



## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Low Temperature Cure Epoxy
<b>Description</b>	A solvent free, 100% solids, two-component epoxy coating that has the ability to cure down to 0°C (32°F). Used for application in cool weather (fall/winter) where other coating systems would require preheating of the substrate or enclosure and application of external heat for curing purpose. It is ideal for utilization on facilities operating at low temperatures, which precludes the use of preheating/ external heat. Available in both Spray Grade and Brush Grade.
<b>Features</b>	<ul style="list-style-type: none"><li>• 100% solids</li><li>• Excellent cathodic disbonding performance at temperatures up to 65°C (149°F)</li><li>• Single coat application</li><li>• Excellent adhesion to grit blasted steel surfaces, Fusion Bond Epoxy (FBE) or Fiber Reinforced Plastic (FRP)</li><li>• Isocyanate free</li></ul>
<b>Typical Uses</b>	Coating of pipes, valves and fittings, girth welds, rehabilitation of existing pipelines, and repairs.
<b>Color</b>	Grey (0700)
<b>Primer</b>	No primer required
<b>Dry Film Thickness</b>	20 mils (508 microns) DFT Depends on application. Consult with your SPC Representative.
<b>Solids Content</b>	By Volume 100% +/- 0%
<b>Theoretical Coverage Rate</b>	1604 ft <sup>2</sup> /gal at 1.0 mils (39.4 m <sup>2</sup> /l at 25 microns) 80 ft <sup>2</sup> /gal at 20.0 mils (2.0 m <sup>2</sup> /l at 500 microns) Allow for loss in mixing and application.
<b>VOC Values</b>	<b>As Supplied</b> : 2 g/L
<b>Dry Temp. Resistance</b>	Continuous: 149°F (65°C)
<b>Specific Gravity</b>	Base: 1.57 ± 0.03 Hardener: 1.01 ± 0.03 Mixed Material: 1.41 ± 0.03

## SUBSTRATES & SURFACE PREPARATION

<b>Steel</b>	Cleanliness: NACE No.2/SSPC SP-10, SA 2.5 (Swedish Scale, ISO 8501-1) Profile: 62.5 microns (2.5 mils) – 125 microns (5.0 mils)  The Substrate Temperature must be a minimum of 3°C (5°F) above the dew point temperature before proceeding with the blasting operation
<b>FBE</b>	Profile: 62.5 microns (2.5 mils) minimum to 125 microns maximum (5.0 mils)

# SP-2831 Spray

## PRODUCT DATA SHEET



### PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	Results
Adhesion to Steel (Hot Water Soak) (CSA-Z245.20, Clause 12.14, Rating #1)	28 days @ 65°C (149°F)
Adhesion to Steel (Pull Off Strength) (ASTM D4541 Type IV)	13.94 MPa (2022 psi) @ 0°C (32°F)
Cathodic Disbondment Resistance (CSA-Z245.20, Clause 12.8)	28 days @ 20°C (68°F) @ -1.5 Volts: 3.3 mmR 28 days @ 65°C (149°F) @ -1.5 Volts: 7.5 mmR
Flexibility (CSA-Z245.20, Clause 12.11)	0.75°PPD @ -30°C (-22°F)
Hardness (ASTM D2240)	80 Shore D @ 0°C (32°F)
Impact Resistance (CSA-Z245.20, Clause 12.12)	1.5 J (1.10 ft-lbf) @ -30°C (-22°F)

### MIXING & THINNING

<b>Mixing</b>	<b>Spray Grade:</b> Agitation of the Part A component is recommended during the preheating process and during application to ensure a uniform heat throughout the base portion when applying material out of drums.  Component Details for Color: Grey (0700): The Base is Grey (0700) and the Hardener is Amber (0908)
<b>Thinning</b>	Do not thin.
<b>Ratio</b>	3:1 Base to Hardener, by Volume
<b>Pot Life</b>	<b>Brush Grade:</b> 12 minutes 200 gms mass @ 25°C (77°F)
<b>Gel Time</b>	<b>Spray Grade:</b> 4 minutes 30 seconds 200 gms mass: Base: 60°C (140°F) Hardener: 25°C (77°F)

### APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

<b>Spray Grade</b>	Graco Hydra-Cat or equivalent. Tip Size: 0.013-0.031
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### APPLICATION CONDITIONS

Condition	Ambient
Minimum	14°F (-10°C)

The temperature should be above -10°C (14°F)

**Spray Grade Material Temperature:** Base 60°C (140°F); Hardener: 25°C (77°F).

**Brush Grade Material Temperature:** Base 25°C (77°F); Hardener: 25°C (77°F).

The applications near 0°C (32°F), care must be taken as ice crystals may be present in the surface pores of the steel. Ice crystals must be removed prior to coating.

The substrate temperature should be a minimum of 3°C (5°F) above the dew point temperature to avoid the risk of condensation.

### CURING SCHEDULE

Surface Temp.	Dry Hard (Spray Grade)	Dry Hard (Brush Grade)
32°F (0°C)	16 Hours	18 Hours
41°F (5°C)	8 Hours	10 Hours
50°F (10°C)	7 Hours	8 Hours
59°F (15°C)	5 Hours	5.5 Hours
68°F (20°C)	4 Hours	4.5 Hours
77°F (25°C)	3 Hours	3.5 Hours
122°F (50°C)	35 Minutes	40 Minutes

0.63 mm (25 mils) DFT as per ASTM D-1640

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.

**Touch Dry:** 10 hours @ 0°C (32°F)

<b>Recoat Interval</b>	<u>Brush Grade</u> 0°C (32°F) @ 50% RH: Maximum 2 hours
	<u>Spray Grade</u> 0°C (32°F) @ 50% RH: Maximum 2 hours
	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.

### CLEANUP & SAFETY

<b>Cleanup</b>	Carboline Thinner 2 or SP-100 Equipment Wash
<b>Safety</b>	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.

### PACKAGING, HANDLING & STORAGE

<b>Shelf Life</b>	Spray: Maximum of 24 months Brush: Maximum of 24 months
	When kept at recommended storage conditions and in original unopened containers.
<b>Storage</b>	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. DO NOT FREEZE.

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## PACKAGING, HANDLING & STORAGE

<b>Packaging - Brush Grade</b>	<b>1 Liter (0.26 Gallon) Kit</b>
	Part A: 0.75 liters (0.2 gallons)
	Part B: 0.25 liters (0.06 gallons)
	<b>2 Liter (0.53 gallons) Kit</b>
	Part A: 1.5 liters (0.40 gallons)
	Part B: 0.5 liters (0.13 gallons)
<b>Packaging - Spray Grade</b>	<b>80 Liter (21.1 Gallon) Kit</b>
	Part A: 60 liters (15.9 gallons)
	Part B: 20 liters (5.3 gallons)
	<b>800 Liter (211.3 Gallon) Kit</b>
	Part A: 600 liters (158.5 gallons)
	Part B: 200 liters (52.8 gallons)

## WARRANTY

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