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PRODUCT DATA SHEET

SP-2831 LOW TEMPERATURE CURE COATING

DESCRIPTION: SP-2831 Low Temperature Cure Coating is a two-component epoxy coating that has the ability to **cure down to 0°C (32°F)**. It is used for applications in cool weather (fall / winter) where other coating systems would require preheating of the substrate or enclosure and application of external heat for curing purposes. SP-2831 Low Temperature Cure Coating is ideal for utilization on facilities operating at low temperatures, which precludes the use of preheating/external heat.

ADVANTAGES:

- 100% Solids – No VOCs.
- High build single coat application.
- Isocyanate free.
- Excellent cathodic disbonding performance at temperatures up to 65°C (149°F).
- Excellent adhesion to grit blasted steel surfaces, Fusion Bond Epoxy and FRP.

USES:

- Coating of pipe, valves and fittings.
- Coating of girth welds.
- Coating rehabilitation of existing pipelines.
- Coating repairs.

APPLICATION:

- Spray Grade: Graco Hydra-Cat - Tip Size: 0.019 - 0.031
- Brush Grade: Brush or Roller

CLEANING MATERIALS:

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

RECOMMENDED FILM THICKNESS:

- **Wet:** 20 mils (0.50 mm) minimum
- **Dry:** 20 mils (0.50 mm) minimum



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SURFACE PREPARATION:

(Steel Substrate)

- Cleanliness: Near White
- Standards: NACE 2, Sa 2 ½ (Swedish Scale, ISO 8501-1)
SSPC SP-10 (Steel Structures Painting Council)
- Profile: 2.5 mils minimum to 5.0 mils maximum
(62.5 microns to 125 microns)

MIXING RATIO:

By Volume: 3 Parts Base to 1 Part Hardener

HANDLING PROPERTIES:

Pot Life [25°C (77°F)]..... 12 ± 3 minutes

Dry Time [ASTM D-1640 @ 0°C (32°F)]

Touch Dry Time 10 Hours

Dry Hard Time 18 Hours

Substrate Temperature..... At applications near 0°C (32°F), care must be taken as ice crystals may be present in the surface pores of the steel. The substrate temperature should be a minimum of 3°C (5°F) above the dew point temperature to avoid the risk of condensation. Refer to the attached Curing Tables.

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.

LIQUID PROPERTIES:

BASE

HARDENER

Appearance..... Grey Liquid.

Amber Liquid.

Volume Solids Content (%) 100

100

Specific Gravity (ASTM D-792)..... 1.57 ± 0.03

1.03 ± 0.03

Specific Gravity (ASTM D-792)..... Base & Hardener Mixed:

1.44 ± 0.03

Coverage (Theoretical)..... Base & Hardener Mixed:

1604 ft²/U.S. Gallon/mil
39.0 m²/Litre/25 microns



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PHYSICAL PROPERTIES:

Adhesion to Steel:

Dry Adhesion (Pull-off Strength) (PSI) (ASTM D-4541-95-A4)	
[Self-Alignment Adhesion Tester, Type IV, Coating applied & cured @ 0°C (32°F)]...	2022
Wet Adhesion (Hot Water Soak) (CSA-Z245.20-98, Clause 12.14, 28 Days)	
[75°C (167°F)].....	Rating #1
Cathodic Disbonding Test (mm) [CSA-Z245.20-M92, Clause 12.8, 1.5V, 28 Days @ 65°C (149°F)]	
Coating applied and cured @ 0°C (32°F).....	9.1 mm
Coating applied and cured @ 21°C (69.8°F).....	8.2 mm
Hardness [Shore D, ASTM D-2240-86, Coating applied & cured @ 0°C (32°F)].....	80
Impact [CSA-Z245.20-98, Clause 12.12, 0°C (32°F)].....	1.5 Joules

SAFETY: Read the Material Safety Data Sheets before use.

EFFECTIVE DATE: October 17, 2006