



# Protective & Marine Coatings



# BOND-PLEX WATERBASED ACRYLIC COATING

**B71-200 SERIES**

Revised 9/09

## PRODUCT INFORMATION

1.27

### PRODUCT DESCRIPTION

**Bond-Plex WB Acrylic** is a single component, waterborne acrylic, adhesion promoting coating formulated for direct application to pre-finished metal siding. Suitable for interior or exterior use.

- Outstanding early moisture resistance
- Outstanding exterior durability and gloss retention
- Eliminates the use of a primer over pre-finished siding
- Fast dry
- Low odor, low VOC
- Very good mar resistance
- Outstanding application characteristics

### PRODUCT CHARACTERISTICS

<b>Finish:</b>	White & Colors (Low Sheen) Aluminum (Gloss)	
<b>Color:</b>	Wide range of colors available	
<b>Volume Solids:</b> (may vary by color)	<u>Extra White</u> 41% ± 2%	<u>Aluminum</u> 37% ± 2%
<b>Weight Solids:</b>	55.0% ± 2%	39.0% ± 2%
<b>VOC: (EPA 24)</b>	<100 g/L; 0.83 lb/gal	<200g/L; 1.67 lb/gal (unreduced)

#### Recommended Spreading Rate per coat:

	Minimum	Maximum
<b>White &amp; Colors</b>		
<b>Wet mils</b> (microns)	<b>4.8</b> (120)	<b>10.0</b> (250)
<b>Dry mils</b> (microns)	<b>2.0</b> (50)	<b>4.0</b> (100)
<b>~Coverage sq ft/gal</b> (m <sup>2</sup> /L)	<b>164</b> (4.0)	<b>329</b> (8.0)
<b>Aluminum</b>		
<b>Wet mils</b> (microns)	<b>5.0</b> (125)	<b>11.0</b> (275)
<b>Dry mils</b> (microns)	<b>2.0</b> (50)	<b>4.0</b> (100)
<b>~Coverage sq ft/gal</b> (m <sup>2</sup> /L)	<b>148</b> (3.6)	<b>296</b> (7.3)
Theoretical coverage <b>sq ft/gal</b> (m <sup>2</sup> /L) @ 1 mil / 25 microns dft	<b>640</b> (15.7)	

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

#### Drying Schedule @ 5.0 mils wet (125 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
<b>To touch:</b>	1.5 hours	45 minutes	20 minutes
<b>To handle:</b>	6 hours	4 hours	2 hours
<b>To recoat:</b>	8 hours	4 hours	2 hours
<b>To cure:</b>	14 days	7 days	5 days

*Drying time is temperature, humidity, and film thickness dependent.*

<b>Shelf Life:</b>	36 months, unopened (Aluminum - 12 months, unopened) Store indoors at 40°F (4.5°C) to 100°F (38°C)
<b>Flash Point:</b>	>200°F (93°C) PMCC
<b>Reducer/Clean Up:</b>	Water

### RECOMMENDED USES

For use over pre-finished siding in industrial environments such as:

- Fluorocarbons (Kynar)
- Polyester Polymers
- Silicone Polyesters

For use in markets such as:

- General Industrial, Petro-Chem, Power, Water
- Food and beverage
- Pharmaceutical
- When a low sheen finish is required to match existing coil coated metal siding.
- Suitable for use in USDA inspected facilities (except Aluminum).
- Acceptable for use in high performance architectural applications.

### PERFORMANCE CHARACTERISTICS

**Substrate\*:** Pre-Finished Siding

**Surface Preparation\*:** SSPC-SP1

**System Tested\*:**

1 ct. Bond-Plex WB Acrylic @ 2-4 mils (50-100 microns)

\*unless otherwise noted below

Test Name	Test Method	Results
<b>Adhesion</b>	ASTM D4541	300 psi minimum
<b>Corrosion Weathering<sup>1</sup></b>	ASTM D5894, 5 cycles, 1,680 hours	Rating 10 per ASTM D610 for rusting ; Rating 10 per ASTM D714 for blistering
<b>Direct Impact Resistance</b>	ASTM D2794	Direct: 160 in. lbs. Reverse: 160 in. lbs.
<b>Dry Heat Resistance</b>	ASTM D2485	200°F (94°C)
<b>Flexibility</b>	ASTM D522, 180° bend, 1/4" mandrel	Passes
<b>Humidity Resistance<sup>1</sup></b>	ASTM D4585, 500 hours	Rating 10 per ASTM D610 for rusting ; Rating 8 per ASTM D714 for blistering
<b>Pencil Hardness</b>	ASTM D3363	2B
<b>Salt Fog Resistance<sup>1</sup></b>	ASTM B117, 500 hours	Rating 9 per ASTM D610 for rusting ; Rating 10 per ASTM D714 for blistering
<b>Thermal Cycling</b>	ASTM D2246, 5 cycles	Rating 10 per ASTM D714 for blistering

Provides performance comparable to SSPC-Paint 23.

