COROTHANE® I HS ALIPHATIC FINISH COAT

B65WX51 Small Batch (Pastel)
B65WX53 Small Batch (Deep)
B65TX54 Small Batch (Dark)
B65W50 Finish White
B65-50 Finish Colors

PRODUCT INFORMATION

Recommended Uses
• Color coat where maximum color and gloss retention are required
• Suitable for use in the following industries:
  - Marine
  - Industrial
  - Bridge and Highway
  - Water and Waste Water
  - Petro-Chemical
  - Pulp and Paper
  - Rail
• Suitable for use in USDA inspected facilities.
• Acceptable for use in Canadian Food Processing facilities categories: D1, D2, D3 (Confirm acceptance of specific part numbers/recipes with your Sherwin-Williams representative)
• Conforms to AWWA D102-03 OCS #2
• Meets requirements of SSPC Paint 38, Level II

Performance Characteristics

Substrate*: Steel
Surface Preparation*: SSPC-SP6
System Tested*:
1 ct. Corothane I MIO-Aluminum @ 3.0 mils (75 microns) dft
1 ct. Corothane I HS Aliphatic Finish Coat @ 3.0 mils (75 microns) dft
*unless otherwise noted below

Test Name | Test Method | Results |
---|---|---|
Abrasion Resistance | ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load | 80 mg loss |
Adhesion | ASTM D4541 | 1296 psi |
Corrosion Weathering | ASTM D5984, 12 cycles, 4032 hours | Rating 10 per ASTM D610 Rusting; Rating 10 per ASTM D714 Blistering |
Direct Impact, topcoat only | ASTM D2794 | 70 in lb |
Dry Heat Resistance | ASTM D2485 | 250°F (121°C) |
Flexibility, topcoat only | ASTM D522, 180° bend, 1/8" mandrel | Passes |
Humidity | ASTM-D4585, 1000 hours | Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering |
Pencil Hardness | ASTM D3363 | HB |
Salt Fog Resistance | ASTM B117, 1000 hours | Rating 10 per ASTM D610 for Rusting; Rating 10 per ASTM D714 for Blistering |
Thermal Cycling | ASTM D2246, 15 cycles | Passes, no cracking, checking, or blistering; no loss of adhesion, 100% gloss retention |

Meets requirements of SSPC Paint 38, Level II.

COROTHANE® I HS ALIPHATIC FINISH COAT is a single component, moisture curing urethane designed for low temperature or high humidity applications while providing UV resistance and chemical resistance equivalent to two part urethane coatings.

• Low temperature application - down to 20°F (-7°C)
• Superior resistance to yellowing, chalking, or degradation by sunlight
• Superior adhesion to most prepared surfaces
• Superior abrasion resistance
• Outstanding chemical resistance
• Outstanding application properties

Finish: Gloss
Color: Wide range of colors available
Volume Solids: 61% ± 1%, may vary by color
Weight Solids: 77% ± 2%
VOC (EPA Method 24): Unreduced: <310 g/L; 2.60 lb/gal
Reduced 5%: <340 g/L; 2.80 lb/gal

Recommended Spreading Rate per coat:

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>3.5 (88)</td>
<td>5.0 (125)</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>2.0 (50)</td>
<td>3.0 (75)</td>
</tr>
<tr>
<td>Coverage sq ft/gal (m²/L)</td>
<td>326 (8.0)</td>
<td>489 (12.0)</td>
</tr>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>976 (23.9)</td>
<td></td>
</tr>
</tbody>
</table>

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

Drying Schedule @ 4.0 mils wet (100 microns):

<table>
<thead>
<tr>
<th>Test Method</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch</td>
<td>4 hours</td>
<td>2 hours 45 minutes</td>
</tr>
<tr>
<td>Recoat</td>
<td>24 hours</td>
<td>12 hours</td>
</tr>
<tr>
<td>Cure</td>
<td>14 days</td>
<td>14 days</td>
</tr>
</tbody>
</table>

If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.

