



# Protective & Marine Coatings

# ACROLON™ ULTRA HIGH PERFORMANCE POLYURETHANE

PART A	B65W821	GLOSS EXTRA WHITE TINT BASE
PART A	B65WW825	GLOSS MR WHITE TINT BASE
PART A	B65T824	GLOSS ULTRADEEP TINT BASE
PART A	B65W831	SEMI-GLOSS EXTRA WHITE TINT BASE
PART A	B65T834	SEMI-GLOSS ULTRADEEP TINT BASE
PART B	B65V820	HARDENER

Revised: July 27, 2021

## PRODUCT INFORMATION

5.36

### PRODUCT DESCRIPTION

ACROLON ULTRA is a high performance acrylic polyurethane available in gloss and semi-gloss sheens. It is specifically designed to provide long term UV protection for high visibility structures.

- Exceptional long term color and gloss retention
- Excellent resistance to corrosion and weathering
- Chemical resistant
- Resists film attack by mildew (Gloss MR White only)

### PRODUCT CHARACTERISTICS

<b>Finish:</b>	Gloss, Semi-Gloss
<b>Color:</b>	Wide range of colors possible
<b>Volume Solids:</b>	57% ± 2% mixed, may vary by color
<b>Weight Solids:</b>	67% ± 2% mixed, may vary by color
<b>VOC (EPA Method 24):</b>	Unreduced: <340g/L; 2.80 lb/gal mixed
<b>Mix Ratio:</b>	4:1 by volume

#### Recommended Spreading Rate per coat:

	Minimum	Maximum
<b>Wet mils (microns)</b>	<b>3.5</b> (87.5)	<b>5.5</b> (137.5)
<b>Dry mils (microns)</b>	<b>2.0</b> (50)	<b>3.0</b> (75)
<b>~Coverage sq ft/gal (m<sup>2</sup>/L)</b>	<b>305</b> (7.5)	<b>460</b> (11.3)

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

#### Drying Schedule @ 4.5 mils wet (112.5 microns):

	@ 40°F/4.5°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
<b>To touch:</b>	4 hours	2 hours	1 hour
<b>To handle:</b>	12 hours	6 hours	4 hours
<b>To recoat:</b>			
<b>minimum:</b>	12 hours	6 hours	4 hours
<b>maximum:</b>	120 days	120 days	120 days
<b>To cure:</b>	14 days	10 days	7 days

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

<b>Pot Life:</b>	8 hours	4 hours	2 hours
<b>Sweat-in-Time:</b>	None required		

<b>Shelf Life:</b>	Part A: 36 months, unopened Part B: 24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
<b>Flash Point:</b>	80°F (27°C), PMCC, mixed
<b>Reducer*:</b>	VOC Restricted Areas (≤340 g/L): use R7K111

\*Other areas (>340 g/L): use R7K111 or R7K225. Choose a reducer that is compliant in your area. Confirm compliance with state and local air quality rules before use.

**Clean Up:** Reducer #58

### RECOMMENDED USES

Interior or exterior exposure where extreme weather durability is required.

- Water tanks
- Sports complexes
- Bridges
- Marine
- Municipal buildings
- Fascias
- Suitable for use in USDA inspected facilities
- Stadiums
- Storage tank exteriors
- Museums
- Schools
- High visibility structures

### PERFORMANCE CHARACTERISTICS

**Substrate\*:** Steel

**Surface Preparation\*:** SSPC-SP10

**System Tested\*:**

- 1 ct. Zinc Clad 200 @ 3.0 mils (75 microns) dft
- 1 ct. Macropoxy 646 @ 5.0 mils (125 microns) dft
- 1 ct. Acrolon Ultra @ 2.0 mils (50 microns) dft

\*unless otherwise noted below

Test Name	Test Method	Results
<b>Abrasion Resistance</b>	ASTM D4060, CS17 wheel, 1000 cycles, 1kg load	154 mg loss
<b>Adhesion<sup>1</sup></b>	ASTM D4541	1766 psi
<b>Corrosion Weathering<sup>1</sup></b>	ASTM D5894, 33 cycles, 12,531 hours	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting
<b>Direct Impact Resistance<sup>1</sup></b>	ASTM D2794	176 in. lb.
<b>Dry Heat Resistance</b>	ASTM D2485	250°F (121°C)
<b>Flexibility</b>	ASTM D522, 180° bend, 1/8" mandrel	Passed
<b>Fresh Water Resistance</b>	ASTM D870, 30 Days	Passed
<b>Moisture Condensation Resistance</b>	ASTM D4585, 100°F (38°C), 4000 hours	No rusting, blistering, or delamination
<b>Pencil Hardness</b>	ASTM D3363	HB
<b>Salt Fog Resistance<sup>1</sup></b>	ASTM B117, 9000 hours	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting
<b>Salt Water Resistance</b>	ASTM D870, 30 Days	Passed
<b>Thermal Cycling</b>	ASTM D2246, 10 cycles	Excellent

**Footnote:**

<sup>1</sup> Primer: Corothane I GalvaPac; Intermediate: Macropoxy 646; Topcoat: Acrolon Ultra  
Meets the requirements of SSPC Paint No. 36, Level 3 for white and light colors.



