

### Ultra Chemical Resistant Sealant & Coating



#### SELECTION & SPECIFIC DATA

##### **Generic Type**

Cycloaliphatic Amine-Cured Novolac Epoxy

##### **Description**

DX-3300 is a densely cross-linked, 100% solids, novolac epoxy coating that provides superior long-term chemical resistance and corrosion protection against a wide range of acids, salts and strong caustics. The outstanding adhesion properties of DX-3300 make it ideal for use on marginally-prepared substrates while delivering maximum performance. DX-3300 has outstanding adhesion to previously epoxy-coated substrates and provides an extended recoat window. DX-3300 is a spray-able, industrial strength, long term protection system designed for metal and concrete substrates. DX-3300's high cross-link density protects surfaces with ultimate chemical resistance within the aggressive environments of the petroleum industry. The solids content and morphology make DX-3300 an excellent tank, vessel, pipe & internal lining system, that withstands high heat and abrasive conditions. DX-3300 is an ideal self-levelling product for concrete repair and long term protection.

#### **Product Features & Benefits**

- *Excellent thermal compatibility with steel and concrete*
- *Low permeation rate for tank lining service*
- *Solvent free – 100% solids*
- *Quick return-to-service – 24 hours at 77°F (25°C) for hydrocarbon immersion service*
- *Single-coat application*

#### **Recommended Uses**

- *High-temperature immersion tank lining*
- *Crude oil storage to 350°F (177°C)*
- *Floor and chemical trenches in process areas*
- *Secondary containment areas*
- *Bulk petroleum storage tank lining*
- *Process equipment supports and pads exposed to acids*
- *Truck loading and unloading pads*
- *Internal pipeline and vessel linings*

<b>Color/Part #</b>	White, Beige, Gray
<b>Finish</b>	Gloss
<b>Primer</b>	Self-priming
<b>Dry Film Thickness</b>	15 – 35 mils per coat, not to exceed 40 mils
<b>Solids Content</b>	By Volume 100%
<b>Theoretical Coverage</b>	1604 ft <sup>2</sup> at 1 mil, 106 ft <sup>2</sup> at 15 mils, 64 ft <sup>2</sup> at 25 mils
<b>Dry Temp. Resistance</b>	Continuous: 350°F (177°C), Under insulation, continuous: 300°F (149°C) Discoloration and loss of gloss occurs above 200°F (93°C) but does not affect performance.
<b>Coverage per gallon</b>	80 sq. ft. @ 20 mils thickness
<b>Flash Point</b>	> 250°F (121°C)

# DX-3300

## SUBSTRATES & SURFACE PREPARATION

**All Steel** Surfaces must be clean, dry and free of contaminants.  
**Immersion:** SSPC-SP10 Near-White Metal Blast with angular profile of 2.5 – 3.5 mils.  
**Non-immersion:** SSPC-SP6 1.5 – 3.0 mils SSPCSP2 or SP3 are suitable cleaning methods for mild environments.

**Concrete/CMU** Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing. Mortar joints should be cured a minimum of 15 days.

- \* *Dynestic DX-1100 primer must be applied prior to application on concrete surfaces.*
- \* *For previously painted surfaces contact Dynestic Technical Service Department.*

## CHEMICAL RESISTANCE

Ammonium Hydroxide	(38% Hydrogen Chloride content)	Phosphoric Acid to 100%
Aromatic & Aliphatic Solvents	Hydrofluoric Acid up to 8%	Potassium Hydroxide
Black Liquor	Hydrogen Sulfide	Salts
Butyl Acetate	Lithium Chloride	Sodium Hydroxide
Butyl Carbitol	MEK	up to 10.5%
Chlorinated Solvents	MSEA	Sulfides
(except Methylene Chloride)	Mineral Acids	Sulfuric Acid up to 98%
Chlorides	Nitric Acid up to 10%	White Liquor
Chromic Acid up to 30%	(Many) Organic Acids	Water - Fresh, waste,
Hydrochloric Acid up to 100%	Phosphates	non-potable

## MIXING & THINNING

**Mixing** Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.

**Thinning**  
**Spray:** Up to 6.5 oz/gal (5%) w/ Acetone or Xylene  
**Brush:** Up to 16 oz/gal (12%) w/ Acetone or Xylene  
**Roller:** Up to 16 oz/gal (12%) w/ Acetone or Xylene

- \* *Use of thinners other than those supplied or recommended by Dynestic may adversely affect product performance and void product warranty, whether expressed or implied.*

