

## 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.

### Uses

Protal 7200 is used for on-site protection of girth welds, tie-ins, welds for boring applications, repairs to FBE, push-rack applications, station piping, fittings and fabrication. It can also be used for main line pipe coating, sacrificial coating for directional drill (ARO) and road bore pipe, and rehabilitation of existing pipelines.

Service temperature: -40°C to 95°C

### Characteristics

Protal 7200 is:

- high build (up to 1778 µm in one coat),
- resistant to high temperatures (up to 95°C),
- high abrasion resistant for drilling applications,
- can be used as an abrasion resistant coating (ARO),
- designed to complement FBE systems with excellent adhesion,
- does not shield cathodic protection,
- brush, roller or spray applied,
- fast curing (to allow quick handling and backfill),
- excellent self-levelling characteristics, and
- VOC free with 100% solids.

### Surface Preparation

Prepare surfaces by grit blasting to a clean, near-white finish, Sa3 / SSC-SP 10 / NACE No. 2. Surface profile should be 63-127 micron.

Surface temperature at application: 10°C to 100°C

If the surface temperature falls below 10°C, the surface should be pre-heated to achieve cure. Preheating of the surface may be achieved by propane torch or induction coil.

### Application

See *application statement* for further information.

Mixing ratio A:B by volume is 3:1.

Please consult safety data sheet for health & safety information.

### Brush Application

Resin and hardener temperature to ensure satisfactory mixing and application (brush): >15°C

Stir each component individually. Add the hardener to the base and mix at a slow speed until a constant colour is achieved, ensuring all material from the sides of the container is incorporated.

Pour mixed material onto surface and spread to a consistent film thickness. A wet film thickness gauge should be used to measure thickness.

### Spray Application

The equipment should be a XP70 Plural Component Sprayer or similar design to mix and atomize 100% solid epoxies. Please consult Denso regarding recommended equipment and settings.

Product temperature for application:

Part A: 60°C to 71°C, Part B: 38°C to 43°C

Hose bundle shall be set at 60°C to 65°C. A wet on wet spray technique should be used to achieve a minimum thickness of 508 microns. A wet film thickness gauge should be used to measure thickness. The equipment settings are only guidelines and may vary based on equipment.

### Availability

Protal 7200 is available in pre-measured kits of 1, 1.5, 2, 75 & 800 litres. Dual cartridge repair tubes (50 ml, 400 ml & 1000 ml) and dispensing guns are also available for small repair areas.

### Storage conditions

Store in a cool and dry place in original packaging. Minimum 24 months when stored in original containers at 4°C to 41°C. On jobsites where temperatures are below 10°C, Protal 7200 should be kept warm to mix properly (18°C to 29°C optimal).

### Waste material

Please apply the waste hierarchy to avoid or minimise waste where possible. Do not discard waste material, including packaging, in the surrounding environment. Please follow all relevant local legislation for disposal.

## Typical Properties

Solids content	100%
Mixing ratio by Volume	3 Parts Base : 1 Part Hardener
Colour <i>Part A</i> <i>Part B</i> <i>Mixed</i>	White Dark Green Green
Specific gravity @ 25°C <i>Mixed material</i>	1.63
Viscosity @ 25°C <i>Mixed material</i>	170,000 cps
Pot life @ 25°C @ 36°C	14-17 minutes 7-8 minutes
Handling times @ 25°C, Shore D 80 min. @ 47°C, Shore D 80 min. @ 69°C, Shore D 80 min.	2.5-3 hours 1 hour 20 minutes
Recoat window @ 14°C @ 25°C @ 36°C	Within 5 hours Within 2 hours Within 1 hour
Theoretical coverage	1.3 m <sup>2</sup> per litre (At 760 µm)
Thickness – Weld joints/ FBE repairs <i>Minimum/Maximum</i> <i>Recommended</i>	508/1778 µm 635 - 762 µm
Thickness – Bore pipe <i>Minimum/Maximum</i> <i>Recommended</i>	1016/1778 µm 1143 - 1524 µm
Gouge Resistance (Partech Test – 40 kg load)	391 µm
Dielectric Strength (ASTM D149)	17,716 V/mm
Tabor Abrasion (ASTM 4060-07) -1000 cycles, CS-17 wheels, 1000 g. load -5000 cycles, CS-17 wheels, 1000 g. load	1,270 cycles per mil (93 mg) 1,612 cycles per mil (338 mg)
Adhesion <i>To steel (ASTM D4541-02)</i> <i>To FBE (ASTM D4541-02)</i>	27.3 MPa (3,956 psi) 17.8 MPa (2,579 psi)
Cathodic Disbonding Resistance (ASTM G95) 28 days @ 25°C 28 days @ 65°C 28 days @ 85°C 28 days @ 95°C	3 mm 4 mm 6 mm 6 mm
Hardness (ASTM D 2240-02)	Shore D 80+
Impact Resistance (ASTM G14-14) @ 0°C	7.9 Nm

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