

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type | A high solids, epoxy novolac lining

Description

A 1:1, high solids, epoxy novolac lining designed to provide good chemical and heat resistance, particularly good to excellent resistance to hydrogen sulfide in water. The lining is recommended as an interior liner for intermediate service such as crude oil, unleaded gasoline, most aromatic solvents, motor fuels, alkalis and brine.

- · Single coat direct to metal high solids epoxy
- · Ultra low VOCs and Ultra low HAPS

Features

- · Excellent adhesion to steel and galvanized steel
- · Good chemical and heat resistance to a wide range of chemicals
- · Good corrosion resistance

Color | Gray, Beige

Dry Film Thickness

6 - 12 mils (152 - 305 microns) per coat

18 mils max

Solids Content

By Volume 82% +/- 2%

These are nominal values and may vary slightly with color.

Theoretical Coverage Rate

1315 ft²/gal at 1.0 mils (32.3 m²/l at 25 microns) 219 ft²/gal at 6.0 mils (5.4 m²/l at 150 microns) 110 ft²/gal at 12.0 mils (2.7 m²/l at 300 microns) Allow for loss in mixing and application.

VOC Values

As Supplied: Per EPA Method: 0.1-0.12 lbs/gal (12-14 g/l)

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Varies with color and gloss requirements.

Continuous: 350°F (177°C)

Dry Temp. Resistance

Pass; color darken (NACE SP0302-2007, Par. 7.3.1)

SUBSTRATES & SURFACE PREPARATION

General | Designed to be applied in one coat as a liner or protective direct to metal DTM coating.

Severe service applications – blasted to SSPC-SP-10 to a 2.0-4.0 mil angular profile

Lesser service applications – blasted to SSPC-SP-6

Surface to be free of all looser rust, dirt, grease and other contaminants

Aluminum | Remove all surface contaminants and treat with Strathmore's Wash Primer or equivalent.

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PERFORMANCE DATA

Test Method	Results	
Abrasion Resistance (ASTM D4060)	Taber -1,000 cycles, 1Kg, CS#17 Wheel – 70 mg loss	
Adhesion (ASTM D3359)	5A (no peeling or removal)	
Chemical Resistance (ASTM D6493)	No effect for 1 year immersion in various chemicals	
Flexibility (ASTM D522)	Passes 1" bend, 18% elongation	
Hardness (ASTM D3363)	Humidity Resistance (ASTM D4585) >2500 hrs	
Humidity Resistance (ASTM D4585)		
Impact Resistance (ASTM D2794)		
Salt Spray (ASTM B117) 2500 hrs; 1/8" creepage and no blisteri		

Thermal Shock Resistance: Conforms to NACE SP0302-2007, Par. 7.3.1. Pass; in crude oil (-40°F to 325°F (-40°C to 163°C)

MIXING & THINNING

Mixing

- · Agitate thoroughly each component before combining
- · Mix (combine) 1:1 by volume Part A and Part B
- Agitate thoroughly again after combining
- If necessary reduce up to 10% after combing components

Thinning

0-10% by volume maximum

Consult Carboline for recommendations

Ratio | 1:1

Pot Life

2 hours @75°F (24°C)

Caution - Pot Life is significantly reduced with heat

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.

45:1 or greater airless spray equipment

Tip Size: 0.017-0.029

Airless Spray

Pump Pressure: 3000-4000 psi (20.7-27.6 MPa)

To minimize or eliminate thinner use in-line heated equipment with insulated hoses to reach application viscosity. Do not exceed 165°F (74°C).

APPLICATION CONDITIONS

Condition

Surface temperature must be a minimum of 5°F (3°C) above the dew point before application.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Touch	Dry to Recoat
75°F (24°C)	7 Hours	4 Hours	72 Hours

A second coat is not required for performance but can be applied up to 72 hours after a force cure or air dry @75°F (24°C).



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CURING SCHEDULE

In Service Times:

Curing Details

50°F (10°C) - 7 days 75°F (24°C) - 4 days

90°F (32°C) - 24 hours

If the shop requires the lining to be forced cured, 1 hour ramp up to 180-200°F (82-93°C) and hold for 1 hour (2 hours total). Temperature should not exceed 220°F (104°C).

Force Cure

Before force curing, coating must be air dried for at least 30-40 minutes at 80-90°F (27-32°C) with proper ventilation after which the temperature of the substrate shall be raised approximately 1-2°F per minute until the force curing temperature is reached. The initial 1 hour of the force dry cycle is the ramp up from 80-90°F (27-32°C) ambient temperature to 180-200°F (82-93°C).

Consult Carboline for details.

CLEANUP & SAFETY

Cleanup

MEK may be used for clean up. Batch mixed material will set up in the lines and equipment if left overnight. With plural component equipment, be sure to flush from the mixing head through the delivery hose and guns.

Safety

Handle with care. Before and during use, observe all safety labels on packaging and paint containers and follow all caution statements on this product data sheet.

Consult Safety Data Sheet (SDS) for this product and follow all local or national safety regulations. Employ normal workmanlike safety precautions.

Ventilation

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 ensure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved respirator.

PACKAGING, HANDLING & STORAGE

Packaging | 55 gal drums or 5 gal pails

Generally one year from date of manufacturing when kept at recommended storage conditions at 70°F (21°C) and in original unopened containers.

Do not use material beyond shelf life.

Storage Temperature & Do not store at temperatures above 100°F (38°C)

Humidity

Storage Containers must be closed tightly. Do not store outside. Rotate stock.

Flash Point (Setaflash) | Part A: 12°F (-11°C) Part B: 109°F (43°C)

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WARRANTY

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