PRODUCT DATA SHEET

DESCRIPTION: SP-8888® Pipe Coating is based on the latest Zero VOC Novalac Technology. The product cures to a highly cross-linked coating for high temperature service in the Oil and Gas Industry [cathodic disbonding resistance up to 150°C (302°F)]. SP-8888® is available in Spray Grade and Brush Grade, and is also available in Cartridges for coating repairs.

ADVANTAGES:  
- 100% Solids – No VOCs.  
- Isocyanate free.  
- Excellent resistance to high temperature cathodic disbonding up to 150°C (302°F).  
- Excellent adhesion to grit blasted steel surfaces, Fusion Bond Epoxy (FBE), and Fiber Reinforced Plastic (FRP).  
- Excellent impact resistance.  
- Good flexibility.

USES:  
- Internal lining for pipelines.  
- Exterior coating for pipe, valves and fittings used in buried or immersed service.  
- Coating of pipes, valves and fittings.  
- Slip bore and directional drilling applications.  
- Girth weld coatings.

APPLICATION:  
- Spray Grade: Graco Hydra-Cat (Tip Size: .019 - .031)  
- Brush Grade: Brush or Roller  
- Cartridge: Manual Dispenser

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 (The Society for Protective Coatings)  
- **Profile**: 62.5 microns minimum to 125 microns maximum  
  (2.5 mils to 5.0 mils)

FBE:  
- **Profile**: 6.25 microns (2.5 mils) minimum

MIXING RATIO:  
- Brush Grade or Spray Grade, By Volume: 3 Parts Base to 1 Part Hardener.  
- Cartridge, By Volume: 2 Parts Base to 1 Part Hardener

HOSE BUNDLE:  Heated hose bundle consisting of 3/8” ID base and ¼” ID hardener line with ¼ solvent flush line outside of the bundle. Glycol heat trace or equivalent capable of 80°C (176°F)  
* Insulated whip hoses not recommended for glycol heat trace

TIP SIZE:  
.019 – .033

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)

Pre-heating 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.
RECOMMENDED FILM THICKNESS:

- **Standard Corrosion Protection**: 0.75 mm minimum to 1.25 mm (30 mils to 50 mils).
- **Directional & Mechanical Protection**: 1.00 mm minimum to 1.78 mm (40 mils to 70 mils).
- Depends upon application; consult with SPC Representative.

RE-COAT INTERVAL:

**Brush Grade**:
- @ 25°C (77°F) Maximum: 4 Hours
- @ 80°C (176°F) Maximum: 25 Minutes

**Spray Grade**:
- @ 25°C (77°F) Maximum: 3 Hours
- @ 80°C (176°F) Maximum: 5 Minutes

BACKFILLING:

Mechanical stress including backfilling or lowering in, shall not be applied to the coating until it has reached a Shore D Hardness ≥80.

COMPATIBILITY WITH OTHER ANTI CORROSION COATINGS:

SP-8888® is compatible with all SPC and fusion bonded epoxy (FBE) anti-corrosion coatings. For compatibility with other anti-corrosion coatings, please consult with SPC.
PRODUCT DATA SHEET

<table>
<thead>
<tr>
<th>HANDLING PROPERTIES:</th>
<th>Brush Grade</th>
<th>Spray Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pot Life [100 gm (3.5 oz) mass @ 25°C (77°F)]</td>
<td>30 Minutes</td>
<td>2.25 Minutes</td>
</tr>
<tr>
<td>Gel time [200 gm (7.0 oz) mass, Base 70°C (158°F), Hardener 25°C (77°F)]</td>
<td>75 Minutes</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Dry Time (ASTM D1640) [0.60 mm (25 mils) coating thickness @ 25°C (77°F)]</td>
<td>4.5 Hours</td>
<td>4 Hours</td>
</tr>
<tr>
<td>Touch Dry Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Hard Time</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ambient Temperature: Brush Grade, Spray Grade or Cartridge: -40°C to 50°C (-40°F to 122°F)

Substrate Temperature: The acceptable substrate (metal surface) temperature range for the application of SP-8888® 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. Post-heating may also be required when over-coating polyolefin substrates. Refer to the Curing Table (APPENDIX “A”).

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 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.

<table>
<thead>
<tr>
<th>LIQUID PROPERTIES:</th>
<th>BASE</th>
<th>HARDENER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids Content (%)</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Specific Gravity (ASTM D1475)</td>
<td>1.47 ± 0.03</td>
<td>1.05 ± 0.03</td>
</tr>
<tr>
<td>Specific Gravity (ASTM D1475)</td>
<td>Base &amp; Hardener Mixed: 1.37 ± 0.03</td>
<td>39.0 m²/Litre/25 microns</td>
</tr>
<tr>
<td>Coverage (Theoretical)</td>
<td>Base &amp; Hardener Mixed:</td>
<td>[1604 ft²/U.S. Gallon/mil]</td>
</tr>
</tbody>
</table>

