

PRODUCT NUMBER: 7-2719

DESCRIPTION: Rebar Epoxy

Introduction:

Nap-Gard[®] Product No. 7-2719 Rebar is a thermosetting epoxy powder designed to coat reinforcing steel rebar to provide corrosion protection. This material is designed for application to straight bars that are subsequently bent. This material gives little cobwebbing when sprayed on multi-bar lines and is more damage resistant than our first generation of rebar coatings. It has been certified to meet requirements of A775-97 and AASHTO M-284 by Independent Labs.

POWDER PROPERTIES

Color:	Green	Theoretical Coverage:	152 Ft ² /lb/mil	
Specific Gravity:	1.27 ± .05	Typical Gel Time:	STANDARD	FAST
		ASTM D-3451-92 @ 205°C	8-10 Sec.	6-8 Sec.
		@ 239°C	4-5 Sec.	
Shelf Life @ 25°C (77°F):	6 months			
Note: At recommended storage conditions				

TESTING OF COATING

Flexibility:	Pass 4d bend on #4 bar (@23°C)	Knoop Hardness Number:	15.0 average @ 10 mils	
D.P.C. 10.227	@ 7-11 mils	A.A.S.H.T.O. M284 a.1.4.8 (must exceed 12)		

Chemical Resistance: 45 days @ 24°C (75°F)
ASTM G20 in 3 Molar NaCl and 7% NaCl
*No holidays developed, there was no softening, blistering or loss of bond at intentional holiday.

TESTING OF COATING TO A775-97 (ANNEX A1)

TEST	CRITERIA	RESULT
8.1 Film Thickness	90% of readings / 7-12 mils	7.6-12.2 (avg. 10.8) mils
A1.2.5 Flexibility (Bend #6 rebar/round 6 in. mandrel)	No cracking on outside radius	Pass, no cracking @ 24°C
A1.2.7 Abrasion Resistance ASTM D4060-95 / CS17, 1 Kg weight, 1000 cycles	<100 mg removal per 1000 cycles	14 mg average removal
A1.2.8 Impact Test ASTM G14 9 Nm (80in/lb)	No cracking /shattering except @ impact area	No cracking/shattering
A1.2.2 Cathodic Disbondment 7 days, 1.5V, 3%NaCl, 23°C	<4.0 mm avg. Disbondment	3.2 mm avg. radial Disbondment
A1.2.3 Salt Spray 800 h., ASTM B117	<3.0 mm avg. Disbondment	2.1 mm avg. radial Disbondment
A1.2.5 Chloride permeability FHWA A-RD-74-18	<1.0x10 ⁻⁴ moles/liter	1.3x10 ⁻⁵ moles/liter
A1.2.6 Relative Bond Strength To concrete ASTM A944	>85%	121% relative bond strength

Revised 12/06/04

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Chemical Resistance

ASTM G 20 45 days @ 70°F (21°C); in distilled water, 3 Molar CaCl₂, 3 Molar NaOH, Saturated Ca (OH)₂. For all solutions, no holidays developed, there was no softening, blistering or loss of bond at intentional holiday.

APPLICATION GUIDELINES

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.

Cure Specifications:

The Nap-Gard Rebar 7-2719 coating cures by residual heat.

1. Pre-heat the bars to 425°F (218°C) to 463°F (239°C) [Depending on bar size]
2. Apply Nap-Gard 7-2719 powder coating to the film thickness required by electrostatic spraying.
3. Minimum time to quench is 28 seconds @ 463°F (239°C) application temperature
4. Guideline booth **exit temperatures** for the 7-2719 coating are as follows:
 - a) No. 3-6 bar 425°- 435°F
 - b) No. 7-10 bar 415°- 425°F
 - c) No. 11-18 bar 400°- 415°F

Repairs: Use Nap-Gard 7-2727 or 7-1870 Patching Compounds.

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