



QPL-0001

March 7, 2011

### Qualified Product List

#### Contractor Product Information

**Contractor:**  **Contract No.:**   
**Sub Contractor:**  **Date:**   
**Bid Item:**

**Manufacturer:** Coatings Unlimited - Kent, WA

**Product Name: Paint Coatings**

**Standard Spec :** 6-07.3(3)A, Paint - New Steel Structures - Coating Facility

**Product Description :** Blasting and coatings of steel structures

**Product Restriction :**

**Acceptance Code :** 5105

**Code Description :** Acceptance is based on field verification of an APPROVED FOR SHIPMENT tag or stamp. Document, in the field inspectors IDR, the fabrication inspectors initial/name, date, serial number, quantity and either F or D for foreign or domestic steel and/or iron or not marked. If the Contract contains a Buy America clause and the material is marked F or not at all the PEO is responsible for acquiring a Certificate of Material Origin from the Contractor.

**Last Updated :** Sep 13, 2010

**To be completed by the field inspector:**

**Quantity:** \_\_\_\_\_ **Verified By:** \_\_\_\_\_ **Date:** \_\_\_\_\_



# Request for Approval of Material

Contract <b>8078</b>	FA Number _____	SR <b>I-5</b>	Date <b>3/3/11</b> <del>2/3/11</del>
Section <b>I-5 Columbia River Bridge (WA 0.3 to OR MP 308)</b>		County <b>WA AND OR states</b>	
Contractor <b>AMERICAN CONSTRUCTION COMPANY, INC.</b>		Subcontractor _____	

This form shall be completed prior to submittal. If this form is not complete at time of submittal it may be returned for information that was omitted.  
**For assistance in completing, see Instructions and Example**

For WSDOT Use Only	
RAM #	
PE/QPL Code	Hdqr./QPL Code

Bid Item No.	Material or Product/Type	Name and Location of Fabricator, Manufacturer or Pit Number	Specification Reference
<b>2&amp;3</b>	<b>FURNISH BUBBLE SYSTEMS' AIR MANIFOLD</b>	<b>COATINGS UNLIMITED, INC.</b> <b>18420 68th Avenue S</b> <b>Suite #110</b> <b>Kent, WA 98032</b> <b>(425) 251-3268</b>	<b>PLAN DRAWING sheet ND4, Note #1</b>

Project Engineer	Date	State Materials Engineer	Date
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### Acceptance Action Codes for use by Project Engineer and State Materials Laboratory

- 1. Acceptance Criteria: Acceptance based upon 'Satisfactory' Test Report for samples of materials to be incorporated into project.
  - 2. Acceptance Criteria: Mfg. Cert. of Compliance for 'Acceptance' prior to use of material.
  - 3. Acceptance Criteria: Catalog Cuts for 'Acceptance' prior to use of material. Catalog Cut Approved  Yes  No
  - 4. Acceptance Criteria: Submit Shop Drawings for 'Approval' prior to fabrication of material.
  - 5. Acceptance Criteria: Only 'Approved for Shipment', 'WSDOT Inspected' or 'Fabrication Approved Decal' material shall be used.
  - 6. Acceptance Criteria: Submit Certificate of Materials Origin to Project Engineer Office.
  - 7. Acceptance Criteria: Request Transmitted to State Materials Laboratory for Approval Action.
  - 8. Source Approved:
  - 9. Approval Withheld: Submit samples for preliminary evaluation.
  - 10. Approval Withheld:
  - 11. Miscellaneous Acceptance Criteria.
- Remarks:

#### Project Engineer Distribution

- Contractor
- Region Operations Engineer
- Fabrication Inspection
- Region Materials
- State Materials Lab  
M/S 47365

#### State Materials Engineer Distribution

- General File
- Other
- Signing Inspection

## COATINGS UNLIMITED INC.

18420 68<sup>TH</sup> AVE. S., #110  
KENT, WA. 98032-1093  
PH: 425-251-3268 FAX: 425-251-3269

# PAINT PROCEDURE

## AIR SUPPLY MANIFOLD

### CUSTOMER: AMERICAN CONSTRUCTION

**SPECIFICATION:** Prepare and paint per WSDOT Standard Specification M41-10 6-07.3(9) Painting new steel structures.

The following steps for coating the referenced parts will be in accordance with American Construction Purchase Order# TBA.

1. All Quality Control hold points and inspections are performed per specification and CUI shop QC Procedures and meet WSDOT standards.
2. All surfaces to be coated are cleaned as needed per SSPC-SP1, Solvent Cleaning prior to other surface preparation methods.
3. Specified surfaces to be coated are abrasive blasted to standard SSPC-SP10, Near White Metal Cleaning using Amesteel #40 steel grit abrasive.
  - a. Open air blasting in the CUI Blast Room, pressure at the nozzle is 98 to 103 PSI using a #6 Venturi type nozzle which will provide specified standard blast and a sharp angular anchor profile at the required depth.
  - b. Representative profile tests are taken after the blast passes visual inspection. CUI method is Testex Tape and Mitutoyo "snap gauge" micrometer.
  - c. All surfaces not to be coated are masked and protected per the Drawings.
  - d. "Lag time" (time between blasting and coating application) shall not exceed specified limit, and if no limit is specified, before any rusting or other contamination of the blasted surfaces occurs. Usual standard lag time is 8 hours before re-blasting is required, or sooner, given same caveats. In the CUI facility, air contaminants are not likely to impact the blasted surfaces, and unless conditions are expected to approach surface temperature  $< 5^{\circ}\text{F}$  over measured dew point temperature, the blast condition will remain acceptable indefinitely.
  - e. If CUI intends to use the airless spray method, a Graco air powered Bulldog or equivalent pump will be employed, generating a minimum of 3000 PSI, 3/8" pressure line, Graco Silver gun with a .019" tip. This method conforms to the attached International product information document.
  - f. If CUI intends to use conventional airspray method, a Binx or Devilbis 2 gallon pressure pot will be employed using a Binx or Devilbis gun with a .070" or larger fluid tip and cap that provides best atomization at lowest

pressure to avoid overspray problems. This method conforms to the attached International product information document.

- g. A Nordson wet film thickness gage will be used by the painter to ensure proper wet thickness which conforms to solids calculations so that proper dry thickness is provided.

**INSPECTION AND TESTING** Visual inspection for coating defects and Dry film thickness (DFT) testing per SSPC PA2 is performed on all coated surfaces.

