



# Industrial & Marine Coatings

# WATERBASED INDUSTRIAL ENAMEL

B53-300

SERIES

## PRODUCT INFORMATION

Revised 10/06

PRODUCT DESCRIPTION	RECOMMENDED USES																				
<p><b>WATERBASED INDUSTRIAL ENAMEL</b> is a proprietary technology, one-component, acrylic-modified alkyd with outstanding exterior performance properties.</p> <ul style="list-style-type: none"> <li>• Outstanding exterior durability</li> <li>• Flash rust/early rust resistant</li> <li>• Early moisture resistant</li> <li>• HAPS free</li> <li>• Low VOC</li> <li>• Suitable for use in USDA inspected facilities</li> </ul> <ul style="list-style-type: none"> <li>• High Gloss</li> <li>• Fast dry</li> <li>• Low odor</li> <li>• Water clean up</li> </ul>	<p>For use over prepared substrates in industrial environments:</p> <ul style="list-style-type: none"> <li>• Steel</li> <li>• Concrete</li> <li>• Galvanizing</li> <li>• Masonry</li> <li>• Aluminum</li> </ul> <p>Examples:</p> <ul style="list-style-type: none"> <li>• All purpose maintenance enamel</li> <li>• Buildings</li> <li>• Water treatment plants</li> <li>• Equipment</li> <li>• Power plants</li> <li>• Structural steel</li> <li>• Rolling stock</li> <li>• Conforms to AWWA D102-03, OCS#1</li> <li>• Storage Tanks</li> <li>• Machinery</li> <li>• New construction</li> <li>• Piping</li> <li>• Select marine structures</li> </ul> <p>Acceptable for use in high performance architectural applications.</p>																				
PRODUCT CHARACTERISTICS	PERFORMANCE CHARACTERISTICS																				
<p><b>Finish:</b> Gloss</p> <p><b>Color:</b> Wide range of colors available</p> <p><b>Volume Solids:</b> 35% ± 2%, unreduced Ultra White 32% ± 2%, reduced 10%</p> <p><b>Weight Solids:</b> 49.5% ± 2%, may vary by color</p> <p><b>VOC (EPA Method 24):</b> &lt;200 g/L; 1.67 lb/gal, Ultra White</p> <p><b>Recommended Spreading Rate per coat reduced 10% with water:</b></p> <p>Wet mils: 4.5 - 8.5 Dry mils: 1.5 - 3.0 Coverage: 187 - 374 sq ft/gal approximate</p> <p><b>NOTE:</b> Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.</p> <p><b>Drying Schedule @ 6.0 mils wet @ 50% RH:</b></p> <table border="1" data-bbox="162 1575 812 1743"> <thead> <tr> <th></th> <th>@ 50°F</th> <th>@ 77°F</th> <th>@ 120°F</th> </tr> </thead> <tbody> <tr> <td>To touch:</td> <td>90 minutes</td> <td>30 minutes</td> <td>15 minutes</td> </tr> <tr> <td>To handle:</td> <td>6 hours</td> <td>3 hours</td> <td>1 hour</td> </tr> <tr> <td>To recoat:</td> <td>3 hours</td> <td>2-1/2 hours</td> <td>45 minutes</td> </tr> <tr> <td>To cure:</td> <td>14 days</td> <td>7 days</td> <td>4 days</td> </tr> </tbody> </table> <p>Drying time is temperature, humidity and film thickness dependent.</p> <p><b>Shelf Life:</b> 36 months, unopened Store indoors at 40°F to 100°F</p> <p><b>Flash Point:</b> 212°F Seta Flash</p> <p><b>Reducer/Clean Up:</b> Water</p>		@ 50°F	@ 77°F	@ 120°F	To touch:	90 minutes	30 minutes	15 minutes	To handle:	6 hours	3 hours	1 hour	To recoat:	3 hours	2-1/2 hours	45 minutes	To cure:	14 days	7 days	4 days	<p><b>System Tested:</b> (unless otherwise indicated) Substrate: Steel Surface Preparation: SSPC-SP10 Primer: Kem Kromik Universal Primer @ 3.0 mils dft Finish: Waterbased Industrial Enamel @ 3.0 mils dft</p> <p><b>Abrasion Resistance*:</b> Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load Result: 183 mg loss</p> <p><b>Adhesion (over Pro-Cryl Primer):</b> Method: ASTM D4541 Result: 914 psi</p> <p><b>Corrosion Weathering:</b> Method: ASTM D5894, 5 cycles, 1680 hours Result: Rating 10 per ASTM D610 for rusting Rating 8 per ASTM D714 for blistering</p> <p><b>Direct Impact Resistance*:</b> Method: ASTM D2794 Result: 40 in lb</p> <p><b>Dry Heat Resistance*:</b> Method: ASTM D2485 Result: 200°F</p> <p><b>Flexibility*:</b> Method: ASTM D522, 180° bend, 3/8" mandrel Result: Passes</p> <p><b>Moisture Condensation Resistance:</b> Method: ASTM D4585, 100°F, 192 hours Result: Rating 10 per ASTM D610 for rusting Rating 10 per ASTM D714 for blistering</p> <p><b>Pencil Hardness*:</b> Method: ASTM D3363 Result: 3B</p> <p><b>Salt Fog Resistance:</b> Method: ASTM B117, 500 hours Result: Rating 10 per ASTM D610 for rusting Rating 8 per ASTM D714 for blistering</p> <p><i>*Waterbased Industrial Enamel <u>only</u> was tested</i></p>
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**PRODUCT INFORMATION**

