product data



Bitumastic[®] 50

••••••••••••••••••••••••••••••••••••••	O a al Tar	0	Outrans must be shown as to the	
Generic Type Description	Coal Tar Ultra-high build, single-component coal tar mastic for protecting steel and concrete	General	Surfaces must be clean and dry. En adequate methods to remove dirt, dus and all other contaminants that could inte with adhesion of the coating.	
	substrates subject to aggressive conditions and for below grade damp proofing requirements.	Steel	<u>Immersion:</u> SSPC-SP10 <u>Non-Immersion:</u> SSPC-SP6 for maxin protection. SSPC-SP2 or SP3 as mini	
Features	 Application up to 30 dry mils (750 microns) in a single coat Self priming, single-coat capabilities 		requirement. <u>Surface Profile:</u> 2.0-3.0 mils (50-75 mic	
	 Excellent corrosion resistance Complies with MIL-C-18480-B and Bureau of Reclamation CA50 specifications 	Galvanized Steel	<u>Non-Immersion:</u> Sweep blast to roug surface and produce a 1.0-2.0 (25-50 mic profile.	
Color	Black (0900)	Concrete	Concrete must be cured 28 days at 75° F (24 and 50% relative humidity or equivalent.	
Finish	Low Gloss		Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and AS	
Primers	Self-priming		D4259 Abrading Concrete. Voids in concrete may require surfacing.	
Topcoats	Not recommended			
Dry Film Thickness	18.0 mils (450 microns) in one or two coats. Total dry film thickness less than 12 mils (300 microns) or in excess of 30 mils (750 microns) not recommended.			
Solids Content	By Volume: $68\% \pm 2\%$			
Theoretical Coverage Rate	1090 mil ft ² (26.7 m ² /l at 25 microns) Allow for loss in mixing and application			
VOC Values	As supplied: 3.0 lbs./gal (360 g/l) Thinned: 12 oz/gal w/ #10 3.5 lbs./gal (417 g/l)			
Dry Temp. Resistance	These are nominal values. Continuous: 350°F (177°C) Non-Continuous: 400°F (204°C)			
Wet Temp. Resistance	Immersion temperature should not exceed 120°F (49°C).			
Limitations	Do not use for potable water requirements			

October 2004 replaces April 2003

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. Carboline® and Bitumastic® are registered trademarks of Carboline Company.

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:30:1GPM Output:3.0 (min.)Material Hose:3/8" I.D. (min.)Tip Size:.023035"Output PSI:2300-2500Filter Size:30 meshTeflon packings are recommended and availablefrom the pump manufacturer.		
Brush & Roller (General)	Recommended for touch up and striping of weld seams and hard-to-coat areas. 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

Power mix until uniform in consistency. Mixing

May be thinned up to 12 oz/gal (10%) with Thinner Thinning #10 if needed. When used directly to concrete, thinning is required on the first coat to provide adequate "soak-in". Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Cleanup & Safety

Cleanup	Use Thinner #2 or Xylene. 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. Ventilation Warning: Vapors may cause explosion. When used
- in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved respirator.
- This product contains flammable solvents. Keep Caution 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	60°-85°F	60°-90°F	0-80%
	(16°-29°C)	(16°-29°C)	(16°-32°C)	0-00%
Minimum	50°F	50°F	50°F	0%
	(10°C)	(10°C)	(10°C)	0%
Maximum	90°F	125°F	110°F	0.00/
	(32°C)	(52°C)	(43°C)	90%

Industry standards are for substrate temperatures to be above the dew point. This product simply requires the substrate temperature to be above the dew point. 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.

Curina Schedule

Surface Temp. & 50% Relative Humidity	Dry to Touch	Minimum Recoat Time	Cure for Immersion
50°F (10°C)	24 Hours	36 Hours	30 Days
75°F (24°C)	12 Hours	24 Hours	14 Days
90°F (32°C)	8 Hours	16 Hours	7 Days

Backfilling/Burial: May be started 7 days after the final coat is applied, providing the surface temperature has remained above 60°F (16°C). These times are based on an 18.0 mil (450 micron) dry film thickness. Higher film thicknesses, insufficient ventilation, high humidity or cooler temperatures will require longer cure times. 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.

Packaging, Handling & Storage

Shipping Weight	<u>1 Gallon</u>	<u>5 (</u>
(Approximate)	13 lbs. (6 kg)	65
Flash Point (Setaflash)	80°F (26°C)	
Storage (General)	Store Indoors.	
Storage Temperature	40°110°F (4°-43°C)	
& Humidity	0-100% Relative Hum	

Shelf Life

Min. 24 months at 75°F (24°C)

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



5 Gallons

65 lbs (30 kg)

350 Hanley Industrial Court, St. Louis, MO 63144-1599 314/644-1000 314/644-4617 (fax) www.carboline.com



October 2004 replaces April 2003 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. Carboline® and Bitumastic® are registered trademarks of Carboline Company.