MC-Shieldcoat 100

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.

Area of Use

Substrates

Over properly prepared:
Ferrous Metal
Galvanized Metal
Aluminium/Non-Ferrous Metal
Metallized
Concrete
Concrete Block
Previously Existing Coatings

Possible Uses

Water and Wastewater Treatment Facilities
Food Processing Facilities
Pulp and Paper Mills
Tank Exteriors
Hydropower Facilities
Marine/Port Facilities
Offshore Platforms
Sound Walls
Chemical Processing Facilities
Refineries
Floors
Hydropower Facilities
Structural Steel
Work Boats
Bridges

Ready Reference Information

Resin Type: Aliphatic Urethane

Pigment type: Coloring

Sheen: Gloss ≥ 60

Colors: White and Standard Colors

Volume Solids: 59.0% ± 3.0

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

Theoretical Coverage: At 1 mil DFT: 946 ft^2/gal
At 25 µm DFT: 23.2 m^2/l

Recommended Film Thickness:
Wet: 1.7-3.4 mils (41-84 microns)
Dry: 1.0-2.0 mils (25-51 microns)

Recommended Coverage Per Coat:
473 ft^2/gal at 2.0 mils DFT - 946 ft^2/gal at 1.0 mils DFT
(11.6 m^2/l at 51 microns DFT – 23.2 m^2/l at 25 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	3 hours	--	90 minutes	--	45 minutes	--
Recoat Minimum[1]	10 hours	1 hour	8 hours	30 minutes	6 hours	20 minutes
Full Cure	10 Days	7 days	7 days	5 days	5 days	4 days

*Humidity, temperature and coating thickness will affect recoat and curing times
[1]On clean surface, recoat 30 days – after 30 days, do a test patch
Refer to Wasser's PURQuik® Accelerator Product Data for additional information

Product Features

- Single component Moisture Cure Urethane
- No mixing errors – no pot life
- Easy to apply by brush, roller 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 recoat and cure times

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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
1st Coat: MC-Ferrox B 100	3.0-5.0 mils DFT
2nd Coat: MC-Shieldcoat 100	1.5-2.0 mils DFT
Total System DFT:	4.5-7.0 mils DFT

Concrete[1] (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 and appropriate. Contact your Wasser Representative for any questions.**

Performance Testing Data

*Contact Wasser Corporation for detailed testing of this product

Compatable Coatings

Primers:
MC-Zinc 100
MC-Ferroclad 100
MC-Miozinc 100
MC-Ultra Build DTM
MC-Prepbond 100

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

Clear Finish Topcoats:
MC-Antigraffiti 100

Compatible Thick Film Products:
Polyflex 102 Rapid Thane
Polyflex 201 PW
Polyflex 202 High Chem
Polyflex 401 Polar Serve

Coating Accelerator:
PURQuik® Coating Accelerator

Surface Preparation

Ferrous Metal

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

Aluminum/Galvanized/Non-Ferrous 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 SSPC-SP3 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.

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 and release agents should be removed by ASTM D4259 - 88. 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

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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.

Ensure welds, repair areas, joints, and surface defects exposed by surface preparation are properly cleaned and treated prior to coating application.

Consult the referenced standards, SSPC-PA1 and your Wasser Representative for additional information or recommendations.

Application Information

MC-Shieldcoat 100 can be applied by brush, roll, airless spray 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 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 - 2800psi
Hose:	¼" to ⅜"
Tip Size:	.007 - .015
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.

Certifications and Qualifications

VOC Compliant (National Standards – Industrial Maintenance Coating)

Qualified for use in USDA and FDA inspected facilities

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MC-Shieldcoat 100

WASSER

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!

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, Methyl-n-Amyl Ketone, Isophorone Diisocyanate, Homopolymer HDI

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.

W511.7

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

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