RECOMMENDED SYSTEMS	SURFACE PREPARATION																				
<p><b>Steel:</b> 1 ct. Acceptable primer (see below)</p> <p><b>Acceptable Primers:</b> DTM Bonding Primer ..... (Prefinished Siding) DTM Primer/Finish ..... (Steel, Galvanized) DTM Wash Primer ..... (Aluminum) Kem Kromik Universal Primer ..... (Steel) Pro-Cryl Universal Primer ..... (Steel, Galvanized) Waterbased Tile Clad Epoxy Primer ..... (Steel)</p> <p>2 cts. Waterbased Industrial Enamel @ 1.5 - 3.0 mils dft/ct</p> <p><b>Note:</b> Waterbased Industrial Enamel may be applied directly to steel; however, better performance will be obtained over a recommended primer.</p> <p>The systems listed above are representative of the product's use. Other systems may be appropriate.</p>	<p>Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure good adhesion.</p> <p>Refer to product Application Bulletin for detailed surface preparation information.</p> <p><b>Do not use hydrocarbon solvents for cleaning.</b></p> <p>Minimum recommended surface preparation: * Iron &amp; Steel: SSPC-SP2 ** Aluminum: SSPC-SP1 ** Galvanizing: SSPC-SP1 ** Prefinished Siding SSPC-SP1</p> <p>* Primer recommended ** Requires primer</p> <tr> <th colspan="2" data-bbox="792 984 1482 1031">TINTING</th> </tr> <tr> <td colspan="2" data-bbox="792 1031 1482 1148"> <p>Tint with EnviroToners at 100% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.</p> <p>Do not use Blend-A-Color Toners.</p> </td> </tr> <tr> <th colspan="2" data-bbox="792 1148 1482 1194">APPLICATION CONDITIONS</th> </tr> <tr> <td colspan="2" data-bbox="792 1194 1482 1411"> <p>Temperature: 50°F minimum, 120°F maximum (air, surface, and material) At least 5°F above dew point</p> <p>Relative humidity: 85% maximum</p> <p>Refer to product Application Bulletin for detailed application information.</p> </td> </tr> <tr> <th colspan="2" data-bbox="792 1411 1482 1457">ORDERING INFORMATION</th> </tr> <tr> <td colspan="2" data-bbox="792 1457 1482 1539"> <p>Packaging: 1 and 5 gallon containers Weight per gallon: 10.47 ± 0.2 lb (may vary with color)</p> </td> </tr> <tr> <th colspan="2" data-bbox="792 1539 1482 1585">SAFETY PRECAUTIONS</th> </tr> <tr> <td colspan="2" data-bbox="792 1585 1482 1753"> <p>Refer to the MSDS sheet before use.</p> <p>Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.</p> </td> </tr> <tr> <th data-bbox="100 1753 792 1799">DISCLAIMER</th> <th data-bbox="792 1753 1482 1799">WARRANTY</th> </tr> <tr> <td data-bbox="100 1799 792 1997"> <p>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.</p> </td> <td data-bbox="792 1799 1482 1997"> <p>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.</p> </td> </tr>	TINTING		<p>Tint with EnviroToners at 100% strength. 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**APPLICATION BULLETIN**

