Carbomastic® 242

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Urethane Modified Epoxy
Description	Aluminum-pigmented, low temperature curing mastic designed for cold weather applications down to 0 °F (-18 °C). This unique coating provides excellent corrosion resistance over existing finishes and rusted or SSPC-SP2 or SP3- cleaned steel.
Features	• Single coat application characteristics • Suitable as a topcoat for most tightly adhered existing coatings • Dry to handle in 24 hours at 20 °F (-7 °C) • Extended pot life at low temperatures • VOC compliant to current AIM regulations • Moisture curing capabilities in conjunction with cross-linking Epoxy
Color	Aluminum (C901)
Finish	Flat
Primer	Self-priming. May be applied over most tightly adhering coatings as well as inorganic zinc primers. A mist coat may be required to minimize bubbling over inorganic zinc primers.
Dry Film Thickness	3 mils (76 microns) per coat over inorganic zinc primers 5 mils (127 microns) per coat over unprimed steel and existing coatings 10 mils (254 microns) applied in two coats for immersion service Do not exceed 8.0 mils (200 microns) in a single coat.
Solids Content	By Volume 62% +/- 2%
HAPs Values	As supplied: 1.80 lbs/solid gal (216 g/solid l)
Theoretical Coverage Rate	994 ft²/gal at 1.0 mils (24.4 m²/l at 25 microns) 331 ft²/gal at 3.0 mils (8.1 m²/l at 75 microns) 99 ft²/gal at 10.0 mils (2.4 m²/l at 250 microns) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 2.73 lbs/gal (327 g/l) Thinner 76 : 25 oz/gal: 3.39 lbs/gal (406 g/l) Thinner 76 : 6 oz/gal: 2.92 lbs/gal (350 g/l) These are nominal values.
Dry Temp. Resistance	Continuous: 180°F (82°C) Non-Continuous: 250°F (121°C) Discoloration is observed above 180 °F (82 °C)
Limitations	• Not recommended for hot weather applications above 80 °F (27 °C). • Do not use over rusted steel in severe environments
Topcoats	May be coated with Acrylics, Epoxies, Alkyds, or Polyurethanes depending on exposure and need.

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.
Steel	Immersion: SSPC-SP10 with a 2.0-3.0 mil (50- 75 micron) surface profile. Non-Immersion: SSPC-SP6 with a 2.0-3.0 mil (50-75 micron) surface profile for maximum protection. SSPC-SP2, SP3, SP7, or SP12 are also acceptable methods. When using under fireproofing products, defer to the primer surface preparation requirements in the product data sheet of the fireproofing product.
Galvanized Steel	SSPC-SP1 (Aged) SSPC-SP16 (New) When using under fireproofing products, defer to the primer surface preparation requirements in the product data sheet of the fireproofing product.
Previously Painted Surfaces	Lightly sand or abrade to roughen and de-gloss the surface. Existing paint must attain a minimum 3A rating in accordance with ASTM D3359 “X-Scribe” adhesion test.

PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	System	Results
ASTM B 117 Salt Spray	2 cts over blasted steel	No blistering or rusting No loss of adhesion Rust in scribe Less than 3/16 inch undercutting at scribe
ASTM D 3363 Pencil Hardness	1 ct. applied at 6 mils DFT	>8H
ASTM D 4060 Abrasion	1000 cycles 1000 gm. Load CS-17 wheel 2 coats	169 mg loss
ASTM D 4541 Adhesion (Elcometer)	A) Blasted Steel B) Rusted Steel	A) 710 psi B) 658 psi
ASTM D 4541 Adhesion (Pneumatic)	A) Blasted Steel B) Rusted Steel	A) 1511 psi B) 1213 psi
ASTM D 522 Elongation	Conical Mandrel - One coat cured at: A) 73 °F (23 °C) B) 40 °F (4 °C)	Distance from end of Mandrel to end of first crack: A) ½ inch avg. Actual elongation: 40% avg. B) ¼ inch avg. Actual elongation: 74% avg.

Additional data available upon written request

MIXING & THINNING

Mixing	Power mix separately, then add Part B to Part A and power mix. DO NOT MIX PARTIAL KITS.
Thinning	May be thinned up to 25 oz/gal (20%) with Thinner 76 for spray, brush or roller applications. For warmer temperatures, may be thinned up to 26 oz/gal (20%) with Thinner 72. Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

MIXING & THINNING

Ratio	4:1 Ratio (A to B)
Pot Life	6 Hours at 35 °F (2 °C) 3 Hours at 75 °F (24 °C) This material is moisture sensitive. Moisture contamination will shorten pot life and cause gelation. Pot life ends when coating become too viscous to use.

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 slight 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, 0.086” I.D. fluid tip and appropriate air cap.
Airless Spray	Pump Ratio: 30:1 (min.)* GPM Output: 3.0 (min.) Material Hose: 3/8” I.D. (min.) Tip Size: 0.017-0.021” Output PSI: 1900-2100 Filter Size: 60 mesh *PTFE packings are recommended and available from the pump manufacturer.
Brush & Roller (General)	Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or rerolling.
Brush	Use a medium bristle brush.
Roller	Use a short-nap roller cover with a solvent resistant core.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	35°F (2°C)	0°F (-18°C)	0°F (-18°C)	0%
Maximum	75°F (24°C)	80°F (27°C)	80°F (27°C)	80%

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.
Note: In warm conditions, it is important to control film thickness, especially in overlap areas as excessive thickness may cause solvent entrapment.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat & Topcoat w/ other finishes
0°F (-18°C)	36 Hours	36 Hours
20°F (-7°C)	24 Hours	24 Hours
50°F (10°C)	12 Hours	12 Hours
75°F (24°C)	4 Hours	4 Hours

These times are based on a 5.0 mil (125 micron) dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. **Maximum recoat/ topcoat times are 30 days for epoxies and 90 days for polyurethanes at 75 °F (24 °C).Recoat intervals may vary from those listed above when using under intumescent fireproofing products. Consult Carboline Technical Service for recommended cure times before applying Carboline intumescent products.**
Excessive humidity or condensation on the surface during curing can interfere with the cure. If the maximum recoat time is exceeded, the surface must be abraded prior to the application of additional coats. **Note:** This product contains conductive pigments and cannot be holiday tested.

The curing schedule below references curing times for immersion service.

Surface Temp.	Final Cure Immersion
75°F (24°C)	5 Days

CLEANUP & SAFETY

Cleanup	Use Thinner 2 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 SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.
Ventilation	When used as a tank lining or 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. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A & B: 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.
Storage Temperature & Humidity	35-110 °F (2-43 °C) 0-90% Relative Humidity
Storage	Store Indoors.
Shipping Weight (Approximate)	1.25 Gallon Kit - 13 lbs (6 kg) 5 Gallon Kit - 53 lbs (24 kg)
Flash Point (Setaflash)	Part A: 60 °F (16 °C) Part B: >212 °F (100 °C)

WARRANTY

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