



Protective & Marine Coatings

FAST CLAD® URETHANE

PART A
PART A
PART B

B65-950 SERIES
B65-960 SERIES
B65V950

SEMI-GLOSS
GLOSS
HARDENER

Revised: March 13, 2013

PRODUCT INFORMATION

5.26

PRODUCT DESCRIPTION

FAST CLAD URETHANE is a fast dry, single coat, polyaspartic urethane specifically formulated for accelerated maintenance painting.

- Fast drying minimizes dust and grit "pick-up"
- Allows entire maintenance coating systems to be completed in one shift
- Single coat application
- High film build in one coat
- No gassing
- Outstanding application properties

PRODUCT CHARACTERISTICS

Finish:	Semi-gloss or gloss
Color:	Wide range of colors possible
Volume Solids:	64% ± 2%, calculated and mixed May vary by color
Weight Solids:	80% ± 2%, mixed, may vary by color
VOC (EPA Method 24):	<300 g/L; 2.5 lb/gal, unreduced
Mix Ratio:	4:1 by volume (Pre-measured units)

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	10.0 (250)	15.0 (375)
Dry mils (microns)	6.0 (150)	9.0 (225)
~Coverage sq ft/gal (m ² /L)	114 (2.8)	171 (4.2)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	1027 (25.2)	

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

Drying Schedule @ 10.0 mils wet (250 microns):

	@ 35°F/1.6°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	1.5 hours	30 minutes	15 minutes
To handle:	3 hours	45 minutes	30 minutes
To recoat:			
minimum:	3 hours	45 minutes	30 minutes
maximum:	36 hours	24 hours	24 hours
To cure:	4 days	2 days	24 hours
Pot Life:	3 hours	2 hours	30 minutes

Pot life is temperature and humidity dependent.

Sweat-in-Time: None

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

Shelf Life: Part A - 24 months, unopened
Part B - 24 months, unopened
Store indoors at 40°F (4.5°C) to 100°F (38°C).

Flash Point: 55°F (13°C), PMCC, mixed
Reducer/Clean Up:
Below 80°F (27°C): MEK, R6K10
Above 80°F (27°C): Reducer R7K216
Brush / Roll: Reducer R7K216

RECOMMENDED USES

- Ideal for use as a finish coat for projects requiring rapid return to service, such as bridge maintenance painting.
- Use directly over organic zinc rich primers
- Can be used in various coatings applications where fast cure-to-service is desired, such as:
 - Bridges
 - Structural steel
 - Wind Towers - onshore and offshore
 - Hand rails
 - High visibility areas
- Acceptable for use in high performance architectural applications.
- Suitable for use in USDA inspected facilities

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP6/NACE 3

System Tested*:

- 1 ct. Corothane I Galvapac @ 3.0-4.0 mils (75-100 microns) dft
- 1 ct. Fast Clad Urethane (semi-gloss) @ 6.0-9.0 mils (150-225 microns) dft

*unless otherwise noted below

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	90 mg loss
Adhesion	ASTM D4541	825 psi
Corrosion Weathering	ASTM D5894, 15 cycles	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting
Flexibility	ASTM D522, 180° bend, > 3/4" mandrel	Passes
Freeze/Thaw Stability	30 cycles	No loss of Patti Adhesion
Salt Fog Resistance	ASTM B117, 5000 hours	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting

Tested in accordance with NTPEP (National Transportation Product Evaluation Program) requirements as outlined by AASHTO Designation R31-02.

Meets the requirements of SSPC Paint 39, Level III (QUV).

Complies with ISO 12944-5 C5I and C5M requirements.



