**PRODUCT DESCRIPTION**

**ENVIROLASTIC 840 DTM HIGH GLOSS URETHANE** is a two-component, fast-dry, direct-to-metal polyaspartic urethane finish with outstanding exterior durability.

- Superior color and gloss retention
- Fast dry
- Corrosion resistance
- Chemical resistance
- High gloss Distinctness of Image (DOI)
- <200 g/L

**Product Characteristics**

**Finish:** High gloss, 85+ units @ 60 degrees

**Color:** Extra White and Ultradeep tint bases, other colors available upon request

**Volume Solids:** 56%, ± 2%, mixed

**Weight Solids:** 63%, ± 2%, mixed

**VOC (EPA Method 24):** <200 g/L; 1.67 lb/gal, mixed

**Mix Ratio:** 2:1 by volume

**Recommended Spreading Rate per coat***:

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry mils (microns)</td>
<td>3.0 (75)</td>
<td>5.0 (125)</td>
</tr>
<tr>
<td>To achieve maximum film thickness and uniformity of appearance. *See Application Procedures section.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Drying Schedule @ 10.0 mils (250 microns) wet:**

| To touch: | 1.5 hours | 20 minutes | 15 minutes |
| To handle: | 3 hours | 2 hours | 1 hour |
| To recoat: | 7 days | 4 days | 2 days |

*Required: Apply a tack coat of ~1 mil (25 microns) wet. Wait min. 2 minutes before applying full coat. A second coat, if required, can be applied after 20 minutes @ 77°F/25°C following the same procedure. If maximum recoat time is exceeded, abrade surface before recoating.

**Drying time is temperature, humidity, and film thickness dependent.**

**Pot Life:** 2 hours

**Sweat-in-Time:** None required

**Recommended Uses**

- Frac tanks
- Production equipment
- Tank exteriors
- Transport trailers
- Structural steel
- Rolling stock
- Designed for new construction and refurbishment
- Suitable for use in USDA inspected facilities

**Performance Characteristics**

**Substrate**: Steel

**Surface Preparation**: SSPC-SP6/NACE 3

**System Tested**: 1 ct. Envirolastic 840 DTM @ 3.0-5.0 mils (75-125 microns) dft/ct

*unless otherwise noted below

**Test Name** | **Test Method** | **Results**
---|---|---
Adhesion | ASTM D4541 | 568 psi
| ASTM D6677 | Rating 10 |
Abrasions Resistance | ASTM D4060, CS17 wheel, 1000 cycles, 1 Kg load | 180 mg loss |
Flexibility | ASTM D522, 180° bend, 1/4° mandrel | Passes |
Moisture Condensation Resistance | ASTM D4585, 1000 hours | Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting |
Pencil Hardness | ASTM D3363 | HB |
Salt Fog Resistance | ASTM B117, 1000 hours | Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting |

**Flash Point**

| Part A | 55°F (13°C), PMCC |
| Part B | 80°F (27°C) |

**Reducer**

| Part A | None required |
| Part B | MEK (R6K10) |

**Shelf Life**

| Part A | 24 months |
| Part B | 12 months |

*Store indoors at 40°F (4.5°C) to 100°F (38°C)
**PRODUCT INFORMATION**

**RECOMMENDED SYSTEMS**

<table>
<thead>
<tr>
<th>Steel:</th>
<th>Dry Film Thickness / ct.</th>
<th>Mils</th>
<th>(Microns)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ct.* Envirolastic 840 DTM Urethane</td>
<td>3.0-5.0</td>
<td>(75-125)</td>
<td></td>
</tr>
<tr>
<td>Steel:</td>
<td>1 ct. Industrial Wash Primer,</td>
<td>.2-.4</td>
<td>(5-10)</td>
</tr>
<tr>
<td>1 ct. Envirolastic 840 DTM,</td>
<td>3.0-5.0</td>
<td>(75-125)</td>
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*Required: Apply a tack coat of ~1 mil (25 microns) wet. Wait min. 2 minutes before applying full coat. A second coat, if required, can be applied after 20 minutes @ 77°F/25°C following the same procedure.

