



## **SELECTION & SPECIFICATION DATA**

| Generic Type                  | Two pack reinforced high solid aliphatic polyurethane   |
|-------------------------------|---|
| Description                   | Windmastic Topcoat HSX is a matt weathering resistant polyurethane topcoat with very good erosion resistance for use on wind turbine rotor blades.<br>Also available as Windmastic Topcoat HSX Repair Kit for repair and touch up by brush or roller. |
| Features                      | <ul> <li>Durable topcoat in combination with Windmastic Primers for long service life</li> <li>Fast curing</li> <li>High solid, low VOC</li> <li>Very good erosion resistance</li> </ul>  |
| Color                         | RAL 7035, 9010, 2009, 3020<br>Other colors on request   |
| Finish                        | Flat  |
| Primer                        | Windmastic Primers, depending on blade manufacturing process.   |
| Wet Film Thickness            | 4.5 - 9 mils (115 - 230 microns) dry film thickness, standard 155 microns.  |
|                               | 2.95 - 5.9 mils (75 - 150 microns) per coat   |
| Dry Film Thickness            | Multiple coats can be necessary to obtain desired film thickness.   |
| Solid(s) Content              | By volume: 64 ± 2%  |
| Theoretical Coverage<br>Rates | 269.7 ft²/gl (6.4 m²/l) at 3.9 mils (100 microns)<br>Allow for loss in mixing and application.  |
|                               | As Supplied : 310 - 335 g/l (37.7 - 40.8 oz/gal)  |
| VOC values                    | depending on color  |
| Dry Temp. Resistance          | Continuous: 230°F (110°C)<br>Non-Continuous: 266°F (130°C)  |
| Limitations                   | Not recommended for immersion service.  |
| Topcoats                      | Normally not topcoated.   |

#### SUBSTRATES & SURFACE PREPARATION

Surface 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. General

#### MIXING & THINNING

Mixing

Power mix Part A and then add Part B to Part A and power mix again for app. 1 minute.

DO NOT MIX PARTIAL KITS.

**Thinning** | May be thinned up to 10% with Carboline Thinner 25.

Dry '

# Windmastic<sup>®</sup> Topcoat HSX



## MIXING & THINNING



Ratio 5 : 1 (A to B) by volume

By plural spray a tolerance of ±5 is acceptable giving A : B between 5.05 : 1/ 4.95 : 1 on volume

**Pot Life** | 1 hour at 68 °F (20 °C) and less at higher temperatures.

### 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           | This is a high solids coating and may require slight 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. Plural spray is recommended for large area application. Follow the manufacturer instruction for operation of the equipment. |
|-----------------------------|--|
| Airless Spray               | Pump ratio: 42:1 (min.)<br>Tip Size: 0.015 – 0.0023<br>Further information can be found in Application Guide   |
| Brush & Roller<br>(General) | For small areas and stripe coating only. Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding.  |
| Brush                       | Use a medium bristle brush.  |
| Roller                      | Use a medium nap phenolic core roller.   |

## APPLICATION CONDITIONS

| Condition | Material    | Surface      | Ambient      | Humidity |
|-----------|-------------|--------------|--------------|----------|
| Minimum   | 41°F (5°C)  | 36°F (2°C)   | 36°F (2°C)   | 20%      |
| Maximum   | 95°F (35°C) | 122°F (50°C) | 104°F (40°C) | 80%      |

Industry standards are for substrate temperatures to be 5 °F (3 °C) above the dew point. Condensation due to substrate temperatures below the dew point can interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

## CURING SCHEDULE

| Surface Temp. | Dry to Recoat | Maximum Recoat Time |
|---------------|---------------|---------------------|
| 41°F (5°C)    | 18 Hours      | 14 Days             |
| 50°F (10°C)   | 12 Hours      | 10 Days             |
| 68°F (20°C)   | 5 Hours       | 7 Days              |
| 86°F (30°C)   | 2.5 Hours     | 4 Days              |
| 104°F (40°C)  | 1 Hour        | 2 Days              |

Above recoating times are guidelines only. Actual recoating times can be shorter or longer depending on film thickness, ventilation, moisture or other local conditions. Please observe that the temperatures given are based on substrate (surface) temperatures. Note: Light abrasion of the surface may be necessary when the maximum recoating intervals are exceeded. Additional information can be found in a separate Application Guide





## **CLEANUP & SAFETY**

| Cleanup     | Use Carboline Thinner 2 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.<br>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 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 applicable regulations. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.   |

## PACKAGING, HANDLING & STORAGE

| Packaging                         | Part A 4 gallons (14 liters)<br>Part B 0.8 gallons (3 liters)<br>Also available in 47.6 gallon (180 liter) drums and 0.6 quart (0.6 liter) Repair Kits |
|-----------------------------------|--|
| Shelf Life                        | Part A: 24 months at 75 °F (24 °C)<br>Part B: 18 months at 75 °F (24 °C)<br>Part B is moisture sensitive and only full kit should be used.             |
| Storage Temperature &<br>Humidity | 41 - 104 °F (5 - 40 °C)<br>10 - 90% relative humidity  |
| Storage                           | Store indoors.   |

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