

PROTAL 650 CTR™

Environmentally Friendly Alternative to Coal Tar Epoxy

Description

Protal 650 CTR (Coal Tar Replacement) is a two-part product formulated to replace coal tar epoxy. It is based on polyamide chemistry designed as an environmentally friendly alternative to hazardous coal tar epoxies for long-term corrosion protection of steel and concrete substrates against water and seawater corrosion.

Uses

- Steel and concrete surfaces that require a coating
- Corrosion protection of sheet piles
- Corrosion protection of steel piles
- Corrosion protection of reservoirs, lock gates and many other application
- All applications where a coal tar epoxy would be used

Features

- Excellent resistance to water / seawater
- Excellent impact resistance and adhesion
- Excellent flexibility and hardness
- High build 15 to 30 mils (381 to 762 microns) in one coat
- Touch dry 3 hours at 77°F (25°C)
- Can be brush or spray applied
- Environmentally friendly
- Low odor
- Non-Carcinogenic replacement for coal tar epoxy
- Performance consistent with Corps of Engineers C-200 Coatings
- Extremely low VOC's

Surface Prep

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. Appropriate angular grit shall be used to achieve a 2.0 to 4.0 mil (50 to 100 microns) anchor profile. For non-immersion service, prepare surfaces using SSPC - SP2 / SP3.



TECHNICAL DATA SHEET

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

Mixing

Power mix both A & B separately then combine and power mix thoroughly for two minutes. Do not mix partial kits.

Application

Airless: 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 17 to 33 mils (432 to 838 microns). The coating thickness should be measured using a wet-film thickness gauge.

Plural: A plural component spray unit with 3:1 fixed ratio. The unit shall have heated hoppers, in-line heaters and heated hose bundles.

Brush: Use a medium bristle brush.

Roller: Use a short-nap roller cover with phenolic core.

For complete application instructions please refer to Protal 650 CTR Application Specifications.

Storage

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

Cleaning

Clean equipment with MEK, Archco 400E™ Thinner or equivalent solvent cleaner.

HSE

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

Packaging

4 gallon (15 liter) kits
20 gallon (75 liter) kits
220 gallon (832 liter) kits
(Contact Denso regarding other kit sizes.)

TECHNICAL DATA SHEET

Tech Data

Properties	Imperial	Metric
Solids by Volume	90%	90%
Specific Gravity	1.4	1.4
Minimum Dewpoint / Substrate Differential	Dewpoint +5°F	Dewpoint +3°C
Minimum Substrate Temperature	50°F	10°C
Theoretical Coverage	73 SF/Gal @ 22 mils	19.3 SF/L @ 559 microns
Hardness (ASTM D-2240-02)	Shore D 70	Shore D 70
Spray Equipment Required	68:1 airless or plural	68:1 airless or plural
Salt Fog ASTM B117 (1500 Hrs)	Excellent	Excellent
Wet Film Thickness Per Coat*		
(minimum)	17 mils	432 microns
(maximum)	33 mils	838 microns
Dry Film Thickness Per Coat*		
(minimum)	15 mils	381 microns
(maximum)	30 mils	762 microns
Pot Life		
@ 77°F (25°C)	1 hour	1 hour
@ 90°F (32°C)	30 minutes	30 minutes
Dry to Touch		
@ 50°F (10°C)	6 hours	6 hours
@ 77°F (25°C)	3 hours	3 hours
@ 90°F (32°C)	1.5 hours	1.5 hours
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
Adhesion - ASTM D4541	2,050 psi	14.13 MPa
Abrasion Resistance, 1000 Cycles, CS-17 Wheels, 1 kg Load – ASTM D4060	218 mg loss	218 mg loss
Thinner	Not recommended	
Ratio by Volume (A to B)	3:1	
Gloss	Semi-Gloss	
Color	Black - Other Colors Available	



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