



# Nap-Gard<sup>®</sup>

External Pipe FBE Powder Coatings







## Complete Portfolio

Comprehensive offering includes:

- » Single-layer
- » Dual-layer
- » Primers for multi-layer systems (PE and PP)
- » High Glass Transition ( $T_g$ )
- » NSF/ANSI 61 applications
- » Girth weld coatings



# A reputation built on more than 50 years of demonstrated protective coatings experience.

Nap-Gard® fusion bonded epoxies (FBE) are trusted by engineers around the globe to protect valuable piping assets from corrosion, erosion, and chemical attack. As the industry leader in innovation, Axalta continues to develop and improve a wide range of products to protect pipelines in even the most demanding transportation, installation, and operating environments.

Whether your application is oil and gas, potable water, or wastewater, Nap-Gard FBE powder coatings provide lasting protection against corrosion while extending the life of your piping assets.

## Benefits:

- » High flexibility
- » Excellent resistance to mechanical damage
- » Superior substrate protection from water and chemicals
- » Outstanding cathodic disbondment performance
- » Best-in-class adhesion to steel

## Stress-free Application:

Nap-Gard consistent quality, low porosity formulas deliver a smooth and uniform finish on pipe. Axalta offers a wide selection of options for every application scenario:

- » Manual or in-line spray methods
- » Multiple cure temperatures and dwell times
- » Fast application line speeds
- » Large or small diameter pipe
- » UV and abrasion resistant overcoat compatible

External Single Layer		ARO		External Dual Layer				
Name	7-2500 Series	7-2514EN Series	7-2525	7-2555	7-2610 Series	7-2502NS Series	7-2504	7-2675
Primary Applications	Underground and subsea pipeline service, internal coating for steel pipe and fittings for NSF 61 potable water service, primer for multilayer systems	Underground and subsea pipeline service requiring better cathodic disbondment performance, primer for multilayer systems	Underground and subsea pipeline service, primer for multilayer systems in slightly elevated temperature environments	Underground and subsea pipeline service and primer for multilayer systems operating at high temperatures	Excellent abrasion and impact protection during pipe transportation, and construction, and installation	Use with standard Nap-Gard® FBE to provide additional shear slip resistance on concrete coated pipe	Applied directly to Nap-Gard® FBE Systems to boost performance at higher operating temperatures	Designed to be applied directly to Nap-Gard® 7-2555 for high temperature applications and better chemical resistance
Color	Red Green	Red Green	Reddish Brown	Reddish Brown	Brown Grey	Red Green	Gold	Blaze Orange
Type	Fusion Bonded Epoxy	Fusion Bonded Epoxy	Fusion Bonded Epoxy	High T <sub>e</sub> Fusion Bonded Epoxy	Abrasion Resistant Overcoat	Non-Slip Overcoat	Moisture Barrier	Improved Moisture Barrier
Tg <sub>2</sub>	108±6°C	107±6°C	125±7°C	163±9°C	-	-	95±6°C	96±5°C
Recommended Nominal Thickness	350µm (14 mils)	350µm (14 mils)	350µm (14 mils)	Avg: 450µm (18 mils) Min.: 350µm (14 mils)	Min.: 300µm (12 mils) Max.: 875µm (35 mils)	62µm (2.5 mils)	430µm (17 mils)	430µm (17 mils)
Operating Temperature	107°C (225°F)	107°C (225°F)	-	155°C (311°F)	-	-	130°C (265°F)	180°C (356°F)
Cathodic Disbondment	CSA Z245.20-14 24 hr, 3.5 V, 65°C 1.2 mm radius 28 days, 1.5 V, 23°C 2.3 mm radius 28 days, 1.5 V, 65°C 7.2 mm radius Strained CD: Pass	CSA Z245.20-14 24 hr, 3.5 V, 65°C 1.2 mm radius 28 day, 1.5 V, 23°C 2.3 mm radius 28 day, 1.5 V, 80°C <9 mm radius	CSA z245.20-14 24 hr, 3.5 V, 65°C <2 mm radius 28 day, 1.5 V, 23°C <5 mm radius 28 day, 1.5 V, 80°C <10 mm radius	CSA Z245.20-14 28 days, 1.5 V, 65°C <9 mm radius 28 days, 1.5 V, 95°C <9 mm radius 28 days, 1.5 V, 150°C <5 mm radius	CSA Z245.20-14 28 days, 1.5 V, 25°C 3-5 mm radius 28 hr, 3.5 V, 65°C 2-3 mm radius	-	ASTM G-42 14 days, 1.5 V, 113°C 3.5 mm radius 30 days, 1.5 V, 113°C 6.6 mm radius 30 days, 1.5 V, 130°C <10 mm radius	CSA Z245.20-14 28 days, 1.5 V, 65°C 5 mm avg. radius 28 days, 1.5 V, 95°C 6 mm avg. radius 28 days, 1.5 V, 150°C 2 mm avg. radius 28 days, 1.5 V, 180°C 3 mm avg. radius
Flexibility	CSA Z245.20-14 @-30°C (-22°F) 3.0°/PD Pass	CSA Z245.20-14 @-30°C (-22°F) 3.0°/PD Pass	CSA Z245.20-14 @-30°C (-22°F) 2.0°/PD Pass	CSA Z245.20-14 @-30°C (-22°F) 2.0°/PD Pass	@-40°C (-40°F) 3.3°/PD Pass @ 30 mils total	-	CSA Z245.20-14 @-45°C (-45°F) 4.5°/PD Pass	CSA Z245.20-14 @-30°C (-22°F) 2.0°/PD Pass

\*Maximum operating temperature and pressure is dependent upon the environment. Please contact your Nap-Gard representative for an evaluation of your application.

## Technical Support

Axalta not only manufactures the highest quality FBE, but we also pride ourselves in providing an exceptional level of service. From start-up, through installation, and repair, Axalta's experts are available to assist your project team with coating selections, testing, and application optimization.

Our engineering teams are globally based, enabling on-site support no matter where your project is located.

Axalta's laboratory, research and development, and field support staff will help your project team minimize downtime, associated costs, and meet specified standards.

### Our Experts Provide:

- » In-field installation support
- » Professional application process optimization
- » Supervised application line trials
- » Design of project specifications and qualification testing
- » Failure analysis
- » Employee training



Axalta has supported the application of Nap-Gard on more than 100,000 miles of pipe worldwide.

## GLOBAL SNAPSHOT

**150+**  
YEARS EXPERIENCE

**51** **130**  
MANUFACTURING FACILITIES COUNTRIES  
**120,000+**  
CUSTOMERS

**14,000+**  
EMPLOYEES  
**50+** **47**  
BRANDS LEARNING AND  
DEVELOPMENT  
CENTERS

**4** **30+**  
R&D CENTERS LABORATORIES  
**~1,000**  
PATENTS



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