- a. CUI shop uses both Type I and type II DFT gauges. The gauge is properly calibrated. The gauge to be used on this project is a DeFelsko Positector 6000 FN1 Electronic Coating Thickness Gage (reference Type II in the Standard.). Re-calibration date for this instrument is 9/20/2011.
- b. Any coating defects found during final inspection are corrected in accordance with coating manufacturer's printed instructions.
- c. After coating has sufficiently cured for testing, the repaired areas will be re-inspected.
- d. Conformance Certificates are generated, signed by the QC Inspector and sent with the work-piece.

  
\_\_\_\_\_  
Todd Kulesza  
Coatings Unlimited Inc. QC/NACE 2



**Industrial  
 &  
 Marine  
 Coatings**

**ZINC CLAD® II ETHYL SILICATE  
 INORGANIC ZINC-RICH COATING**

PART E B69V3 BINDER  
 PART F B69D11 ZINC DUST

A-11-99

6.02

PRODUCT INFORMATION		Revised 08/08																											
PRODUCT DESCRIPTION		RECOMMENDED USES																											
<p><b>ZINC CLAD II ETHYL SILICATE</b> is a solvent-based two-package, inorganic ethyl silicate, zinc-rich coating.</p> <ul style="list-style-type: none"> <li>Meets Class B requirements for Slip Coefficient and Creep Resistance, .56</li> <li>Meets AASHTO M-300 specification</li> <li>85% zinc content in dry film</li> <li>Coating self-heals to resume protection if damaged</li> <li>Provides cathodic/sacrificial protection by the same mechanism as galvanizing. Also protects steel by forming an inorganic moisture and solvent barrier</li> </ul>		<p>For use over properly prepared blasted steel.</p> <ul style="list-style-type: none"> <li>As a one-coat maintenance coating or as a permanent primer for severely corrosive environments (pH range 5-9)</li> <li>Economical replacement for galvanizing with similar performance</li> <li>Ideal for application at low temperatures or service at high temperatures and/or humidity conditions</li> <li>Water intake and discharge lines (non-potable)</li> <li>Where abrasion resistance and hardness is required</li> <li>Bridges, refineries, drilling rigs</li> <li>Shop or field application</li> <li>Not recommended for severe acid or alkali exposure</li> </ul>																											
PRODUCT CHARACTERISTICS		PERFORMANCE CHARACTERISTICS																											
<p><b>Finish:</b> Flat</p> <p><b>Color:</b> Gray-green</p> <p><b>Volume Solids:</b> 62% ± 2%, ASTM D2697, mixed</p> <p><b>Weight Solids:</b> 82% ± 2 %, mixed</p> <p><b>VOC (calculated):</b>                      Unreduced: &lt;500 g/L; 4.17 lb/gal                      Reduced 10%: &lt;500 g/L; 4.17 lb/gal</p> <p><b>Zinc Content in Dry Film:</b> 85% by weight</p> <p><b>Mix Ratio:</b> 2 components; premeasured                      5 gallons mix</p> <p><b>Recommended Spreading Rate per coat:</b>                      Wet mills: 3.5 - 6.5                      Dry mills: 2.0 - 4.0                      Coverage: 248 - 486 sq ft/gal approximate</p> <p><b>Note:</b> Brush application is for small areas only. Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.</p> <p><b>Drying Schedule @ 5.0 mils wet @ 50% RH</b></p> <table border="1"> <thead> <tr> <th></th> <th>@55°F</th> <th>@77°F</th> <th>@100°F</th> </tr> </thead> <tbody> <tr> <td>Rain resistant</td> <td>1 hours</td> <td>20-30 minutes</td> <td>15 minutes</td> </tr> <tr> <td>To touch:</td> <td>30 minutes</td> <td>15 minutes</td> <td>5 minutes</td> </tr> <tr> <td>To handle:</td> <td>3 hours</td> <td>1-2 hours</td> <td>20 minutes</td> </tr> <tr> <td>To recoat:</td> <td>48 hours</td> <td>18 hours</td> <td>18 hours</td> </tr> <tr> <td>To cure:</td> <td>7 days</td> <td>7 days</td> <td>7 days</td> </tr> <tr> <td>Immersion service:</td> <td>14 days</td> <td>14 days</td> <td>14 days</td> </tr> </tbody> </table> <p>Drying time is temperature, humidity, and film thickness dependent.</p> <p><b>Pot Life:</b> 18 hours 8 hours 8 hours                      Note: High humidity will shorten the pot life.</p> <p><b>Sweat-in-Time:</b> None required</p> <p><b>Shelf Life:</b> Part E - 9 months, unopened                      Part F - 24 months, unopened                      Store indoors at 40°F to 100°F</p> <p><b>Flash Point:</b> 55°F, PMCC, mixed</p> <p><b>Reducer/Clean Up:</b> Below 80°F - Xylene, R2K4                      Above 80°F - Reducer #58, R7K58</p>		@55°F	@77°F	@100°F	Rain resistant	1 hours	20-30 minutes	15 minutes	To touch:	30 minutes	15 minutes	5 minutes	To handle:	3 hours	1-2 hours	20 minutes	To recoat:	48 hours	18 hours	18 hours	To cure:	7 days	7 days	7 days	Immersion service:	14 days	14 days	14 days	<p><b>System Tested:</b> (unless otherwise indicated)                      Substrate: Steel                      Surface Preparation: SSPC-SP10                      1 ct. Zinc Clad II @ 3.0 mils dft</p> <p><b>Abrasion Resistance:</b>                      Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load                      Result: 326 mg loss</p> <p><b>Adhesion:</b>                      Method: ASTM D4541                      Result: 6.77 MPa = 982 lb psi</p> <p><b>Direct Impact Resistance:</b>                      Method: ASTM D2794                      Result: 60 in. lbs.</p> <p><b>Dry Heat Resistance:</b>                      Method: ASTM D2485                      Result: 750°F</p> <p><b>Immersion Resistance (untopcoated):</b>                      Method: 1 year                      Results: Acceptable for: crude oil, fresh and demineralized water, gasoline</p> <p><b>Moisture Condensation Resistance:</b>                      Method: ASTM D4585, 100°F, 2000 hours                      Result: No Failure</p> <p><b>Pencil Hardness:</b>                      Method: ASTM D3363                      Result: 3H</p> <p><b>Salt Fog Resistance:</b>                      Method: ASTM B117, 2000 hours                      Result: No Failure</p> <p><b>Wet Heat Resistance:</b>                      Method: Non-immersion                      Result: 115°F</p> <p><b>Slip Coefficient, zinc only:</b>                      Method: AISC Specification for Structural Joints Using ASTM A325 or ASTM A490 Bolts                      Result: Class B, 0.56</p> <p>Provides performance comparable to products formulated to Federal Specifications: Mil-P-38336, Mil-P-46106, and SSPC Paint 20.</p>
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**Industrial  
&  
Marine  
Coatings**

