METALASTIC® DTM
ACRYLIC MODIFIED ENAMEL

B55Z-600 SERIES

PRODUCT INFORMATION

PRODUCT DESCRIPTION

METALASTIC DTM is a VOC compliant, high-build acrylic modified enamel with rust-inhibitive properties for application directly to bare steel. Provides an economical alternative to many maintenance and new construction projects.

- VOC compliant
- Good gloss and color retention
- Corrosion resistance and finish coat protection in one coat
- Outstanding long term performance
- Excellent application properties

PRODUCT CHARACTERISTICS

Finish: Semi-Gloss

Color: Wide range of colors available

Volume Solids: 59% ± 2%, may vary by color

Weight Solids: 76% ± 2%, may vary by color

VOC (EPA Method 24): Unreduced: <330 g/L; 2.75 lb/gal
Reduced 3½%: <340 g/L; 2.8 lb/gal

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th>Material</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>5.0</td>
<td>125</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>3.0</td>
<td>75</td>
</tr>
<tr>
<td>~Coverage sq ft/gal (m²/L)</td>
<td>190</td>
<td>4.7</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>944</td>
<td>23.1</td>
</tr>
</tbody>
</table>

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

Drying Schedule @ 7.0 mils wet (175 microns):

- @ 40°F/4.5°C: 3 hours
- @ 77°F/25°C: 1.5 hours
- @ 120°F/49°C: 45 minutes
- 50% RH

- To touch: 3 hours
- To handle: 10 hours
- To recoat: 36 hours
- To cure: 14 days

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

Shelf Life: 36 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C).

Flash Point: 120°F (49°C), PMCC

Reducer/Clean Up:
- Below 80°F (27°C): VM&P Naphtha, R1K3
- Above 80°F (27°C): Hi-Flash Naphtha, R2K5

RECOMMENDED USES

For use over prepared steel in industrial environments.
- Interior / exterior
- New construction
- Machinery
- Structural steel
- Steel doors
- Steel decking
- Suitable for use in USDA inspected facilities

- Conforms to AWWA D102 OCS #1

PERFORMANCE CHARACTERISTICS

Substrate*: Steel
Surface Preparation*: SSPC-SP6/NACE 3
System Tested*: 2 cts. Metalastic DTM @ 3.0 mils (75 microns) dft

Test Name Test Method Results

- Abrasion Resistance
  - ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
  - 50 mg loss

- Adhesion
  - ASTM D4541; ASTM D3359
  - 420 psi (ASTM D4541); 5B (ASTM D3359)

- Corrosion Weathering
  - ASTM D5894, 2 cycles, 672 hours
  - Rating 10 per ASTM D610 for rusting

- Direct Impact Resistance
  - ASTM D2794
  - 50 in. lbs.

- Dry Heat Resistance
  - ASTM D2485
  - 200°F (93°C) (discolors)

- Flexibility
  - ASTM D522, 180° bend, 1/4” mandrel
  - Passes

- Moisture Condensation Resistance
  - ASTM D4585, 100°F (93°C), 1000 hours
  - Rating 10 per ASTM D610 for rusting

- Pencil Hardness
  - ASTM D3363
  - 3B

- Salt Fog Resistance
  - ASTM B117, 1000 hours
  - Rating 10 per ASTM D610 for rusting

Provides performance comparable to products formulated to federal specifications: MIL-E-15090, TT-E-485F

continued on back
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PRODUCT INFORMATION

2.24

RECOMMENDED SYSTEMS

<table>
<thead>
<tr>
<th>Steel, Light Service:</th>
<th>1 ct.</th>
<th>Metalastic DTM</th>
<th>3.0-5.0 (75-125)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel, Moderate Service:</td>
<td>2 cts.</td>
<td>Metalastic DTM</td>
<td>3.0-5.0 (75-125)</td>
</tr>
</tbody>
</table>

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

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.

Minimum recommended surface preparation:

Iron & Steel: SSPC-SP2

SURFACE PREPARATION STANDARDS

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS7079:A1</th>
<th>Swedish Std. 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</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>Rusted C St 2</td>
<td>C St 2</td>
<td>C St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Rusted C St 2</td>
<td>C St 2</td>
<td>C St 2</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted D St 3</td>
<td>D St 3</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

TINTING

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

APPLICATION CONDITIONS

Temperature: 40°F (4.5°C) minimum, 120°F (49°C) maximum (air, surface, and material)

Relative humidity: At least 5°F (2.8°C) above dew point, 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: 11.5 ± 0.2 lb/gl, 1.38 Kg/L may vary with color

SAFETY PRECAUTIONS

Refer to the MSDS sheet before use.

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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.
APPLICATION BULLETIN

SURFACE PREPARATIONS

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.

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, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Coat any bare steel within 8 hours or before flash rusting occurs.

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 product 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 CONDITIONS

Temperature: 40°F (4.5°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/Clean Up
Below 80°F (27°C).......... VM&P Naphtha, R1K3
Above 80°F (27°C)........ Hi-Flash Naphtha, R2K5

Airless Spray
Pressure.........................2400 psi
Hose...............................3/8" ID
Tip..................................015"
Filter.........................60 mesh
Reduction..................Not recommended

Conventional Spray
Gun.................................Binks 95
Fluid Nozzle..............63B
Air Nozzle....................63PB
Atomization Pressure....50 psi
Fluid Pressure...............20-25 psi
Reduction................As needed, up to 3½% by volume

Brush
Brush........................Natural Bristle
Reduction................As needed, up to 3½% by volume

Roller
Cover..............................3/8" woven with solvent resistant core
Reduction................As needed, up to 3½% by volume

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

Surface Preparation Standards

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1 BS7079-A1</th>
<th>Swedish Std. SIS05900</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>
</tr>
<tr>
<td>Near White Metal</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>SP 6</td>
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<td>Sa 1</td>
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<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rust C St 2</td>
<td>D St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Rust C St 3</td>
<td>D St 3</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rust C St 2</td>
<td>D St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Rust C St 3</td>
<td>D St 3</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td>Pitted &amp; Rusted</td>
<td>C St 2</td>
<td>C St 2</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

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**APPLICATION PROCEDURES**

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>5.0</td>
<td>125</td>
<td>8.0</td>
</tr>
<tr>
<td>8.0</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dry mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
<td>75</td>
<td>5.0</td>
</tr>
<tr>
<td>5.0</td>
<td>125</td>
<td></td>
</tr>
</tbody>
</table>

- Coverage sq ft/gal (m²/L)

| Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft | 944 | 23.1 |

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

**Drying Schedule @ 7.0 mils wet (175 microns):**

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<th>@ 120°F/49°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50% RH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To touch</td>
<td>3 hours</td>
<td>1.5 hours</td>
<td>45 minutes</td>
</tr>
<tr>
<td>To handle</td>
<td>10 hours</td>
<td>6 hours</td>
<td>1 hours</td>
</tr>
<tr>
<td>To recoat</td>
<td>36 hours</td>
<td>18 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>To cure</td>
<td>14 days</td>
<td>7 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

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

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

**PERFORMANCE TIPS**

- Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.

- 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.

- 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.

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

- In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with VM&P Naphtha, R1K3.

Refer to Product Information sheet for additional performance characteristics and properties.

**CLEAN UP INSTRUCTIONS**

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.

**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.

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