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PRODUCT DATA SHEET

SP-2889 EPL

DESCRIPTION: **SP-2889 EPL (Extended Pot Life)** is a variation of SP-2888[®] R.G. epoxy / urethane coating in which the pot life has been extended. This enables the Spray Grade to be applied with airless spray equipment. The performance properties of SP-2889 EPL are similar to SP-2888[®] R.G. in which the urethane polymer is pre-bonded to the epoxy resin, rendering the coating “isocyanate free”. The synergistic effect of copolymerizing epoxy and urethane produces a coating with the superior adhesion and permeability of epoxy along with the added toughness and abrasion resistance of urethane. SP-2889 EPL is available in Spray Grade and Brush Grade.

ADVANTAGES:

- 100% Solids – No VOCs.
- Isocyanate free.
- Excellent resistance to high temperature cathodic disbonding up to 80°C (176°F).
- Excellent adhesion to grit blasted steel surfaces, Fusion Bond Epoxy (FBE), and Fiber Reinforced Plastic (FRP).
- Excellent abrasion and impact resistance.

USES:

- Internal lining for pipelines carrying crude oil, natural gas or processed water.
- Exterior coatings for pipelines in buried or immersed services.

APPLICATION:

- Spray Grade: Airless Spray - Graco 45:1 or higher is recommended.
Suggested Tip Size: .021
- Brush Grade: Brush or Roller.

CLEANING MATERIALS:

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

SURFACE PREPARATION:

(Steel Substrate)	• Cleanliness	: Near White
	• Standards	: NACE 2, Sa 2½ (Swedish Scale, ISO 8501-1) SSPC SP-10 (Steel Structures Painting Council)
	• Profile	: 62.5 microns minimum to 125 microns maximum (2.5 mils minimum to 5.0 mils)



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MIXING RATIO: By Volume: 3 Parts Base to 1 Part Hardener

RECOMMENDED FILM THICKNESS:

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

RE-COAT INTERVAL: @ 25°C (77°F) Maximum: 48 Hours
@ 100°C (212°F) Maximum: 20 Minutes

- Sweep blasting of the surface is required if the maximum re-coat interval is exceeded. Small areas ≤ 316 sq. cm. (≤ 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.

HANDLING PROPERTIES:

Pot Life [150 gm (5.29 oz.) mass @ 25°C (77°F)] 1.25 Hours
Dry Time (ASTM 1640) [0.50 mm (20 mils) coating thickness @ 25°C (77°F)]
Touch Dry Time 4 Hours
Dry Hard Time 12 Hours
Minimum Ambient Application Temperature..... -30°C (-22°F)

Substrate Temperature.... The acceptable substrate (metal surface) temperature range for application of SP-2889 EPL is 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.

Storage/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. The Shelf Life is a maximum of 24 months in unopened containers.

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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LIQUID PROPERTIES:

BASE

HARDENER

Appearance.....	Grey Viscous Liquid	Clear Liquid
Solids Content (%).....	100	100
Specific Gravity (ASTM D1640)...	1.68 ± 0.03 (Spray Grade)	1.07 ± 0.03 (Spray Grade)
Coverage (Theoretical).....	Base & Hardener Mixed:	39 m ² /Litre/25 microns [1604 ft ² /U.S. Gallon/mil]

PHYSICAL / MECHANICAL / ELECTRICAL PROPERTIES:

Adhesion to Steel:

Dry Adhesion (Pull-off Strength) [MPa (psi) (ASTM D-4541-95-A4) [25°C (77°F)] (Self-Alignment adhesion Tester, Type IV)	> 20 (> 3000)
Cathodic Disbonding Test [Average Radius (mm)] [CSA-Z245.20-10, Clause 12.8 modified to 28 Days @ 80°C (176°F)].....	7
Compressive Strength (psi) (ASTM D695) [25°C (77°F)]	1.56 x 10 ⁴
Dielectric Strength (volt/10 ⁻³ in) (ASTM D149).....	400
Dielectric Constant (60 cycles) (ASTM D150).....	4.2
Elongation (%) (ASTM D638) [25°C (77°F)]	9.0
Hardness (Shore D) (ASTM D2240-91) [25°C (77°F)].....	85
Impact [Joules (ft-lbf)] (CSA-Z245.20-10, Clause 12.12) [-30°C ± 3°C (-22°F ± 5°F) Spray Grade	1.5 (1.11)
Brush Grade.....	3.0 (2.21)
Impact [Joules (ft-lbf)] (CSA-Z245.20-10, Clause 12.12) [25°C ± 3°C (77°F ± 5°F) Spray Grade	3.0 (2.21)
Brush Grade.....	5.0 (3.68)
Tensile Strength [MPa (psi)] (ASTM D638) [25°C (77°F)]	42.7 (6200)
Tensile Modulus (ASTM D638) [psi x 10 ⁶ @ 25°C (77°F)]	9.4
Water Vapour Permeability (perm-in) (ASTM D1434).....	< 0.003
Water Absorption (% , 24 ^h , r.t.) (ASTM D570).....	0.1
Volume Resistivity (ohm-cm) (ASTM D257)	1.0 x 10 ¹⁴

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CHEMICAL RESISTANCE (One week immersion @ ambient temperatures):

Nitric acid, 10% solution.....	No change observed.
Sulfuric 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.
Toluene.....	No change observed.
Ethyl acetate	No change observed.
Ethanol, 50% solution	No change observed.
Mineral Oil.....	No change observed.

SAFETY: Read the Material Safety Data Sheets before use.

EFFECTIVE DATE: October 24, 2016

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