

# PROTAL™ 7200 REPAIR CARTRIDGE

## Fast Cure Epoxy Repair Coating

### Description

Protal 7200 Repair Cartridges are specially formulated for patching and repairing damaged FBE and other liquid coated pipelines. The repair cartridges are packaged in 2-component tubes that are applied with a dispensing gun (sold separately). Two convenient sizes (400 ml and 50 ml) are available.

### Uses

Repair coating for damaged FBE and other liquid coated pipelines. Also used as coating of cadweld areas.

### Features

- Excellent adhesion (compliments FBE coated pipe)
- Fast cure
- High build (up to 70 mils / 1778 microns in one coat)
- High abrasion resistance for drilling applications
- Can be used as an abrasion resistant coating (ARO)
- Does not shield cathodic protection
- Meets AWWA C-210-92 Standard
- Outstanding self-leveling characteristics
- CSA Z245.30 compliant

### Application

Surface shall be roughened approximately 1" (25 mm) around all repair areas using a Carborundum cloth or 60 to 80 grit sandpaper and then remove the remaining dust with a clean, dry cloth, brush or clean compressed air. Material can be applied by injecting material into a small container and mixing until a uniform color is achieved or utilizing the Protal Static Mixing Tip. Material can then be brush applied to specified mil thickness (minimum 20 mils / 508 microns). Cure times are dependent on temperature and will be extended at cooler temperatures.

\*Please refer to "Protal 7200 Accelerated Cure Specifications for Repairs" to achieve a 5 minute cure time.



**Protal 7200  
Repair Cartridge  
(400 ml)**



**Protal Cartridge Gun  
3:1 (400 ml)  
Sold Separately**



**Protal Cartridge Gun  
3:1 (50 ml)  
Sold Separately**



**Protal 7200  
Repair Cartridge  
(50 ml)**



# Protal™ 7200 Repair Cartridge

## TECHNICAL DATA

### PROPERTIES

### VALUE

<b>Solids Content</b>	100%
<b>Mixed Material - (Mixed) @ 77°F (25°C)</b>	
Specific Gravity	1.63
Viscosity	170,000 cps
Color	Green
<b>Mixing Ratio (A/B) by Volume</b>	3 Parts Base: 1 Part Hardener
<b>Cure Times</b>	
Pot Life @ 77°F (25°C)	14 - 17 Minutes
Pot Life @ 97°F (36°C)	7 - 8 Minutes
Handling Time @ 77°F (25°C)	2.5 - 3 Hours
Handling Time @ 117°F (47°C)	1 Hour
Handling Time @ 157°F (69°C)	20 Minutes
<b>Recoat Window</b>	
@ 57°F (14°C)	5 Hours
@ 77°F (25°C)	2 Hours
@ 97°F (36°C)	1 Hour
<b>Theoretical Coverage</b>	14 ft <sup>2</sup> (1.3 m <sup>2</sup> ) /30 mils/liter
<b>Thickness - Weld Joints / FBE Repairs</b>	
Minimum/Maximum	20/70 mils (508/1178 microns)
Recommended	25 - 30 mils (635 - 762 microns)
<b>Thickness - Bore Pipe</b>	
Minimum/Maximum	40/70 mils (1016/1178 microns)
Recommended	45 - 60 mils (1143 - 1524 microns)
<b>Holiday Detection</b>	Refer to NACE SPO188
<b>Cathodic Disbondment Test (ASTM G95)</b>	
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
<b>Hardness (ASTM D-2240-02)</b>	Shore D 80+
<b>Impact Resistance (ASTM G14-04) @ 32°F (0°C)</b>	70.6 in-lbs.
<b>Tabor Abrasion (ASTM 4060-07)</b>	
-1000 cycles, CS-17 wheels, 1000 g. load	1,270 cycles per mil
<b>Gouge Resistance (Partech Test - 40 kg load)</b>	15.4 mils (391 microns)
<b>Dielectric Strength (ASTM D-149)</b>	450 V/mil (17,716 V/mm)
<b>Adhesion to Steel (ASTM D-4541-02)</b>	3,956 psi (27.3 MPa)
<b>Adhesion to FBE (ASTM D-4541-02)</b>	2,579 psi (17.8 MPa)
<b>Service Temperature</b>	-40°F to 203°F (-40°C to 95°C)
<b>Application Temperature</b>	-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).

**CLEANING:** Clean equipment with MEK or equivalent solvent cleaner.

**HEALTH AND SAFETY:** Apply under well ventilated conditions. Wear suitable protective clothing and glasses. See material safety data sheets.

**PACKAGING:** 400 ml and 50 ml dual cartridges.

Dispensing guns and static mixing tips (400ml or 50ml) sold separately.



**DENSO NORTH AMERICA**

**HOUSTON:**

9710 Telge Road,  
Houston, Texas,  
U.S.A. 77095  
Tel: 281-821-3355  
Fax: 281-821-0304

**TORONTO:**

90 Ironside Crescent,  
Unit 12, Toronto,  
Ontario, Canada M1X1M3  
Tel: 416-291-3435  
Fax: 416-291-0898

[www.densona.com](http://www.densona.com)

**A Member of Winn & Coales International**

The information given on this sheet is intended as a general guide only and should not be used for specification purposes. We believe the information to be accurate and reliable but do not guarantee it. We assume no responsibility for the use of this information. Users must, by their own tests, determine the suitability of the products and information supplied by us for their own particular purposes. No patent liability can be assumed.