**6.02  
ZINC CLAD® II ETHYL SILICATE  
INORGANIC ZINC-RICH COATING**

PART E B69V3 BINDER  
PART F B69D11 ZINC DUST

**PRODUCT INFORMATION**

RECOMMENDED SYSTEMS	SURFACE PREPARATION												
<p><b>Steel, Zinc Primer/Finish, Immersion or atmospheric:</b> 1 ct. Zinc Clad II Ethyl Silicate @ 2.0 - 4.0 mils dft</p> <p><b>Steel, Acrylic Topcoat, atmospheric:</b> 1 ct. Zinc Clad II Ethyl Silicate @ 2.0 - 4.0 mils dft 2 cts. DTM Acrylic Coating @ 2.5 - 4.0 mils dft/ct</p> <p><b>Steel, Coal Tar Epoxy Topcoat, atmospheric:</b> 1 ct. Zinc Clad II Ethyl Silicate @ 2.0 - 4.0 mils dft 1 ct. Hi-Mil Sher-Tar Epoxy @ 16.0 - 20.0 mils dft</p> <p><b>Steel, Epoxy Topcoat, atmospheric:</b> 1 ct. Zinc Clad II Ethyl Silicate @ 2.0 - 4.0 mils dft 1-2 cts. Macropoxy HS @ 3.0 - 6.0 mils dft/ct</p> <p><b>Steel, Epoxy Topcoat, atmospheric:</b> 1 ct. Zinc Clad II Ethyl Silicate @ 2.0 - 4.0 mils dft 2 cts. Tile-Clad HS Epoxy @ 3.0 - 4.0 mils dft/ct</p> <p><b>Steel, Urethane Topcoat, atmospheric:</b> 1 ct. Zinc Clad II Ethyl Silicate @ 2.0 - 4.0 mils dft 1 ct. Macropoxy HS @ 3.0 - 6.0 mils dft/ct 1 ct. Sherthane 2K Urethane @ 2.0 - 4.0 mils dft</p> <p>NOTE: 1 ct. of DTM Wash Primer can be used as an intermediate coat under recommended topcoats to prevent pinholing.</p> <p><b>Steel, Class B Compliant System</b> 1 ct. Zinc Clad II Ethyl Silicate @ 2.0 - 4.0 mils dft 1 ct. Steel Spec Epoxy Primer (red) @ 4.0-6.0 mils dft</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:</p> <table border="0"> <tr> <td>Iron &amp; Steel</td> <td></td> </tr> <tr> <td>Atmospheric:</td> <td>SSPC-SP6/ NACE 3, 2 profile</td> </tr> <tr> <td>Immersion:</td> <td>SSPC-SP10/NACE 2, 2 mil profile</td> </tr> </table>	Iron & Steel		Atmospheric:	SSPC-SP6/ NACE 3, 2 profile	Immersion:	SSPC-SP10/NACE 2, 2 mil profile						
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	<p><b>TINTING</b></p> <p>Do not tint.</p>												
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	<p><b>ORDERING INFORMATION</b></p> <table border="0"> <tr> <td>Packaging:</td> <td>5 gallons mixed</td> </tr> <tr> <td>Part E:</td> <td>3.75 gallons in a 5 gallon can</td> </tr> <tr> <td>Part F:</td> <td>73 lb zinc dust</td> </tr> <tr> <td>Weight per gallon:</td> <td>20.9 ± 0.2 lb, mixed</td> </tr> </table>	Packaging:	5 gallons mixed	Part E:	3.75 gallons in a 5 gallon can	Part F:	73 lb zinc dust	Weight per gallon:	20.9 ± 0.2 lb, mixed				
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	<p><b>SAFETY PRECAUTIONS</b></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>												
<p><b>DISCLAIMER</b></p> <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>	<p><b>WARRANTY</b></p> <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>												



**Industrial  
&  
Marine  
Coatings**

**6.02A  
ZINC CLAD® II ETHYL SILICATE  
INORGANIC ZINC-RICH COATING**

PART E B69V3  
PART F B69D11

BINDER  
ZINC DUST

**APPLICATION BULLETIN**

Revised 08/08

SURFACE PREPARATION	APPLICATION CONDITIONS		
<p>Zinc rich coatings require direct contact between the zinc pigment in the coating and the metal substrate for optimum performance. Surface must be dry, free from oil, dirt, dust, mill scale, or other contaminants to ensure adequate adhesion.</p> <p><b>Iron &amp; Steel (atmospheric service)</b> 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). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.</p> <p><b>Iron &amp; Steel (immersion service)</b> Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is 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). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.</p> <p><b>Note:</b> If blast cleaning with steel media is used, an appropriate amount of steel grit blast media may be incorporated into the work mix to render a dense, angular 1.5 - 2.0 mil surface profile. This method may result in improved adhesion and performance.</p>	<p>Temperature: air and surface: 0°F minimum, 120°F maximum material: 40°F minimum At least 5°F above dew point</p> <p>Relative humidity: 40% - 90% maximum Water misting may be required at humidities below 50%</p> <tr> <th colspan="2" data-bbox="824 772 1421 810">APPLICATION EQUIPMENT</th> </tr> <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> Below 80°F .....Xylene, R2K4 Above 80°F .....Reducer #58, R7K58</p> <p><b>Airless Spray</b> (use Teflon packings and continuous agitation) Pressure.....1800 - 2000 psi Hose.....3/8" ID Tip......017" - .021" Reduction.....As needed up to 10% by volume</p> <p><b>Conventional Spray</b> (continuous agitation required) Gun .....Binks 95 Fluid Nozzle .....66 Air Nozzle.....63PB Atomization Pressure.....30 - 40 psi Fluid Pressure.....10 - 20 psi Reduction.....As needed up to 10% by volume</p> <p>Keep pressure pot at level of applicator to avoid blocking of fluid line due to weight of material. Blow back coating in fluid line at intermittent shutdowns, but continue agitation at pressure pot.</p> <p><b>Brush</b> .....For touch-up only</p> <p>If specific application equipment is not listed above, equivalent equipment may be substituted.</p>	APPLICATION EQUIPMENT	
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PART E B69V3 BINDER  
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**APPLICATION BULLETIN**

