



Protective & Marine Coatings

COROTHANE® II

PART A
PART B

B65-200 SERIES
B60V2

SATIN
HARDENER

Revised 9/11

PRODUCT INFORMATION

5.20

PRODUCT DESCRIPTION

COROTHANE II is a 2-component, low VOC, aliphatic acrylic modified polyurethane designed for use in industrial environments.

- A chemical and abrasion resistant urethane enamel.
- A heavy duty maintenance coating for use in high visibility areas
- Outstanding flexibility
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Satin
Color:	Wide range of colors available, including safety colors
Volume Solids:	60% ± 2%, mixed, may vary by color
Weight Solids:	76% ± 2%, mixed, may vary by color
VOC (EPA method #24):	Unreduced: <340 g/L; 2.8 lb/gal Reduced 10%: <400 g/L; 3.33 lb/gal
Mix Ratio:	4:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	3.0 (75)	7.0 (175)
Dry mils (microns)	2.0 (50)	4.0 (100)
~Coverage sq ft/gal (m²/L)	230 (5.6)	500 (12.2)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	960 (23.5)	

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):

	@ 40°F/4.5°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	6 hours	2 hours	1 hour
To handle:	24 hours	8 hours	4 hours
To recoat:			
minimum:	24 hours	8 hours	4 hours
maximum:	14 days	14 days	14 days
To cure:	14 days	10 days	7 days
Pot Life:	8 hours	4 hours	2 hours
Sweat-in-Time:	None Required		

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

Shelf Life:	Part A - 36 months, unopened Part B - 24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	80°F (27°C), mixed 72°F (22°C), mixed Ultradeep Base
Reducer/Clean Up:	
Spray:	Reducer #58, R7K58
Brush / Roll:	Reducer #216, R7K216

RECOMMENDED USES

Use over prepared substrates in industrial environments, such as:

- Offshore platforms
- Rolling stock
- Paper mills
- Clean rooms
- Power plants
- Conveyors
- Refineries
- Exterior surfaces of steel tanks
- Structural steel
- Chemical processing equipment
- Exterior metal siding and trim
- Marine applications
- Oil field machinery
- Handrails
- Suitable for use in USDA inspected facilities.

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP6/NACE 3

System Tested*:

- 1 ct. Recoatable Epoxy Primer @ 4.0 mils (100 microns) dft
 - 1 ct. Corothane II @ 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	142 mg loss
Accelerated Weathering - QUV¹	ASTM D4587, QUV-A, 12,000 hours	Passes
Adhesion	ASTM D4541	1600 psi
Corrosion Weathering²	ASTM D5894, 30 cycles, 10,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting
Direct Impact Resistance	ASTM D2794	85 in. lbs.
Dry Heat Resistance	ASTM D2485	200°F (93°C)
Exterior Durability	1 year at 45° South	Passes
Flexibility	ASTM D522, 180° bend, 7/16" mandrel	Passes
Moisture Condensation Resistance	ASTM D4585, 100°F (38°C), 1000 hours	No blisters, rust, delamination, or rust creepage at scribe
Pencil Hardness	ASTM D3363	B
Salt Fog Resistance³	ASTM B117, 11,000 hours	Rating 10 per ASTM D714 for blistering; Rating 9 per ASTM D610 for rusting
Thermal Shock	ASTM D2246, 5 cycles	Excellent

Footnotes:

- ¹ Primer - Zinc Clad II HS; Intermediate - Macropoxy 646 Epoxy
- ² Primer - Zinc Clad II Plus; Intermediate - Recoatable Epoxy Primer
- ³ Primer - Zinc Clad II Plus; Intermediate - Macropoxy 646 Epoxy