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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Steel:		
1 ct. Corothane I GalvaPac Zinc Primer	3.0-4.0*	(75-100)
1 ct. Fast Clad Urethane	6.0-9.0	(150-225)
Steel:		
1 ct. Macropoxy 646	5.0-10.0	(125-250)
1 ct. Fast Clad Urethane	6.0-9.0	(150-225)
Concrete, masonry:		
1 ct. Kem Cati-Coat HS Epoxy Filler/Sealer	10.0-20.0	(250-500)
1 ct. Fast Clad Urethane	6.0-9.0	(150-225)
Aluminum/Galvanizing:		
1 ct. DTM Wash Primer	0.7-1.3	(18-32)
1 ct. Fast Clad Urethane	6.0-9.0	(150-225)
ISO 12944 C5M System:		
1 ct. Zinc Clad III HS	3.0-5.0	(75-125)
1 ct. Fast Clad Urethane	6.0-9.0	(150-225)
or		
1 ct. Corothane I GalvaPac Zinc Primer	3.0-4.0	(75-100)
1 ct. Fast Clad Urethane	6.0-9.0	(150-225)

*Other acceptable primers:
Fast Clad Zinc HS
Steel Spec Epoxy Primer
Zinc Clad III HS
Zinc Clad IV

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

DISCLAIMER

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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, 2 mil (50 micron) profile
**Concrete/Masonry:	SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP1-3
**Aluminum/Galvanizing:	SSPC-SP1
Spot Prime / Touch-up:	SSPC-SP3
**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	-
Rusty	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusty	D St 3	SP 3	-

TINTING

Tint with Maxitoner colorants only into Part A at 100% tint strength. Five minutes minimum of mixing on a mechanical shaker is required for complete mixing of color.

APPLICATION CONDITIONS

Temperature: 20°F (-7°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

Components are pre-measured for either 1 gallon (3.78L) mixes or 5 gallon (18.9L) mixes.

Packaging :

Part A:	1 gallon (3.78L) - short filled 4 gallon (15.1L) - short filled 5 gallon (18.9L) pail
Part B:	1 quart (0.94L) - short filled 1 gallon (3.78L)

Weight: 12.0 ± 0.2 lb/gal ; 1.44 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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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 (primer required)

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 or before flash rusting occurs. 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 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. 310.2 Concrete Surface Preparation.

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 & 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	-

APPLICATION CONDITIONS

Temperature: 20°F (-7°C) minimum, 120°F (49°C) maximum (air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative humidity: 85% maximum

APPLICATION EQUIPMENT

The following is a guide. Changes in pressures and tip sizes may be needed for proper spray characteristics. Always purge spray equipment before use with listed reducer. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

Reducer/Clean Up

Below 80°F R6K10 (MEK)
Above 80°F R7K216
Brush and roll..... R7K216

Airless Spray

Pump..... 30:1
Pressure..... 2800 - 3000 psi
Hose..... 3/8" ID
Tip017" - .021"
Filter 60 mesh
Reduction..... As needed up to 5% by volume

Conventional Spray

Gun Binks
Cap 63P
Fluid Tip 69PB
Atomization Pressure..... 50-70 psi
Fluid Pressure..... 20-25 psi
Reduction..... As needed up to 5% by volume

Brush (small areas only)

Brush..... Natural Bristle
Reduction..... R7K216, up to 5% by volume

Roller (small areas only)

Cover 1/4" woven with solvent resistant core
Reduction..... R7K216, up to 5% by volume

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



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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.

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)	10.0 (250)	15.0 (375)
Dry mils (microns)	6.0 (150)	9.0 (225)
~Coverage sq ft/gal (m ² /L)	114 (2.8)	171 (4.2)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 10.0 mils wet (250 microns):

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To recoat:			
minimum:	3 hours	45 minutes	30 minutes
maximum:	36 hours	24 hours	24 hours
To cure:	4 days	2 days	24 hours
Pot Life:	3 hours	2 hours	30 minutes

Pot life is temperature and humidity dependent.

Sweat-in-Time: None

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 R6K10 (MEK). Clean tools immediately after use with Reducer R6K10 (MEK). 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 use Quik-Thane Urethane Accelerator.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R6K10 (MEK).

When used as part of a rapid recoat system for bridge maintenance painting over Corothane I Galvapac Primer, use 4 oz. per gallon of the KA Accelerator, B65V11, in the Galvapac Primer. This will allow topcoating within 1-2 hours.

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

Pot life will be shorter with high humidity and large volume of material

Recoat time may be shorter with high humidity during curing / drying stages

Floating a small amount of MEK R6K10 over the top of mixed material may help extend pot life.

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

SAFETY PRECAUTIONS

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