SP-4888®

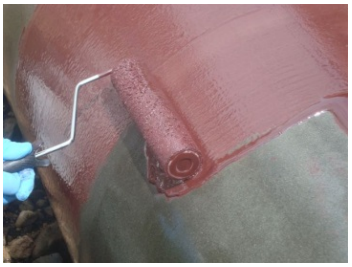
Product Data Sheet

The World Leader in Specialty Coatings

Damp Surface Epoxy Coating

SP-4888® is a 100% solids, high performance epoxy coating developed specifically for application on wet or damp steel surfaces. In addition, SP-4888® may be applied on dry steel surfaces with equal corrosion protection properties. When applied as directed, SP-4888® is an excellent corrosion protection coating with superior adhesion and resistance to cathodic disbonding at temperatures up to 80˚C (176˚F).

Applications: SP-4888® can be used as an exterior coating of pipelines, structures of other steel surfaces that may be wet or damp due to the environment or as a result of atmospheric condensation. SP-4888® is also used for below ground corrosion control on pipe, piping assemblies, valve assemblies, pipe components and girth welds.



Features & Benefits

- Excellent resistance to high temperature cathodic disbonding up to 80˚C (176˚F)
- Excellent adhesion to grit blasted steel wet and dry surfaces, Fusion Bond Epoxy (FBE)
- Isocyanate free
- 100% solids, zero VOCs, environmentally friendly & safe

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Technical Data

Solid Content:	100%		
Colour:	Base: Brown	Hardener: Amber	Mixed: Brown
Theoretical Coverage:	1.0 m^2/Litre/mm (1604 ft^2/US Gallon/mil)		
Recommended Thickness:			
Standard Corrosion Protection: 0.50 mm to 1.25 mm (20.0 mils to 50.0 mils)			
Depends upon application; consult with your SPC Representative			
Specific Gravity:	Base: 1.59 ± 0.03	Hardener: 1.00 ± 0.03	Mixed Material: 1.39 ± 0.03
Mixing Ratio by Volume:	2 parts Base to 1 part Hardener		

Typical Performance Properties

Service Temperature	Up to 80˚C (176˚F)
Dry Adhesion to Steel (Pull off Strength)	25˚C (77˚F): 19.3 MPa (>2800 psi) (ASTM D4541 Type IV)
Wet Adhesion to Steel (hot water soak resistance)	28 days @ 75˚C (167˚F): Rating #1 (CSA-Z245.20, Clause 12.14)
Cathodic Disbondment resistance	28 days @ 80˚C (176˚F) (Wet Surface): 4.4 mmR (CSA Z245.20, Clause 12.8) 28 days @ 80˚C (176˚F) (Damp Surface): 4.0 mmR (CSA Z245.20, Clause 12.8) 28 days @ 80˚C (176˚F) (Dry Surface): 4.1 mmR (CSA Z245.20, Clause 12.8) 28 days @ 22˚C (72˚F) (Wet Surface): 1.5 mmR (CSA Z245.20, Clause 12.8) 28 days @ 22˚C (72˚F) (Damp Surface): 1.9 mmR (CSA Z245.20, Clause 12.8) 28 days @ 22˚C (72˚F) (Dry Surface): 1.8 mmR (CSA Z245.20, Clause 12.8)
Impact Resistance	@ 25°C (77°F): 3.0 Joules (2.21 ft-lbf) (CSA-Z245.20, Clause 12.12) @ 0°C (32°F): 2.0 Joules (1.48 ft-lbf) (CSA-Z245.20, Clause 12.12) @ -30°C (-22°F): 1.5 Joules (1.10 ft-lbf) (CSA-Z245.20, Clause 12.12)
Flexibility	@ 0°C (32°F): 0.75˚PPD (CSA-Z245.20, Clause 12.11) @-30˚C (-22˚F): 0.54˚PPD (CSA Z245.20, Clause12.11)
Chemical Resistance	No change in various chemical solutions (ASTM G20, 90 day immersion, R.T.)
Hardness	25˚C (77˚F): 80 Shore D (ASTM D2240)

Surface Preparation

Steel Substrate:	Cleanliness:	Near-White. No rust formation shall be allowed on the pipe prior to the coating application. If rust formation occurs, the surface shall be re-blasted. If conditions are such that light flash rusting of the substrate may occur before it can be coated, the surface shall be wetted to maintain dampness prior to the coating application.
	Standards:	NACE 2, SA 2.5 (ISO 8501-1), SSPC SP-10
	Profile:	62.5 microns (2.5 mils) – 125 microns (5.0 mils)

Coating Application

Application Equipment	Brush Grade:	Brush or Roller
Mixing & Thinning:	Brush Grade by Volume: 2 Parts Base to 1 Part Hardener. Do not thin.	
Application Conditions	Ambient Temperature:	Minimum 5˚C (41˚F)
	Substrate Temperature:	Minimum Substrate Temperature 5˚C (41˚F)

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Pot Life and Cure Times

Pot Life: 200 gm mass @ 25˚C (77˚F)	40 minutes
Recoat Interval: 25˚C (77˚F) @ 50%RH	Maximum 2 hours

Compatibility with other anti-corrosion coatings:
SP-4888® is compatible with all SPC and fusion bonded epoxy (FBE) anti-corrosion coatings. For compatibility with other anti-corrosion coatings, please consult with SPC.

Backfilling Time: Shore D Hardness ≥ 75

Dry Time: (ASTM D 1640):	@ 25˚C (77˚F)
Touch Dry:	1 hour 20 minutes
Hard Dry:	7 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 tightly sealed containers when not in use. The Shelf Life of SP-4888® is a maximum of 24 months from the date of manufacture if the materials are in unopened containers. DO NOT FREEZE.

SP-4888® Curing Table

SUBSTRATE TEMPERATURE	DRY HARD CURING TIME 0.50 mm (20 mils) DFT as per ASTM D-1640
50˚C (122˚F)	2 hours
40˚C (104˚F)	3.5 hours
30˚C (86˚F)	5.5 hours
25˚C (77˚F)	7 hours
20˚C (68˚F)	10 hours
10˚C (50˚F)	17 hours
5˚C (41˚F)	35 hours

Material Temperature: 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.