MC-CR 100

Product Description

MC-CR 100 is a single component MCU (moisture cure urethane) universal primer ideal for concrete. This versatile product can also be used as an intermediate coat when overcoating Wasser primers or a wide variety generic coatings in an overcoat system. MC-CR 100 has aromatic chemical resistance properties and offers outstanding barrier protection under a variety of topcoats including, MCU, Polyaspartic, and Polyurea as well as many other industrial topcoats.

Area of Use

Substrates

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

Possible Uses

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

Ready Reference Information

Resin Type: Aromatic Urethane

Pigment type: Coloring and Anticorrosive

Sheen: Flat

Colors: Off-White or Buff

Volume Solids: 62% ± 2.0

Weight Solids: 78% ± 3.0

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

Theoretical Coverage: At 1 mil DFT: 994 ft^2/gal
At 25 µm DFT: 24.4 m^2/l

Recommended Film Thickness:
Wet: 4.8-6.4 mils (122-163 microns)
Dry: 3.0-4.0 mils (76-102 microns)

Recommended Coverage Per Coat:
249 ft^2/gal at 4.0 mils DFT - 330 ft^2/gal at 3.0 mils DFT
(6.1 m^2/l at 102 microns DFT - 8.1 m^2/l at 76 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	2 hours	--	1 hour	--	20 minutes	--
Recoat Minimum[1]	8 hours	1 hour	6 hours	30 minutes	4 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]No outer recoat window on clean surfaces
Refer to Wasser's PURQuik® Accelerator Product Data for additional information

Product Features

- Single component Moisture Cure Urethane
- No mixing errors – no pot life
- Protective coating for various substrates
- Easy to apply by brush, roller or spray methods
- VOC compliant at < 100 g/L
- Can be applied at 99% relative humidity
- Can be topcoated with Polyaspartic or Polyurea in as little as 2 hours.
- Can be applied in below freezing temperatures (no ice or frost)
- No dew point restrictions (substrate must be visibly dry)
- No outer recoat window on clean surfaces
- Compatible with PURQuik® Accelerator for faster recoat and cure times (Do not accelerate when used as prime coat on concrete)
- Can be applied to green concrete in 7 days for atmospheric exposure and 14 day for immersion service

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Recommended Systems

Concrete[1] /Concrete Block:

1st Coat: MC-CR 100	3.0-4.0 mils DFT
2nd Coat: Polyflex 201 PW NSF	30.0-100.0 mils DFT
Total System DFT	33.0-104.0 mils DFT

1st Coat: MC-CR 100	3.0-4.0 mils DFT
2nd Coat: Polyflex 102 Rapid Thane	6.0-10.0 mils DFT
Total System DFT:	9.0- 14.0 mils DFT

1st Coat: MC-CR 100	3.0-4.0 mils DFT
2nd Coat: MC-Luster 100	2.0-4.0 mils DFT
Optional Clear Coat	
3rd Coat: MC-Antigraffiti 100	1.5-2.0 mils DFT
Total System DFT:	6.5-10.0 mils DFT

Ferrous Metals (New Construction / Full Removal):

1st Coat: MC-Zinc 100	3.0-5.0 mils DFT
Or MC-Miozinc 100	
2nd Coat: MC-CR 100	3.0-4.0 mils DFT
3rd Coat: MC-Ferrox A 100	2.0-4.0 mils DFT
Or MC-Luster 100	
Total System DFT:	8.0-13.0 mils DFT

Ferrous Metals (Overcoat):

1st Coat: MC-Miozinc 100 (Spot Prime)	3.0-5.0 mils DFT
2nd Coat: MC-CR 100	3.0-4.0 mils DFT
3rd Coat: MC-Ferrox A 100	2.0-4.0 mils DFT
Or MC-Luster 100	
Total System DFT:	8.0-13.0 mils DFT

Aluminum/ Non-Ferrous Metals/ Galvanized Metal:

1st Coat: MC-CR 100	3.0-4.0 mils DFT
2nd Coat: MC-Ferrox A 100	2.0-4.0 mils DFT
Or MC-Luster 100	
Total System DFT:	5.0-8.0 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.**

Performance Testing Data

Contact Wasser Corporation for detailed testing of this product

Compatable Coatings

Primer:
MC-Zinc 100
MC-Miozinc 100
MC-Ferroclad 100
MC-Prepbond 100

Topcoats:
MC-Ferrox A 100
MC-Luster 100
MC-Shieldcoat 100
MC-Tar 100
MC-Antigraffiti 100
MC-Ballastcoat 100

Polyflex 102 Rapid Thane
Polyflex 201 PW NSF
Polyflex 202 High Chem
Polyflex 401 Polar Serve

Coating Accelerator:
PURQuik® Coating Accelerator

Surface Preparation

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 (Reapproved 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. For atmospheric service allow a minimum 7 days cure time for new concrete and 14 days for immersion service prior to preparation and application.

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 SSPC-SP3 Hand and Power Tool Cleaning to remove excessive corrosion and impart surface profile on bare metal. Spot prime clean, bare metal with Wasser recommended primer. Supplement new galvanized surface cleaning with mechanical abrasion to impart surface profile and support mechanical adhesion.

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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

Spot prime any areas cleaned to bare metal with a Wasser recommended primer.

When using MC-CR 100 as an immersion service intermediate, apply to clean, dry, Wasser recommended primers. Refer to the primer Product Data for additional information.

The surface to be coated must be dry, clean, dull, and free from dirt, grease, oil, 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.

When surfaces are cleaned to bare metal, areas of oxidation after surface preparation and prior to coating application, should be prepared to specified standard prior to applying the Wasser recommended spot primer.

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

Application Information

MC-CR 100 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 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:	2100 - 2800psi
Hose:	¼" to ⅜"
Tip Size:	.013 - .019
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, 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° - 120°F (-8° - 49°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. (Do not accelerate when used as prime coat on concrete)

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 (≤0.8 lbs/Gal)(National Standards – Industrial Maintenance Coating, and Concrete Protective Coating)
Qualified for use in USDA and FDA inspected facilities

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Ordering Information

Product Numbers: **W171.71** **Off-White**
W171.75 **Buff**

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:	75°F (24°C)
Weight/gallon:	12.2 ± 1.0 lbs. (1.5 ± .12 kg/l)
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, Toluene, MAK

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.

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

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