ACROLON™ 218 HS
ACRYLIC POLYURETHANE

PART A
B65-600
Gloss Series

PART A
B65-650
Semi-Gloss Series

PART B
B65V600
Hardener

PRODUCT INFORMATION

**PRODUCT DESCRIPTION**

ACROLON 218 HS is a polyester modified, aliphatic, acrylic polyurethane formulated specifically for in-shop applications. Also suitable for industrial applications. A fast drying, urethane that provides color and gloss retention for exterior exposure.

- Can be used directly over organic zinc rich primers (epoxy zinc primer and moisture cure urethane zinc primer)
- Color and gloss retention for exterior exposure
- Fast dry
- Outstanding application properties

**PRODUCT CHARACTERISTICS**

**Finish:** Gloss or Semi-Gloss

**Color:** Wide range of colors available

**Volume Solids:** 65% ± 2%, mixed, may vary by color

**Weight Solids:** 78% ± 2%, mixed, may vary by color

**VOC (EPA Method 24):**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unreduced</td>
<td>&lt;300 g/L; 2.5 lb/gal</td>
</tr>
<tr>
<td>Reduced 10%</td>
<td>&lt;340 g/L; 2.8 lb/gal</td>
</tr>
<tr>
<td>Reduced 9%</td>
<td>&lt;340 g/L; 2.8 lb/gal</td>
</tr>
</tbody>
</table>

**Mix Ratio:** 6:1 by volume, 1 gallon or 5 gallon mixes

**Recommended Spreading Rate per coat:**

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5 (112.5)</td>
<td>9.0 (225)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dry mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0 (75)</td>
<td>6.0 (150)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>~Coverage sq ft/gal (m²/L)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>175 (4.3)</td>
<td>346 (8.5)</td>
<td></td>
</tr>
</tbody>
</table>

Theoretical coverage sq ft/gal (m²/L) @ 1 mill/25 micros dft 1040 (25.5)

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

**Drying Schedule @ 6.0 mils wet (150 microns):**

<table>
<thead>
<tr>
<th>Drying Time</th>
<th>@ 35°F/1.7°C</th>
<th>@ 77°F/25°C</th>
<th>@ 120°F/49°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>To touch</td>
<td>4 hours</td>
<td>1 hour</td>
<td>20 minutes</td>
</tr>
<tr>
<td>To handle</td>
<td>18 hours</td>
<td>9 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>To recoat</td>
<td>minimum: 18 hours</td>
<td>8 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td></td>
<td>maximum: 3 months</td>
<td>3 months</td>
<td>3 months</td>
</tr>
<tr>
<td>To cure</td>
<td>14 days</td>
<td>7 days</td>
<td>5 days</td>
</tr>
<tr>
<td>Pot Life</td>
<td>4 hours</td>
<td>2 hours</td>
<td>45 minutes</td>
</tr>
</tbody>
</table>

**Sweat-in-Time:** None

**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:** 55°F (13°C), Seta, mixed

**Recommended Uses**

Specifically formulated for in-shop applications. For use over prepared metal and masonry surfaces in industrial environments such as:

- Structural steel
- Rail cars and locomotives
- Conveyors
- Bridges
- Wind Towers - onshore and offshore
- Offshore platforms - exploration and production
- Suitable for use in USDA inspected facilities
- Conforms to AWWA D102 Outside Coating Systems #4 (OCS-4), #5 (OCS-5) & #6 (OCS-6)
- Acceptable for use in high performance architectural applications
- Acceptable for use over and/or under Loxon S1 and Loxon H1 Caulk
- A component of INFINITANK
- Over FIRETEX® hydrocarbon systems
- Suitable for use in the Mining & Minerals Industry

**Performance Characteristics**

**Substrate**: Steel

**Surface Preparation**: SSPC-SP10/NACE 2

**System Tested**:

- 1 ct. Macropoxy 646 @ 6.0 mils (150 microns) dft
- 1 ct. Acrolon 218 HS Gloss @ 4.0 mils (100 microns) dft

**Test Name**

- Abrasion Resistance
- Adhesion
- Corrosion Resistance
- Weathering
- Direct Impact Resistance
- Dry Heat Resistance
- Flexibility
- Humidity Resistance
- Pencil Hardness
- Salt Fog Resistance

**Test Method**

- ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load
- ASTM D4541
- ASTM D5894, 27 cycles, 9072 hours
- ASTM D2485, 100°F
- ASTM D2522, 180° bend, 1/8" mandrel
- ASTM D4585, 100°F (38°C), 1500 hours
- ASTM D3363
- ASTM B117, 15,000 hours

**Results**

- 43 mg loss
- 1976 psi
- Rating 10 per ASTM D610, for rusting
- Rating 10 per ASTM D714, for blistering
- 50 in. lb.
- 200°F (93°C)
- Passes
- Rating 10 per ASTM D610, for rusting
- Rating 10 per ASTM D714, for blistering
- 3H
- Rating 10 per ASTM D610, for rusting
- Rating 10 per ASTM D714, for blistering

**Meets the requirements of SSPC Paint No. 36, Level 3 for white and light colors. Dark colors may require a clear coat.**

**Complies with ISO 12944-5 C5I and C5M requirements.**

**Footnotes:**

- *Aluminum (Part A, Rex # B65SW655) has a shelf life of 24 months.
- **Flash Point**
- **Reducer/Clean Up**
- Spray: Reducer R7K15, MEK R6K10, R7K111, Reducer #58
- Brush / Roll: Reducer #132, Reducer #58, R7K111

