



Nap-Gard®

7-1861

Two-Part Epoxy Repair Cartridge

Revised: 7 March 2014

DESCRIPTION

A high-performance, fast curing two part epoxy repair material Nap-Gard® 7-1861 is formulated for Field Coating of Girth Welds and coating repair for Nap-Gard® coated pipe. It has excellent cathodic disbondment performance at temperatures up to 95°C (203°F).

TYPICAL LIQUID PROPERTIES

Color:	Red	Theoretical Coverage:	1604 (ft ² /u.s. gal/mil)
Components:	7-1861 Cartridge	Mixing Ratio	2:1 by volume
Shelf Life*:	The shelf life is a maximum of 24 months in unopened containers. Store in a cool, dry well-ventilated area at temperatures between 5°C(41°F) and 40°C(108°F).		

* Transportation: The material is stable during transportation at temperatures below 25°C (77°F) and 50% RH.

TYPICAL PROPERTIES OF APPLIED FILM

<u>TEST / REQUIREMENT</u>	<u>METHOD</u>	<u>CRITERIA</u>	<u>RESULT</u>
Pot Life		@ 25°C (77°F)	16± 2 minutes
Cure Time		@ 77°F (25°C)	4 Hours
Dry Film Per Coat		(25 mils) minimum	625µm
Volume Solids	100%		
Handle		@ 27-32°	2-3 Hours
Touch		@ 25°C (77°F)	2 Hours
Tack Free		@ 25°C (77°F)	2 Hours
Number of Coats: one			
Cured Hardness Shore D	ASTM D2240-91	(25°C/77°F)	85
Salt Spray Resistance	ASTM B-117		>1,000 Hours
Tensile Adhesion to Steel	ASTM D-4541-Type IV	(25°C/77°F)	>3000 (PSI)
Specific Gravity	ASTM D-792		1.45 ± 0.03 Mixed
Water Vapor Permeability	ASTM D-1434		< 0.003 (perm-in)
Flexibility	Mandrel Bend Test	@ 75°F	> 2°PDL
Cathodic Disbondment	CSA Z245.20-10	(modified to 28 Days @80°C)	9-10 mm radius
Impact Resistance	CSA Z245.20-10	Impact @ -30°C ± 3°C Impact @ 25°C ± 3°C	Pass 1.5 Joules Pass 3.0 Joules

Technical Data Sheet

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Chemical Resistance Tests	7 days room temperature cure	
	10% Nitric Acid	
	10% Sodium Hydroxide	
	5% Sulfuric Acid	
	10% Sodium Chloride	No Change Observed
	5% Acetic Acid	
	Toluene	
	Ethyl Acetate	
	50% Ethanol	
	Mineral Oil	

TYPICAL ELECTRICAL PROPERTIES OF FILM

Dielectric Strength:	400 (volt/10 ³ in.)	Volume Resistivity:	1.0 x 10 ¹⁴ (ohm-cm)
ASTM D-792		ASTM D257	

GENERAL APPLICATION PARAMETERS

GENERAL

- Nap-Gard® 7-1861 Red Fast Cure Repair Material is a 100% solids, epoxy.
- This specification is applicable to the use of Nap-Gard® 7-1861 Red Fast Cure Repair Material, a heavy duty manual dispenser and optional static mixer for coating repairs. This system is recommended for the repair of pinholes and holidays of 300 mm (12 inches) or less in diameter.

PACKAGING

- Nap-Gard® 7-1861 Red Fast Cure Two Part Epoxy Repair Material:
 - a) 0.450 liter 7-1861 Red Fast Cure Repair Material Cartridge – consists of 300 ml of Base and 150 ml of Hardener.
- Heavy Duty Manual Dispensers:
 - a) 7-1860 NG GUN – use with 0.450 Liter Cartridge.
- Static Mixers: 7-1860 MIXER – optional

SURFACE PREPARATION

- Repair area shall be roughened using carborundum cloth, sandpaper, file or surface grinder. The adjacent coating should be abraded for a minimum distance of 25 mm (1") to ensure inter-coat adhesion.
- If necessary on larger repairs, feather the edges of the adjacent coating.
- Wipe with a clean cloth to remove dust. A dust respirator should be worn for all sanding or grinding activities.
- All surfaces to be coated shall be clean and completely dry prior to the application of the coating.

TEMPERATURE PARAMETERS DURING APPLICATION

To avoid risk of condensation, application should be done only when the temperature of the steel is at least 3°C (5°F) higher than the dew point. The acceptable substrate temperature range for the application of Nap-Gard® 7-1861 Two Part Epoxy Repair material is 10°C (50°F) to 100°C (212°F). Preheating of the substrate is required if the surface to be coated is below 10°C (50°F).

APPLICATION

- The minimum surface temperature for coating is 10°C (50°F). The substrate temperature must be a minimum of 3°C (5°F) above the dew point temperature.
- In cold temperature conditions or if an accelerated cure is required, the area to be coated may be preheated. The maximum preheat temperature shall not exceed 100°C (212°F).
- Using the manual dispenser, eject the required amount of coating material from the cartridge onto a clean tray.
- Hand mix the product with a stir stick until the coating color becomes uniform with no streaks.



- Using a spatula or paintbrush, apply the coating to the required thickness on the area to be repaired.
- Extend the coating to at least 25 mm (1 inch) over the surrounding coating.

SAFETY PRECAUTIONS

- The contractor will provide safe and secure scaffolding for ready access to work areas.
- Other contract services will be halted as necessary so as not to interfere with the workflow of the Nap-Gard® 7-1861 Two Part Epoxy Repair Material application.
- Nap-Gard® 7-1861 Two Part Epoxy Repair Material is **HARMFUL IF ABSORBED THROUGH SKIN, INHALED OR SWALLOWED**. It is a skin and eye irritant (Refer to **Material Safety Data Sheets**). Protective gloves and disposable coveralls are recommended.
- In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.
- No open flames, smoking or welding will be allowed in the immediate vicinity during the application of 7-1861 Two Part Epoxy Repair Material.
- All personnel on the application crew shall be informed of regulations regarding smoking, auto traffic restrictions, meaning of warning bells, horns and whistles, fire warnings and restricted areas.

MATERIALS

- No amount of Nap-Gard® 7-1861 Two Part Epoxy Repair Material shall be given, sold or exchanged for any consideration to any person without written permission from Axalta Coating Systems.
- The acceptable shipping and storage temperature range for Nap-Gard® 7-1861 Two Part Epoxy Material is 5°C (41°F) to 40°C (104°F).

SUBSTRATE TYPES

- This specification is applicable to standard steels only.
- Any exotic metals, stainless steel or other special types of steels or alloys may require different consideration as to surface preparation and Axalta formulations. Notification of the use of such metals must be made to Axalta.

CAUTION

Normal pot life is 16 minutes at 25°C (77°F). The pot life or time period before the material will gel, is about 30 minutes at 90°C. Only sufficient material for use within 20 minutes should be mixed prior to application.

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.**