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.
### PHYSICAL / MECHANICAL / ELECTRICAL PROPERTIES:

**Adhesion to Steel:**

**Dry Adhesion (Pull-off Strength) [MPa (psi)] (ASTM D4541-95-A4)**
(Self-Alignment Adhesion Tester, Type IV) [25°C (77°F)]............................... 28 (3995)

**Wet Adhesion (Hot Water Soak) (CSA-Z245.20-10, Clause 12.14, 28 Days)**
[95°C (203°F)]........................................................................................................ Rating #1

**Wet Adhesion (Hot Water Soak) (CSA-Z245.20-10, Clause 12.14, 120 Days)**
[75°C ± 3°C (167°F ± 5°F)] ........................................................................................................ Rating #1

**Cathodic Disbonding Test [Average Radius (mm)]**
(CSA-Z245.20-10, Clause 12.8, System 1A, 28 Days) [120°C (248°F)] ............... 4.7 (1) (2)

**Cathodic Disbonding Test [Average Radius (mm)]**
(CSA-Z245.20-10, Clause 12.8, System 1A, 28 Days) [150°C (302°F)] ............... 9.17 (1) (3)

**Hardness (Shore D) (ASTM D2240-91) [25°C (77°F)]................................. 85**

**Impact [Joules (ft-lbf)] (CSA-Z245.20-10, Clause 12.12) [21°C (70°F)] ............... 4.0 (2.95)**

**Impact [Joules (ft-lbf)] (CSA-Z245.20-10, Clause 12.12) [0°C (32°F)] ............... 3.05 (2.25)**

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(1) Test modified using an autoclave
(2) Test Pressure: 50 psi
(3) Test Pressure: 100 psi
CHEMICAL RESISTANCE (ASTM G20) (90 days immersion @ ambient temperatures):

Ammonium Chloride, 10% solution ...................... No change observed.
Ammonium Hydroxide, 10% solution ..................... No change observed.
Benzyl Alcohol ................................................. No change observed.
Bio Diesel ......................................................... No change observed.
Calcium Chloride, 10% solution ......................... No change observed.
Diesel ............................................................... No change observed.
Ethanol .............................................................. No change observed.
Formaldehyde, 37% solution ................................ No change observed.
Gasoline ........................................................... No change observed.
Hydrochloric Acid, 5% solution ........................ No change observed.
Jet Fuel ............................................................. No change observed.
Mineral Oil ......................................................... No change observed.
MEK ................................................................. No change observed.
Methanol, 50% solution ....................................... No change observed.
MIBK ............................................................... No change observed.
Monoethylene Glycol ....................................... No change observed.
Naphtha .......................................................... No change observed.
Nitric Acid, 5% solution ..................................... No change observed.
Potassium Chloride, 10% solution ....................... No change observed.
Sodium Carbonate, 10% solution ......................... No change observed.
Sodium Chloride, 10% solution .......................... No change observed.
Sodium Silicate solution ..................................... No change observed.
Sodium Hydroxide, 10% solution ......................... No change observed.
Sulphuric Acid, 5% solution .............................. No change observed.
Toluene ........................................................... No change observed.
Xylene .............................................................. No change observed.
Zinc Sulphate, 10% solution .............................. No change observed.

SAFETY: Read the Material Safety Data Sheets before use.

EFFECTIVE DATE: October 24, 2016

WEBSITE: www.spc-net.com
### APPENDIX “A”

**SP-8888® CURING TABLE**

<table>
<thead>
<tr>
<th>SUBSTRATE TEMPERATURE</th>
<th>DRY HARD CURING TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BRUSH GRADE</td>
</tr>
<tr>
<td>90°C (194°F)</td>
<td>5 min.</td>
</tr>
<tr>
<td>80°C (176°F)</td>
<td>13 min.</td>
</tr>
<tr>
<td>70°C (158°F)</td>
<td>30 min.</td>
</tr>
<tr>
<td>60°C (140°F)</td>
<td>60 min.</td>
</tr>
<tr>
<td>50°C (122°F)</td>
<td>2 hr.</td>
</tr>
<tr>
<td>40°C (104°F)</td>
<td>2.45 hrs.</td>
</tr>
<tr>
<td>30°C (86°F)</td>
<td>3.5 hrs.</td>
</tr>
<tr>
<td>25°C (77°F)</td>
<td>4.5 hrs</td>
</tr>
<tr>
<td>20°C (68°F)</td>
<td>5 hrs.</td>
</tr>
<tr>
<td>10°C (50°F)</td>
<td>14 hrs.</td>
</tr>
</tbody>
</table>

Substrate: 12 mm (0.5 in.) Thick Steel Panels

Brush Grade Material Temperature:  Base and Hardener: 25°C (77°F)

Spray Grade Material Temperature:  Base: 80°C (176°F)  
                                    Hardener: 25°C (77°F)

Dry Film Thickness: 0.75 mm (30 mils) DFT as per ASTM D1640

Note: The information above 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.

Effective Date: August 28, 2015