PRODUCT DATA SHEET

PROTAL™ 600 CTE Low VOC

A Low Volatile Organic Compound High Build Coal Tar Epoxy

Description

Protal 600 CTE Low VOC is a two-part high build coal tar epoxy that has low VOC's. It can be applied as a single or two-coat system. It is a polyamide with excellent abrasion and chemical resistance.

Uses

For long-term corrosion protection of steel and concrete substrates against water, wastewater, seawater, alkaline water and acidic water corrosion. Designed to coat steel piles, sheet piles, lock gates, reservoirs, non-potable water pipelines, treatment / storage tanks, bridges and many other aggressive industrial applications.

Features

- 0.4 lbs/gal (50 g/l) VOC
- Excellent resistance to water, seawater, wastewater, alkaline water and acidic water
- Good impact resistance
- Excellent flexibility, hardness, and adhesion
- Excellent abrasion resistance
- No primer required
- High build 16 to 25 mils (406 to 635 microns) in one coat
- Can be used with cathodic protection systems
- Exceeds Corp of Engineers C-200, C200a
- Exceeds AWWA C-210 for exterior
- Can be brush or spray applied

Application

Steel: All contaminants shall be removed from the steel surface to be coated. Remove oil, dust, and grease and other contaminants that could interfere with adhesion of the coating. Surfaces shall be free from projections, sharp edges, high points and fillets must be ground smooth including all corners. For immersion service, prepare surfaces by grit blasting to a clean near-white finish, SSPC-SP 10 or NACE No. 2. For non-immersion service, prepare surfaces using SSPC-SPC6 or NACE No.3. Appropriate angular grit shall be used to achieve a 2.0 to 4.0 mil (50 to 100 microns) anchor profile.

Concrete: Concrete must be cured 28 days at 77°F (25°C) and 50% relative humidity. All surfaces shall me prepared in accordance with ASTM D4258 and ASTM D4259. All voids in concrete shall be filled and repaired.

Spray: A single leg airless unit shall be used. The unit shall be a minimum of 68:1 airless pump. A wet-on-wet spray technique should be used to achieve 11 to 22 mils (280 to 559 microns). The coating thickness should be measured using a wet-film thickness gauge.
Mixing: Power mix both A & B separately then combine and power mix thoroughly for two minutes. Do not mix partial kits.

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Property Specifications

Properties	English	*Metric*
Solids by volume	80%	*80%*
VOC	0.4 lbs/gal	50 g/L
Specific Gravity	1.4	*1.4*
Minimum Dewpoint/Substrate Differential	Dewpoint +5°F	*Dewpoint +3°C*
Minimum Substrate Temperature	40°F	*5°C*
Theoretical Coverage (need to allow for loss during mixing and application)	80 SF/Gal @ 16 mils	*1.96 m^2/L @ 406 microns*
Spray Equipment Required	68:1 airless	*68:1 airless*
Hot Salt Fog 95°F (35°C) ASTM B117	2000 hours	*2000 hours*
Adhesion ASTM D 4541	3,400 psi	*23.4 MPa*
Wet Film Thickness Per Coat*		
(minimum)	11 mils	280 microns
(maximum)	22 mils	559 microns
Dry Film Thickness Per Coat*		
(minimum)	8 mils	203 microns
(maximum)	16 mils	407 microns
Flash Point	40°F	5°C
Abrasion Resistance ASTM D 4060-01		
1000 cycles, CS17 wheel, 1000 gram load	111 mg loss	*111 mg loss*
Pot Life @ 77°F (25°C)	2 hour	*2 hour*
@ 90°F (32°C)	1 hour	*1 hour*
Dry to Touch @ 50°F (10°C)	6 hours	*6 hour*
@ 77°F (25°C)	3 hours	*3 hour*
@ 90°F (32°C)	1.5 hours	*1.5 hour*
Final Cure Immersion service @ 50°F (10°C)	14 days	*14 days*
@ 77°F (25°C)	7 days	*7 days*
@ 90°F (32°C)	5 days	*5 days*
Minimum Overcoating time @77°F (25°C)	5 hours	*5 hours*
Temperature (Immersion)	130°F	54°C
Temperature (Atmospheric)	200°F	94°C
Top Coat	Not Recommended	
Ratio by volume (A to B)	4:1	
Gloss	Semi-Gloss	
Color	Black	

***NOTE:** Total film thickness not to exceed 35 mils (889 microns) in thickness to prevent solvent entrapment.*

STORAGE: Minimum 18 months when stored in original unopened containers at 41°F (5°C) to 110°F (43°C).

CLEANING: Clean equipment with Xylene, Toluene or equivalent solvent cleaner. If work stoppage happens, then all material must be cleared out as to not allow product to set within equipment.

HEALTH AND SAFETY: Wear protective clothing and ensure adequate ventilation. Avoid contact with skin and eyes. See safety data sheet for further information.

PACKAGING: 1 gallon (3.8 liter) and 5 gallon (19 liter) kits. Other sizes available upon request.

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