

SELECTION & SPECIFICATION DATA

Generic Type	Urethane Modified Epoxy	
Description	Aluminum-pigmented, low temperature curing mastic designed for cold weather applications down to 0°F. 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 Extended pot life at low temperatures VOC compliant to current AIM regulations 	
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	76 microns (3 mils) per coat over inorganic zinc primers 127 microns (5 mils) per coat over unprimed steel and existing coatings 254 microns (10 mils) 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%	
Theoretical Coverage Rate	24.4 m²/l at 25 microns (994 ft²/gal at 1.0 mils) 8.1 m²/l at 75 microns (331 ft²/gal at 3.0 mils) 2.4 m²/l at 250 microns (99 ft²/gal at 10.0 mils) Allow for loss in mixing and application.	
VOC Values	As Supplied : 2.73 lbs/gal (327 g/l) 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: 82°C (180°F) Non-Continuous: 121°C (250°F)	
	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.



PRODUCT DATA SHEET

SUBSTRATES & SURFACE PREPARATION

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.
Galvanized Steel	SSPC-SP1 (Aged) SSPC-SP7 (New)
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; Less than 3/16 inch undercutting at scribe
ASTM D 3363 Pencil Hardness	1 ct. applied at 6 mils DFT	8H to 9H
ASTM D 4060 Abrasion, 1000 cycles, 1000 gm. Load, CS-17 wheel	2 coats	169 mg loss
ASTM D 4541 Adhesion Pneumatic	A) Blasted Steel B) Rusted Steel	A) 1400 psi B) 1100 psi
ASTM D 4541 Adhesion Elcometer	A) Blasted Steel B) Rusted Steel	A) 700 psi B) 650 psi
ASTM D 522 Flexbility, Conical Mandrel	One coat cured at A) 73°F B) 40°F	Distance from end of Mandrel to end of first crack A) ¹ / ₂ inch avg. B) ¹ / ₄ inch

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.
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, .086" I.D. fluid tip and appropriate air cap.



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	Pump Ratio: 30:1 (min.)*
	GPM Output: 3.0 (min.)
	Material Hose: 3/8" I.D. (min.)
Airless Spray	Tip Size: .017021"
	Output PSI: 1900-2100
	Filter Size: 60 mesh
	*Teflon 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 mohair roller cover with phenolic core.

APPLICATION CONDITIONS

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

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat & Topcoat w/ other finishes	Final Cure Immersion
-18°C (-0°F)	36 Hours	36 Hours	NR
-7°C (20°F)	24 Hours	24 Hours	NR
10°C (50°F)	12 Hours	12 Hours	NR
24°C (75°F)	4 Hours	4 Hours	5 Days

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).** Excessive humidity or condensation on the surface during curing can interfere with the cure. If the maximum recoat time is exceeded, the surface <u>must</u> be abraded by sweep blasting prior to the application of additional coats. **Note:** This product contains conductive pigments and cannot be holiday tested.

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 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.

PRODUCT DATA SHEET

CLEANUP & SAFETY



Ventilation
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.
Shipping Weight (Approximate)	20 litre kit - 32kg
Storage Temperature & Humidity	35° to 110°F (2°to 43°C) 0-90% Relative Humidity
Flash Point (Setaflash)	Part A: 60°F (16°C) Part B: >212°F (100°C)
Storage	Store Indoors.

WARRANTY

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