**COROTHANE® I ALIPHATIC FINISH COAT**

**B65WX101** **B65WX103** **B65TX104** **B65W15** **B65-30**

**SMALL BATCH (PASTEL)** **SMALL BATCH (DEEP)** **SMALL BATCH (DARK)** **FINISH WHITE** **FINISH COLORS**

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**PRODUCT INFORMATION**

5.05

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**Product Description**

COROTHANE I 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)
- Excellent resistance to yellowing, chalking, or degradation by sunlight
- Excellent adhesion to most surfaces
- Superior abrasion resistance
- Excellent adhesion directly to clean concrete
- Outstanding chemical resistance
- Outstanding application properties

**Product Characteristics**

Finish: Gloss

Color: Wide range of colors available

Volume Solids: 52% ± 2%, may vary by color

VOC (calculated): <420 g/L; 3.5 lb/gal

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**Recommended Uses**

- Color coat for where maximum color and gloss retention are required
- Chemical resistant coating for metallized surfaces and tanks
- Chemical resistant floor coating
- Marine applications
- Suitable for use in USDA inspected facilities
- White and light colors meet requirements of SSPC Paint 38, Level III
- Conforms to AWWA D102 OCS #2

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**Performance Characteristics**

Substrate*: Steel

Surface Preparation*: SSPC-SP6/NACE 3

System Tested*:

1 ct. Corothane I GalvaPac Zinc Primer @ 3.0 mils (75 microns) dft
1 ct. Corothane I Aliphatic Finish Coat @ 2.0 mils (50 microns) dft

*unless otherwise noted below

Test Name | Test Method | Results
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Abrasion Resistance | ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load | 24 mg loss
Adhesion | ASTM D4541 | 946 psi
Corrosion Weathering (Zinc Primer/Mastic/Aliphatic Finish) | ASTM D5894, 3024 hours, 9 cycles | Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting
Direct Impact Resistance | ASTM D2794 | 160 in. lbs.
Dry Heat Resistance | ASTM D2485 | 250°F (121°C)
Flexibility | ASTM D522, 180° bend, 1/8” mandrel | Passes
Moisture Condensation Resistance | ASTM D4585, 100°F (38°C), 1000 hours | Passes
Pencil Hardness | ASTM D3363 | 2H
Salt Fog Resistance (Zinc Primer/Mastic/Aliphatic Finish) | ASTM B117, 3000 hours | Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting
Wet Heat Resistance | Non-immersion | 180°F (82°C)

White and light colors meet requirements of SSPC Paint 38, Level III.

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**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:** >93°F (33.8°C), PMCC

**Reducer/Clean Up:** Reducer #15, R7K15

Reducer 100, R7K100

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www.sherwin-williams.com/protective
**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.

Minimum recommended surface preparation:

* Iron & Steel: SSPC-SP6/NACE 3
  Concrete: 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 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>SP 1</td>
<td>4</td>
</tr>
<tr>
<td>Hand Tool Cleaning</td>
<td>Rusted</td>
<td>D St 3</td>
<td>SP 2</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td>Power Tool Cleaning</td>
<td>Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Pitted &amp; Rusted</td>
<td>D St 3</td>
<td>SP 3</td>
<td>-</td>
</tr>
</tbody>
</table>

**TINTING**

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

**APPLICATION CONDITIONS**

Temperature:
air and surface: 20°F (-7°C) minimum, 100°F (38°C) maximum
material: 45°F (7°C) minimum
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: 9.0 to 11.0 ± 0.2 lb/gal ; 1.1 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.

**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 industry standards 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-SP13/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.

**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**

- Reducer #15, R7K15 (Spray) Reducer #100, R7K100 (Brush and Roller)

**Airless Spray**

- Unit: Graco
- 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: Reducer R7K15, as needed up to 10% by volume

**Conventional Spray**

- Unit: Graco
- 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: Reducer R7K15, as needed up to 10% by volume

**Brush**

- Brush: Natural bristle
- Reduction: Reducer R7K100 as needed up to 10% by volume

**Roller**

- Cover: 1/4" natural or synthetic with solvent resistant core
- Reduction: Reducer R7K100 as needed up to 10% by volume

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

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.0 (100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.0 (150)</td>
<td></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>2.0 (50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0 (75)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>~Coverage sq ft/gal (m²/L)</th>
<th>278 (6.8)</th>
<th>417 (10.2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft</td>
<td>832 (20.4)</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):

- At 40°F/4.5°C @ 50% RH: To touch - 4 hours, To recoat minimum - 18 hours, To cure - 8 days
- At 77°F/25°C: To touch - 1 hour, To recoat minimum - 4 hours, To cure - 3 days
- At 100°F/38°C @ 100°F/38°C: To touch - 40 minutes, To recoat minimum - 4 hours, To cure - 3 days

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

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.

Safety Precautions

Refer to the MSDS sheet before use.

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Warranty

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