</td>
<td>3/8” ID; 50’ Max</td>
</tr>
<tr>
<td>Reduction:</td>
<td>If necessary, reduce with MC-Thinner, MC-Thinner 100, or MC-Thinner XMT.</td>
</tr>
</tbody>
</table>

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°F (4 - 38°C). MCU containers must be kept sealed when not in use. Use a solvent float to reseal partial containers.
MC-Universal 100
primer/tie-coat/intermediate

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

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

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).

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.

Obtain and Read Wasser’s Safety Data Sheet for this before using.

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

Note: Ingredients and VOC 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 or the Wasser website for the most current Product Data Sheets.