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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Steel, universal primer:		
1 ct. Kem Bond HS Primer	2.0-5.0	(50-125)
1-2 cts. Corothane II	2.0-4.0	(50-100)
Steel, epoxy primer:		
1 ct. Recoatable Epoxy Primer	4.0-6.0	(100-150)
1-2 cts. Corothane II	2.0-4.0	(50-100)
Steel, epoxy mastic primer:		
1 ct. Epoxy Mastic Aluminum II	6.0-8.0	(150-200)
1-2 cts. Corothane II	2.0-4.0	(50-100)
Steel, inorganic zinc-rich primer:		
1 ct. Zinc-Clad II Plus	3.0-5.0	(75-125)
1 ct. Recoatable Epoxy Primer	4.0-6.0	(100-150)
1-2 cts. Corothane II	2.0-4.0	(50-100)
Galvanized Metal:		
1 ct. Tile-Clad High Solids	2.5-4.0	(63-100)
1-2 cts. Corothane II	2.0-4.0	(50-100)
Aluminum:		
1 ct. DTM Wash Primer	0.7-1.3	(18-32)
1-2 cts. Corothane II	2.0-4.0	(50-100)
Concrete:		
1 ct. Heavy Duty Block Filler	10.0-18.0	(250-450)
1-2 cts. Corothane II	2.0-4.0	(50-100)

To enhance Corothane II product performance and extend long term weathering characteristics, apply 1 coat of Diamond-Clad Clear Coat Urethane @ 1.0-2.0 mils (25-50 microns) dft.

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.

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, 2 mil (50 micron) profile
- * Aluminum: SSPC-SP1
- * Galvanizing: SSPC-SP1
- * Concrete & Masonry: SSPC-SP13/NACE 6 or ICRI No. 310.2, CSP 1-3
- * Primer required

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusty	D St 2	D St 2	SP 2	-
Power Tool Cleaning	C St 3	C St 3	SP 3	-
Pitted & Rusty	D St 3	D St 3	SP 3	-

TINTING

Tint with Maxitoner colorants only into Part A at 100% tint 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) At least 5°F (2.8°C) above dew point
Relative humidity:	85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	
Part A:	1 gallon (3.78L) and 4 gallon (15.1L) kits
Part B:	1 quart (0.94L) and 1 gallon (3.78L)
Weight:	11.9 ± 0.2 lb/gal ; 1.4 Kg/L mixed, may vary with 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.



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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 or before flash rusting occurs.

Aluminum

Remove all oil, grease, dirt, oxide and other foreign material by Solvent Cleaning per SSPC-SP1. Primer required

Galvanized Steel

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible, or the surface has been treated with chromates or silicates, first Solvent Clean per SSPC-SP1 and apply a test patch. Allow paint to dry at least one week before testing adhesion. If adhesion is poor, brush blasting per SSPC-SP7 is necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned. Primer required.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2, 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 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.

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

Spray Reducer #58, R7K58
Brush and Roll Reducer #216, R7K216

Airless Spray

Pressure.....2400 psi
Hose.....3/8" ID
Tip015" - .017"
Filter.....80 mesh
Reduction.....As needed up to 10% by volume

Conventional Spray

Gun Binks 95
Fluid Nozzle 63 B
Air Nozzle.....69 PB
Atomization Pressure.....50 - 70 psi
Fluid Pressure.....20 - 25 psi
Reduction.....As needed up to 10% by volume

Brush

Brush.....Natural bristle
Reduction.....As needed up to 10% by volume

Roller

Cover3/8" woven with solvent resistant core
Reduction.....As needed up to 10% by volume

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

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	Rusted C.St 2	C.St 2	SP 2	-
Pitted & Rusted	D.St 2	D.St 2	SP 2	-
Rusted	C.St 3	C.St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D.St 3	D.St 3	SP 3	-



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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine 4 parts by volume of Part A with 1 part by volume of Part B. Thoroughly agitate the mixture with power agitation for 5 minutes.

If reducer solvent is used, add only after both components have been thoroughly mixed.

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

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	3.0 (75)	7.0 (175)
Dry mils (microns)	2.0 (50)	4.0 (100)
~Coverage sq ft/gal (m ² /L)	230 (5.6)	500 (12.2)
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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):

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To touch:	6 hours	2 hours	1 hour
To handle:	24 hours	8 hours	4 hours
To recoat:			
minimum:	24 hours	8 hours	4 hours
maximum:	14 days	14 days	14 days
To cure:	14 days	10 days	7 days
Pot Life:	8 hours	4 hours	2 hours

Sweat-in-Time: None Required
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.

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with Reducer #58, R7K58. Clean tools immediately after use with Reducer #58, R7K58. Follow manufacturer's safety recommendations when using any solvent.

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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.

Do not mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer #58, R7K58.

Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

Quick-Thane Accelerator is acceptable for use. See data page 5.97 for details.

E-Z Roll Urethane Defoamer is acceptable for use. See data page 5.99 for details.

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

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