**SURFACE PREPARATION**

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Minimum recommended surface preparation:

- **Iron & Steel:** SSPC-SP6, 1.5-2 mils (38-50 microns) profile

**Surface Preparation Standards**

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS7979: A1</th>
<th>Swedish Std.</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>SP 8</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 4</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>Pitted &amp; Rusted</td>
<td>C St 3</td>
<td>D St 3</td>
<td>SP 2</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>Pitted &amp; Rusted</td>
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<td>D St 3</td>
<td>SP 2</td>
</tr>
</tbody>
</table>

**TINTING**

Tint at ~100% tint strength with Maxitoner Colorants. Extra White maximum 2.5 oz./gallon, mixed. Ultra Deep maximum 8oz./gallon, mixed.

**APPLICATION CONDITIONS**

Temperature: 35°F (1.6°C) minimum, 120°F (49°C) maximum (air, surface, and material) At least 5°F (2.8°C) above dew point

Relative Humidity: 85% maximum

**ORDERING INFORMATION**

Packaging:

- Part A: 3.33 gallons (12.59L)
- Part B: 1.67 gallon (6.31L)

Weight: 12.1 ± 0.2 lb/gal ; 1.45 Kg/L, mixed (may vary with color)

**SAFETY PRECAUTIONS**

Refer to the MSDS sheet before use. Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.

**WARRANTY**

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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The systems listed above are representative of the product’s use, other systems may be appropriate. Please contact Sherwin-Williams for compatibility questions.

**DISCLAIMER**

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www.sherwin-williams.com/protective
Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Surface Preparation Standards

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</thead>
<tbody>
<tr>
<td>Surface</td>
<td>BS7079:1</td>
<td>SIS055900</td>
<td>SP</td>
<td>5</td>
</tr>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>Sa 2.5</td>
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Application Conditions

Temperature: 35°F (1.6°C) minimum, 120°F (49°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative Humidity: 85% maximum

Application Equipment

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer: None required
Clean Up: MEK (R6K10)

Airless Spray
Unit: 30:1
Pressure: 1500-2400 psi
Hose: 1/4" or 3/8" ID
Tip: 011" - 015"
Filter: 120 mesh
Reduction: Not recommended

Conventional Spray
Gun: Binks 95
Fluid Nozzle: 66
Air Nozzle: 63PB
Atomization Pressure: 40-60 psi
Fluid Pressure: 20-25 psi
Reduction: Not recommended (if needed use up to 3% R7K111. Over reduction can lead to poor sag control.)

Brush (small areas only)
Brush: Natural Bristle

Roller (small areas only)
Cover: 1/4" woven with solvent resistant core

If specific application equipment is not listed above, equivalent equipment may be substituted.
APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine two parts by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Re-stir before using.

Required: Apply a tack coat of ~1 mil (25 microns) wet. Wait min. 2 minutes before applying full coat. A second coat, if required, can be applied after 20 minutes @ 77°F/25°C following the same procedure.

If reducer solvent is used, add only after both components have been thoroughly mixed.

Apply paint at the recommended film thickness and spreading rate as indicated below:

<table>
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<tr>
<th>Recommended Spreading Rate per coat*</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
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<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>5.5 (138)</td>
<td>9.0 (225)</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>3.0 (75)</td>
<td>5.0 (125)</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>179 (4.4)</td>
<td>299 (7.3)</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L)</td>
<td>896 (22.0)</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

*See Application Procedures section.

Drying Schedule @ 10.0 mils (250 microns) wet:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>To touch</th>
<th>To handle</th>
<th>To recoat</th>
<th>To cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>50°F/10°C</td>
<td>1.5 hours</td>
<td>3 hours</td>
<td>1.5 hours*</td>
<td>7 days</td>
</tr>
<tr>
<td>77°F/25°C</td>
<td>20 minutes</td>
<td>2 hours</td>
<td>15 minutes*</td>
<td>4 days</td>
</tr>
<tr>
<td>120°F/49°C</td>
<td>15 minutes</td>
<td>1 hour</td>
<td>24 hours</td>
<td>2 days</td>
</tr>
</tbody>
</table>

NOTE: If maximum recoat time is exceeded, abrade surface before recoating.

Performance Tips

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Excessive reduction of material can affect film build, appearance, adhesion, and performance.

Do not apply the material beyond recommended pot life.

Do not use Quik-Thane Urethane Accelerator.

Do not mix previously catalyzed material with new.

Not intended for use with universal primers.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with MEK (R6K10).

Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

Clean Up Instructions

Clean spills and spatters immediately with MEK, R6K10. Clean tools immediately after use with MEK, R6K10. Follow manufacturer's safety recommendations when using any solvent.

Safety Precautions

Refer to the MSDS sheet before use.

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