



*Industrial and Marine
Coatings*

DIRECT-TO-METAL ENAMEL

B55 SERIES

Revised 4/2000

PRODUCT INFORMATION

PRODUCT DESCRIPTION	RECOMMENDED USES
<p>DIRECT-TO-METAL ENAMEL is a high-build alkyd coating with rust-inhibitive properties for application directly to bare steel.</p> <ul style="list-style-type: none"> • Good gloss and color retention • Corrosion resistance and finish coat protection in one coat • Outstanding long term flexibility • Suitable for use in USDA inspected facilities 	<p>For use over prepared steel in industrial environments.</p> <ul style="list-style-type: none"> • Interior / exterior • New construction • Railings • Machinery • Structural steel • Steel doors • Steel decking • Primer / finish • Repaints • Storage tanks • Bar joists • Piping • Fire escapes • Conveyors
PRODUCT CHARACTERISTICS	PERFORMANCE CHARACTERISTICS
<p>Finish: Semi-Gloss</p> <p>Color: Wide range of colors available</p> <p>Volume Solids: 41% ± 2%, may vary by color</p> <p>Weight Solids: 59% ± 2%, may vary by color</p> <p>VOC (calculated): 450 g/L; 3.75 lb/gal Pure White</p> <p>Recommended Spreading Rate per coat:</p> <p>Wet mils: 7.0 - 13.0 Dry mils: 3.0 - 5.0 Coverage: 131 - 188 sq ft/gal approximate</p> <p>NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.</p> <p>Drying Schedule 10.0 mils wet @ 50% RH:</p> <p style="text-align: center;">@ 77°F</p> <p>To touch: 1½ hours Tack free: 6 hours To recoat: 18 hours</p> <p>Drying time is temperature, humidity and film thickness dependent.</p> <p>Shelf Life: 36 months, unopened, at 77°F</p> <p>Flash Point: 101°F, PMCC</p> <p>Reducer/Clean Up: VM&P Naphtha, R1K3, clean up only</p>	<p>System Tested: (unless otherwise indicated) Substrate: Steel Surface Preparation: SSPC-SP6 Finish: 2 cts. Direct-to-Metal Enamel @ 3.0 mils dft/ct</p> <p>Abrasion Resistance: Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load Result: 200 mg loss</p> <p>Adhesion: Method: ASTM D4541 Result: 300 psi</p> <p>Direct Impact Resistance: Method: ASTM G14 Result: >30 in. lbs.</p> <p>Dry Heat Resistance: Method: ASTM D2485 Result: 200°F (discolors)</p> <p>Flexibility: Method: ASTM D522, 180° bend, 1/4" mandrel Result: Passes</p> <p>Moisture Condensation Resistance: Method: ASTM D4585, 100°F, 500 hours Result: Passes</p> <p>Pencil Hardness: Method: ASTM D3363 Result: 3B</p> <p>Salt Fog Resistance: Method: ASTM B117, 500 hours Result: Passes</p> <p>Exterior Durability: Method: 1 year, 45° South Result: Very good</p> <p>Thermal Shock: Method: ASTM D2246, 5 cycles Result: Passes</p> <p>Provides performance comparable to products formulated to federal specifications: MIL-E-15090, TT-E-485F</p>



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RECOMMENDED SYSTEMS	SURFACE PREPARATION
<p>Steel, Light Service: 1 ct. Direct-To-Metal Enamel @ 3.0 - 5.0 mils dft</p> <p>Steel, Moderate Service: 2 cts. Direct-To-Metal Enamel @ 3.0 - 5.0 mils dft/ct</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 adequate adhesion.</p> <p>Refer to product Application Bulletin for detailed surface preparation information.</p> <p>Minimum recommended surface preparation: Iron & Steel: SSPC-SP2</p>
	<h4>COLOR AVAILABILITY/TINTING</h4> <p>Tint with Blend-A-Color Toner at 75% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.</p> <p>Color: Wide range of colors possible.</p>
	<h4>APPLICATION CONDITIONS</h4> <p>Temperature: 40°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>
	<h4>ORDERING INFORMATION</h4> <p>Packaging: 1 and 5 gallon containers</p> <p>Weight per gallon: 9.2 ± 0.2 lb, may vary with color</p>
<p>The systems listed above are representative of the product's use. Other systems may be appropriate.</p>	<h4>SAFETY PRECAUTIONS</h4> <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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APPLICATION BULLETIN

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SURFACE PREPARATION	APPLICATION CONDITIONS
<p>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.</p> <p>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, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils). Coat any bare steel within 8 hours or before flash rusting occurs.</p> <p>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.</p>	<p>Temperature: 40°F minimum, 120°F maximum (air, surface, and material) At least 5°F above dew point</p> <p>Relative humidity: 85% maximum</p>
	APPLICATION EQUIPMENT
	<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 compatible with the existing environmental and application conditions.</p> <p>Reducer/Clean Up VM&P Naphtha, R1K3, clean up only</p> <p>Airless Spray Pressure 2000 psi Hose 3/8" ID Tip019" Reduction not recommended</p> <p>Conventional Spray Gun Binks 95 Fluid Nozzle 63B Air Nozzle 63PB Atomization Pressure ... 50 psi Fluid Pressure 20-25 psi Reduction not recommended</p> <p>Brush Brush Natural Bristle Reduction not recommended</p> <p>Roller Cover 3/8" woven with phenolic core Reduction not recommended</p> <p>If specific application equipment is listed above, equivalent equipment may be substituted.</p>



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APPLICATION PROCEDURES	PERFORMANCE TIPS												
<p>Surface preparation must be completed as indicated.</p> <p>Mixing Instructions: Mix paint thoroughly by boxing and stirring before use.</p> <p>Apply paint at the recommended film thickness and spreading rate as indicated below:</p> <p>Recommended Spreading Rate per coat:</p> <table border="0"> <tr> <td>Wet mils:</td> <td>7.0 - 13.0</td> </tr> <tr> <td>Dry mils:</td> <td>3.0 - 5.0</td> </tr> <tr> <td>Coverage:</td> <td>131 - 188 sq ft/gal approximate</td> </tr> </table> <p>NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.</p> <p>Drying Schedule @ 10.0 mils wet @ 50% RH: @ 77°F</p> <table border="0"> <tr> <td>To touch:</td> <td>1½ hours</td> </tr> <tr> <td>Tack free:</td> <td>6 hours</td> </tr> <tr> <td>To recoat:</td> <td>18 hours</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:	7.0 - 13.0	Dry mils:	3.0 - 5.0	Coverage:	131 - 188 sq ft/gal approximate	To touch:	1½ hours	Tack free:	6 hours	To recoat:	18 hours	<p>Stripe coat all 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>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>No reduction of material is recommended as it 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 VM&P Naphtha, R1K3.</p> <p>Refer to Product Information sheet for additional performance characteristics and properties.</p>
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CLEAN UP INSTRUCTIONS	SAFETY PRECAUTIONS												
<p>Clean spills and spatters immediately with VM&P Naphtha, R1K3. Clean tools immediately after use with VM&P Naphtha, R1K3. Follow manufacturer's safety recommendations when using any solvent.</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>												