Specialty Polymer Coatings, Inc.

CORPORATE HEAD OFFICE: #104 - 20529 - 62nd Avenue, Langley, BC, CANADA V3A 8R4 Tel: (604) 514-9711 • Fax: (604) 514-9722
U.S.A. HEAD OFFICE: 6202 Brookdale Drive, League City, TX 77573 U.S.A. Tel: (713) 248-3951 • Fax: (281) 332-6948

Certified to ANSI/NSF 61

PRODUCT DATA SHEET SP-7888® - 100% SOLIDS EPOXY

DESCRIPTION:

SP-7888® is a 100% solids, two-component epoxy used as a single coat interior lining and exterior coating system for potable water storage facilities, pipe and treatment plants. Also utilized on valves, pumps and fittings related to potable water equipment.

QUALIFICATIONS:

- Certified by the National Sanitation Foundation International (NSF) in accordance with ANSI/NSF Standard 61 for use on the interior of potable water storage tanks of 500 gallons and greater, and valves and pipes with diameters greater than 6 inches.
- **SP-7888®** meets the requirements of ANSI/AWWA Standard C210-97, Liquid Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines.

ADVANTAGES:

- 100% Solids – no VOCs.
- Superior water resistance, fresh and salt.
- Superior corrosion resistance.
- Self-priming to steel substrates.
- Single coat application to thicknesses normally requiring two to three coats.

USES:

- Lining for water storage tanks and pipelines.
- Coating for water and sewage treatment plants.
- Coating for dam gates and penstocks.

APPLICATION:

- Spray Grade: Plural Component Graco Hydra-Cat Airless Spray. Tip Size .019-.031.
- Brush Grade: Brush or Roller.

CLEANING MATERIALS:

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

RECOMMENDED DRY FILM THICKNESS:

- Immersion Service: 16 to 40 mils (400 to 1000 microns) for potable water service.

SURFACE PREPARATION:

(Steel Substrate):

- **Cleanliness:** Near White. Surfaces to be treated shall be completely dry and free of grease, oil, soil, dust, abrasive material or other contaminants at the time the coating is applied. Remove grease and oil with a suitable detergent. Remove salts and other contaminants by high-pressure fresh water cleaning.
- **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)

(Concrete Substrate):

- **Cleanliness:** Remove all laitance and other surface contaminants by grit blasting or mechanical scarification. Following the preparation of the concrete surface, an initial thin light coat of **SP-7888®** is to be applied to the surface and thoroughly rolled into the pores of the concrete. **SP-7888®** is then to be applied to the specified coating thickness.

RE-COAT INTERVAL:

- Minimum: 8 Hours @ 25°C (77°F)
- Maximum: 48 Hours @ 25°C (77°F)
- **SP-7888®** is a one-coat application product. However, to correct film thickness deficiencies, coating damage or for application to concrete after the re-coat interval of the initial thin coat has been exceeded, the surface must be sweep blasted or sanded to ensure inter-coat adhesion. Large areas > 316 sq. cm (> 49 sq. in.) must be sweep blasted. 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.

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

PRIMER COAT: None – **SP-7888®** is self-priming.

HANDLING PROPERTIES:

Pot Life (Spray Application) [Base @ 55°C (131°F) & Hardener @ 35°C (95°F)]	15 minutes
Pot Life (Brush Application) [Base & Hardener @ 25°C (77°F)]	1 hour 30 minutes
Dry Time (ASTM D-1640) [25°C (77°F)]	
Tack-Free Time	5 Hours
Dry Hard Time	10 Hours
Full Cure	4 Days

Substrate Temperature.....
- Minimum Substrate Temperature: 10°C (50°F).
- To avoid condensation, the substrate temperature must be a minimum of 3°C (5°F) above the dew point temperature. **SP-7888®** is capable of curing down to 5°C (41°F) but the Dry Time will be extended. Refer to the attached Curing Table.

Drum Temperature ..... Spray Application:
- Base: 50°C – 55°C (122°F – 131°F)
- Hardener: 25°C – 35°C (77°F – 95°F)

In-Line Temperature ..... Spray Application:
- Base: 65°C – 75°C (149°F – 167°F)
- Hardener: 25°C – 35°C (77°F – 95°F)

Mixed Temperature ..... Spray Application:
- 65°C – 75°C (149°F – 167°F)

Coating Temperature Range... Brush Application for Striping / Coating Repairs: The ideal coating temperature range for mixing and application is from 15°C to 25°C (59°F to 77°F).

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.

PRODUCT DATA SHEET — SP-7888® - 100% SOLIDS EPOXY

LIQUID PROPERTIES:	BASE	HARDENER
Appearance	White Viscous Liquid.	Blue Liquid.
Volume Solids (%)	100%	100%
Specific Gravity (ASTM D-792)	1.60	1.00
Coverage (Theoretical)	Base & Hardener Mixed:	102 sq. ft./U.S. Gallon (16 mils DFT). 2.5 sq. m/litre (400 microns DFT).

PHYSICAL PROPERTIES:

Adhesion to Steel:	
Dry Adhesion (Pull-off Strength) (PSI) (ASTM D-4541-95-A4) [25°C (77°F)]	
(Self-Alignment Adhesion Tester, Type IV)	>3000
Wet Adhesion (Hot Water Soak) (CSA-Z245.20-02, Clause 12.14, 28 Days)	
[Modified to 75°C (167°F)]	Rating #1
Cathodic Disbonding Test (mm) (CSA-Z245.20-02, Clause 12.8)	
[Modified to 28 Days @ 65°C (150°F)]	10
Elongation (%) (ASTM D-522 Type B)	9.0
Flexibility (ASTM D-522 Type B)	¾" Mandrel
Hardness (Shore D) (ASTM D-2240-91) [25°C (77°F)]	75

SAFETY: Read the Material Safety Data Sheets before use.

NOTE: All epoxy coatings will change colour, lose gloss and chalk on exterior exposure. However, the protective properties of the material will not be affected.

EFFECTIVE DATE: October 13, 2006