APPLICATION PROCEDURES	PERFORMANCE TIPS																												
<p>Surface preparation must be completed as indicated. Zinc Clad II comes in 2 premeasured containers which when mixed provides 5 gallons of read-to-apply material.</p> <p><b>Mixing Instructions:</b> Thoroughly agitate Binder Part E. Using continuous air driven agitation, slowly mix all of Zinc Dust Part F into all of Binder Part E until mixture is completely uniform. After mixing, pour mixture through 30-60 mesh screen. Mixed material must be used within 8 hours. Do not mix previously mixed material with new. If reducer solvent is used, add only after both components have been thoroughly mixed. Continuous agitation of mixture during application is required, otherwise zinc dust will quickly settle out. Apply paint at the recommended film thickness and spreading rate as indicated below:</p> <p><b>Recommended Spreading Rate per coat:</b>                  Wet mils: 3.5 - 6.6                  Dry mils: 2.0 - 4.0                  Coverage: 248 - 496 sq ft/gal approximate                  Note: British application is for small areas only.</p> <p><b>Drying Schedule @ 5.0 mils wet @ 50% RH</b></p> <table border="1"> <thead> <tr> <th></th> <th>@ 65°F</th> <th>@ 77°F</th> <th>@ 100°F</th> </tr> </thead> <tbody> <tr> <td>Rain resistant</td> <td>1 hour</td> <td>20-30 minutes</td> <td>15 minutes</td> </tr> <tr> <td>To touch:</td> <td>30 minutes</td> <td>15 minutes</td> <td>5 minutes</td> </tr> <tr> <td>To handle:</td> <td>3 hours</td> <td>1-2 hours</td> <td>20 minutes</td> </tr> <tr> <td>To recoat:</td> <td>48 hours</td> <td>18 hours</td> <td>18 hours</td> </tr> <tr> <td>To cure:</td> <td>7 days</td> <td>7 days</td> <td>7 days</td> </tr> <tr> <td>Immersion service:</td> <td>14 days</td> <td>14 days</td> <td>14 days</td> </tr> </tbody> </table> <p>Drying time is temperature, humidity, and film thickness dependent.</p> <p><b>Pot Life:</b> 18 hours 8 hours 6 hours                  Note: High humidity will shorten the pot life.</p> <p><b>Sweat-in-Time:</b> None required</p> <p>Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance.</p>		@ 65°F	@ 77°F	@ 100°F	Rain resistant	1 hour	20-30 minutes	15 minutes	To touch:	30 minutes	15 minutes	5 minutes	To handle:	3 hours	1-2 hours	20 minutes	To recoat:	48 hours	18 hours	18 hours	To cure:	7 days	7 days	7 days	Immersion service:	14 days	14 days	14 days	<p><b>Topcoating:</b> Note minimum cure times at normal conditions before topcoating. Longer drying periods are required if primer cannot be water mist sprayed when humidity is low. Water misting may be required at humidities below 50%. Occasionally topcoats will pinhole or delaminate from zinc-rich coatings. This is usually due to poor ambient conditions or faulty application of topcoats. This can be minimized by:</p> <ul style="list-style-type: none"> <li>• Providing adequate ventilation and suitable application and substrate temperature.</li> <li>• Avoid dry spray of topcoat.</li> <li>• If pinholing develops, apply a mist coat of the topcoat, reduced up to 50%. Allow 10 minutes flash off and follow with a full coat.</li> <li>• Applying a wet full coat, but at minimum film build, prior to applying a complete full coat.</li> </ul> <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>Excessive reduction of material can affect film build, appearance, and performance.</p> <p>Do not mix previously catalyzed material with new.</p> <p>Do not apply the material beyond recommended pot life.</p> <p>In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Xylene, R2K4.</p> <p>Keep pressure pot at level of applicator to avoid blocking of fluid line due to weight of material. Blow back coating in fluid line at intermittent shutdowns, but continue agitation at pressure pot.</p> <p>Application above recommended film thickness may result in mud cracking.</p> <p>Not recommended for severe acid or alkali exposures.</p> <p>Oil base, alkyd, epoxy ester, and silicone alkyd topcoats are not recommended.</p> <p>Polyurethane topcoats require a tie coat of catalyzed epoxy.</p> <p>Topcoats may be applied once 50 MEK double rubs are achieved. No zinc or only slight traces should be visible. Coin hardness test can also be used.</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 Xylene, R2K4. Clean tools immediately after use with Xylene, R2K4. 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>																												
<p><b>DISCLAIMER</b></p>	<p><b>WARRANTY</b></p>																												
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**Industrial  
&  
Marine  
Coatings**