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ACROLON™ 218 HS
ACRYLIC POLYURETHANE

PRODUCT INFORMATION

Recommended Systems

<table>
<thead>
<tr>
<th>Condition of Surface</th>
<th>ISO 8501-1</th>
<th>BS7079/A1</th>
<th>SIS055980</th>
<th>SSIPC</th>
<th>NACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 ct.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc Clad II Plus</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
</tr>
<tr>
<td>Macropyox 646</td>
<td>Sa 2.5</td>
<td>Sa 2.5</td>
<td>Sa 3</td>
<td>SP 10</td>
<td>2</td>
</tr>
<tr>
<td>1-2 cts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acrolon 218 HS Polyurethane</td>
<td>3.0-5.0 (75-125)</td>
<td>3.0-6.0 (75-150)</td>
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</tbody>
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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/NACE 3, 1-2 mil (25-50 micron) profile
- Galvanizing: SSPC-SP1
- Concrete & Masonry: SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 1-3
- Primer required

Surface Preparation Standards

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<tr>
<td>1 ct.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc Clad IV</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>Sa 3</td>
<td>SP 5</td>
<td>1</td>
</tr>
<tr>
<td>1-2 cts.</td>
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<td></td>
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<td></td>
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Steel:

1 ct. Epoxy Mastic Aluminum II 6.0 (150)
1-2 cts. Acrolon 218 HS Polyurethane 3.0-6.0 (75-150)

Steel:

1 ct. Recoatable Epoxy Primer 4.0-6.0 (100-150)
1-2 cts. Acrolon 218 HS Polyurethane 3.0-6.0 (75-150)

Concrete/Masonry:

1 ct. Kem Cat-Coat HS Epoxy Filler/Sealer 10.0-20.0 (250-500)
1-2 cts. Acrolon 218 HS Polyurethane 3.0-6.0 (75-150)

Aluminum/Galvanizing:

1 ct. DTM Wash Primer 0.7-1.3 (18-32)
1-2 cts. Acrolon 218 HS Polyurethane 3.0-6.0 (75-150)

Tinting

Tint Part A with Maxitoner Colorants.
- Extra white tints at 100% tint strength
- Ultradeep base tints at 150% tint strength

Five minutes minimum mixing on a mechanical shaker is required for complete mixing of color.

Application Conditions

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)
40°F (4.5°C) minimum, 120°F (49°C) maximum (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) mix: 5 gallon (18.9L) mix
Part A: .86 gal (3.25L) 4.29 gal (16.2L)
Part B: .14 gal (0.53L) 0.71 gal (2.7L)
(premeasured components)

Weight: 11.2 ± 0.2 lb/gal; 1.3 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.

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.

www.sherwin-williams.com/protective
**APPLICATION BULLETIN**

**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 (1-2 mils / 25-50 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

**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.

**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, holes 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.

**Application Conditions**

Temperature: 35°F (1.7°C) minimum, 120°F (49°C) maximum (air and surface)

40°F (4.5°C) minimum, 120°F (49°C) maximum (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 R7K15, MEK, Reducer #58, or R7K111
- Brush/Roll: Reducer #132, R7K132, Reducer #58, or R7K111

If reducer is used, reduce at time of catalyzation.

**Airless Spray**

- Pressure: 2500 - 2800 psi
- Tip: 0.13" - 0.17"
- Filter: 60 mesh
- Reduction: As needed up to 10% by volume with R7K15 or R7K111, or up to 9% with MEK, R6K10*

**Conventional Spray**

- Gun: Binks 95
- Cap: 63P
- Atomization Pressure: 50 - 70 psi
- Fluid Pressure: 20 - 25 psi
- Reduction: As needed up to 10% by volume with R7K15 or R7K111, or up to 9% with MEK, R6K10*

**Brush**

- Brush: Natural Bristle
- Reduction: As needed up to 10% by volume*

**Roller**

- Cover: 3/8" 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.

* Note: Reducing more than maximum recommended level will result in VOC exceeding 340g/L
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 six parts by volume of Part A with one part by volume of Part B (premeasured components). Thoroughly agitate the mixture with power agitation. Re-stir before using.

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

Apply paint at the recommended spreading rate as indicated below:

<table>
<thead>
<tr>
<th>Wet mils (microns)</th>
<th>Minimum</th>
<th>Maximum</th>
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<tbody>
<tr>
<td>4.5 (112.5)</td>
<td>9.0 (225)</td>
<td></td>
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</tbody>
</table>

| Dry mils (microns) | 3.0 (75) | 6.0 (150) |

| Coverage sq ft/gal (m²/L) | 175 (4.3) | 346 (8.5) |

| Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft | 1040 (25.5) |

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

Application of coating above maximum or below minimum spreading rate may adversely affect coating performance.

### Clean Up Instructions

Clean spills and spatters immediately with Reducer #132, R7K132. Clean tools immediately after use with Reducer #132, R7K132. Follow manufacturer's safety recommendations when using any solvent.

### 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 Reducer #15, R7K15 or 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.

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.

If maximum recoat time is exceeded, a light abrasion may be necessary to roughen the surface to promote adhesion before recoating.

When overcoating for maintenance or covering graffiti, solvent clean with MEK or similar solvent/cleaner prior to overcoating.

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

### Safety Precautions

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