

## **SELECTION & SPECIFICATION DATA**

Generic Type | Damp Surface Epoxy Coating

## Description

A 100% solids, high performance epoxy coating developed specifically for application on wet or damp steel surfaces. In addition, this product may be applied on dry steel surfaces with equal corrosion protection properties. When applied as directed, it is an excellent corrosion protection coating with superior adhesion and resistance to cathodic disbonding at temperatures up to 80°C (176°F).

#### Features

- Excellent resistance to high temperature cathodic disbonding up to 80°C (176°F)
- Excellent adhesion to grit blasted steel wet and dry surfaces, Fusion Bond Epoxy (FBE)
- Isocyanate free
  - 100% solids, environmentally friendly & safe

# **Typical Uses**

Can be used as an exterior coating of pipelines, structures of other steel surfaces that may be wet or damp due to the environment or as a result of atmospheric condensation.

Can also be used for below ground corrosion control on pipe, piping assemblies, valve assemblies, pipe components and girth welds.

Color | Brown (0200)

508 - 1270 microns (20 - 50 mils) DFT

**Dry Film Thickness** 

Depends upon application. Consult with your SPC Representative

Solids Content | By Volume 100%

**Theoretical Coverage** 

erage/ Rate  $39.4 \text{ m}^2/\text{l}$  at 25 microns (1604 ft²/gal at 1.0 mils) 2.0 m²/l at 500 microns (80 ft²/gal at 20.0 mils) 0.8 m²/l at 1250 microns (32 ft²/gal at 50.0 mils)

Allow for loss in mixing and application.

VOC Values | As Supplied : 3 g/L

Specific Gravity Base: 1.59 ± 0.03
Hardener: 1.00 ± 0.03

Mixed Meterial: 1.00 ± 0.05

Mixed Material: 1.39 ± 0.03

## SUBSTRATES & SURFACE PREPARATION

Steel

Cleanliness: NACE No.2/SSPC SP-10, SA 2.5 (ISO 8501-1). No rust formation shall be allowed on the pipe prior to the coating application. If rust formation occurs, the surface shall be re-blasted. If conditions are such that light flash rusting of the substrate may occur before it can be coated, the surface shall be wetted to maintain dampness prior to the coating application.

Profile: 62.5 microns (2.5 mils) – 125 microns (5.0 mils)

# PERFORMANCE DATA (TYPICAL VALUES)

**Service Temperature** Up to 80°C (176°F)

Adhesion to Steel | 19.3 (Pull Off Strength)

19.3 MPa (>2800 psi) @ 25°C (77°F) (ASTM D4541 Type IV)

Adhesion to Steel (Hot Water Soak)

28 days @ 75°C (167°F): Rating #1 (CSA-Z245.20, Clause 12.14)



# PERFORMANCE DATA (TYPICAL VALUES)

28 days @ 80°C (176°F)

Wet Surface: 4.4 mmR (CSA Z245.20, Clause 12.8)
Damp Surface: 4.0 mmR (CSA Z245.20, Clause 12.8)

Cathodic Disbondment | Dry Surface: 4.1 mmR (CSA Z245.20, Clause 12.8)

Resistance 28 days @ 22°C (72°F)

Wet Surface: 1.5 mmR (CSA Z245.20, Clause 12.8) Damp Surface: 1.9 mmR (CSA Z245.20, Clause 12.8) Dry Surface: 1.8 mmR (CSA Z245.20, Clause 12.8)

3.0 Joules (2.21 ft-lbf) @ 25°C (77°F) (CSA-Z245.20, Clause 12.12) Impact Resistance 2.0 Joules (1.48 ft-lbf) @ 0°C (32°F) (CSA-Z245.20, Clause 12.12)

1.5 Joules (1.10 ft-lbf) @ -30°C (-22°F) (CSA-Z245.20, Clause 12.12)

Flexibility 0.75°PPD @ 0°C (32°F) (CSA-Z245.20, Clause 12.11) 0.54°PPD @-30°C (-22°F) (CSA Z245.20, Clause12.11)

Chemical Resistance | No change in various chemical solutions (ASTM G20, 90 day immersion, R.T.)

Hardness | 25°C (77°F): 80 Shore D (ASTM D2240)

#### MIXING & THINNING

Mixing | Component Details for Color:

Brown (0200): The Base is Brown (0200) and the Hardener is Amber (0908)

Thinning | Do Not Thin

Ratio | 2:1 Base to Hardener, by Volume

Pot Life | 40 minutes | 200 gm mass @ 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.

Brush Grade | Brush or Roller

# **APPLICATION CONDITIONS**

Substrate Temperature | Minimum 5°C (41°F) Maximum 50°C (122°F)

# **CURING SCHEDULE**

**Touch Dry** | 1 hour 20 minutes @ 25°C (77°F)

Recoat Interval | Maximum 2 hours @ 25°C (77°F) @ 50% RH



## **CURING SCHEDULE**

Surface Temp.	Dry Hard
5°C (41°F)	35 Hours
10°C (50°F)	17 Hours
20°C (68°F)	10 Hours
25°C (77°F)	7 Hours
30°C (86°F)	5.5 Hours
40°C (104°F)	3.5 Hours
50°C (122°F)	2 Hours

0.50 mm (20 mils) DFT as per ASTM D-1640

Material Temperature: Base & Hardener: 25°C (77°F)

Note: This information 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.

Backfilling Time | Shore D Hardness ≥ 75

## **CLEANUP & SAFETY**

Cleanup | Carboline Thinner 2 or SP-100 Equipment Wash

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. Safety

Follow and observe any applicable local or national laws and regulations

## PACKAGING, HANDLING & STORAGE

Shelf Life | Maximum of 24 months from the date of manufacture if the materials are in unopened containers.

Store in a cool, dry, well-ventilated area at temperatures between 5°C (41°F) and 50°C (122°F). Storage Keep in tightly sealed containers when not in use. DO NOT FREEZE.

1 Liter (0.26 Gallon) Kit

Part A: 0.67 liters (0.18 gallons) Packaging - Brush Part B: 0.33 liters (0.08 gallons)

Grade 2 Liter (0.53 gallons) Kit

> Part A: 1.33 liters (0.35 gallons) Part B: 0.67 liters (0.18 gallons)

# **SP-4888®**

## PRODUCT DATA SHEET



#### WARRANTY

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