#### Footnotes

<sup>1</sup> with 1 ct. DTM Bonding Primer



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### RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
<b>Prefinished Siding:</b>		
<b>Fluorocarbon, Silicon Polyester, Polyester Polymers:</b>		
1-2 cts. Bond-Plex WB Acrylic	2.0-4.0	(50-100)
<i>or</i>		
1 ct. DTM Bonding Primer	2.0-5.0	(50-125)
1-2 cts. Bond-Plex WB Acrylic	2.0-4.0	(50-100)
<b>Previously Painted, Hard, Slick or Glossy Surfaces:</b>		
1-2 cts. Bond-Plex WB Acrylic	2.0-4.0	(50-100)
<i>or</i>		
1 ct. DTM Bonding Primer	2.0-5.0	(50-125)
1-2 cts. Bond-Plex WB Acrylic	2.0-4.0	(50-100)

Always check compatibility of the previously painted surface with the new coating by applying a test patch of 2-3 square feet. Allow to dry thoroughly for 1 week before checking adhesion.

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

### 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.

**Do not use hydrocarbon solvents for cleaning.**

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Prefinished Siding: SSPC-SP1  
Previously Painted: SSPC-SP1

#### 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 EnviroToner Colorants only at 100% strength. Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Do not use Blend-A-Color colorants.

Do not tint the Aluminum.

### APPLICATION CONDITIONS

Temperature: 50°F (10°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: 1 gallon (3.78L) and 5 gallon (18.9L) containers

Weight: White: 10.9 ± 0.2 lb/gal 1.3 kg/L  
Aluminum: 8.6 ± 0.2 lb/gal 1.0 kg/L

### 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.

### DISCLAIMER

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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.

**Do not use hydrocarbon solvents for cleaning.**

#### Pre-Finished Siding: (Fluorocarbon, Silicone Polyester, and Polyester Polymers)

Remove oil, grease, dirt, oxides, and other contaminants from the surface by cleaning per SSPC-SP1 or water blasting per NACE Standard RP-01-72 (caution: excessive blasting pressure may cause warping, use caution). Always check for compatibility of the previously painted surface with the new coating by applying a test patch of 2 - 3 square feet. Allow to dry thoroughly for 1 week before checking adhesion.

#### Previously Painted Surfaces:

Remove oil, grease, dirt, oxides, and other contaminants from the surface by cleaning per SSPC-SP1 or water blasting per NACE Standard RP-01-72 (caution: excessive blasting pressure may cause warping, use caution). Always check for compatibility of the previously painted surface with the new coating by applying a test patch of 2 - 3 square feet. Allow to dry thoroughly for 1 week before checking adhesion.

### APPLICATION CONDITIONS

Temperature: 50°F (10°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:** .....Water

#### Airless Spray

Pressure.....2400 psi  
Hose.....1/4" - 3/8" ID  
Tip .....0.017" - .019"  
Filter .....60 mesh  
Reduction.....As needed up to 10% by volume

#### Conventional Spray

Gun .....Binks 95  
Fluid Nozzle .....66  
Air Nozzle.....63PB  
Atomization Pressure.....60 psi  
Fluid Pressure.....25 psi  
Reduction.....As needed up to 10% by volume

#### Brush

Brush.....Nylon / Polyester  
Reduction.....Not recommended

#### Roller

Cover .....1/4" woven solvent resistant core  
Reduction.....Not recommended

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.

**Mixing Instructions:** Mix paint thoroughly to a uniform consistency with low speed power agitation prior to use.

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

#### Recommended Spreading Rate per coat:

	Minimum	Maximum
<b>White &amp; Colors</b>		
Wet mils (microns)	4.8 (120)	10.0 (250)
Dry mils (microns)	2.0 (50)	4.0 (100)
~Coverage sq ft/gal (m <sup>2</sup> /L)	164 (4.0)	329 (8.0)
<b>Aluminum</b>		
Wet mils (microns)	5.0 (125)	11.0 (275)
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Theoretical coverage sq ft/gal (m <sup>2</sup> /L) @ 1 mil / 25 microns dft	640 (15.7)	

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

#### Drying Schedule @ 5.0 mils wet (125 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	1.5 hours	45 minutes	20 minutes
To handle:	6 hours	4 hours	2 hours
To recoat:	8 hours	4 hours	2 hours
To cure:	14 days	7 days	5 days

*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 soap and warm water. Clean hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with Mineral Spirits to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using Mineral Spirits.

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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

During the early stages of drying, the coating is sensitive to rain, dew, high humidity, and moisture condensation. Plan painting schedules to avoid these influences during the first 16-24 hours of curing.

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 hydrocarbon solvents for cleaning.** When cleaning the surface per SSPC-SP1, use only an emulsifying industrial detergent, followed by a thorough water rinse.

Always check compatibility of the previously painted surface with the new coating by applying a test patch of 2-3 square feet. Allow to dry thoroughly for 1 week before checking adhesion.

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

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