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Revised: July 27, 2021

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### RECOMMENDED SYSTEMS

		Dry Film Thickness / ct.	
		Mils	(Microns)
<b>Steel, Epoxy Primer:</b>			
1 ct.	Macropoxy 646	5.0-10.0	(125-250)
1-2 cts.	Acrolon Ultra	2.0-3.0	(50-75)
<b>Steel, Epoxy Primer:</b>			
1 ct.	Recoatable Epoxy Primer	4.0-6.0	(100-150)
1-2 cts.	Acrolon Ultra	2.0-3.0	(50-75)
<b>Steel, Epoxy Mastic Primer:</b>			
1 ct.	Epoxy Mastic Aluminum II	6.0	(150)
1-2 cts.	Acrolon Ultra	2.0-3.0	(50-75)
<b>Steel, Inorganic Zinc Rich Primer:</b>			
1 ct.	Zinc Clad II Plus	3.0-5.0	(75-125)
1 ct.	Macropoxy 646	5.0-10.0	(125-250)
1 ct.	Acrolon Ultra	2.0-3.0	(50-75)
<b>Steel, Organic Zinc Rich Primer:</b>			
1 ct.	Corothane I GalvaPac Zinc Primer	3.0-4.0	(75-100)
1 ct.	Macropoxy 646	5.0-10.0	(125-250)
1-2 cts.	Acrolon Ultra	2.0-3.0	(50-75)
<b>Aluminum/Galvanizing:</b>			
1 ct.	DTM Wash Primer	0.7-1.3	(17.5-32.5)
1-2 cts.	Acrolon Ultra	2.0-3.0	(50-75)
<b>Concrete/Masonry:</b>			
1 ct.	Kem Cati-Coat HS Epoxy	10.0-20.0	(250-500)
1-2 cts.	Acrolon Ultra	2.0-3.0	(50-75)

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

\* Primer Required

#### Surface Preparation Standards

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

### TINTING

Tint with Maxitoner Colorants only into Part A. Extra White tints at 100% tint strength. Ultradeep tints 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: Fill levels will vary slightly by color

Part A: 4 gallon (15.14L) kits  
1 gallon (3.78L)

Part B: 1 gallon (3.78L) units  
1 quart (.95L) units

Weight:

Gloss White: 10.11 ± 0.2 lb/gal ; 1.21 Kg/L  
Gloss Ultradeep: 9.62 ± 0.2 lb/gal ; 1.15 Kg/L  
Semi-Gloss White: 10.09 ± 0.2 lb/gal ; 1.21 Kg/L  
*Mixed, may vary with color*

### SAFETY PRECAUTIONS

Refer to the SDS 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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PART B	B65V820	HARDENER

Revised: July 27, 2021

## 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 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. 310.2R, CSP 1-3. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

#### Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.  
ASTM D4259 Standard Practice for Abrading Concrete.  
ASTM D4260 Standard Practice for Etching Concrete.  
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.  
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.  
ICRI No. 310.2R Concrete Surface Preparation.

#### Surface Preparation Standards

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

### 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.

<b>Reducer*:</b>	VOC Restricted Areas (≤340 g/L): use R7K111
<b>Clean Up:</b>	Reducer #58

\*Other areas (>340 g/L): use R7K111 or R7K225. Choose a reducer that is compliant in your area. Confirm compliance with state and local air quality rules before use.

#### Airless Spray

Pressure.....	2500 - 2800 psi
Hose.....	3/8" ID
Tip .....	.013" - .017"
Filter .....	none
Reduction.....	As needed up to 10% by volume

#### Conventional Spray

Gun .....	Binks 95
Fluid Nozzle .....	63 B
Atomization Pressure .....	50 - 70 psi
Fluid Pressure.....	20 - 25 psi
Reduction.....	As needed up to 5% by volume

#### Brush

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

#### Roller

Cover .....	3/8" woven with solvent resistant core
Reduction.....	as needed up to 5% by volume

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



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Revised: July 27, 2021

## APPLICATION BULLETIN

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### APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with 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)	3.5 (87.5)	5.5 (137.5)
Dry mils (microns)	2.0 (50)	3.0 (75)
~Coverage sq ft/gal (m <sup>2</sup> /L)	305 (7.5)	460 (11.3)

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

#### Drying Schedule @ 4.5 mils wet (112.5 microns):

	@ 40°F/4.5°C	@ 77°F/25°C	@ 120°F/49°C
		50% RH	
To touch:	4 hours	2 hours	1 hour
To handle:	12 hours	6 hours	4 hours
To recoat:			
minimum:	12 hours	6 hours	4 hours
maximum:	120 days	120 days	120 days
To cure:	14 days	10 days	7 days
<i>If maximum recoat time is exceeded, abrade surface before recoating.</i>			
<i>Drying time is temperature, humidity, and film thickness dependent.</i>			
Pot Life:	8 hours	4 hours	2 hours
Sweat-in-Time:	None required		

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. Clean tools immediately after use with Reducer #58. 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 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 MEK R6K10.

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

Acceptable application maximum DFT 4.0 mils / 100 microns (7.0 mils / 175 microns WFT).

Quick-Thane Urethane 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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