

The World Leader in Specialty Coatings

Modified Novolac Epoxy Coating

SP-3888® is a range of surface coatings based on “State of the Art” epoxy chemistry. SP-3888® has excellent high temperature operating capability and excellent chemical resistance up to 95°C (203°F). SP-3888® is available in Brush Grade, Spray Grade and Repair Cartridges.



Applications: SP-3888® can be used for compressor / pump station discharge piping, recycle lines, valves, fittings, girth weld coatings, slip bore and directional drilling, rehabilitation of existing pipelines, and suitable for certain tank lining applications.



Features & Benefits

- Excellent resistance to cathodic disbonding up to 95°C (203°F)
- Excellent adhesion to grit blasted steel surfaces, Fusion Bond Epoxy (FBE), Fiber Reinforced Pastic (FRP), Polyolefin (PP/PE)
- Excellent abrasion, chemical, water absorption and impact resistance
- Good flexibility
- High build single coat application > 50 mils
- 100% solids, zero VOCs, Isocyanate free, environmentally friendly & safe

SP-3888® meets or exceeds FBE coating performance requirements, as specified in and Canadian (CSA Z245.20, CSA Z245.30), USA (NACE RP0394), and British (CW6) Standards.

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Technical Data

Solid Content:	100%		
Colour:	Base: Grey	Hardener: Amber	Mixed Material: Grey
Theoretical Coverage:	1.0 m ² /Litre/mm (1604 ft ² /US Gallon/mil)		
Recommended Thickness:			
Standard Corrosion Protection:	0.50mm to 1.25 mm (20 mils to 50 mils)		
Directional Drill & Mechanical Protection:	1.0mm to 1.78mm (40 mils to 70 mils)		
Tank Lining:	0.75mm to 1.50mm (30 mils to 60 mils)		
	1.25mm to 1.75mm (50 mils to 70 mils) – Tank Bottom		
	1.8m to 2.4m (6 to 8 ft) – Up Tank Wall		
	Depends upon application; consult with your SPC Representative		
Specific Gravity:	Base: 1.60±0.03	Hardener: 1.05±0.03	Mixed Material: 1.46±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 95°C (203°F)
Dry Adhesion to Steel (Pull off Strength)	25°C (77°F): 20 MPa (>3000 psi) (ASTM D4541 Type IV)
Wet Adhesion to Steel (hot water soak resistance)	120 days @ 75°C (167°F): Rating #1 (CSA-Z245.20) 28 days @ 75°C (167°F): Rating #1 (CSA-Z245.20)
Adhesion to FBE	28 days @ 95°C (203°F): Rating #1 (CSA-Z245.20)
Cathodic Disbondment resistance	28 days @ 20°C (68°F): 2.2 mmR (CSA Z245.20, Clause 12.8) 28 days @ 95°C (203°F): 7.45 mmR (CSA Z245.20, Clause 12.8)
Impact Resistance	@ -30°C (-22°F): 1.5 Joules (1.11 ft-lbf) (CSA-Z245.20, Clause 12.12) @ -30°C (-22°F): >60 mils for HDD Applications (2.21 ft-lbf) 3.0 Joules (CSA-Z245.20, Clause 12.12)
Dielectric Strength	400 volt/mils (ASTM D149)
Dielectric Constant	4.2 (ASTM D150, 60 cycles)
Chemical Resistance	No change in various chemical solutions (ASTM G20, 90 day immersion, R.T.)
Water Absorption	<0.1% (ASTM D570, 24h, R.T.)
Hardness	25°C (77°F): 85 Shore D (ASTM D2240)
Water Vapour Permeability	<0.003 perm-in (ASTM-D1434)
Volume Resistivity	1.0x10 ¹⁴ ohm-cm (ASTM D257)
Flexibility	@-30°C (-22°F): 0.75°PPD (CSA Z245.20, Clause 12.11)

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)
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 1/4" ID hardener line with 1/4" 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:	Brush Grade or Spray Grade by Volume: 3 Parts Base to 1 Part Hardener. Cartridge Volume: 2 Parts Base to 1 Part Hardener. 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 Temperatures 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.

SP-3888®

High Temperature Epoxy Coating

Pot Life & Cure Times

Brush Grade Pot Life: 18.0 minutes (200 gms (7.0 oz) mass @ 25°C (77°F))

Spray Grade Gel Time: 2.25 minutes (200 gms (7.0 oz) mass @
Base: 70°C (158°F); Hardener: 25°C (77°F))

Recoat Interval: Brush Grade Spray Grade

25°C (77°F) @ 50% RH 30 minutes 30 minutes

80°C (176°F) 3 minutes 2 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: 50 minutes 4 hours

Spray Grade: 45 minutes 3.5 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 in a tightly sealed container when not in use. The Shelf Life of SP-3888® is a maximum of 24 months from the date of manufacture if the materials are in unopened containers. DO NOT FREEZE.

SP-3888® Curing Table

SUBSTRATE TEMPERATURE	DRY HARD CURING TIME 0.50mm (20 mils) DFT as per ASTM D-1640	
	Brush Grade	Spray Grade
90°C (194°F)	8 minutes	4 minutes
80°C (176°F)	12 minutes	8 minutes
70°C (158°F)	15 minutes	10 minutes
60°C (140°F)	19 minutes	12 minutes
50°C (122°F)	35 minutes	30 minutes
40°C (104°F)	1 hour 45 minutes	1 hour
30°C (86°F)	3 hours	2 hour 30 minutes
25°C (77°F)	4 hours	3 hour 30 minutes
20°C (68°F)	7 hours	6 hours
10°C (50°F)	18 hours	16 hours

Material Temperature SP-3888® Spray Grade - Base: 70°C (158°F), Hardener: 25°C (77°F), SP-3888® 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 10, 2017.

All information, recommendations, and test performance results herein were obtained in a controlled environment and SPC makes no claim that the data and tests accurately represent all environments and specific project specification requirements. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating. SPC products are sold with the understanding that the purchaser or user is solely responsible for determining their suitability for any purpose, and that the purchaser or user assumes all risks and liability associated with the use of the product. No guarantee, either expressed or implied, is made with respect thereto or with respect to the infringement of any patent. The information herein is not to be copied, used in evidence, released for publication, or public distribution without written permission from Specialty Polymer Coatings.