

# 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
- Good impact resistance
- Excellent flexibility, hardness, and adhesion
- High build 16 to 26 mils (406 to 660 microns) in one coat
- Touch dry 3 hours at 77°F (25°C)
- Can be brush or spray applied
- Environmentally friendly
- Non-Carcinogenic replacement for coal tar epoxy
- Exceeds AWWA C-210 specifications

### 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.

**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



# TECHNICAL DATA SHEET

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

**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 16 to 26 mils (406 to 660 microns). The coating thickness should be measured using a wet-film thickness gauge.

**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.

## Health & Safety

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

## Packaging

5 gallon (19 liter) kits. Contact Denso regarding other kit sizes.

# Protal 650 CTR™

## TECHNICAL DATA

PROPERTIES	ENGLISH	METRIC
Solids by Volume	78%	78%
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	78 SF/Gal @ 16 mils	20 SF/L @ 406 microns
Hardness (ASTM D-2240-02)	Shore D 70	Shore D 70
Spray Equipment Required	68:1 airless	68:1 airless
Salt Fog ASTM B117 (1500 Hrs)	Excellent	Excellent
Cathodic Disbondment @ 75°F (24°C) 30 Days ASTM 68	0.37 in.	9.5 mm
Wet Film Thickness Per Coat*		
(minimum)	16 mils	406 microns
(maximum)	26 mils	660 microns
Dry Film Thickness Per Coat*		
(minimum)	12 mils	304 microns
(maximum)	19 mils	482 microns
Pot Life @ 77°F (25°C)	2.5 hours	2.5 hours
@ 90°F (32°C)	1 hour	1 hour
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	3,000 psi	20.6 MPa
Abrasion Resistance, 1000 Cycles, CS-17 Wheels, 1 kg Load – ASTM D4060	191 mg loss	191 mg loss
Thinner	Not recommended	
Ratio by Volume (A to B)	4:1	
Gloss	Semi-Gloss	
Color	Grey - Other Colors Available	



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