MC-Tar

WASSER

Product Description

Revision Date 043004

Wasser combined moisture-cure urethane technology, micaceous iron oxide, and refined coal tar resin to produce a superior corrosion resistant coating. MC-Tar has proven performance in severe exposure, and is recommended for application on various substrates for immersion, atmospheric, and buried environments. It has the ability to provide outstanding barrier protection in one-coat or multi-coat systems.

Area of Use

Substrates

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

Possible Uses

Bridges
Tanks
Material Handling Equipment
Pulp and Paper Mills
Chemical Processing Facilities
Pipes
Hydropower Facilities
Water and Wastewater Treatment Facilities
Structural Steel
Work Boats
Refineries
Marine/Port Facilities
Offshore Platforms
Pilings
Barges

Ready Reference Information

Resin Type: Urethane

Pigment Type: Coal Tar Pitch and 4.0 lb/gal Micaceous Iron Oxide

Sheen: Flat

Colors: Black and Red Oxide

Volume Solids: 62.0% ± 2.0

VOC: <2.8 lb/gal (340 g/l)
(Volatile Organic Content)

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

Recommended Film Thickness
Wet: 8.1 - 11.3 mils (206 - 287 microns)
Dry: 5.0 - 7.0 mils (127 - 179 microns)

Recommended Coverage per coat:
142 ft^2/gal at 7.0 mils DFT - 199 ft^2/gal at 5.0 mils DFT
(3.48 m^2/l at 179 microns DFT - 4.87 m^2/l at 127 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	1 hr	**--**	30 min	**--**	20 min	**--**
Recoat Minimum[1]	8 hrs	***1 hr***	4 hrs	***30 min***	3 hrs	***20 min***
Full Cure	10 days	***7 days***	7 days	***5 days***	5 days	***4 days***

Refer to Wasser's PURQuik® Accelerator Product Data for additional information

*Humidity, temperature and coating thickness will affect recoat and curing times

1. No outer recoat window on clean surfaces.

Product Features

Single Component Moisture Cure Urethane

No Mixing Errors. No Pot Life

Easy to apply by brush, roller or spray methods

Performance comparable to coal tar epoxy coatings

Low VOC

Maintains build on edges, threads, and weld seams

Immersion & Non-Immersion

Remains flexible over time

Can be applied at 99% humidity

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.

MC-Tar

Recommended Systems

Ferrous Metals
(Atmospheric/Severe Exposure):

1st Coat: MC-Zinc	3.0-5.0 mils DFT
Or MC-Miozinc	
2nd Coat: MC- Tar	5.0-7.0 mils DFT
3rd Coat: MC-Tar	5.0-7.0 mils DFT
Total System DFT:	13.0-19.0 mils DFT

1st Coat: Prepbond	1.5-2.0 mils DFT
2nd Coat: MC-Tar	5.0-7.0 mils DFT
3rd Coat: MC-Tar	5.0-7.0 mils DFT
Total System DFT:	11.5-16.0 mils DFT

Ferrous Metals
(Salt or Fresh Water Immersion):

1st Coat: Zinc	3.0-5.0 mils DFT
2nd Coat: MC-Tar	5.0-7.0 mils DFT
3rd Coat: MC-Tar	5.0-7.0 mils DFT
Total System DFT:	13.0-19.0 mils DFT

Aluminum/Non-Ferrous Metals/Galvanized Metal:

1st Coat: MC-Tar	5.0-7.0 mils DFT
2nd Coat: MC-Tar	5.0-7.0 mils DFT
Total System DFT:	10.0-14.0 mils DFT

Concrete[1]:
(Interior)

1st Coat: MC-Tar	5.0-7.0 mils DFT
2nd Coat: MC-Tar	5.0-7.0 mils DFT
Total System DFT:	10.0-14.0 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

System: **MC-Zinc**
MC-Tar
MC-Tar
@75°F and 50% RH 7 day min. cure

Abrasion Resistance: 172 mg loss
(ASTM D4060 – CS-17 Wheel, 1,000 cycles/kg load)

Adhesion: 1510 psi
(ASTM D4541)

Impact:
(ASTM D2794)
Direct: 90
Reverse: 30

Prohesion: Blistering: None
(ASTM G85 @ 5000 hrs) Scribe Rate: 9.0

Salt Fog Resistance: Passes 20,000 hrs.
(ASTM B117)

Dry Heat Resistance:
Continuous: 150°F (86°C)

*Contact Wasser High-Tech Coatings for detailed testing of this product

Compatible Coatings

Primer:
MC-Prepbond 2.8
MC-Zinc 2.8
MC-Miozinc 2.8
MC-MioAluminum
MC-Prepbond 200
MC-Zinc 200
MC-Miozinc 200

Intermediates:
MC-Ferrox B 2.8
MC-Miomastic 2.8
MC-CR 2.8
MC-Ferrox B 200
MC-Miomastic 200
MC-CR 200

Topcoats:
MC-Tar 2.8
MC-BallastCoat
MC-Tar 200

Coating Accelerator:
PURQuik® Coating Accelerator

Revision Date 043004

Surface Preparation

Ferrous Metal

Use SSPC-SP1 solvent cleaning to remove contaminants prior to employing surface preparation methods.

Prepare surfaces for non-immersion or atmospheric service projects to SSPC-SP6/NACE No. 3 Commercial Blast Clean finish. For minimum surface preparation use conscientious power tool cleaning methods in accordance with SSPC-SP3 to remove corrosion and loose or failing paint (feather edges of sound, existing paint back to a firm edge).

For immersion or severe service, apply over a Wasser recommended primer. Refer to Primer Product Data for surface preparation information. Not recommended direct to metal in immersion.

Blast cleaning methods should produce a surface profile of 1.0 - 2.0 mils (25-51 microns).

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 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 (Reapproved 1999) and release agents should be removed by ASTM D4259 - 88 (Reapproved 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 3 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 for maximum system performance. Sand glossy surfaces to provide profile.

Good Practices

MC-Tar 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 for maximum system performance.

When using MC-Tar in immersion or severe environments, apply over a recommended Wasser 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-Tar 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:	2400-2800 psi
Hose:	¼" to ⅜"
Tip Size:	.015-.021
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.

Revision Date 043004

MC-Tar

Certifications and Qualifications

Revision Date 043004

VOC Compliant (National Standards – Industrial Maintenance Coating, and Concrete Protective Coating)
Passes 20,000 hrs ASTM B117 in MC-Zinc/MC-Tar/MC-Tar immersion System

Ordering Information

Product Numbers: W31.79 Black
W31.32 Red Oxide

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

W31.79

Flash Point:	80°F (26.6°C)
Weight/gallon:	13.1 ± 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, Xylene, Ethylbenzene, Methyl-n-Amyl Ketone, Modified MDI, Coal Tar Pitch, Toluene
Cancer Hazard: Contains ingredients which can cause cancer. Risk of cancer depends on duration and level of exposure.
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.

W31.79

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

Wasser High-Tech Coatings' liability on any claim of any kind, including claims based upon Wasser High-Tech Coatings' 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 High-Tech Coatings be liable for consequential or incidental damages. Published Product Data Sheets are subject to change without notice. Contact your Wasser Representative for current Product Data Sheets.