

PROTAL 7200

Fast Cure, High Build Pipeline Coating

Description

Protal 7200 is a VOC free, 100% solids, 2 part epoxy coating specially formulated to compliment FBE coated pipe. It is a high build liquid coating that is brush or spray applied (referred to as Protal 7250 in Canada) in one coat in the field or shop. It cures very fast to allow quick handling and backfill times.

Uses

On-site protection of girth welds, tie-ins, welds for boring applications, repairs to FBE, push-rack applications, station piping, fittings and fabrication. Also used for main line pipe coating, sacrificial coating for directional drill (ARO) and road bore pipe, and rehabilitation of existing pipelines.

Features

- Fast touch dry and set times
- High temperature resistance up to 203°F (95°C)
- High build (up to 70 mils / 1778 microns in one coat)
- Excellent adhesion (compliments FBE coated pipe)
- High abrasion resistance for drilling applications
- Can be used as an abrasion resistant coating (ARO)
- Safe and environmentally friendly
- Does not shield cathodic protection
- Can be applied with brush, roller or spray
- Available in a variety of packaging options
- Meets AWWA C-210-92 specifications
- Outstanding self-leveling characteristics
- CSA Z 245.30-14 compliant

Application

Brush: Prepare surfaces by grit blasting to a clean near-white finish, SSPC-SP 10 / NACE No. 2. Appropriate angular grit shall be used to achieve a 2.5 to 5 mil (63 to 127 microns) 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. Apply 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.

Spray: Prepare surfaces by grit blasting to a clean near-white finish, SSPC-SP 10 / NACE No. 2. Appropriate angular grit shall be used to achieve a 2.5 to 5 mil (63 to 127 microns) anchor profile. The equipment shall be a XP70 Plural Component Sprayer designed to mix and atomize 100% solids epoxies. Please refer to the Protal 7200 Plural Spray Application Specification for equipment details. Part A should be heated to 140°F - 160°F (60°C - 71°C) and Part B heated to 100°F - 110°F (38°C - 43°C). Hose bundle shall be set at 140°F - 150°F (60°C - 65°C). A wet on wet spray technique should be used to achieve a minimum thickness of 20 mils (508 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.

All application personnel shall be trained by a Denso representative prior to application of Protal 7200. Spray application personnel shall be trained in the proper spray pump operational procedures by the specific spray pump manufacturer's representative.

For complete application instructions please refer to the Protal 7200 Application Specifications.



Protal 7200

TECHNICAL DATA

PROPERTIES	VALUE
Solids Content	100%
Mixed Material - (Mixed) @ 77°F (25°C)	
Specific Gravity	1.63
Viscosity	170,000 cps
Color	Green
Mixing Ratio (A/B) by Volume	3 Parts Base: 1 Part Hardener
Cure Times	
Pot Life @ 77°F (25°C)	14 - 17 Minutes
Pot Life @ 97°F (36°C)	7 - 8 Minutes
Handling Time @ 77°F (25°C) Shore D 70 min.	2.5 - 3 Hours
Handling Time @ 117°F (47°C) Shore D 70 min.	1 Hour
Handling Time @ 157°F (69°C) Shore D 70 min.	20 Minutes
Recoat Window	
@ 57°F (14°C)	5 Hours
@ 77°F (25°C)	2 Hours
@ 97°F (36°C)	1 Hour
Theoretical Coverage	14 ft ² (1.3 m ²)/30 mils/liter
Thickness - Weld Joints / FBE Repairs	
Minimum/Maximum	20/70 mils (508/1778 microns)
Recommended	25 - 30 mils (635 - 762 microns)
Thickness - Bore Pipe	
Minimum/Maximum	40/70 mils (1016/1778 microns)
Recommended	45 - 60 mils (1143 - 1524 microns)
Holiday Detection	Refer to NACE SPO188
Cathodic Disbondment Test (ASTM G95)	
28 Days @ 77°F (25°C)	3 mm
28 Days @ 150°F (65°C)	4 mm
28 Days @ 185°F (85°C)	6 mm
28 Days @ 203°F (95°C)	6 mm
Hardness (ASTM D-2240-02)	Shore D 85 +/-2
Impact Resistance (ASTM G14-04) @ 32°F (0°C)	70.6 in-lbs.
Tabor Abrasion (ASTM 4060-07)	
-1000 cycles, CS-17 wheels, 1000 g. load	1,270 cycles per mil (93 mg)
-5000 cycles, CS-17 wheels, 1000 g. load	1,612 cycles per mil (338 mg)
Gouge Resistance (Partech Test - 40 kg load)	15.4 mils (391 microns)
Dielectric Strength (ASTM D-149)	450 V/mil (17,716 V/mm)
Adhesion to Steel (ASTM D-4541-02)	3,956 psi (27.3 MPa)
Adhesion to FBE (ASTM D-4541-02)	2,579 psi (17.8 MPa)
Service Temperature	-40°F to 203°F (-40°C to 95°C)
Application Temperature	-30°F to 212°F (-34°C to 100°C)

Note: If temperature falls below 50°F (10°C), surface must be preheated and maintained throughout the cure process.

STORAGE: Minimum 24 months when stored in original containers @ 40°F (4°C) to 105°F (41°C). On job site where temperatures are below 50°F (10°C) product should be kept warm to mix properly (65°F to 85°F optimal). Do not allow material to freeze.

CLEANING: Clean equipment with Xylene, MEK, Acetone or equivalent solvent cleaner.

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

PACKAGING: 1, 1.5, 1.75 and 2 liter kits and 75 liter & 800 liter kits standard. Dual cartridge repair tubes (50 ml, 400 ml & 1000 ml) and dispensing guns available for small repair areas.



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