WATERBASED INDUSTRIAL ENAMEL

B53-300 SERIES

PRODUCT INFORMATION

PRODUCT DESCRIPTION

WATERBASED INDUSTRIAL ENAMEL is a proprietary technology, one-component, acrylic-modified alkyd with outstanding exterior performance properties.

• Outstanding exterior durability
• Flash rust/early rust resistant
• Early moisture resistant
• Water clean up
• Excellent application properties

High Gloss
Fast dry
Low odor
Low VOC

PRODUCT CHARACTERISTICS

Finish:
Gloss

Color:
Wide range of colors available

Volume Solids:
35% ± 2%, unreduced
32% ± 2%, reduced 10%

Weight Solids:
49.5% ± 2%, may vary by color

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

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>4.5</td>
<td>112</td>
</tr>
<tr>
<td>Coverage sq ft/gal (m²/L)</td>
<td>187</td>
<td>4.6</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>792</td>
<td>19.4</td>
</tr>
</tbody>
</table>

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

Drying Schedule @ 6.0 mils wet (150 microns):

<table>
<thead>
<tr>
<th>@ 50°F /10°C</th>
<th>@ 77°F /25°C</th>
<th>@ 120°F /49°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>RH</td>
<td></td>
<td>50% RH</td>
</tr>
<tr>
<td>To touch:</td>
<td>90 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>To handle:</td>
<td>6 hours</td>
<td>3 hours</td>
</tr>
<tr>
<td>To recoat:</td>
<td>3 hours</td>
<td>2.5 hours</td>
</tr>
<tr>
<td>To cure:</td>
<td>14 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

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

Shelf Life: 36 months, unopened. Store indoors at 50°F (10°C) to 100°F (38°C).
Flash Point: 212°F (100°C), Seta Flash
Reducer/Clean Up: Water

RECOMMENDED USES

For use over prepared substrates in industrial environments:

• Steel
• Galvanizing
• Concrete
• Masonry
• All purpose maintenance enamel
• Buildings
• Water treatment plants
• Equipment
• Power plants
• Structural steel
• Rolling stock
• Conforms to AWWA D102, OCS#1
• Suitable for use in USDA inspected facilities
• Acceptable for use in high performance architectural applications.

PERFORMANCE CHARACTERISTICS

Substrate*: Steel
Surface Preparation*: SSPC-SP10/NACE 2
System Tested*: Kem Kromik Universal Primer @ 3.0 mils (75 microns) dft
Waterbased Industrial Enamel @ 3.0 mils (75 microns) dft

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Test Method</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion Resistance (Finish only)</td>
<td>ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load</td>
<td>183 mg loss</td>
</tr>
<tr>
<td>Adhesion¹</td>
<td>ASTM D4541</td>
<td>914 psi</td>
</tr>
<tr>
<td>Corrosion Weathering</td>
<td>ASTM D5984, 5 cycles, 1680 hours</td>
<td>Rating 10 per ASTM D610 for Rusting; Rating 8 per ASTM D714 for Blistering</td>
</tr>
<tr>
<td>Direct Impact Resistance (Finish only)</td>
<td>ASTM D2794</td>
<td>40 in. Lbs.</td>
</tr>
<tr>
<td>Dry Heat Resistance (Finish only)</td>
<td>ASTM D2485</td>
<td>200°F (100°C)</td>
</tr>
<tr>
<td>Flexibility (Finish only)</td>
<td>ASTM D522, 180° bend, 3/8” mandrel</td>
<td>Passes</td>
</tr>
<tr>
<td>Moisture Condensation Resistance</td>
<td>ASTM D4585, 100°F (38°C), 192 hours</td>
<td>Rating 10 per ASTM D610 for rusting; Rating 10 per ASTM D714 for blistering</td>
</tr>
<tr>
<td>Pencil Hardness (Finish only)</td>
<td>ASTM D3363</td>
<td>3B</td>
</tr>
<tr>
<td>Salt Fog Resistance</td>
<td>ASTM B117, 500 hours</td>
<td>Rating 10 per ASTM D610 for Rusting; Rating 8 per ASTM D714 for Blistering</td>
</tr>
</tbody>
</table>

Footnotes:
¹ Over Pro Industrial Pro-Cryl Universal Primer

www.sherwin-williams.com/protective

continued on back
Revised: February 9, 2018

WATERBASED
INDUSTRIAL ENAMEL

B53-300 SERIES

PRODUCT INFORMATION

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.

Refer to product Application Bulletin for detailed surface preparation information.

Do not use hydrocarbon solvents for cleaning.

