SP-8888®

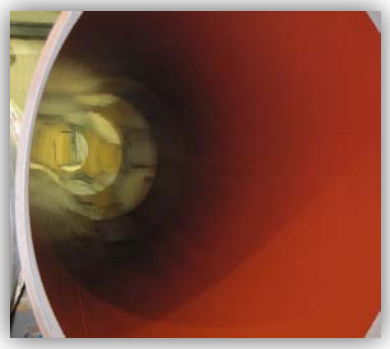
Product Data Sheet

The World Leader in Specialty Coatings

High Temperature Novolac Pipeline Coating

SP-8888® is a "State of the Art" two-component coating which has been specifically formulated for high temperature pipelines based on the latest zero VOC novolac technology. SP-8888® cures to a highly cross-linked coating with an excellent resistance to high temperature cathodic disbonding up to 150˚C (302˚F). This environmentally friendly, 100% solids, no VOCs & Isocyante free two component coating system is available in Brush Grade, Spray Grade and Repair Cartridges.

Applications: SP-8888® can be used as a coating and /or lining for pipes, valves and fittings, girth welds for buried or immersed services, slip bore and directional drilling applications.



Features & Benefits

- Excellent resistance to high temperature cathodic disbonding up to 150˚C (302˚F)
- Excellent adhesion to grit blasted steel surfaces, Fusion Bond Epoxy (FBE), Fiber Reinforced Plastic (FRP), Polyolefin (PP/PE) and HPCC
- Service Temperature up to 150˚C (302˚F)
- Excellent impact resistance; good flexibility
- High build single coat application > 50 mils
- 100% solids, zero VOCs, Isocyanate free, environmentally friendly & safe
- Easily applied by spray, brush, roller or cartridge

SP-8888® meets or exceeds FBE coating performance requirements, as specified in Canadian (CSA Z245.20, CSA Z245.30), USA (NACE PR0394) and British20, (CW6) Standards.

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Zero VOC Novolac Pipeline Coating

Technical Data

Solid Content:	100%		
Colour:	Base: Red	Hardener: Amber	Mixed Material: Red
Theoretical Coverage:	1.0m^2/Litre/mm (1604 ft^2/US Gallon/mil)		
Recommended Thickness:			
Standard Corrosion Protection:	0.75 mm to 1.25 mm (30.0 mils to 50.0 mils)		
Directional Drill & Mechanical Protection:	1.0 mm to 1.78 mm (40.0 mils to 70.0 mils)		
Depends on application:	Consult with SPC Representative		
Specific Gravity:	Base: 1.47 ± 0.03	Hardener: 1.05 ± 0.03	Mixed Material: 1.37 ± 0.03
Mixing Ratio by Volume:			
Spray & Brush Grade:	3 parts Base to 1 part Hardener		
Cartridge Grade:	2 parts Base to 1 part Hardener		

Typical Performance Properties

Service Temperature	Up to 150˚C (302˚F)
Adhesion to Steel (Pull-off Strength)	>28 MPa (>4000 psi) (ASTM D4541 Type IV)
Wet Adhesion to Steel (Hot water soak resistance)	28 days @ 95˚C (203˚F): Rating#1 (CSA-Z245.20, Clause 12.14) 120 Days @ 75˚C (167˚F): Rating#1 (CSA-Z245.20, Clause 12.14)
Wet Adhesion to Fusion Bond Epoxy (Hot Water Soak)	28 days @ 95˚C (203˚F): Rating#1 (CSA-Z245.20, Clause 12.14)
Cathodic Disbondment Resistance	28 days @ 20˚C (68˚F): 2.0 mmR 28 days @ 150˚C (176˚F): 7.67 mmR (CSA-Z245.20, Clause 12.8, System 1A, modified)
Impact Resistance	@ 25°C (77°F): 5.0 J (3.68 ft-lbf) (CSA-Z245.20, Clause 12.12) @ -30°C (-22°F): 3.0 J (2.2 ft-lbf) (CSA-Z245.20, Clause 12.12)
Flexibility	@-30˚C (-22˚F): 0.75˚PPD (CSA Z245.20, Clause 12.11)
Chemical Resistance	No change in various chemical solutions (ASTM G20, 90 day immersion, R.T.)
Hardness	25°C (77°F): 85 Shore D (ASTM D2240)

Surface Preparation

Steel Substrate:	Cleanliness:	Near-White
	Standards:	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		
FBE:	Profile:	62.5 microns (2.5 mils) minimum

Coating Application

Application Equipment	Spray Grade:	Graco Hydra-Cat or alternative: Tip Size: .019-.031; Heated hose bundle consisting of 3/8" ID base and ¼" ID hardener line with ¼" solvent flush line. Glycol heat trace (Insulated whip hoses not recommended) or equivalent capable of 80˚C (176˚F)
	Brush Grade:	Brush or Roller
	Cartridge:	Manual Dispenser
Mixing & Thinning:	Pre-mixing not recommended for spray grade. Do not thin.	
Application Conditions	Ambient Temperature:	-40˚C to 50˚C (-40˚F to 122˚F)
	Substrate Temperature:	10˚C (50˚F) to 100˚C (212˚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.
	Material Temperature:	Recommended Spray Preheat Temperature in Drum/Pail: Base: 70˚C (158˚F) to 80˚C (176˚F) Hardener: 20˚C (68˚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.

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Pot Life and Cure Times

Brush Grade Pot Life: 200 gms mass @ 25˚C (77˚)	30 minutes	
Spray Grade Gel Time: 200 gms mass @ Base: 70˚C (158˚F), Hardener: 25˚C (77˚F)	2.25 minutes	
Recoat Interval:	Brush Grade	Spray Grade
25˚C (77˚F) @ 50% RH	Max 3 hours	Max 3 hours
80˚C (176˚F)	Max 10 minutes	Max 5 minutes

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 product application temperature. Contact your SPC representative for assistance in determining minimum and maximum recoat intervals specific to your application.

Backfilling Time: Shore D Hardness ≥80

Dry Time: (ASTM D 1640): 0.60 mm (25ml) Coating Thickness @ 25˚C (77˚F)

	Touch Dry:	Hard Dry:
Brush Grade:	75 minutes	4.5 hours
Spray Grade:	1 hour	4 hours

Storage and Shelf Life

Store in a cool, dry, well-ventilated area at temperatures between 5°C (41°F) and 40°C (104°F). Keep the lids sealed when not in use. The Shelf Life is a maximum of 24 months from the date of manufacture if the materials are in unopened containers. DO NOT FREEZE.

SP-8888® Curing Table

SUBSTRATE TEMPERATURE	DRY HARD CURING TIME 0.50 mm (20 mils) DFT as per ASTM D-1640	
	Brush Grade	**Spray Grade**
90˚C (194˚F)	5 minutes	4.5 minutes
80˚C (176˚F)	13 minutes	7 minutes
70˚C (158˚F)	30 minutes	15 minutes
60˚C (140˚F)	60 minutes	42 minutes
50˚C (122˚F)	2 hours	1.5 hours
40˚C (104˚F)	2.45 hours	2.5 hours
30˚C (86˚F)	3.5 hours	3 hours
20˚C (68˚F)	5 hours	4.5 hours
10˚C (50˚F)	14 hours	13 hours

Material Temperature SP-8888® Spray Grade - Base: 70˚C (158˚F), Hardener: 25˚C (77˚F), SP-8888® Brush Grade – Base & Hardener: 25˚C (77˚F)

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.

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

Effective Date: March 13, 2017.