

Ultra Nap-Gard® Gold

Dual Layer Fusion Bond Epoxy – High temperature external pipe coating system

ENERGY & MINING



Ultra Nap-Gard® Gold is a proprietary product of DuPont Powder Coatings. This dual powder fusion bond epoxy system combines the tenacious corrosion protection properties of Nap-Gard® with the excellent water resistance and improved impact resistance of a plasticized Nap-Gard® Gold top-coat. The Nap-Gard® Gold coating system was developed for long-term external corrosion protection of pipelines with higher operating temperatures in wet environments.

Product Features

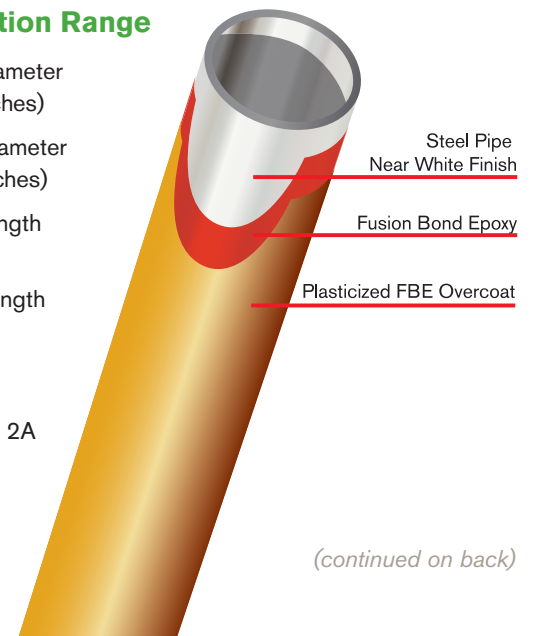
- Ultra Nap-Gard® Gold is designed for operating temperatures from -40°C to 110°C
- A 130°C version is also available
- Intended for use as an external coating system for buried or submerged oil or gas pipelines
- Offers excellent adhesion and cathodic disbondment resistance at elevated operating temperature

Pipe Application Range

- Minimum Pipe Diameter
 - 88.9mm (3.5 inches)
- Maximum Pipe Diameter
 - 1524mm (60 inches)
- Minimum Pipe Length
 - 5.5m (18 feet)
- Maximum Pipe Length
 - 25m (82 feet)

Compliance

CSA Z245.20-10 2A
ISO 9001:2008



(continued on back)

Typical Properties and Performance Characteristics

Test	Conditions	Requirements	Typical Values
Adhesion	24 hours @ 75°C	Rating 1 - 3	Rating 1
Cathodic disbondment	28 days @ 20°C @ 1.5V	≤ 8.5mm	3.5mm
Cathodic disbondment	24 hours @ 65°C @ 3.5V	≤ 11.5mm	2.0mm
Cross-section porosity		Rating 1 -4	Rating 1 - 2
Flexibility	1.5 degrees @ -30°C	No cracking	No cracking
Impact resistance	-30°C	≥ 3.0 J	No holidays @ 12.0 J
Cure of coating	Thermal characteristics	≥ 95%	No basecoat exposed

Dimensional Properties (as per powder manufacturer's recommendations)

	110°C	130°C
FBE corrosion basecoat	255 micrometers (10 mils)	305 micrometers (12 mils)
Gold overcoat	405 micrometers (16 mils)	610 micrometers (24 mils)
System total	660 micrometers (26 mils)	915 micrometers (36 mils)

Operating Properties

Maximum operating temperature	110°C or 130°C (dependent on thickness chosen)
Minimum handling temperature	-40°C

Girth Weld Protection: Bayou Perma-Pipe Canada, Ltd. is a distributor for liquid epoxies suitable for field joint completion

Note: For contractual purposes, the most recent edition of CSA Z245.20-10 shall apply, plus any other agreements between the Customer and Bayou Perma-Pipe Canada, Ltd.

*Nap-Gard® is a registered trademark of E.I. du Pont de Nemours and Company. Only DuPont makes Nap-Gard®.



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