



Nap-Gard®

7-0008

## PLANT APPLICATION

Revised: 16 September 2013

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### 1. SCOPE

- 1.1 This Application Procedure shall define the minimum requirements for the plant application of NAP-GARD® 7-0008 Internal Pipe Coating, including but not limited to materials, surface preparation, application, inspection and repair.

### 2. MATERIALS

- 2.1 Materials for the plant applied internal coating shall be a powdered, thermosetting resin trademarked NAP-GARD® as manufactured by Axalta Coating Systems, Houston, Texas. Material for touch-up or repairs shall be compatible with the finished coating and supplied by the coating manufacturer.

### 3. SURFACE PREPARATION

- 3.1 All oil and grease shall be removed prior to abrasive cleaning in accordance with SSPC-SP1-63.
- 3.2 All pipes should be preheated before grit blasting in order to prevent oxidation of the cleaned surface.
- 3.3 The surface to be coated shall be cleaned to a "White Metal" finish in accordance with Swedish Standards #Sa3 using steel grit, flint or garnet of appropriate particle size.
- 3.4 The blast pattern shall be uniform, angular anchor profile with a minimum depth of 38 µm (1.5 mils) to 100 µm (4.0 mils).
- 3.5 The surface will be inspected immediately after blasting and all slivers, scabs, and gouges made visible by blast cleaning shall be removed with media that will maintain the anchor profile.
- 3.6 Before coating, the pipe will be inspected for cleanliness and compliance with Section 3.3 above.
- 3.7 Total elapsed time between grit blasting and coating of the blasted surface shall be kept to a minimum to avoid the formation of oxides on the cleaned surface. Visual formation of such oxides shall cause the pipe to be re-blasted prior to coating.

NOTE: To achieve optimum performance in some severe environments, a baked phenolic primer may be needed.

### 4. APPLICATION

- 4.1 Spray apply a liquid phenolic primer (Nap-Gard® 7-1808) to the cleaned pipe/pipe components. The dried film thickness shall be between 19 µm (.75 mils) and 63 µm (2.5 mils). The surface temperature shall not exceed 150°F during the application of the primer. Heat the primed pipe in an oven (450°F to 475°F air temperature) temperature approximately 20 minutes to bring the temperature to 400 ± 25°F.

Apply Nap-Gard® 7-0008 using fluidized air system. Place the coated pipe into the post cure oven to bring the temperature to above 425°F.

Air cool or water quench (if needed) the pipe bringing it to ambient temperature.

- 4.2 Minimum dry film thickness for the system shall be specified by the purchaser but it is recommended that this specified minimum be no less than 425 µm (17 mils) and maximum 550 µm (22 mils).

- 4.3 The use of recycle powder shall be permitted if proper recovery and screening equipment is used and maintained. This equipment must meet the approval of the Purchaser and the coating manufacturer.

A properly designed recycle system automatically and continuously blends recycled powder with virgin powder in the delivery system.

Recycled powder should be screened and an 80 mesh screen is recommended.

- 4.4 All air used to fluidize, transport, and apply the powder shall be dry and free of oil. It is recommended that the dry air system be capable of delivering air of at least -20°F (-29°C) or lower.

*\*\*CAUTION\*\* Post cure time and temperature will vary with plant layout, cycle times, pipe sizes, and wall thickness. Therefore, the above information shall be used only as a guideline by the applicator to develop proper post cure times and temperatures. Cure should be verified by TM or other methods.*

## 5. INSPECTION

- 5.1 Dry film thickness measurements of the cured coating shall be made with a calibrated magnetic film thickness gauge. Calibration of gauge shall be verified daily utilizing U.S. Bureau of Standards certified coating thickness calibration standards.

- 5.2 Holiday detection shall be carried out at 125 volts D.C. per mil. The holiday detector used shall be low-amperage, with adjustable D.C. voltage, employing an audible signaling device. The holiday detector voltage shall be periodically checked with an accurate D.C. Voltmeter. The detector electrode shall be in direct contact with the surface of the coating to be inspected. There shall be no gaps in the electrode or separators between the electrode and the surface of the coating.

All holidays shall be clearly marked for repair.

- 5.3 Other tests shall include cure (TM) and adhesion tests using appropriate methods.

- 5.4 Chemical resistance tests using pressurized autoclave vessel may be conducted on coated samples. Test conditions shall be relevant to field/service conditions.

Always consult product Material Safety Data (MSDS) prior to handling.

**WARRANTY POLICY:** Axalta Powder Coating Systems USA, Inc. ("Seller") certifies that all coatings delivered to Customer in unopened factory filled containers meet all pertinent quality standards presented in Seller's current published literature. Since matters of surface preparation, application procedures, curing procedures and other local factors that affect coating performance are beyond Seller's control; Seller assumes no liability for coating failure other than to supply replacement material for coating material proven to be defective. Customer will determine suitability of this product for its use and thereby assumes all risks and liabilities in connection therewith. Seller will not be liable for any injuries, damages or other losses derived, directly or indirectly, from or as a consequence of Customer's use of the product. **SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, RELATING TO ITS PRODUCTS AND THEIR APPLICATION, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSES.**