TECHNICAL DATA SHEET

PROTAL™ 7900HT

High Temperature Pipeline Coating

Description

Protal 7900HT is a VOC free, 100% solids epoxy coating for pipelines operating at higher temperatures. It is a high build liquid coating that can be hand or spray applied in one coat in the field or shop. It cures fast to allow quick backfill when applied to hot pipe.

Uses

Spray or hand applied to pipelines operating at elevated temperatures.
Used on girth welds, pipe, fittings, valves and fabrication.

Features

- High build (up to 60 mils / 1524 microns in one coat)
- Can be hand or spray applied
- Excellent adhesion
- Intermittent service temperature up to 300°F (150°C)
- Very low permeability
- High abrasion resistance
- Safe and environmentally responsible
- Does not shield cathodic protection
- CSA Z245.30 compliant
- Meets AWWA C-210-92 Standard
- Outstanding self-leveling characteristics

Application

Brush: Prepare surfaces by abrasive blasting to a clean near white finish, SSPC-SP 10/ NACE No. 2. Appropriate angular abrasive shall be used to achieve a 2.5 to 5 mil (0.063 - 0.125 mm) anchor profile. Independently mix Part A (resin) and Part B (hardener) prior to adding the hardener to base and mix at a slow speed until a constant color is achieved making sure all sides of container are scraped. Pour mixed material onto surface and brush, trowel or roll to required mil thickness. A wet film thickness gauge shall be used to measure mil thickness. If surface temperature falls below 50°F (10°C), surface should be preheated to achieve faster cure. Preheat may be achieved with a propane torch or induction coil. Resin and hardener component shall be kept warm, at a minimum of 60°F (15°C), to mix easily. Product can be applied to surfaces ranging from 40°F (4°C) to 220°F (105°C) at a minimum of 30 mils. Immediately pour mixed material onto surface and brush, trowel or roll to required mil thickness. A wet film thickness gauge should be used to measure mil thickness.

Spray: Prepare surfaces by abrasive blasting to a clean near-white finish, SSPC-SP 10 / NACE No. 2. The equipment should be a plural component airless spray unit with a proportioning pump capable of a volume mixing ratio of 3:1. Standard ancillary equipment should include minimum 10 gallon (37.85 liter) hoppers, 2 ea. static mixers, 25 ft. (7.3 m) max x 1/4" (0.64 cm) whip hose, and mastic gun with a 19 to 27 thou tip. (Applicator should consult with Denso regarding recommended equipment). Part A should be heated to 130°F - 140°F (54°C - 60°C) and Part B heated to 150°F - 160°F (65°C - 71°C). Hose bundle shall be set at 135°F - 145°F (57°C - 63°C). A wet-on-wet spray technique should be used to achieve a minimum thickness of 25 mils (635 microns). The coating thickness should be measured using a wet-film thickness gauge. The equipment settings are only guidelines and may vary based on equipment.

For complete application instructions please refer to Protal 7900HT application specifications.

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Storage

Minimum 24 months when stored in original containers between 40°F (4°C) and 100°F (38°C). On job-site where temperatures are below 68°F (20°C) product must be kept warm to mix properly.

Cleaning

Clean equipment with MEK or equivalent solvent cleaner.

Health & Safety

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

Packaging

1, 2, 75 and 800 liter kits

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TECHNICAL DATA SHEET

Tech Data

Properties	Imperial	*Metric*
Solids Content	100%	*100%*
Base Component (Unmixed) @ 77°F (25°C)		
Specific Gravity	1.54	*1.54*
Viscosity	43,000 cps	*170,000 cps*
Color	White	*Green*
Hardener (Unmixed) @ 77°F (25°C)		
Specific Gravity	1.43	*1.43*
Viscosity	27,800 cps	*2 7,800 CPS*
Color	Black	*Black*
Mixed Material @ 77°F (25°C)		
Specific Gravity	1.51	*1.51*
Viscosity	40,000 cps	*40,000 cps*
Color	Gray	*Gray*
Mixing Ratio (A/B) by Volume	3 Parts Base: 1 Part Hardener	*3 Parts Base: 1 Part Hardener*
Pot Life @ 77°F (25°C)	30 minutes	*30 minutes*
@ 97°F (36°C)	15 minutes	*15 minutes*
Theoretical Coverage	14 ft^2/30 mils/liter	*1.3 m^2/762 microns/liter*
Actual Coverage	8 - 10 sq. ft./liter	*0.7 m^2 - 0.9 m^2/liter*
Thickness		
Minimum/Maximum	25/60 mils	*635/1524 microns*
Cathodic Disbondment Test (ASTM G95)		
28 Days @ 176°F (80°C)	5.25 mm	*5.25 mm*
28 Days @ 250°F (120°C)	8.1 mm	*8.1 mm*
28 Days @ 302°F (150°C)	8.8 mm	*8.8 mm*
Abrasion Resistance	Excellent	*Excellent*
Adhesion to Steel	3,030 psi	*21 MPa*
Continous Maximum Service Temperature	250°F	*121°C*
Intermittent Maximum Service Temperature	300°F	*150°C*
Hardness (ASTM 2240)	Shore D min. 80+	*Shore D min. 80+*
Initial Handling @ 77°F (25°C)	4 to 6 hours	*4 to 6 hours*
Initial Handling @ 220°F (104°C)	15 to 20 minutes	*15 to 20 minutes*

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