



Nap-Gard®

7-2750

Rebar Fusion Bonded Epoxy

Revised: 3 October 2014

DESCRIPTION

Nap-Gard® Product No. 7-2750 Rebar Green FBE is a new generation thermosetting epoxy powder designed to coat reinforcing steel bar to provide corrosion protection, improved wet adhesion and provide lower temperature flexibility. This material is designed for application to straight bars that are subsequently bent and gives little cobwebbing when sprayed on multi-bar lines. It has been certified to meet requirements of ASTM A775/A775M – 07b by Independent testing labs.

TYPICAL POWDER PROPERTIES

Color:	Green	Theoretical Coverage:	154 Ft ² /lb/mil
Specific Gravity:	1.25 ± .05		
Typical Gel Time:	@ 205°C (401°F)	6 - 8 seconds	
ASTM D3451-06	@ 238°C (460°F)	4 - 6 seconds	
Shelf Life*	@ 25°C (77°F)	6 months	

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

TYPICAL PROPERTIES OF APPLIED FILM†

Recommended Film Thickness	ASTM A775/A775M – 07b: 8.1		7-12 mils
TEST / REQUIREMENT	METHOD	CRITERIA	RESULT
Flexibility	TM - 10.227	180° bend; 3.75" diameter pin: # 6 bar @ 23°C	Pass, no cracking
		180° bend; 3.75" diameter pin: # 6 bar @ 0°C	Pass, no cracking
Adhesion	ASTM D4541-09 Annex A1	Dry Adhesion	Average - 5400 psi
		Wet Adhesion - after exposure in RO water for 48 hours @ 75°C.	Average - 5100 psi
Cathodic Disbondment	CSA Z245.20-10; Clause 12.14	Wet Adhesion - after exposure in RO water for 72 hours @ 75°C.	Rating of 1, 1, 1
		48 hours, 65 °C, 1.5V, 3% NaCl	Average - 3.7 mm

TESTING OF COATING TO A775-97 (Annex A1)

A1.3.5 Flexibility	Bend#6 rebar/round 6 in. mandrel (10 mils)	No cracking on outside radius	Pass, no cracking @ 24°C20K
A1.3.7 Abrasion Resistance	ASTM D4060-10 / CS17, 1 Kg weight, 1000 cycles	<100 mg removal per 1000 cycles	14 mg average removal
A1.3.8 Impact Test	ASTM G14- 04 /9 Nm (80in/lb)	No cracking /shattering except @ impact area	No cracking /shattering
A1.3.2 Cathodic Disbondment	7 days, 1.5V, 3%NaCl, 23°C	<4.0 mm avg. Disbondment	2.8 mm avg. radial Disbondment
A1.3.3.3 Salt Spray - 800 h.,	ASTM B117-09	<3.0 mm avg. Disbondment	2.3 mm avg. radial Disbondment
A1.3.4 Chloride Permeability		<1.0 X1.04 moles/liter	1.2 105 moles/liter
A1.3.6 Relative Bond Strength to Concrete	ASTM A944-10	>85%	88% relative bond strength

TESTING OF COATING TO ASTM A775/A775M - 07b (Annex A1) CONT.

A1.3.1 Chemical Resistance	ASTM G20-10 46 days @ 24°C	Holiday free: No blisters, softening, lose bond, nor develop holidays	Passing all requirements
		With intentional holidays: No blisters, softening, lose bond, develop holidays, nor exhibit undercutting around intentional holiday	Passing all requirements

GENERAL APPLICATION PARAMETERS

Surface Preparation:

Clean the surface of the steel reinforcing bar by abrasive blast cleaning to a near white finish in accordance with SSPC-SP10 or to NACE #2. The cleaning shall remove all visual mill scale, rust and other foreign matter, and shall achieve a uniform anchor profile of 2.0-4.0 mils over the surface of the bar.

GEL TIME & CURE SCHEDULE GUIDELINES

Cure Specifications:

The Nap-Gard® 7-2750 Rebar Green FBE coating cures by residual heat.

- Pre-heat the bars to 425°F (218°C) to 463°F (239°C) [Depending on bar size].
- Apply Nap-Gard® 7-2750 powder coating to the film thickness required by electrostatic spraying.
- Minimum time to quench is 30 seconds. **
- Guideline booth exit temperatures for the 7-2750 coatings are as follows:
 - No. 3-6 bar 425°F - 435°F
 - No. 7-10 bar 415°F - 425°F
 - No. 11-18 bar 400°F - 415°F
- Inspect for damage and repair using an approved repair material listed below:
 - Tnemec Series 66 – G4056 Hi-Build Epoxoline®
 - Nap-Gard® 7-1868

**CAUTION - Time to quench will vary with application parameters and rebar sizes. Therefore, the above information shall be used only as a guideline by the applicator to develop proper time to quench. Cure should be verified by DSC or other methods.

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.**