



SELECTION & SPECIFICATION DATA

Generic Type	Novolac Lining
Description	The ultra-high abrasion resistance version of SP-9888 [®] . The “State of the Art” novolac chemistry coupled with advanced ceramic materials provides superior abrasion resistance and excellent chemical, solvent and water immersion resistance.
Features	<ul style="list-style-type: none">• Super abrasion resistance• Excellent resistance to high temperature cathodic disbonding up to 150°C (302°F)• Good flexibility and impact resistance• Service temperature up to 150°C (302°F)• High build in a single coat• Excellent chemical resistance
Typical Uses	Ideal for use as an internal liner for storage tanks and slurry pipelines requiring exceptional abrasion resistance. It can also be used as an exterior coating in Horizontal Directional Drilling (HDD) applications.
Color	Grey (0700)
Dry Film Thickness	20 - 35 mils (508 - 889 microns) DFT Depends upon application. Consult with your SPC Representative.
Solids Content	By Volume 100% +/- 0%
Theoretical Coverage Rate	1604 ft ² /gal at 1.0 mils (39.4 m ² /l at 25 microns) 80 ft ² /gal at 20.0 mils (2.0 m ² /l at 500 microns) 46 ft ² /gal at 35.0 mils (1.1 m ² /l at 875 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 5 g/l
Dry Temp. Resistance	Continuous: 302°F (150°C)
Specific Gravity	Base: 1.53 ± 0.03 Hardener: 1.05 ± 0.03 Mixed Material: 1.41 ± 0.03

SUBSTRATES & SURFACE PREPARATION

Steel	Cleanliness: NACE No.2/SSPC SP-10, SA 2.5 (ISO 8501-1) Profile: 62.5 microns (2.5 mils) – 125 microns (5.0 mils) The Substrate Temperature must be a minimum of 3°C (5°F) above the dew point temperature before proceeding with the blasting operation.
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SP-9888[®] HARC

PRODUCT DATA SHEET



PERFORMANCE DATA

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

Test Method	Results
Adhesion to FBE (Hot Water Soak) (CSA Z245.20)	28 days @ 95°C (203°F): Rating #1
Adhesion to Steel (Hot Water Soak) (CSA-Z245.20)	28 days @ 95°C (203°F): Rating #1
Adhesion to Steel (Pull Off Strength) (ASTM D4541)	27 MPa (>4000 psi) @ 25°C (77°F)
Cathodic Disbondment Resistance (CSA Z 245.20, Clause 12.8)	28 days @ 95°C (203°F): 3.8 mmR 28 days @ 150°C (203°F): 6.7 mmR
Flexibility (CSA Z245.20, Clause 12.11)	1.0°PPD @ 25°C (77°F) 1.5°PPD @ 25°C (77°F)
Impact Resistance (CSA Z245.20, Clause 12.12)	>5.0 Joules (3.89 lb-ft) 5.0 Joules (3.69 ft-lbf) @ 25°C (77°F) 3.0 Joules (2.21 ft-lb) @ -30°C (-22°F)
Shore D Hardness	25°C (77°F): 85 ± 3
Taber Abrasion Resistance (ASTM D4060)	13 mg removal, C-17 wheel, 1 kg load, 1000 cycles

Chemical Resistance | No change in various chemical solutions (ASTM G20, 90 days immersion, RT)

MIXING & THINNING

Mixing	Spray Grade: Agitation of the Part A component is recommended during the preheating process and during application to ensure a uniform heat throughout the base portion. Component Details for Color: Grey (0700): The Base is Grey (0700) and the Hardener is Amber (0908)
Thinning	Do Not Thin.
Ratio	3:1 Base to Hardener, by Volume
Pot Life	Brush Grade: 40 minutes 200 gms mass @ 25°C (77°F)

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.