Minimum recommended surface preparation:

| * Iron & Steel: | SSPC-SP2 |
| ** Aluminum: | SSPC-SP1 |
| ** Galvanizing: | SSPC-SP1 |
| ** Prefinished Siding | SSPC-SP1 |

* Primer recommended
** Requires primer

Surface Preparation Standards

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS7079-A1</th>
<th>SS055900</th>
<th>SSPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Metal</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
</tr>
<tr>
<td>Near White Metal</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>Commercial Blast</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>Sa 2</td>
<td>SP 6</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Si 2</td>
<td>Si 2</td>
<td>Si 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Rusted</td>
<td>Si 2</td>
<td>Si 2</td>
<td>Si 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Si 3</td>
<td>Si 3</td>
<td>Si 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td>Rusted</td>
<td>Si 3</td>
<td>Si 3</td>
<td>Si 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

Tinting

Tint with CCE at 100% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Application Conditions

Temperature: 50°F (10°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

Refer to product Application Bulletin for detailed application information

Ordering Information

Packaging: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: 10.47 ± 0.2 lb/gl, 1.26 Kg/L 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.

Recommended Systems

Steel:

1 ct. Acceptable primer (see below)

Acceptable Primers:

<table>
<thead>
<tr>
<th>DTM Bonding Primer</th>
<th>(Prefinished Siding)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DTM Primer/Finish</td>
<td>(Steel, Galvanized)</td>
</tr>
<tr>
<td>DTM Wash Primer</td>
<td>(Aluminum)</td>
</tr>
<tr>
<td>Kem Kromik Universal Primer</td>
<td>(Steel)</td>
</tr>
<tr>
<td>Pro Industrial Pro-Cryl Universal Primer</td>
<td>(Steel, Galvanized)</td>
</tr>
</tbody>
</table>

2 cts. Waterbased Industrial Enamel 1.5-3.0 (40-75)

Note: Waterbased Industrial Enamel may be applied directly to steel; however, better performance will be obtained over a recommended primer.

The systems listed above are representative of the product's use, other systems may be appropriate.

Disclaimer

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

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. Do not use hydrocarbon solvents for cleaning.

**Iron & Steel**
Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3. Primer recommended for best performance.

**Aluminum**
Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Primer Required.

**Galvanized Steel**
Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1 (recommended solvent is VM&P Naphtha). When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. Primer Required.

**Previously Painted Surfaces:**
If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, or if this products attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

### Application Equipment

**Reducer/Clean Up**
- **Water**

**Airless Spray**
- **Pressure**
  - 2500 - 3000 psi
- **Hose**
  - 1/4” ID
- **Tip**
  - .013” - .017”
- **Filter**
  - 60 mesh
- **Reduction**
  - 10% by volume recommended

**Conventional Spray**
- **Gun**
  - Binks 95
- **Fluid Tip**
  - 66
- **Air Nozzle**
  - 63PB
- **Atomization Pressure**
  - 50 psi
- **Fluid Pressure**
  - 15-20 psi
- **Reduction**
  - 10% by volume recommended

**Brush**
- **Cover**
  - Nylon/Polyester or Natural Bristle
- **Reduction**
  - 10% by volume recommended

**Roller**
- **Cover**
  - 3/8” woven with solvent resistant core
- **Reduction**
  - 10% by volume recommended

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

Surface preparation must be completed as indicated.

Mixing Instructions: Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

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

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>112</td>
<td>8.5</td>
</tr>
<tr>
<td>3.0</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>

| Coverage sq ft/gal (m²/L) | 187 | 46 | 374 | 9.2 |
| Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft | 792 | 19.4 |

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

Applying of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.

Drying Schedule @ 6.0 mils wet (150 microns):

<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>90 minutes</td>
<td>6 hours</td>
<td>3 hours</td>
<td>14 days</td>
</tr>
<tr>
<td>77°F/25°C</td>
<td>30 minutes</td>
<td>2.5 hours</td>
<td>45 minutes</td>
<td>7 days</td>
</tr>
<tr>
<td>120°F/49°C</td>
<td>15 minutes</td>
<td>1 hour</td>
<td>4 days</td>
<td></td>
</tr>
</tbody>
</table>

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with Mineral Spirits to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using Mineral Spirits.

DISCLAIMER

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Contact your Sherwin-Williams representative to obtain the most recent Product Data Information and Application Bulletin.

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 MERCANTIBILITY AND FITNESS FOR A PARTICULAR PURPOSE.

SPECIAL REGULATORY REQUIREMENTS

Refer to local regulations and relevant standards.