Bitumastic® 300 M

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Coal-tar epoxy polyamide
Description	Renowned high build coal tar epoxy polyamide for protection of steel and concrete in single or two-coat applications in a broad variety of aggressive industrial applications.
Features	• Excellent chemical, corrosion and abrasion resistance • High-build, 16-24 mils (400-610 microns) in a single coat (up to 35 mils with force curing) • Compatible with controlled cathodic protection • Suitable for use in exposures as referenced in the following specifications: • Corp of Engineers C-200, C200a • AWWA C-210 for exterior • SSPC-Paint 16 • Steel Tank Institute Corrosion Control System STI-P3
Color	Black (0900)
Primer	Self-priming, or use suitable prime as recommended by Carboline.
Dry Film Thickness	16 mils (406 microns) in one or two coats Total dry film thickness less than 8 mils (200microns) or in excess of 35 mils (875 microns) is not recommended. Wet-on-wet spray techniques should be used for high thicknesses allowing time for solvents to flash between passes.
Solids Content	By Volume 74% +/- 2%
Theoretical Coverage Rate	1187 ft²/gal at 1.0 mils (29.1 m²/l at 25 microns) 74 ft²/gal at 16.0 mils (1.8 m²/l at 400 microns) Allow for loss in mixing and application.
VOC Values	Thinner 10 10 oz/gal: 2.2 lbs/gal 269 g/l As Supplied 1.85 lbs/gal 222 g/l These are nominal values. **Thinner 10: 25 oz/gal: 2.7 lbs/gal 327 g/l** *Maximum thinning for 250 g/l restricted areas is 6 oz/gal.
Dry Temp. Resistance	Continuous: 350°F (177°C) Non-Continuous: 370°F (188°C)
Limitations	Do not use for potable water requirements.
Topcoats	Not recommended
Wet Temp. Resistance	Immersion temperature should not exceed 120°F (49°C)

SUBSTRATES & SURFACE PREPARATION

General	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.

SUBSTRATES & SURFACE PREPARATION

Steel	**Immersion:** SSPC-SP10 **Non-Immersion:** SSPC-SP6 SSPC-SP2 or SP3 as minimum requirement. **Surface Profile:** 2.0-3.0 mils (50-75 micron)
Concrete or CMU	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
ASTM B117 Salt Fog	Blasted Steel 2 cts. 300M	No blistering, rusting or delamination. No measurable undercutting at scribe after 2000 hours
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.
ASTM D4060 Abrasion	Blasted Steel 2 cts. 300M	130 mg. loss after 1000 cycles, CS17 wheel, 1000 gm load
ASTM D4541 Adhesion	Blasted Steel 2 cts. 300M	1443 psi (Pneumatic)

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.

MIXING & THINNING

Mixing	Power mix separately, then combine and power mix for a minimum of two minutes. DO NOT MIX PARTIAL KITS.
Thinning	Up to 10 oz/gal (8%) 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.
Ratio	4:1 Ratio (A to B)
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.

APPLICATION EQUIPMENT GUIDELINES

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.

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.

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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.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
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.	Dry to Touch	Final Cure Immersion	Maximum Recoat Time	Minimum Recoat Time
50°F (10°C)	8 Hours	14 Days	24 Hours	10 Hours
75°F (24°C)	4 Hours	7 Days	24 Hours	6 Hours
90°F (32°C)	2 Hours	5 Days	24 Hours	3 Hours

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 the latest version of NACE SP0188 for specific procedures.

FORCE CURING recommended for thicknesses above 24 mils

Hold substrate at 150 F for 8 hours and material will be ready to handle for immersion service.

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.

CLEANUP & SAFETY

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, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 24 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.
Storage Temperature & Humidity	40° -110°F (4°-43°C) 0-100% Relative Humidity
Storage	Store indoors
Shipping Weight (Approximate)	1.25 Gallon Kit - 12 lbs (6 kg) 5 Gallon Kit - 50 lbs (26 kg)
Flash Point (Setaflash)	Part A: 75°F (24°C) Part B: >200°F (93°C)

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.