

PRODUCT NUMBER: 7-1882

DESCRIPTION: Blue Liquid Epoxy/Urethane

Introduction:

NAP-GARD® 7-1882 BLUE LIQUID EPOXY/URETHANE, IS A 100% SOLIDS, TWO-COMPONENT SURFACE COATINGS BASED ON EPOXY/URETHANE CHEMISTRY. SINCE THE URETHANE POLYMER IS PRE-BONDED TO THE EPOXY RESIN, THE COATING IS "ISOCYANATE FREE". THE SYNERGISTIC EFFECT OF CO-POLYMERIZING EPOXY AND URETHANE PRODUCES A COATING WITH SUPERIOR ADHESION AND PERMEABILITY OF EPOXY ALONG WITH THE ADDED TOUGHNESS AND ABRASION RESISTANCE OF URETHANE. IN TESTING, IT OFFERS EXCELLENT RESISTANCE TO CATHODIC DISBONDMENT UPTO 80°C.

PRODUCT PROPERTIES

Color:	Blue	Volume Solids:	100%
Components:	7-1882A (White) Base 7-1882B (Blue) Hardener	Theoretical Coverage:	1604 sq.ft./mil/gal. (0.98 m ² /Liter/mm)
Shelf Life : @ 5°C to 40°C	2 years	Specific Gravity:	1.42 ± 0.03 Mixed ASTM D-792(Spray or Brush grade)
Mixing Ratio:	3:1 by volume (Brush/Spray Grade) 2:1 by volume (Cartridge)		

TYPICAL PROPERTIES OF APPLIED FILM

Pot Life: (100 gram @ 25°C)	Brush Grade 20 ± 2 minutes	Spray Grade 14 ± 2 minutes	Thickness:	20-50 Mils
Dry Time: (20 mils@25°C) (ASTM D1640)	Touch Time Tack Free Dry Hard	Brush Grade 75 min 120 min 4.5 hrs	Spray Grade 60 min 75 min 3.5 hrs	
Cured Hardness Shore D: (25°C, ASTM D2240-91)	85.		Compressive Strength: (25°C, ASTD D695)	1.56×10 ⁴ PSI
Elongation: (ASTM D638)	9.0%		Adhesion to Steel: [25°C/77°F] ASTM D-4541-Type IV	>3000 PSI
Hot Water Soak Adhesion: #1 (28d or 120 d, 75°C, CSA Z245.20-06)			Cathodic Disbondment: (28 d, 80°C, CSA Z245.20-06 modified)	7 mm
Dielectric Strength: (ASTM D149)	4 × 10 ⁵ volt/inch		Dielectric Constant: (ASTM D150 @60 cycles)	4.2

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Tensile Modulus: 9.4 × 10⁶ PSI
(25°C, ASTM D638)

Water Absorption: 0.1%
(ASTM D570, 24hrs@rt)

Water Vapour Permeability: <0.003 Perm-inch
(ASTM D1434)

Volume Resistivity: 1.0 × 10¹⁴ ohm-cm
(ASTM D257)

Impact Resistance: (CSA Z245.20-06)	Brush Grade	Spray Grade
	@-30°C 3.0 J Pass	1.5 J Pass
	@ 25°C 5.0 J Pass	3.0 J Pass

CHEMICAL RESISTANCE

7-Day Immersion at room temperature, no change observed in the following chemicals:
10% HNO₃ in H₂O, 5% H₂SO₄ in H₂O, 5% CH₃COOH in H₂O, 10% NaCl in H₂O, 10% NaOH in H₂O, toluene, ethyl acetate, 50% ethanol in H₂O, mineral oil.

APPLICATION GUIDELINES

I. APPLICATION EQUIPMENT AND METHODS

- 1.0 Spray Grade: Graco Hydra-Cat Airless Spray. Tip Size 0.019-0.031
- 1.1 Brush Grade: Brush or Roller.
- 1.2 Cartridge: Manual Dispenser.

II. SURFACE PREPARATION

- 2.0 Cleanliness: Near White.
- 2.1 Standards: SSPC SP-10 (Steel Structures Painting Council)
NACE 2, Sa 2 ½ (Swedish Scale. ISO 8501-1)
- 2.2 Profile: 2.5 mils minimum – 5.0 mils maximum.

III. TEMPERATURE / HUMIDITY PARAMETERS DURING APPLICATION

- 3.0 Substrate Temperature Range: 10°C to 100°C.
- 3.1 To avoid condensation, the substrate temperature must be a minimum of 3°C (5°F) above the dew point temperature.
- 3.2 Product is capable of curing down to 10°C (50°F) but the dry time will be extended.

IV. RE-COAT INTERVAL

Maximum: 4 Hours @25 °C; 20 minutes @100 °C.

Nap-Gard® 7-1882 solids epoxy is a one-coat application product. However, to correct film thickness deficiencies, coating damage or for application to concrete after the re-coat interval of the initial thin coat has been exceeded, the surface must be sweep blasted (for large areas > 49 sq. in.) or sanded using medium grit (80-100) carborundum cloth (for small areas ≤ 49 sq. in.). This requirement is necessary to ensure intercoat adhesion. All dust from the sanding or blast roughening must be removed from the surface prior to the re-coat application.

V. NOTE

All epoxy coatings will change colour, lose gloss and chalk on exterior exposure. However, the protective properties of the material will not be affected.

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