**Ratio** 3:1 Ratio (A to B) by Volume

**Pot Life** 35 minutes at 75°F (24°C), shorter at higher temperatures.

- \* *Do not keep the blended coating in the original container unless immediate use is planned. Otherwise, exothermic heat created during the curing process will considerably shorten the pot life. Pour the coating into a rolling tray or large aluminum-basting pan. Try to keep the depth of the coating in the tray below 3/8".*

## APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

### **Spray Application (General)**

This is a 100% solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

### **Airless Spray Plural Component**

**Tip Size:** 0.025 – 0.029 in reversible type  
**Diameter of Part A Fluid Line:** 1/2 in ID  
**Diameter of Part B Fluid Line:** 3/8 in ID  
**Spray Line:** 1/2 in ID x 50 feet maximum  
**Diameter of Whip:** 1/4 – 3/8 in ID  
**Length of Whip:** 20 ft

# DX-3300

**Power Pump Ratio:** 56:1 or greater

**Static Mixer:** 2 x 1/2 in ID x 12 in long behind mixing valve

**Part A Temperature:** 130°F – 135°F (54°C – 57°C) in reservoir tank

**Part B Temperature:** 90°F – 95°F (32°C – 35°C) in reservoir tank

**Airless Spray Single Leg or Hot Pot**

**Pump Size:** 56:1 or greater

**Hose Length/Diameter:** 50 ft x 3/8"

**Whip Length/Diameter:** 10 ft x 1/4"

**Tip Size:** 0.023 in – 0.027 in

**Output:** 5600 – 7000 psi filter removed

*\* Part A resin and Part B hardener should be heated individually to 75 – 85°F before mixing so product will atomize properly in delivering paint to the substrate. Mixed product should be sprayed within 20 minutes after mixing.*

**Brush & Roller (General)**

Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. For best results, tie in within 10 minutes at 75°F (24°C).

**Brush** Use a medium bristle brush.

**Roller** Use a short-nap synthetic roller cover with phenolic core.

**CLEANUP & SAFETY**

**Cleanup** Use MEK or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

**Safety** Read and follow all caution statements on this product data sheet and on the SDS for this product. Wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

**PACKAGING, HANDLING & STORAGE**

**Shelf Life** Part A: 12 months at 75°F (24°C)  
Part B: 12 months at 75°F (24°C)

*\* When kept at recommended storage conditions and in original unopened containers.*

**Shipping Weight (Approximate)** 1 Gallon Kit: 13 lbs (6kg)  
4 Gallon Kit: 55 lbs (25 kg)  
200 Gallon Drums Kit: 2,560 lbs (1,164 kg)

**Storage Temperature & Humidity** 40° – 110°F (4° – 43°C)  
0 – 100% Relative Humidity

**Storage** Store in a dry, well-ventilated area, indoors. Maintain products in original packaging and sealed until ready for use. Avoid exposure to direct sunlight or extreme temperatures.

**PERFORMANCE DATA**

<b>TEST METHOD</b>	<b>SYSTEM</b>	<b>RESULTS</b>
Adhesion ASTM D4541 Dry	Blasted Steel 1 ct.	>3,000 psi
Adhesion ASTM D4541 Wet	Blasted Steel 1 ct.	>3,000 psi
5 days 70°C water		
Abrasion Resistance ASTM D4060	1000 cycles, CS17	0.51 mils loss of DFT
ASTM D4060	wheel 1000 g load	1,960 cycles per mil
Compressive Strength ASTM C109	Blasted Steel 1 ct.	10,000 – 13,000 psi
Hardness ASTM D2240	Blasted Steel 1 ct.	83 – 90 Shore "D"

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## CURE SCHEDULE & RE-COAT WINDOW

<b>TEMPERATURE</b>	<b>To Touch</b>	<b>Hard Dry</b>	<b>Recoat Window</b>
10°C (50°F)	8 hours	36 hours	Up to 7 days
25°C (77°F)	3 - 4 hours	24 hours	Up to 7 days
60°C (140°F)	1 - hours	6 - 8 hours	Up to 4 hours

- *Return to service - aqueous/hydrocarbon immersion*
- *If an additional coat is required, surface must be abraded to create a slight profile to maximize adhesion.*

## DYNESIC TECHNOLOGIES

produces exceptional chemically engineered coatings, adhesives and sealants offering premium corrosion protection, while being safe for the environment and user friendly. Dynesic Technologies can be found protecting steel, ductile and concrete substrates worldwide.



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