MC-Shieldcoat 100

topcoat

Product Description

MC-Shieldcoat 100 is compliant to the strictest standards at less than 100 grams per liter VOC. This is Wasser’s aesthetic, full gloss, moisture cure urethane, aliphatic topcoat. It provides excellent resistance to UV, weathering and abrasion in a single pack MCU coating. This topcoat selection has reliable performance for application in various service environments, project types and substrates.

Product Features

- Single component Moisture Cure Urethane
- No mixing errors – no pot life
- Easy to apply by brush, roller, mitt or spray methods
- VOC compliant at less than 100 g/l
- Immersion and non-immersion service
- UV, impact, and abrasion resistant
- Versatile gloss topcoat for various substrates
- Can be applied at 99% relative humidity
- Can be applied in below freezing temperatures (no ice or frost)
- No dew point restrictions (substrate must be visibly dry)
- Compatible with PURQuik® Accelerator for faster re-coat and cure times

Ready Reference Information

Resin Type: Single Component Moisture Cure Aliphatic Urethane
Pigment Type: Coloring
Sheen: Gloss ≥ 60
Colors: White and Standard Colors
Volume Solids: 59.0% ± 3.0
VOC: <0.8lb/gal (100 g/l)
(The volatile Organic Content)

Theoretical Coverage:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>50°F/10°C</td>
<td>946 ft²/gal</td>
</tr>
<tr>
<td>75°F/24°C</td>
<td>25 micron DFT: 23.2 m²/l</td>
</tr>
</tbody>
</table>

Recommended Film Thickness:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet</td>
<td>1.7-3.4 mils (41-84 µm)</td>
</tr>
<tr>
<td>Dry</td>
<td>1.0-2.0 mils (25-51 µm)</td>
</tr>
</tbody>
</table>

Recommended Coverage Per Coat:

<table>
<thead>
<tr>
<th>Film Thickness</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.0 mils DFT</td>
<td>473 ft²/gal</td>
</tr>
<tr>
<td>1.0 mils DFT</td>
<td>946 ft²/gal</td>
</tr>
</tbody>
</table>

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

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

*Humidity, temperature and coating thickness will affect re-coat and curing times. ¹On clean surface, re-coat 30 days – after 30 days, do a test patch. Refer to Wasser’s PURQuik® Accelerator Product Data for additional information.
Recommended Systems

Ferrous Metals (New Construction / Full Removal):
1st Coat: MC-Zinc 100 3.0-5.0 mils DFT
Or MC-Miozinc 100
2nd Coat: MC-Ferrox B 3.0-5.0 mils DFT
3rd Coat: MC-Shieldcoat 100 1.5-2.0 mils DFT
Total System DFT: 7.5-12.0 mils DFT

Ferrous Metals (Overcoat):
1st Coat: MC-Miozinc 100 (Spot Prime) 3.0-5.0 mils DFT
2nd Coat: MC-Miomastic 100 3.0-5.0 mils DFT
3rd Coat: MC-Shieldcoat 100 1.5-2.0 mils DFT
Optional: 4th Coat MC-Shieldcoat 100 1.5-2.0 mils DFT
Or MC-Antigraffiti 100
Total System DFT: 9.0-14.0 mils DFT

Aluminum/Non-Ferrous Metals/ Galvanized Metal:
1st Coat: MC-CR 100 3.0-4.0 mils DFT
2nd Coat: MC-Shieldcoat 100 1.5-2.0 mils DFT
Total System DFT: 4.5-6.0 mils DFT

Concrete1 (Interior/Exterior):
1st Coat: MC-CR 100 3.0-4.0 mils DFT
2nd Coat: MC-Shieldcoat 100 1.5-2.0 mils DFT
Optional Clear Coat
3rd Coat: MC-Antigraffiti 100 1.5-2.0 mils DFT
Total System DFT: 6.0-8.0 mils DFT
1st Coat: MC-Shieldcoat 100 1.5-2.0 mils DFT
2nd Coat: MC-Shieldcoat 100 1.5-2.0 mils DFT
Optional Clear Coat
3rd Coat: MC-Antigraffiti 100 1.5-2.0 mils DFT
Total System DFT: 4.5-6.0 mils DFT

1. Prime coat for concrete may be reduced up to 25% to facilitate coating penetration. Subsequent coating applications may be reduced as necessary up to 10%. Thin in accordance with local and federal regulations.

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

Compatible Coatings

Primer Coatings
Primer Coatings
MC-Zinc 100
MC-Miozinc 100
MC-Ferrox B 100
MC-Universal100
MC-Prepbond 100

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

Clear Finish Topcoats:
MC-Antigraffiti 100
Polyflex 102 Rapid Thane
Polyflex 201 PW

Compatible Thick Film Products:
Polyflex 202 High Chem
Polyflex 401 Polar Serve

Surface Preparation

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

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 3 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/Concrete Block
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 sufficient surface profile for mechanical adhesion to occur. Ensure surface is thoroughly rinsed and dry prior to coating application. Allow a minimum 7 - 14 days cure time for new concrete prior to preparation and application.

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-Shieldcoat 100 is designed for application to a variety of substrates and tightly adhering, previously existing coatings. Apply a test 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.

Application Information

MC-Shieldcoat 100 can be applied by brush, roll, airless spray, mitt and conventional spray methods. 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:** ⅛" 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:** 0.07-0.015
- **Filter Size:** 60 mesh (250 μm)
- **Reduction:** Typically not required. If necessary, reduce with MC-Thinner or MC-Thinner 100.

**Conventional Spray/HLVP:**
- **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 15% 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, 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.
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ADVANCED COATINGS TECHNOLOGY

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

Ordering Information
Product Numbers: W511.7 White and Standard colors. 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: 102°F (39°C)
Weight/gallon: 10.2 ± 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.

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.