Shelf Life: 12 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C).
(Tinted colors must be used within 7 days after tinting)

Flash Point: 101°F (39°C), Seta Flash
Reducer/Clean Up: Reducer #15, R7K15, R7K100, or R7K111 (VOC exempt)

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COROTHANE® I HS ALIPHATIC FINISH COAT

B65WX51
B65WX53
B65TX54
B65W50
B65-50

PRODUCT INFORMATION

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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-SP6/NACE 3

*Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3

*Previously Painted SSPC-SP2 or SP3

*Primer required

Surface Preparation Standards

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</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>
</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 7</td>
<td>Sa 7</td>
<td>SP 6</td>
<td>3</td>
</tr>
<tr>
<td>Brush-Off Blast</td>
<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 1</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>Pitted &amp; Rusted</td>
<td>C St 2</td>
<td>C St 2</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td></td>
<td>D St 2</td>
<td>D St 2</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
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</tr>
</tbody>
</table>

Tinting

Custom color options are available. Contact your Sherwin-Williams representative for additional information.

Application Conditions

Temperature: 20°F (-7°C) minimum, 100°F (38°C) maximum

Relative humidity: 30% minimum, 99% maximum

Refer to product Application Bulletin for detailed application information.

Ordering Information

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

Weight: 11.79 ± 0.2 lb/gal ; 1.4 Kg/L may vary by 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.

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.

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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
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use Near White Metal Blast Cleaning per SSPC-SP10/ NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils / 50 microns). Prime any bare steel the same day as it is cleaned.

Concrete and Masonry
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

Follow the standard methods listed below when applicable:
ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2R Concrete Surface Preparation.

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.

Surface Preparation Standards

<table>
<thead>
<tr>
<th>Surface Preparation Standards</th>
<th>ISO 8501-1</th>
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<td>Sa 1</td>
<td>Sa 1</td>
<td>SP 7</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rust 2</td>
<td>C St 2</td>
<td>C St 2</td>
<td>SP 4</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rust 2</td>
<td>C St 2</td>
<td>C St 2</td>
<td>SP 4</td>
<td>-</td>
</tr>
</tbody>
</table>

Application Bulletin

Application Conditions

Temperature:
air and surface: 20°F (-7°C) minimum, 100°F (38°C) maximum
material: 45°F (7°C) minimum
Do not apply over surface ice
Relative humidity: 30% minimum, 99% 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
Brush/Roll ......................Reducer #15, R7K15
Spray..............................Aromatic 100 Reducer, R2K5
VOC exempt ..................R7K111

Airless Spray
Pump................................30:1
Pressure................................1800 - 2000 psi
Hose................................1/4” ID
Tip ....................................011” - .015”
Filter ................................60 mesh
Reduction ..........................As needed up to 5% by volume

Conventional Spray
Unit.................................Graco  Binks
Gun ..................................900  95
Fluid Nozzle ...................070  66/65
Air Nozzle .......................947  66PR
Atomization Pressure 60-70 psi 60-70 psi
Fluid Pressure ................15-20 psi 15-20 psi
Reduction ..........................As needed up to 5% by volume

Brush
Brush ..............................Natural bristle
Reduction ..........................As needed up to 5% by volume

Roller
Cover .............................1/4” natural or synthetic with solvent resistant core
Reduction ..........................As needed up to 5% by volume

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

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### Application Bulletin

**COROTHANE® I HS ALIPHATIC FINISH COAT**

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<td>B65W50</td>
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**Application Procedures**

Surface preparation must be completed as indicated.

Mix paint thoroughly prior to use with a low speed power agitator. Filter slowly through a 55 mesh screen.

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

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<tr>
<th>Drying Schedule @ 4.0 mils wet (100 microns):</th>
<th>@ 40°F /4.5°C</th>
<th>@ 77°F /25°C</th>
<th>@ 100°F /38°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% RH</td>
<td>4 hours</td>
<td>2 hours</td>
<td>45 minutes</td>
</tr>
<tr>
<td>To touch:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To recoat: minimum:</td>
<td>24 hours</td>
<td>12 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>maximum:</td>
<td>14 days</td>
<td>14 days</td>
<td>14 days</td>
</tr>
<tr>
<td>To cure:</td>
<td>7 days</td>
<td>3 days</td>
<td>3 days</td>
</tr>
</tbody>
</table>

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

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**Clean Up Instructions**

Clean spills and spatters immediately with Reducer #15, R7K15. Clean tools immediately after use with Reducer #15, R7K15. Follow manufacturer's safety recommendations when using any solvent.

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