**5.07**  
**COROTHANE® I**  
**IRONOX® B**  
REDDISH GRAY B65A11

PRODUCT INFORMATION		Revised 1/09																												
<p>PRODUCT DESCRIPTION:</p> <p><b>COROTHANE I IRONOX B</b> is a single component, VOC compliant, moisture curing urethane intermediate coat with micaceous iron oxide designed for low temperature applications, providing chemical and abrasion resistance.</p> <ul style="list-style-type: none"> <li>• Low temperature application - down to 20°F</li> <li>• Outstanding adhesion to most surfaces</li> <li>• Outstanding abrasion and chemical resistance</li> <li>• Suitable for use in USDA inspected facilities</li> </ul>		<p>RECOMMENDED USES:</p> <ul style="list-style-type: none"> <li>• Intermediate coat for lead overcoating system</li> <li>• Ideal for stripe coating over primed surfaces.</li> <li>• Superior coverage on edges and bridging over cracks due to micaceous iron oxide</li> <li>• Must be topcoated for exterior use</li> <li>• Conforms to AWWA D102-03, OCS #2</li> <li>• Acceptable for use as a primer or intermediate coating</li> <li>• Meets requirements of SSPC Paint Spec No. 41 for zinc ric moisture cure urethane primer on intermediate.</li> </ul>																												
<p>PRODUCT CHARACTERISTICS:</p> <p><b>Finish:</b> Low Gloss</p> <p><b>Color:</b> Reddish Gray</p> <p><b>Volume Solids:</b> 64% ± 2%, may vary by color</p> <p><b>Weight Solids:</b> 81.4% ± 2%, may vary by color</p> <p><b>VOC (EPA Method 24):</b> &lt;340 g/L; 2.8 lb/gal</p> <p><b>Recommended Spreading Rate per coat:</b></p> <p>Wet mils: 5.0 - 8.0 Dry mils: 3.0 - 5.0 Coverage: 204 - 340 sq ft/gal approximate</p> <p><b>Drying Schedule @ 5.0 mils wet @ 60% RH:</b></p> <table border="1"> <thead> <tr> <th></th> <th>@40°F</th> <th>@ 75°F</th> <th>@100°F</th> </tr> </thead> <tbody> <tr> <td>To touch:</td> <td>2 hours</td> <td>40 minutes</td> <td>20 minutes</td> </tr> <tr> <td>To handle:</td> <td>8 hours</td> <td>6 hours</td> <td>2 hours</td> </tr> <tr> <td>To recoat:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    minimum:</td> <td>8 hours</td> <td>6 hours</td> <td>2 hours</td> </tr> <tr> <td>    maximum:</td> <td>12 months</td> <td>12 months</td> <td>12 months</td> </tr> <tr> <td>To cure:</td> <td>4 days</td> <td>3 days</td> <td>1 day</td> </tr> </tbody> </table> <p>Drying time is temperature, humidity, and film thickness dependent.</p> <p><b>Shelf Life:</b> 12 months, unopened Store indoors at 40°F to 100°F</p> <p><b>Flash Point:</b> 110°F, PMCC</p> <p><b>Reducer/Clean Up:</b> Reducer #15, R7K15 or  <math display="block">\text{@ 5 qt / 25\% loss} = 155 \text{ qt / gal}</math> <math display="block">.20 \times 1.25 = 1.25 \text{ qt}</math></p>			@40°F	@ 75°F	@100°F	To touch:	2 hours	40 minutes	20 minutes	To handle:	8 hours	6 hours	2 hours	To recoat:				minimum:	8 hours	6 hours	2 hours	maximum:	12 months	12 months	12 months	To cure:	4 days	3 days	1 day	<p>PERFORMANCE CHARACTERISTICS:</p> <p><b>System Tested:</b> (unless otherwise indicated) Substrate: Steel Surface Preparation: SSPC-SP6 1 ct. Corothane I GalvaPac Zinc Primer @ 3.0 mils dft 1 ct. Corothane I IronOx B @ 3.0 mils dft 1 ct. Corothane I IronOx A @ 3.0 mils dft</p> <p><b>Abrasion Resistance:</b> Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load Result: 21 mg loss</p> <p><b>Adhesion:</b> Method: ASTM D4541 Result: 1000 psi</p> <p><b>Direct Impact Resistance:</b> Method: ASTM D2794 Result: 80 in. lbs.</p> <p><b>Dry Heat Resistance:</b> Method: ASTM D2485 Result: 300°F</p> <p><b>Flexibility:</b> Method: ASTM D522, 180° bend, 7/16" mandrel Result: Passes</p> <p><b>Moisture Condensation Resistance:</b> Method: ASTM D4585, 100°F, 300 hours Result: Passes</p> <p><b>Pencil Hardness:</b> Method: ASTM D3363 Result: 2H</p> <p><b>Salt Fog Resistance:</b> Method: ASTM B117, 2500 hours Result: Passes</p> <p><b>Wet Heat Resistance:</b> Method: Non-immersion</p>
	@40°F	@ 75°F	@100°F																											
To touch:	2 hours	40 minutes	20 minutes																											
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**Industrial  
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Marine  
Coatings**

**5.07  
COROTHANE® I  
IRONOX® B  
REDDISH GRAY B65A11**

## PRODUCT INFORMATION

RECOMMENDED SYSTEMS	SURFACE PREPARATION
<p><b>Steel:</b></p> <p>1 ct. Corothane I GalvaPac Zinc Primer @ 3.0 - 4.0 mils dft</p> <p>1 ct. Corothane I IronOx B @ 3.0 - 5.0 mils dft</p> <p>1 ct. Corothane I IronOx A @ 2.5 - 3.5 mils dft</p> <p><b>Steel:</b></p> <p>1 ct. Corothane I PrePrime @ 1.5 - 2.0 mils dft</p> <p>1 ct. Corothane I IronOx B @ 3.0 - 5.0 mils dft</p> <p>1 ct. Corothane I IronOx A @ 2.5 - 3.5 mils dft</p> <p><b>Concrete, smooth:</b></p> <p>1 ct. Corothane I PrePrime @ 1.5 - 2.0 mils dft</p> <p>1 ct. Corothane I IronOx B @ 3.0 - 5.0 mils dft</p> <p>1 ct. Corothane I IronOx A @ 2.5 - 3.5 mils dft</p> <p><b>Concrete, rough:</b></p> <p>1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer @ 10.0 - 30.0 mils dft/ct, as required to fill voids and provide a continuous substrate.</p> <p>1 ct. Corothane I IronOx B @ 3.0 - 5.0 mils dft</p> <p>1 ct. Corothane I Aliphatic Finish Coat @ 2.0 - 3.0 mils dft</p> <p><b>Previously painted surfaces:</b></p> <p>Spot prime all bare steel with 1 coat Corothane I GalvaPac Zinc Rich Primer</p> <p>1 ct. Corothane I IronOx B @ 3.0 - 5.0 mils dft</p> <p>1 ct. Corothane I IronOx A @ 2.5 - 3.5 mils dft</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:</p> <p>* Iron &amp; Steel: SSPC-SP6/NACE 3</p> <p>* Concrete: SSPC-SP13/NACE 6</p> <p>Previously Painted: SSPC-SP2 or SP3, or ICRI 03732, CSP 1-3</p> <p>* Primer required</p>
	TINTING
	Do not tint.
	APPLICATION CONDITIONS
	<p>Temperature:</p> <p>air and surface: 20°F minimum, 100°F maximum</p> <p>material: 45°F minimum</p> <p>Do not apply over surface ice</p> <p>Relative humidity: Can be applied at relative humidities up to 99%.</p> <p>Refer to product Application Bulletin for detailed application information.</p>
	ORDERING INFORMATION
	<p>Packaging: 1 and 5 gallon containers</p> <p>Weight per gallon: 13.8 ± 0.2 lb</p>
	SAFETY PRECAUTIONS
	<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>
DISCLAIMER	WARRANTY
<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>	<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>

The systems listed above are representative of the product's use. Other systems may be appropriate.



