

## Selection & Specification Data

<b>Generic Type</b>	Coal Tar Epoxy
<b>Description</b>	Renowned high build coal tar epoxy for protection for steel and concrete in single or two-coat applications in a broad variety of aggressive industrial applications.
<b>Features</b>	<ul style="list-style-type: none"> <li>▪ Excellent chemical, corrosion and abrasion resistance</li> <li>▪ High-build, 16-24 mils (400-610 microns) in a single coat (up to 35 mils with force curing)</li> <li>▪ Compatible with controlled cathodic protection</li> <li>▪ Suitable for use in exposures as referenced in the following specifications*:             <ul style="list-style-type: none"> <li>• <b>Corp of Engineers C-200, C200a</b></li> <li>• <b>AWWA C-210 for exterior</b></li> <li>• <b>SSPC-Paint 16</b></li> <li>• <b>Steel Tank Institute Corrosion Control System STI-P<sub>3</sub></b></li> </ul> </li> </ul>
<b>Color</b>	Black (0900)
<b>Finish</b>	Gloss. Will discolor, chalk and lose gloss in sunlight exposure.
<b>Primers</b>	Self-priming, Carboguard 888, or others as recommended
<b>Topcoats</b>	Not recommended
<b>Dry Film Thickness</b>	Normally 16.0 mils (400 microns) in one or two coats. Total dry film thickness less than 8 mils (200 microns) or in excess of 35 mils (610 microns) is not recommended. Wet-on-wet spray techniques should be used for high thicknesses allowing time for solvents to flash between passes.
<b>Solids Content</b>	By Volume: 74% ± 2%
<b>Theoretical Coverage Rate</b>	1187 mil ft <sup>2</sup> (29.1 m <sup>2</sup> /l at 25 microns) Allow for loss in mixing and application
<b>VOC Values</b>	As supplied: 1.85 lbs/gal (222 g/l) Thinned: 20 oz/gal w/ #10:* 2.6 lbs/gal (309 g/l) 25 oz/gal w/ #10: 2.7 lbs/gal (327 g/l) These are nominal values. *Maximum thinning for 250 g/l restricted areas is 6 oz/gal.
<b>Dry Temp. Resistance</b>	Continuous: 350°F (177°C) Non-Continuous: 370°F (190°C)
<b>Wet Temp. Resistance</b>	Immersion temperature should not exceed 120°F (49°C).
<b>Limitations</b>	Do not use for potable water requirements

May of 2010 August 2009

## Substrates & Surface Preparation

<b>General</b>	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
<b>Steel</b>	<u>Immersion:</u> SSPC-SP10 <u>Non-Immersion:</u> SSPC-SP6 SSPC-SP2 or SP3 as minimum requirement. <u>Surface Profile:</u> 2.0-3.0 mils (50-75 micron)
<b>Concrete</b>	Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing.

## Performance Data

Test Method	System	Results	Report #
ASTM D4060 Abrasion	Blasted Steel 2 cts. 300M	130 mg. loss after 1000 cycles. CS17 wheel, 1000 gm load.	02877
ASTM D4541 Adhesion	Blasted Steel 2 cts. 300M	1443 psi (Pneumatic)	02877
ASTM D2794 Impact	Blasted Steel 2 cts. 300M	Impact site diameter. Inches: 3/8, 3/8, 1/2 100 in/lbs Gardner Impactor at 1/2 in. diam.	02877
ASTM B117 Salt Fog	Blasted Steel 2 cts. 300M	No blistering, rusting or delamination. No measurable undercutting at scribe after 2000 hrs.	02938

Test reports and additional data available upon written request.

\* Disclaimer: Bitumastic 300M is a proprietary formula that is not necessarily formulated to the exact compositional guidelines set forth in some of these standards. Minor deviations that control and improve application characteristics may be present, but does not have a detrimental effect on the suitability for use outlined therein.

# Bitumastic® 300M

## Application Equipment

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

### General Guidelines:

**Spray Application (General)** This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

**Conventional Spray** Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, with 50' maximum material hose .086" I.D. fluid tip and appropriate air cap.

**Airless Spray** Pump Ratio: 30:1  
GPM Output: 3.0 (min.)  
Material Hose: ½" I.D. (min.)  
Tip Size: .023-.035"  
Output PSI: 2100-2500  
Filter Size: 30 mesh  
Teflon packings are recommended and available from the pump manufacturer.

**Brush & Roller (General)** Recommended for touch up, striping of weld seams and hard-to-coat areas only. Avoid excessive re-brushing or re-rolling.

**Brush** Use a medium bristle brush.

**Roller** Use a short-nap synthetic roller cover with phenolic core.

## Mixing & Thinning

**Mixing** Power mix separately, then combine and power mix for a minimum of two minutes. DO NOT MIX PARTIAL KITS.

**Ratio** 4:1 Ratio (A to B)

**Thinning** Up to 20 oz/gal (16%) w/ #10  
Up to 25 oz/gal (20%) w/ #10 for the first coat application to concrete. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

**Pot Life** 75°F (24°C) 2 Hours  
90°F (32°C) 1 Hour  
Pot life ends when coating loses body and begins to sag.

## Cleanup & Safety

**Cleanup** Use #2 Thinner or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

**Safety** Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

**Caution** This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	60-85°F (16-29°C)	60-85°F (16-29°C)	60-85°F (16-29°C)	0-80%
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	125°F (52°C)	110°F (43°C)	90%

Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Touch	Minimum Recoat Time	Maximum Recoat Time	Cure for Immersion
50°F (10°C)	8 Hours	10 Hours	24 Hours	14 Days
75°F (24°C)	4 Hours	6 Hours	24 Hours	3 Days
90°F (32°C)	2 Hours	3 Hours	24 Hours	2 Days

These times are based on a 16.0 mil (400 micron) dry film thickness. Higher film thickness, insufficient ventilation, high humidity or cooler temperatures will require longer cure times. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. If the **maximum recoat time** is exceeded, the surface must be abraded by sweep blasting prior to the application of additional coats. **Holiday Detection** (if required): Wet sponge types may be used if the dry film thickness is below 20 mils (500 microns). High voltage spark testing should be used when the dry film thickness exceeds 20 mils (500 microns). Refer to NACE RP0188-90 for specific procedures.

### Force Curing (recommended for thicknesses above 24 mils)

150°F (65°C)	Hold substrate temperature at 150°F for 8 hours and material will be ready to handle and ready for immersion service.
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## Packaging, Handling & Storage

**Shipping Weight (Approximate)** 1.25 Gallon Kit 12 lbs (6 kg) 5 Gallon Kit 50 lbs (26 kg)

**Flash Point (Setaflash)** 75°F (24°C) for Part A  
>200°F (93°C) for Part B

**Storage (General)** Store Indoors.

**Storage Temperature & Humidity** 40° -110°F (4°-43°C)  
0-100% Relative Humidity

**Shelf Life** Part A: Min. 12 months at 75°F (24°C)  
Part B: Min. 36 months at 75°F (24°C)

**\*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**



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An **RPM** Company

May of 2010 August 2009

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