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SURFACE PREPARATION	APPLICATION CONDITIONS
<p><b>General Surface Preparation</b> Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure good adhesion.</p> <p><b>Do not use hydrocarbon solvents for cleaning.</b></p> <p><b>Iron &amp; Steel</b> 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. Primer recommended for best performance.</p>	<p>Temperature: 50°F minimum, 120°F maximum (air, surface, and material) At least 5°F above dew point</p> <p>Relative humidity: 85% maximum</p>
<p><b>Aluminum</b> Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Primer Required.</p> <p><b>Galvanized Steel</b> Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1 (recommended solvent is VM&amp;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.</p> <p><b>Previously Painted Surfaces:</b> 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.</p>	<p style="text-align: center;"><b>APPLICATION EQUIPMENT</b></p> <p>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.</p> <p><b>Reducer/Clean Up</b> ..... Water</p> <p><b>Airless Spray</b>            Pressure ..... 2500 - 3000 psi            Hose ..... 1/4" ID            Tip ..... .013" - .017"            Filter ..... 60 mesh            Reduction ..... 10% by volume recommended</p> <p><b>Conventional Spray</b>            Gun ..... Binks 95            Fluid Tip ..... 66            Air Nozzle ..... 63PB            Atomization Pressure ... 50 psi            Fluid Pressure ..... 15-20 psi            Reduction ..... 10% by volume recommended</p> <p><b>Brush</b>            Brush ..... Nylon/Polyester or Natural Bristle            Reduction ..... 10% by volume recommended</p> <p><b>Roller</b>            Cover ..... 3/8" woven with phenolic core            Reduction ..... 10% by volume recommended</p> <p>If specific application equipment is not listed above, equivalent equipment may be substituted.</p>



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<p>Surface preparation must be completed as indicated.</p> <p><b>Mixing Instructions:</b> Mix paint thoroughly by boxing and stirring before use.</p> <p>Apply paint to the recommended film thickness and spreading rate as indicated below:</p> <p><b>Recommended Spreading Rate per coat reduced 10% with water:</b></p> <table border="0"> <tr> <td>Wet mils:</td> <td>4.3 - 8.5</td> </tr> <tr> <td>Dry mils:</td> <td>1.5 - 3.0</td> </tr> <tr> <td>Coverage:</td> <td>187 - 374 sq ft/gal approximate</td> </tr> </table> <p><b>NOTE:</b> Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.</p> <p><b>Drying Schedule @ 6.0 mils wet @ 50% RH:</b></p> <table border="0"> <tr> <td></td> <td><b>@ 50°F</b></td> <td><b>@ 77°F</b></td> <td><b>@ 120°F</b></td> </tr> <tr> <td>To touch:</td> <td>90 minutes</td> <td>30 minutes</td> <td>15 minutes</td> </tr> <tr> <td>To handle:</td> <td>6 hours</td> <td>3 hours</td> <td>1 hour</td> </tr> <tr> <td>To recoat:</td> <td>3 hours</td> <td>2-1/2 hours</td> <td>45 minutes</td> </tr> <tr> <td>To cure:</td> <td>14 days</td> <td>7 days</td> <td>4 days</td> </tr> </table> <p>Drying time is temperature, humidity and film thickness dependent.</p> <p>Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.</p>	Wet mils:	4.3 - 8.5	Dry mils:	1.5 - 3.0	Coverage:	187 - 374 sq ft/gal approximate		<b>@ 50°F</b>	<b>@ 77°F</b>	<b>@ 120°F</b>	To touch:	90 minutes	30 minutes	15 minutes	To handle:	6 hours	3 hours	1 hour	To recoat:	3 hours	2-1/2 hours	45 minutes	To cure:	14 days	7 days	4 days	<p>Stripe coat crevices, welds, and sharp angles to prevent early failure in these areas.</p> <p>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</p> <p>During the early stages of drying, the coating is sensitive to rain, dew, high humidity, and moisture condensation. Plan painting schedules to avoid these influences during the first 16-24 hours of curing.</p> <p>Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.</p> <p>Excessive reduction of material can affect film build, appearance, and adhesion.</p> <p>In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with water.</p> <p><b>Do not use hydrocarbon solvents for cleaning.</b></p> <p>Reduction of 10% by volume with water is recommended for ease of application and improved final appearance.</p> <p>Refer to Product Information sheet for additional performance characteristics and properties.</p>
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<p>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.</p>	<p>Refer to the MSDS sheet before use.</p> <p>Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.</p>																										
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