Protal™ 7200

Accelerated Cure Specifications for Repairs

1.0 Scope

1.1 This specification may be used for pinhole holidays or mechanical damage with exposed steel. Please note that any government/project specification may supercede this specification.

2.0 Material and Storage

2.1 Material shall be Denso Protal™ 7200 Repair Cartridges as supplied by Denso (Australia) Pty Ltd.

2.2 Material shall meet the physical properties of the attached product data sheet.

2.3 Storage: Material shall be stored between 40° (4.4°C) to 100°F (38°C). Care shall be taken to insure the material is stored up right (arrows on boxes facing up). *Note: If the material is kept cold, it will become very viscous. Do not allow material to freeze.*

3.0 Procedure

3.1 Mark all holidays for repair.

3.2 Prepare the surface for coating.

3.2.1 Pinhole holidays & damages less than 36 sq. inches. (23,230 mm^2): Abrade the area around the holiday for 1" (25 mm) with 60-80 grit sandpaper or power drill with sanding disk until the gloss is removed. Then remove the remaining dust with a clean, dry cloth or clean compressed air.

3.2.2 Holidays/damage with exposed steel: Abrasive blast the bare steel to NACE #2 Near White Metal. Feather the blast into the parent coating for at least 2" (50 mm) around the holiday. Always angle the blast nozzle from the parent coating onto the bare steel when roughening the parent coating.

3.3 Preheat the area: With a propane torch or heat gun, heat the area for at least three to six inches around the holiday to be coated up to approximately 230°F (110°C). Move the torch briskly back and forth over the area. Measure the temperature with an infrared non-contact thermometer. It should take approximately two minutes to reach the required maximum temperature. No darkening of the parent coating is acceptable and any charred coating must be removed. If using a propane torch, the repair area shall then immediately be lightly abraded per section 3.2.1. By using the infrared thermometer, the coating application can take place when the surface temperature has reached to 212°F (100°C) or lower.

3.4 Coating: Use a Protal™ 7200 repair cartridge. There are two ways to use the cartridge.

3.4.1 With the static mixing tips: The first few pumps may not be completely mixed, eject the first few pumps and dispose of them as solid waste after they solidify. Pump out enough material to coat the abraded area directly onto the substrate. Spread out the coating to a uniform thickness with a spatula or paintbrush to a DFT of 25 mils (635 microns).

3.4.2 Without the static mix: Protal™ 7200 will harden in the static mixer in fifteen minutes at 77°F (25°C). If more than 15 minutes will elapse between repairs, either replace the mixer or mix by hand. To mix by hand, eject the required amount of coating material from the cartridge onto a clean tray or cup and hand mix the product with a stir stick until the coating color becomes uniform with no streaks. Apply the coating to 25 mils (635 microns) DFT on the area to be repaired using a spatula or paintbrush.

3.5 Post-heating: Using a heat gun post heat the coating for one minute by briskly moving the gun back and forth over the new coating. Allow the coating to cool for approximately one minute. For holiday detection the coating only need reach a "dry to touch" condition for a spring probe or "tack-free" for a conductive rubber probe.

3.6 Holiday inspection: After one minute of post-heating and one minute of cooling, the coating should reach a "dry to touch" condition (per ASTM D-1640). While this is not adequate for backfill, a spring-type holiday detector may be used over the patched area. If the spring leaves more than surface marks on the patched area, repair the area.

3.6.1 If the entire circumference has been tested by shielding the holiday and retesting with a spring holiday detector prior to patching, then a conductive rubber probe may be used for holiday detection of the repair. While the conductive rubber probe must be in physical contact with the holiday repair, no pressure need be exerted. Therefore, once the Protal™ 7200 has reached a tack-free condition where material will not adhere to the conductive rubber probe, holiday detection may proceed. A gloved hand may be used to determine when the Protal™ 7200 is no longer sticky.

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4.0 Note

4.1 Once the Protal™ 7200 has achieved a Shore D of 70, you may accelerate the cure by pouring water or wipe with a cold water soaked rag over the coating for approximately 1 minute in order to create a Shore D of 80 in 5 minutes or less.

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