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PRODUCT DATA SHEET

SP-1842[®] WELDCOAT

DESCRIPTION: SP-1842[®] is a 100% solids polyurethane mastic coating used in the pipeline, marine and industrial markets for doing small areas where a tough coating is required that can be applied in a single coat. SP-1842[®] is designed for use at operating temperatures at or below 40°C (104°F). SP-1842[®] can be formulated in a rapid grade for fast curing. This coating system has Lloyd's Register of Shipping approval.

ADVANTAGES:

- 100% Solids - No VOCs.
- Lloyd's Register of Shipping approval.

USES:

- Coating of pipe intended for slip bore / directional drilling.
- Coating of pipe, valves, fittings and fabricated assemblies.
- Rehabilitation of existing pipelines.
- Coating of ship hulls and rudders.
- Coating of marine pilings and docks.
- Coating of ballast tanks.
- Coating of girth welds.
- Coating repairs.

APPLICATION: Brush or Roller

CLEANING MATERIALS:

- SP-100 Equipment Wash
- SP-110 Tool Cleaner
- SP-120 Internal Storage Lubricant

RECOMMENDED

FILM THICKNESS:

- Wet:** 20 mils minimum to 50 mils maximum (0.50 mm to 1.25 mm)
- Dry:** 20 mils minimum to 50 mils maximum (0.50 mm to 1.25 mm)

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.



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SURFACE PREPARATION:

(Steel Substrate)

- Primer** : No primer required.
- Cleanliness** : Near White
- Standards** : NACE 2, Sa 2½ (Swedish Scale, ISO 8501-1)
: SSPC SP-10 (Steel Structures Painting Council)
- Profile** : 3.0 mils minimum to 5.0 mils maximum
(75 microns to 127 microns)

(Concrete Substrate)

- Primer** : SP-1264 Damp Concrete Primer Sealer required prior to application of SP-1842[®] to concrete.
- Cleanliness** : Remove laitance and other surface contaminants by grit blasting or mechanical scarification. Seal using SP-1264 Damp Concrete Primer Sealer.

RE-COAT INTERVAL:

- 25°C (77°F) Regular Grade – Maximum: 8 hours
Rapid Grade – Maximum: 2 hours
- 50°C (122°F) Regular Grade – Maximum: 1 hour
Rapid Grade – Maximum: 30 minutes
- SP-1842[®]** is a one-coat application system. However, if there are areas below the specified thickness and the coating has cured beyond the specified re-coat window, roughening of the surface is necessary to ensure inter-coat adhesion. Small areas δ 316 sq. cm. (δ 49 sq. in.) may be sanded using a medium grit (80-100) carborundum cloth. All dust from the sanding or blast roughening must be removed from the surface prior to the application of the coating.

MIXING RATIO

- By Volume: 3 Parts Base to 1 Part Activator.

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HANDLING PROPERTIES:	<u>SP-1842[®]</u>	<u>SP-1842[®] R.G.</u>
Pot Life (25°C / 77°F Ambient Temperature).....	15 minutes	7 minutes
Dry Time (ASTM D-1640) (25°C / 77°F Ambient Temperature)		
Tack-Free Time	2 hours	30 minutes
Dry Hard Time	8 hours	4 hours
Full Cure.....	4 days	4 days

Ambient Temperature -13°C (-25°F) minimum to 100°C (212°F) maximum

Substrate Temperature..... The acceptable substrate (metal or concrete surface) temperature range for the application of **SP-1842[®]** is 1°C (33°F) to 100°C (212°F). Preheating of the substrate is required if the surface to be coated is below 1°C (33°F). Relative Humidity prior to and during the application of **SP-1842[®]** must be 80% or less. The substrate temperature must be a minimum of 3°C (5°F) above the dew point temperature before proceeding with the coating operation.

Storage Shelf Life..... Store in a cool, dry, well-ventilated area at temperatures between 20°C (68°F) and 35°C (95°F). Keep the lids sealed. **DO NOT FREEZE THE ACTIVATOR.** The Shelf Life is a maximum of 12 months in unopened containers.

LIQUID PROPERTIES:	<u>BASE</u>	<u>ACTIVATOR</u>
Appearance.....	Grey Liquid	Amber Liquid
Solids Content (%)	100	100
Specific Gravity (ASTM D-792).....	Base & Activator Mixed:	1.30
Coverage (Theoretical).....	1604 (ft ² /U.S. Gallon/mil) 39.0 (m ² /Litre/25 microns)	

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PHYSICAL PROPERTIES:

Adhesion to Steel:

Dry Adhesion (Pull-off Strength) (PSI) (ASTM D-4541-95-A4) (25°C / 77°F) (Self-Alignment Adhesion Tester, Type IV)	2000
Cathodic Disbonding Test (25°C / 77°C) (ASTM G-8).....	10 – 12
Dielectric Strength (volt / 10 ⁻³) (ASTM D-149)	400
Dielectric Constant, 60 cycles (ASTM D-150).....	4.2
Elongation (%) (25°C / 77°F) (ASTM D-638)	9
Flexibility Mandrel Bend Test (ASTM D-522)	Pass ½”
Hardness (Shore D) (ASTM D-2240-91) (25°C / 77°F).....	75
Impact Strength (in.-lbs. / joules) (25°C / 77°F) (ASTM D-256).....	150 / 20
Tensile Strength (lbs./in. ²) (25°C / 77°F) (ASTM D-638).....	3100
Volume Resistivity (ohm-cm) (ASTM D-257)	1.0 x 10 ¹⁴
Water Vapour Permeability (perm-in) (ASTM D-1434)	0.003
Water Vapour Permeability (perm-cm) (ASTM D-1434).....	0.0018

CHEMICAL RESISTANCE (One week immersion @ ambient temperatures):

Nitric acid, 10% solution.....	No change observed.
Sulphuric acid, 5% solution	No change observed.
Acetic acid, 5% solution.....	No change observed.
Sodium hydroxide, 10% solution	No change observed.
Sodium chloride, 10% solution	No change observed.
Phosphoric acid, 10% solution	No change observed.
Mineral Oil	No change observed.

SAFETY: Read the Material Safety Data Sheets before use.

EFFECTIVE DATE: October 21, 2016

SPC / Product Data Sheet SP-1842

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