Brush Grade	Brush or Roller
Spray Grade	Plural Component Spray Equipment: Graco XP-70 or equivalent Tip Size:: 0.019-0.031 0.031 Heated hose bundle consisting of 3/8" ID base and 1/4" ID hardener with a solvent flush line. Glycol heat trace or equivalent capable of 80°C (176°F)



APPLICATION CONDITIONS

Condition	Surface	Ambient
Minimum	50°F (10°C)	-40°F (-40°C)
Maximum	122°F (50°C)	122°F (50°C)

The recommended substrate (metal surface) temperature range for the application is 15°C (59°F) to 50°C (122°F) with a minimum of 10°C (50°F).

Preheating of the substrate is required if the surface to be coated is below 10°C (50°F). The substrate temperature must be a minimum of 3°C (5°F) above the dew point temperature before proceeding with the coating operation.

Recommended Spray Preheat Temperature in Drum/Pail:

Base: 75°C (167°F) to 90°C (194°F)

Hardener: 15°C (59°F) to 30°C (86°F) (Ambient-typically not heated)

Preheating of the base material is required to balance the viscosity of base and hardener. In cases of extreme weather conditions the recommended temperatures may change, please consult your SPC representative.

CURING SCHEDULE

Surface Temp.	Dry Hard
50°F (10°C)	15.5 Hours
68°F (20°C)	7 Hours
86°F (30°C)	3.5 Hours
104°F (40°C)	1.75 Hours
122°F (50°C)	35 Minutes
140°F (60°C)	14.5 Minutes
158°F (70°C)	8.5 Minutes
176°F (80°C)	5 Minutes
194°F (90°C)	3.5 Minutes

Dry Film Thickness: 0.63mm (25 mils) as per ASTM D1640.

Substrate: 12mm (0.5 in.) Thick Steel Panels

Note: This information is to serve as a guide only. The test results were compiled under laboratory-controlled conditions. Field results may vary due to variable conditions such as radiant heat loss and the cooling effects of wind.

Recoat Interval	<u>Base:</u> Max 3 hours @ 80°C (176°F) @ 50% RH <u>Hardener:</u> Max 3 hours @ 20°C (68°F) @ 50% RH
	The recommended recoat intervals are general guidelines only. The recoat intervals may vary significantly due to variable conditions including but not limited to, humidity, surface temperature, and the product application temperature. Contact your SPC representative for assistance in determining minimum and maximum recoat intervals specific to your application.
Return to Service	<u>Base:</u> 24 hours @ 80°C (176°F) <u>Hardener:</u> 24 hours @ 20°C (68°F)
	<u>Base:</u> 2 hours @ 80°C (176°F) <u>Hardener:</u> 2 hours @ 20°C (68°F)
Touch Dry	0.75mm (30mils) coating thickness @ substrate temperature 25°C (77°F)

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PRODUCT DATA SHEET



CLEANUP & SAFETY

Cleanup | Carboline Thinner 2 or SP-100 Equipment Wash

Safety | Refer to SPC's Safety Data Sheet prior to use. Carefully read and follow all safety instructions on labels and packing. Handle and store material with care in accordance to the Safety Data Sheet. Follow and observe any applicable local or national laws and regulations.

PACKAGING, HANDLING & STORAGE

Shelf Life | Maximum of 24 months from the date of manufacture
Keep at recommended storage conditions and in original unopened containers.

Storage | Store in a cool, dry, well-ventilated area at temperatures between 5°C (41° F) and 50°C (122°F). Keep in a tightly sealed container when not in use. DO NOT FREEZE.

Packaging - Brush Grade | **1 Liter (0.26 Gallon) Kit**
Part A: 0.75 liters (0.2 gallons)
Part B: 0.25 liters (0.06 gallons)

Packaging - Spray Grade | **80 Liter (21.1 Gallon) Kit**
Part A: 60 liters (15.9 gallons)
Part B: 20 liters (5.3 gallons)
800 Liter (211.3 Gallon) Kit
Part A: 600 liters (158.5 gallons)
Part B: 200 liters (52.8 gallons)

WARRANTY

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