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**APPLICATION BULLETIN**

Revised 1/09

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><b>Iron &amp; Steel</b> 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). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.</p>	<p>Temperature: air and surface: 20°F minimum, 100°F maximum material: 45°F minimum Do not apply over surface ice</p> <p>Relative humidity: Can be applied at relative humidities up to 99%.</p>																					
<p><b>Poured Concrete New</b> For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3. Surface must be clean, dry, sound, and offer sufficient profile to achieve adequate adhesion. Minimum substrate cure is 28 days at 75°F. Remove all form release agents, curing compounds, salts, efflorescence, laitance, and other foreign matter by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Refer to ASTM D4260. Rinse thoroughly to achieve a final pH between 8.0 and 10.0. Allow to dry thoroughly prior to coating.</p> <p><b>Old</b> Surface preparation is done in much the same manner as new concrete; however, if the concrete is contaminated with oils, grease, chemicals, etc., they must be removed by cleaning with a strong detergent. Refer to ASTM D4258. Form release agents, hardeners, etc. must be removed by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. If surface deterioration presents an unacceptably rough surface, Kem Coat-Coat HS Epoxy Filler/Sealer is recommended to patch and resurface damaged concrete. Fill all cracks, voids and bugholes with ArmorSeal Crack Filler.</p> <p><b>Always follow the standard methods listed below:</b> 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 03732 Concrete Surface Preparation</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 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</p>	<p><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> ..... Reducer #15, R7K15 or R7K111 (VOC exempt)</p> <p><b>Airless Spray</b> Pump.....30:1 Pressure.....1800 - 2000 psi Hose.....1/4" ID Tip......013" - .017" Filter.....60 mesh Reduction.....As needed up to 10% by volume</p> <p><b>Conventional Spray</b></p> <table border="0"> <tr> <td>Unit.....</td> <td>Graco</td> <td>Binks</td> </tr> <tr> <td>Gun.....</td> <td>900</td> <td>96</td> </tr> <tr> <td>Fluid Nozzle.....</td> <td>.070</td> <td>66/65</td> </tr> <tr> <td>Air Nozzle.....</td> <td>.947</td> <td>66PR</td> </tr> <tr> <td>Atomization Pressure.....</td> <td>60-70 psi</td> <td>60-70 psi</td> </tr> <tr> <td>Fluid Pressure.....</td> <td>15-20 psi</td> <td>15-20 psi</td> </tr> <tr> <td>Reduction.....</td> <td colspan="2">As needed up to 10% by volume</td> </tr> </table> <p><b>Brush</b> Brush.....Natural bristle Reduction.....As needed up to 10% by volume</p> <p><b>Roller</b> Cover.....1/4" natural or synthetic with phenolic core Reduction.....As needed up to 10% by volume</p> <p>If specific application equipment is not listed above, equivalent equipment may be substituted.</p>	Unit.....	Graco	Binks	Gun.....	900	96	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 10% by volume	
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COROTHANE® I  
IRONOX® B  
B65A11**

REDDISH GRAY

## APPLICATION BULLETIN

APPLICATION PROCEDURES	PERFORMANCE TIPS																																		
<p>Surface preparation must be completed as indicated.</p> <p>Stir paint thoroughly prior to use with a power agitator. Filter slowly through a 55 mesh screen.</p> <p>Apply paint at the recommended film thickness and spreading rate as indicated below:</p> <p><b>Recommended Spreading Rate per coat:</b></p> <table border="0"> <tr> <td>Wet mils:</td> <td>5.0 - 8.0</td> </tr> <tr> <td>Dry mils:</td> <td>3.0 - 5.0</td> </tr> <tr> <td>Coverage:</td> <td>204 - 340 sq ft/gal approximate</td> </tr> </table> <p><b>Drying Schedule @ 5.0 mils wet @ 50% RH:</b></p> <table border="0"> <thead> <tr> <th></th> <th>@40°F</th> <th>@75°F</th> <th>@100°F</th> </tr> </thead> <tbody> <tr> <td>To touch:</td> <td>2 hours</td> <td>40 minutes</td> <td>20 minutes</td> </tr> <tr> <td>To handle:</td> <td>8 hours</td> <td>6 hours</td> <td>2 hours</td> </tr> <tr> <td>To recoat:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    minimum:</td> <td>8 hours</td> <td>6 hours</td> <td>2 hours</td> </tr> <tr> <td>    maximum:</td> <td>12 months</td> <td>12 months</td> <td>12 months</td> </tr> <tr> <td>To cure:</td> <td>4 days</td> <td>3 days</td> <td>1 day</td> </tr> </tbody> </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</p>	Wet mils:	5.0 - 8.0	Dry mils:	3.0 - 5.0	Coverage:	204 - 340 sq ft/gal approximate		@40°F	@75°F	@100°F	To touch:	2 hours	40 minutes	20 minutes	To handle:	8 hours	6 hours	2 hours	To recoat:				minimum:	8 hours	6 hours	2 hours	maximum:	12 months	12 months	12 months	To cure:	4 days	3 days	1 day	<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>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 Reducer #15, R7K15.</p> <p>Pour a small amount of Reducer #15, R7K15 over the top of the paint in the can to prevent skinning or gelling.</p> <p>Place a temporary cover over the pail to keep excessive moisture, condensation, fog, or rain from contaminating the coating.</p> <p>It is recommended that partially used cans not be sealed/closed for use at a later date.</p> <p>Corothane KA Accelerator is acceptable for use. See data page 5.98 for details.</p> <p>Must be topcoated for exterior use.</p> <p>Refer to Product Information sheet for additional performance</p>
Wet mils:	5.0 - 8.0																																		
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**Industrial  
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Marine  
Coatings**

