



# Nap-Gard®

## 7-2610 Series

## Nap-Rock Dual Powder System

Revised: 30 September 2022

### DESCRIPTION

This superior thermoset system is designed to provide excellent damage resistance to underground and subsea pipelines in the toughest environments including river and road crossings and rocky, mountainous terrain. Excellent abrasion and impact resistance combined with good flexibility makes this product unique in providing protection against possible damage to corrosion base coat during pipe transportation, and pipe laying construction. 7-2610 series is offered in gray (7-2610) and brown (7-2610M).

This Dual Powder System consists of a thermoset topcoat, Nap-Gard® 7-2610 series, designed to be applied directly to one of the Nap-Gard® corrosion protection Fusion Bonded Epoxy Systems, 7-2500, 7-2501, 7-2508 Series, 7-2514EN Series.

### TYPICAL POWDER PROPERTIES

<b>Color:</b>	Gray (7-2610) Brown (7-2610M)	<b>Theoretical Coverage:</b>	122.5 Ft <sup>2</sup> /lb/mil
<b>Specific Gravity:</b>	1.57± .05	<b>Shelf Life*:</b>	12 months
<b>Density:</b>	1570 ± 50 g/L		
CSA Z245.20-22 (Section 12.6.2.3)		@ 25°C (77°F)	
<b>Typical Gel Time:</b>	Standard Gel Version	10 ± 2 Seconds	
@ 204°C (400°F)	Long Gel Version	26 ± 5 Seconds	
CSA Z245.20-22			

\* 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** This is selected based on the size and wall thickness of the pipe. Heavier film thickness required for more demanding environments such as road crossings. Consult Nap-Gard® Specialist for specific recommendations.

**Base Coat** 250µm (10 mils) Average  
[This can vary from 200µm (8 mils) to 500µm (20 mils)]

**Top Coat – 7-2610 series** 375µm (15 mils) Average  
[This can vary from 300µm (12 mils) to 875µm (35 mils)]

<u>TEST / REQUIREMENT</u>	<u>METHOD</u>	<u>CRITERIA</u>	<u>RESULT</u>
Impact Resistance	CSA Z245.20-22	@ -30°C (-22°F) 9.5J @ 38 mils	Pass
Bending	CSA Z245.20-22 @ 0°C (32°F)	4.5°/pipe dia. (@ 40 mils total)	Pass
	CSA Z245.20-22 @ -30°C (-22°F)	3.7°/pipe dia. (@ 45 mils total)	Pass



	CSA Z245.20-22 @ -40°C (-40°F)	3.3°/pipe dia. (@ 46 mils total)	Pass
<b>Tg of Cured Film</b>	By DSC-CSA Z245.20-22 (T <sub>g3</sub> ): By DMA:		110 ± 6°C  118°C
<b>Taber Abrasion</b>	ASTM D4060	C17 wheel, 1 Kg, 5000 Cycles	55 mg removal
<b>Compressive Strength</b>	ASTM D695-97		>10,000 psi
<b>Tensile Strength</b>	ASTM D2370		Strength at break 6470 psi
<b>Elongation</b>	ASTM D2370		4.9%
<b>Cathodic Disbondment</b>	CSA Z245.20-22 28 days, 25°C, 1.5 V, 3% NaCl soln.	3 – 5 mm radial Disbondment	Pass
	24 h. 65°C, 3.5 V, 3% NaCl soln.	2 – 3 mm radial Disbondment	Pass
<b>Water/Soak Adhesion</b>	CSA Z245.20-22 75°C, 24 h 75°C, 28 days	Rating of 1 Rating of 1	Pass Pass
<b>Gouge Resistance (Partech Test)</b>	@ 1300µm (52 mils) total, 23°C	50 kg weight, gouge depth 14 mils	Pass, no holidays
	SL-1 Smooth Bit	75 kg weight, gouge depth 34 mils	Pass, no holidays
<b>Thermal Conductivity</b>	ASTM C177	0.23 ± 0.02 BTU/hr./ft <sup>2</sup> /ft./°F	
<b>Shear Adhesion</b>	ASTM D1002-94	Average	5363 psi

† Performance depends on film thickness. Consult Nap-Gard® Specialist for specific recommendations.

#### TYPICAL ELECTRICAL PROPERTIES OF FILM

<b>Dielectric Strength</b> ASTM D149-97	1000 volts/mil	<b>Breakdown Voltage</b> ASTM D149-97	>20000 volts @ 650µm (26mils) total
<b>Dielectric Constant</b> ASTM D150	4.04 @ 1 MHz	<b>Volume Resistivity</b> ASTM D257	1.26 x 10 <sup>15</sup> ohm-cm

#### GENERAL APPLICATION PARAMETERS

- Base coat must be at or above 218°C (425°F) to apply 7-2610 series. The use of a separate reclaim system is recommended.
- Apply Nap-Gard® base coat followed by Nap-Gard® 7-2610 series using electrostatic spray or flocking application.
- Water quench after allowing sufficient time for proper cure. For line pipe, apply 7-2610 series in-line before base coat has cured.
- Follow recommended cure schedule (see below).
- Cure should be verified by DSC or other methods.
- Electrically inspect for holidays. Repair with Nap-Gard® 7-1862 or 7-1861.
- If girth welds are being coated, refer per Axalta's "Nap-Gard® Field Girth Weld Application Procedure".

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

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## CURE<sup>†</sup> SCHEDULE GUIDELINES

The minimum post application curing temperature (as measured on the pipe) shall conform to the cure schedule of the base coat. (Refer to Nap-Gard<sup>®</sup> 7-2500, 7-2501, 7-2508 Series, 7-2514EN Series technical data sheets). However, a minimum 90 seconds at 218°C (425°F) or higher is needed for proper cure.

**\*\*CAUTION\*\*** Recommended quench time is based on the assumption that the listed temperature is maintained without any cool down rate. Quench time will vary with application parameters and pipe sizes. Therefore, the above information shall be used only as a guideline by the applicator to develop proper quench time. Cure should be verified by DSC or other methods. 90 second minimum quench time is for nominal thickness; 180 seconds of quench time may be needed for film thickness over 50 mils.

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