product data carboline®

Windmastic 304

Selection & Specification Data

Generic Type
Two-component, reinforced modified epoxy

Description
Windmastic 304 Primer is a high solids epoxy that forms a dense barrier over steel, concrete, or fiberglass-reinforced epoxy preventing absorption of moisture. It exhibits very good chemical resistance and excellent resistance to mechanical abrasion. It is specifically designed as a primer/barrier coating on wind turbine rotor blades; but may also be used over steel or concrete to prevent corrosion.

Features
- High solids formulation
- Excellent barrier properties
- Excellent corrosion resistance
- Low VOC
- Excellent abrasion and impact resistance
- Excellent flexibility and adhesion

Color
Grey or Red Metallic

Primers
Self-priming

Topcoats
Can be topcoated with a variety of finishes including epoxies and urethanes. Recommended finish is Windmastic 8801.

Dry Film Thickness
8-12 mils (200-300 microns)

Solids Content
90 ± 2% by volume

Theoretical Coverage Rate
150 ft^2/gal (3.7 m^2/l) @10 mils (250 microns) DFT

VOC Values
0.83 lbs/gal (100 g/l)

Dry Temp. Resistance
Continuous: 180°F (82°C)
Non-Continuous: 250°F (121°C)
Discoloration is observed above 180°F (82°C).

Limitations
Chalks upon sunlight (UV) exposure

Substrates & Surface Preparation

General
Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.

Laminate
Abrasive - (sand) – sweep to increase adhesion between laminate and coating.

Previously Painted Surfaces
Lightly sand or abrade to roughen and de-gloss the surface. Existing paint must attain a minimum 3A rating in accordance with ASTM D3359 “X-Scribe” adhesion test.

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Application Equipment

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. **General Guidelines**:

Spray Application (General)
The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

Airless Spray

Pump Ratio:	30:1 (min.)
Volume Output:	2.5 gpm min.
Material Hose:	3/8" I.D. min.
Tip Size:	.021-.028"
Output Pressure:	2100-2400 psi
Filter Size:	No filter

Teflon packings are recommended and available from the pump manufacturer.

Brush & Roller (General)
Recommended for small areas

Mixing & Thinning

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

Ratio
1:1 by volume

Thinning
Thin up to 5% with # 33 Thinner

Pot Life
90 minutes @70°F (21°C)

Cleanup & Safety

Cleanup
Use Thinner #2, #25 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 MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

Ventilation
When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.

Caution
This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	60°-85°F (15-30°C)	60°-85°F (15-30°C)	60°-85°F (15-30°C)	35-80%
Minimum	40°F (5°C)	40°F (5°C)	32°F (0°C)	0%
Maximum	95°F (35°C)	122°F (50°C)	104°F (40°C)	90%

Curing Schedule

Surface Temp. & 50% Relative Humidity	Minimum Recoat	Maximum Recoat
32°F(0°C)	24 hours	20 days
50°F (10°C)	14 hours	12 days
68°F (20°C)	6 hours	8 days
85°F (30°C)	5 hours	4 days
104°F (40°C)	3 hours	2 days

Recoating times are guidelines only. Actual recoating times can be shorter or longer depending on film thickness, ventilation, moisture or other local conditions.

Packaging, Handling & Storage

Flash Point (Setaflash)
Part A: 80°F (27°C)
Part B: 79°F (26°C)

Storage Temperature & Humidity
Store Indoors.
40°F-110°F (5°- 45°C)
0-80% Relative Humidity

Shelf Life
Part A or Part B: 24 months at 68°F- (20°C)

***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**

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