**COROTHANE® I HS  
ALIPHATIC FINISH COAT**

B65-50 SERIES

PRODUCT DESCRIPTION		RECOMMENDED USES																									
<p><b>COROTHANE I HS</b> is a single component, VOC compliant, moisture curing urethane designed for low temperature or high humidity applications while providing UV resistance and chemical resistance equivalent to two part urethane coatings.</p> <ul style="list-style-type: none"> <li>• Low temperature application - down to 20°F</li> <li>• Superior resistance to yellowing, chalking, or degradation by sunlight</li> <li>• Superior adhesion to most prepared surfaces</li> <li>• Superior abrasion resistance</li> <li>• Outstanding chemical resistance</li> <li>• VOC compliant</li> <li>• One component</li> </ul>		<ul style="list-style-type: none"> <li>• Color coat where maximum color and gloss retention are required</li> <li>• Suitable for use in the following industries:                             <ul style="list-style-type: none"> <li>• Marine</li> <li>• Petro-Chemical</li> <li>• Industrial</li> <li>• Pulp and Paper</li> <li>• Bridge and Highway</li> <li>• Rail</li> <li>• Water and Waste Water</li> <li>• Suitable for use in USDA inspected facilities.</li> <li>• Conforms to AWWA D102-03 OCS #2</li> </ul> </li> </ul>																									
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> 61% ± 1%, may vary by color</p> <p><b>Weight Solids:</b> 77% ± 2%</p> <p><b>VOC (EPA Method 24):</b> Unreduced: &lt;340 g/L; 2.8 lb/gal</p> <p><b>Recommended Spreading Rate per coat:</b></p> <p>Wet mils: 3.5 - 5.0 Dry mils: 2.0 - 3.0 Coverage: 326 - 489 sq ft/gal approximate</p> <p><b>Drying Schedule @ 4.0 mils wet @ 50% RH:</b></p> <table border="1"> <thead> <tr> <th></th> <th>@ 40°F</th> <th>@ 77°F</th> <th>@ 100°F</th> </tr> </thead> <tbody> <tr> <td>To touch:</td> <td>4 hours</td> <td>2 hours</td> <td>45 minutes</td> </tr> <tr> <td>To recoat:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>  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> <p>If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent.</p> <p><b>Shelf Life:</b> 12 months, unopened Store indoors at 40°F to 100°F, (Tinted colors must be used within 7 days after tinting)</p> <p><b>Flash Point:</b> 101°F, Seta Flash</p> <p><b>Reducer/Clean Up:</b> Reducer #15, R7K15, R7K100, or R7K111 (VOC exempt)</p>			@ 40°F	@ 77°F	@ 100°F	To touch:	4 hours	2 hours	45 minutes	To recoat:				minimum:	24 hours	12 hours	6 hours	maximum:	14 days	14 days	14 days	To cure:	7 days	3 days	3 days	<p><b>System Tested:</b> (unless otherwise indicated) Substrate: Steel Surface Preparation: SSPC-SP6 1 ct: Corothane I MIO-Aluminum @ 3.0 mils dft 1 ct: Corothane I HS @ 3.0 mils dft</p> <p><b>Abrasion Resistance:</b> Method: ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load Result: 80 mg loss</p> <p><b>Adhesion:</b> Method: ASTM D4541 Result: 1298 psi</p> <p><b>Corrosion Weathering:</b> Method: ASTM D5894, 12 cycles, 4032 hours Result: Rating 10 per ASTM D610 for rusting Rating 10 per ASTM D714 for blistering</p> <p><b>Direct Impact, topcoat only:</b> Method: ASTM D2794 Result: 70 in lb</p> <p><b>Flexibility, topcoat only:</b> Method: ASTM D522, 180° bend, 1/8" mandrel Result: Passes</p> <p><b>Humidity:</b> Method: ASTM-D4585, 1000 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: HB</p> <p><b>Salt Fog Resistance:</b> Method: ASTM B117, 1000 hours Result: Rating 10 per ASTM D610 for rusting Rating 10 per ASTM D714 for blistering</p> <p><b>Thermal Cycling:</b> Method: ASTM D2246, 15 cycles Result: Passes, no cracking, checking, or blistering; no loss of adhesion; 100% gloss retention</p> <p>Meets requirements of SSPC Paint 38, Level II.</p>	
	@ 40°F	@ 77°F	@ 100°F																								
To touch:	4 hours	2 hours	45 minutes																								
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Polyurethane 5.12 @ 3.11/2.85/1 loss 2500 ft<sup>2</sup>  
22 x 1.25 = 27.5 ft<sup>2</sup>

continued on back



**Industrial  
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**5.12  
COROTHANE® I HS  
ALIPHATIC FINISH COAT  
B65-50 SERIES**

## PRODUCT INFORMATION

RECOMMENDED SYSTEMS	SURFACE PREPARATION
<p><b>Steel:</b> 1 ct. Corothane I MIO-Aluminum @ 2.0 - 3.0 mils dft 1 ct. Corothane I Ironox B @ 3.0 - 5.0 mils dft 1 ct. Corothane I HS @ 2.0 - 3.0 mils dft</p> <p><b>Steel:</b> 1 ct. Corothane I MIO-Aluminum @ 2.0 - 3.0 mils dft 1-2 cts. Corothane I HS @ 2.0 - 3.0 mils dft/ct</p> <p><b>Steel:</b> 1 ct. Corothane I GalvaPac Zinc Primer @ 3.0 - 4.0 mils dft 1 ct. Corothane I Ironox B @ 3.0 - 5.0 mils dft 1 ct. Corothane I HS @ 2.0 - 3.0 mils dft</p> <p><b>Steel:</b> 1 ct. Corothane I PrePrime @ 1.0 - 1.5 mils dft 1 ct. Corothane I MIO-Aluminum @ 2.0 - 3.0 mils dft 1 ct. Corothane I Ironox B @ 3.0 - 5.0 mils dft 1 ct. Corothane I HS @ 2.0 - 3.0 mils dft</p> <p><b>Steel (Epoxy Primer):</b> 1 ct. Dura-Plate MT @ 6.0 - 8.0 mils dft 1-2 cts. Corothane I HS Coat @ 2.0 - 3.0 dft/ct</p> <p><b>Concrete, smooth:</b> 1 ct. Corothane I PrePrime @ 1.0 - 1.5 mils dft 1 ct. Corothane I HS @ 2.0 - 3.0 mils dft</p> <p><b>Concrete, rough:</b> On deeply profiled or damaged concrete floor: 1 ct. Kem Coat HS Epoxy Filler/Sealer @ 10.0 - 20.0 mils dft/ct, as required to fill voids and provide a continuous substrate. 1 ct. Corothane I HS @ 2.0 - 3.0 mils dft</p> <p><b>Previously Painted Surfaces:</b> Spot prime bare steel with 1 coat of Corothane I GalvaPac Zinc Primer 1 ct. Corothane I HS @ 2.0 - 3.0 mils dft or 1 ct. Corothane I Ironox B @ 3.0 - 5.0 mils dft 1 ct. Corothane I HS @ 2.0 - 3.0 mils dft (Check compatibility)</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 adequate adhesion.</p> <p>Refer to product Application Bulletin for detailed surface preparation information.</p> <p>Minimum recommended surface preparation: * Iron &amp; Steel: SSPC-SP6/NACE 3 * Concrete &amp; Masonry: SSPC-SP13/NACE 6, or ICR1 03732, CSP 1-3 Previously Painted SSPC-SP2 or SP3 * Primer required</p>
	TINTING
	<p>Tint B65W51 and B65T54 only with 844 colorants, 100% tint strength. Must be used within 7 days after tinting.</p>
	APPLICATION CONDITIONS
	<p>Temperature: air and surface: 20°F minimum, 100°F maximum material: 45°F minimum Do not apply over surface ice</p> <p>Relative humidity: Can be applied at relative humidities up to 99%.</p> <p>Refer to product Application Bulletin for detailed application information.</p>
	ORDERING INFORMATION
	<p>Packaging: 1 and 5 gallon containers</p> <p>Weight per gallon: 11.79 ± 0.2 lb, may vary by color.</p>
	SAFETY PRECAUTIONS
	<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>
DISCLAIMER	WARRANTY
<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>	<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>



