

DENSO PROTAL 7200 USA

DESCRIPTION	Denso Protal 7200 NA is a VOC free, 100% solids two part epoxy coating specially formulated to compliment FBE coated pipe. It is a high build liquid coating that is brush or spray applied 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 and road bore pipe, and rehabilitation of existing pipelines.
FEATURES	<ul style="list-style-type: none">- Fast touch dry and set times- High temperature resistance (up to 95°C)- High build (up to 50 mils in one coat)- Excellent adhesion (compliments FBE coated pipe)- High abrasion resistance for drilling applications- Can be used as an abrasion resistant coating- 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
APPLICATION	<p>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 anchor profile. Initially stir the base and hardener. Add the hardener to the base and mix until a constant colour 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 10°C (50°F), surface must be preheated to achieve cure. Preheat may be achieved with a propane torch or induction coil. Resin and hardener component shall be kept warm, at a minimum of 15°C (60°F), to mix easily.</p> <p>Spray: Prepare surfaces by grit 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 ration of 3:1. Standard ancillary equipment should include minimum 10 gallon hoppers, 2ea. static mixers, 25ft. max x1/4" 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 60°C-77°C (140°F-160°F) and part B heated to 38°C-43°C (100°F-110°F). Hose bundle shall be set at 60°C to 65°C (140°F to 150°F). A wet on wet spray technique should be used to achieve a minimum thickness of 20 mils. The coating thickness should be measured using a wet film thickness gauge. The equipment settings are only guidelines and may vary based on equipment.</p> <p>For complete application instructions see Denso Protal 7200 NA application Specifications.</p>
STORAGE	24 months when stored in original containers at 4°C to 41°C. On job-sites where temperatures are below 10°C (50°F) product should 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 sheet for further information.
PACKAGING	1, 1.5, 1.75 and 2 litre kits and 75 litre & 800 litre kits standard. Dual cartridge repair tubes (50ml, 400 ml & 1000 ml) and dispensing guns available for small repair areas.

DENSO PROTAL 7200 USA (cont'd)

TYPICAL PROPERTIES	DATA
Solids Content	100 %
Mixed Material – (Mixed) @ 25°C (77°F)	
Specific Gravity	1.63
Viscosity	170,000 cps
Colour	Green
Mixed Ratio (A/B) by Volume	3 parts base:1 part hardener
Cure Times	
Pot Life @ 25°C (77°F)	14-17 minutes
Pot Life @ 36°C (97°F)	7-8 minutes
Handling Time @ 25°C (77°F)	2.5 – 3 Hours
Handling Time @ 47°C (117°F)	1 Hour
Handling Time @ 69°C (157°F)	20 Minutes
Recoat Window	
@ 14°C (57°F)	5 Hours
@ 25°C (77°F)	2 Hours
@ 36°C (97°F)	1 Hour
Theoretical Coverage	14 ft ² /30 mils/litre
Thickness – Weld Joints / FBE Repairs	
Minimum/Maximum	20/70 mils
Recommended	25-30 mils
Thickness – Bore Pipe	
Minimum/Maximum	40/70 mils
Recommended	45-60 mils
Holiday Detection – Based on min. mil. Thickness specification	125 Volts/mil
Cathodic Disbondment Test (ASTM G95)	
28 days @ 25°C (77°F)	3mm
28 days @ 65°C (150°F)	4mm
28 days @ 85°C (185°F)	6mm
28 days @ 95°C (203°F)	6mm
Hardness (ASTM D-2240-02)	Shore D85 +/-2
Impact Resistance (ASTM G14-04)	70.6 in-lbs
Tabor Abrasion (ASTM 4060-07)	
-1000 cycles, CS-17 wheels, 1000 g. load	1,270 cycles per mil
Gouge Resistance (Partech Test – 40 kg Load)	15.4mils
Dielectric Strength (ASTM D-149)	450 V/mil
Adhesion to steel (ASTM D-4541-02)	3.956 psi
Adhesion to FBE (ASTM D-4541-02)	2.579 psi
Service Temperature	-40°C to 95°C
Application Temperature	-34°C to 100°C (-30°F to 212°F)
Note: If temperature falls below 0°C (32°F) surface should be preheated	

Important

Denso SA (Pty) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request.