

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 40 mils / 1016 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

Application

Brush: Prepare surfaces by grit blasting to a clean near white finish, SSC-SP 10/ NACE No. 2. Appropriate angular grit shall be used to achieve a 2.5 to 5 mil (0.063 - 0.125 mm) anchor profile. Initially stir the base and hardener. Add 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 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 (760 micron). Immediately pour mixed material onto surface and brush, trowel or roll to required thickness. A wet film thickness gauge should be used to measure thickness.

Spray: Prepare surfaces by grit blasting to a clean near white finish, SSC-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 hoppers, 2 ea. static mixers, 25 ft. (7.6 m) max x 1/4" (6.4 mm) whip hose and gun with a 19 to 31 thou tip. (Applicator should consult with Denso regarding recommended equipment). Part A should be heated to 120°F (49°C) and Part B heated to 105°F (40°C). Hose bundle shall be set at 125°F (52°C). A wet on wet spray technique should be used to achieve a minimum thickness of 20 mils (508 micron). The coating thickness should be measured using a wet film thickness gauge.



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TECHNICAL DATA

PROPERTIES	VALUE
Solids Content	100%
Base Component — unmixed @ 77°F (25°C)	
Specific Gravity	1.54
Viscosity	43,000 cP
Colour	White
Hardener — unmixed @ 77°F (25°C)	
Specific Gravity	1.43
Viscosity	27,800 cP
Colour	Black
Mixed Material — mixed @ 77°F (25°C)	
Specific Gravity	1.51
Viscosity	70,800 cP
Colour	Grey
Mixing Ratio (A/B) by Volume	3 Parts Base: 1 Part Hardener
Pot Life @ 77°F (25°C)	30 minutes
@ 97°F (36°C)	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	30/60 mils (760/1524 microns)
Holiday Detection	125 volts/mil (4,920 V/mm)
Cathodic Disbondment Test (ASTM G95)	
28 Days @ 176°F (80°C)	5.25 mm
28 Days @ 250°F (120°C)	8.1 mm
28 Days @ 302°F (150°C)	8.8 mm
Resistance to Cathodic Disbondment	Excellent
Abrasion Resistance	Excellent
Adhesion to Steel	3,030 psi (21 MPa)
Continuous Maximum Service Temperature	250°F (121°C)
Intermittent Maximum Service Temperature	300°F (150°C)
Hardness (ASTM 2240)	Shore D min. 80-85
Initial Handling @ 77°F (25°C)	4 to 6 hours
Initial Handling @ 220°F (104°C)	15 to 20 minutes

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

PACKAGING: 1, 75 and 800 L kits



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