**Industrial  
&  
Marine  
Coatings**

**5.12A  
COROTHANE® I HS  
ALIPHATIC FINISH COAT  
B65-50 SERIES**

**APPLICATION BULLETIN**

Revised 11/06

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>Temperature: air and surface: 20°F minimum, 100°F maximum material: 45°F minimum Do not apply over surface ice</p> <p>Relative humidity: Can be applied at relative humidities up to 99%.</p>																					
<p><b>Iron &amp; Steel</b> 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). Prime any bare steel the same day as it is cleaned.</p> <p><b>Poured Concrete</b> <b>New</b> For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI 03732, CSP 1-3. Surface must be clean, dry, sound, and offer sufficient profile to achieve adequate adhesion. Minimum substrate cure is 28 days at 75°F. Remove all form release agents, curing compounds, salts, efflorescence, laitance, and other foreign matter by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Refer to ASTM D4260. Rinse thoroughly to achieve a final pH between 8.0 and 10.0. Allow to dry thoroughly prior to coating.</p>	<p><b>APPLICATION EQUIPMENT</b></p>																					
<p><b>Old</b> Surface preparation is done in much the same manner as new concrete; however, if the concrete is contaminated with oils, grease, chemicals, etc., they must be removed by cleaning with a strong detergent. Refer to ASTM D4258. Form release agents, hardeners, etc. must be removed by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. If surface deterioration presents an unacceptably rough surface, Kem Coat-Coat HS Epoxy Filler/Sealer is recommended to patch and resurface damaged concrete. Fill all cracks, voids and bugholes with ArmorSeal Crack Filler. <b>Always follow the standard methods listed below:</b> 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 03732 Concrete Surface Preparation <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 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.</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 compatible with the existing environmental and application conditions.</p> <p><b>Reducer/Clean Up</b> Brush/Roll ..... Reducer #15, R7K15 Spray ..... Aromatic 100 Reducer, R2K5 VOC exempt ..... R7K111</p> <p><b>Airless Spray</b> 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</p> <p><b>Conventional Spray</b></p> <table border="0"> <tr> <td>Unit .....</td> <td>Graco</td> <td>Binks</td> </tr> <tr> <td>Gun .....</td> <td>900</td> <td>95</td> </tr> <tr> <td>Fluid Nozzle .....</td> <td>070</td> <td>66/65</td> </tr> <tr> <td>Air Nozzle .....</td> <td>947</td> <td>66PR</td> </tr> <tr> <td>Atomization Pressure ...</td> <td>60-70 psi</td> <td>60-70 psi</td> </tr> <tr> <td>Fluid Pressure .....</td> <td>15-20 psi</td> <td>15-20 psi</td> </tr> <tr> <td>Reduction .....</td> <td colspan="2">As needed up to 5% by volume</td> </tr> </table> <p><b>Brush</b> Brush ..... Natural bristle Reduction ..... As needed up to 5% by volume</p> <p><b>Roller</b> Cover ..... 1/4" natural or synthetic with phenolic core Reduction ..... As needed up to 5% by volume</p> <p>If specific application equipment is not listed above, equivalent equipment may be substituted.</p>	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	
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APPLICATION PROCEDURES	PERFORMANCE TIPS																								
<p>Surface preparation must be completed as indicated.</p> <p>Stir paint thoroughly prior to use with a power agitator. Filter slowly through a 55 mesh screen.</p> <p>Apply paint at the recommended film thickness and spreading rate as indicated below:</p> <p><b>Recommended Spreading Rate per coat:</b>                      Wet mils: 3.5 - 5.0                      Dry mils: 2.0 - 3.0                      Coverage: 326 - 489 sq ft/gal approximate</p> <p><b>Drying Schedule @ 4.0 mils wet @ 50% RH:</b></p> <table border="1"> <thead> <tr> <th></th> <th>@ 40°F</th> <th>@ 77°F</th> <th>@ 100°F</th> </tr> </thead> <tbody> <tr> <td>To touch:</td> <td>4 hours</td> <td>2 hours</td> <td>45 minutes</td> </tr> <tr> <td>To recoat:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    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> <p>If maximum recoat time is exceeded, abrade surface before recoating. 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>		@ 40°F	@ 77°F	@ 100°F	To touch:	4 hours	2 hours	45 minutes	To recoat:				minimum:	24 hours	12 hours	6 hours	maximum:	14 days	14 days	14 days	To cure:	7 days	3 days	3 days	<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>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 Reducer #15, R7K15.</p> <p>Pour a small amount of Reducer #15, R7K15 over the top of the paint in the can to prevent skinning or gelling.</p> <p>Place a temporary cover over the pail to keep excessive moisture, condensation, fog, or rain from contaminating the coating.</p> <p>Do not exceed recommended dry film thickness.</p> <p>When applying Corothane I - HS over dark colors, Corothane I Zinc Primers, or porous surfaces, an intermediate coat or a minimum of 2 finish coats is required for adequate hide and uniformity of appearance.</p> <p>Tinted colors must be used within 7 days after tinting.</p> <p>E-Z Roll Urethane Defoamer is acceptable for use. See data page 5.99 for details.</p> <p>Corothane KA Accelerator is acceptable for use. See data page 5.98 for details.</p> <p>It is recommend that partially used cans not be sealed/closed for use at a later date.</p> <p>Refer to Product Information sheet for additional performance characteristics and properties.</p>
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<p>Clean spills and splatters immediately with Reducer #15, R7K15. Clean tools immediately after use with Reducer #15, R7K15. 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>																								
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