Protective & Marine Coatings

SHER-CRYL™ HPA
HIGH PERFORMANCE ACRYLIC

B66-300 Series — **Gloss**
B66-350 Series — **Semi-Gloss**

Revised: March 27, 2014

Product Information

1.26

Product Description

SHER-CRYL HPA is a new technology, ambient cured, one component acrylic coating with superior exterior performance properties. Provides performance comparable to high performance solvent based coatings such as urethanes and epoxies.

- Chemical resistant
- Superior color and gloss retention
- Outstanding early moisture resistance
- Flash rust/early rust resistant
- Low odor, low VOC
- Corrosion resistant
- Fast dry
- Outstanding application characteristics

Product Characteristics

Finish:	High Gloss or Semi-Gloss
Color:	Wide range of colors available
Volume Solids:	38.5% ± 2%, Ultra White
Weight Solids:	51% ± 2%, Ultra White
VOC (EPA Method 24):	<200 g/L; 1.66 lb/gal

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**6.0** (150)	**10.0** (250)
Dry mils (microns)	**2.5** (63)	**4.0** (100)
~Coverage sq ft/gal (m^2/L)	**154** (3.8)	**247** (6.0)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**616** (15.1)	

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

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 50°F/10°C	@ 77°F/25°C *50% RH*	@ 120°F/49°C
To touch:	1 hour	30 minutes	5 minutes
To handle:	8 hours	5 hours	15 minutes
To recoat:	8 hours	5 hours	15 minutes
To cure:	30 days	30 days	30 days

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

Shelf Life:	36 months, unopened Store indoors at 50°F (10°C) to 100°F (38°C)
Flash Point:	>230°F (110°C) PMCC, mixed
Reducer:	Water R8K10 - WB Hot Weather Reducer up to 10%
Clean Up:	Water

Recommended Uses

For use over prepared:

- Steel
- Galvanizing
- Wood
- Aluminum
- Concrete
- Masonry
- Zinc rich primers

Examples:

- Buildings
- Storage Tanks
- Water treatment plants
- Machinery
- Equipment
- New Construction
- Power plants
- Piping
- Structural Steel
- Select Marine Structures

- Suitable for use in USDA inspected facilities
- Can be used as a dryfall coating under certain environmental conditions (see Application Bulletin)
- Conforms to AWWA D102 OCS #3
- Acceptable for use in high performance architectural applications
- Acceptable for interior use / drywall
- Conforms to MPI #'s 154 & 164 (Gloss); 141, 153, & 163 (Semi-Gloss)
- Complies with performance criteria of SSPC Paint 24.
- FIRETEX Hydrocarbon Coatings

Performance Characteristics

Substrate*: Steel
Surface Preparation*: SSPC-SP10
System Tested*:
2 cts. Sher-Cryl HPA @ 3.0 mils (75 microns) dft/ct
*unless otherwise noted below

Test Name	Test Method	Results
Adhesion	ASTM D4541	946 psi
Corrosion Weathering[1]	ASTM D5894, 10 cycles, 3,360 hours	Rating 9 per ASTM D610 for rusting ; Rating10 per ASTM D714 for blistering
Direct Impact Resistance	ASTM D2794	>100 in. lbs.
Dry Heat Resistance	ASTM D2485	300°F (149°C)
Exterior Durability	3 years, 45° South	Excellent
Flexibility	ASTM D522, 180° bend, 1/8" mandrel	Passes
Humidity Resistance[1]	ASTM D4585, 1,250 hours	Rating 9 per ASTM D1654 for corrosion ; Rating10 per ASTM D714 for blistering
Pencil Hardness	ASTM D3363	2B
Salt Fog Resistance[1]	ASTM B117, 1,250 hours	Rating 9 per ASTM D1654 for corrosion ; Rating10 per ASTM D714 for blistering
Thermal Cycling	ASTM D2246, 10 cycles	Passes

Footnote:
[1] *1 ct. Sher-Cryl HPA over 1 ct. Pro-Cryl Universal Primer*

Provides performance comparable to products formulated to federal specification: AA50570, and Paint Specification: SSPC-Paint 23 and 24.

continued on back

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Recommended Systems

		Dry Film Thickness / ct. Mils	(Microns)
Steel:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Steel:			
1 ct.	Pro-Cryl Universal Primer	2.0-4.0	(50-100)
1-2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Steel:			
1 ct.	DTM Acrylic Primer/Finish	2.5-5.0	(63-125)
or	Kem Bond HS	2.0-5.0	(50-125)
or	Zinc Clad Primer	3.0-5.0	(75-125)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Steel:			
1 ct.	Zinc Clad XI	3.0-4.0	(75-100)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Aluminum:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Aluminum:			
1 ct.	DTM Wash Primer	0.7-1.3	(18-32)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Galvanizing:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Concrete Block:			
1 ct.	Heavy Duty Block Filler	10.0-18.0	(250-450)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Concrete/Masonry:			
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Prefinished Siding: (Baked-on finishes)			
1 ct.	DTM Bonding Primer	2.0-5.0	(50-125)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Wood, exterior:			
1 ct.	A-100 Exterior Oil Wood Primer	1.5	(38)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)
Wood, interior:			
1 ct.	Premium Wall & Wood Primer	1.8	(45)
2 cts.	Sher-Cryl HPA	2.5-4.0	(63-100)

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.

Do not use hydrocarbon solvents for cleaning.

Refer to product Application Bulletin for detailed surface preparation information.

Minimum recommended surface preparation:

Iron & Steel:	SSPC-SP2
Aluminum:	SSPC-SP1
Galvanizing:	SSPC-SP1
Concrete & Masonry:	SSPC-SP13/NACE 6, or ICRI No. 310.2, CSP 1-3
* Wood:	Dry and sanded smooth
* Prefinished Siding:	SSPC-SP1

* Requires primer

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	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

Tinting

Tint with EnviroToner colorants at 100% strength. Do not use BAC.

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

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:	10.30 ± 0.2 lb/gl 1.24 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.

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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.

Iron & Steel
Minimum surface preparation is Hand Tool Clean per SSPC-SP2. Remove all oil and grease from surface per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6. Primer recommended for best performance.

Aluminum
Remove all oil, grease, dirt, oxide and other foreign material per SSPC-SP1.

Galvanizing
The surface should be weathered for 6 months prior to painting. Remove all oil and grease per SSPC-SP1. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2. Prime area the same day as cleaned with Pro-Cryl.

Concrete and Masonry
For surface preparation, refer to SSPC-SP13/NACE 6 or ICRI No. 310.2, CSP 1-3. Surfaces should be thoroughly cleaned and dry. Surface temperatures must be at least 55°F (13°C) before filling. If required for a smoother finish, use Heavy Duty Block Filler, B42W46. Filler must be thoroughly dry before topcoating per manufacturer's recommendations.
Weathered masonry and soft or porous cement board must be brush blasted or power tool cleaned to remove loosely adhering contamination and to get to a hard, firm surface. Apply one coat Loxon Conditioner, following label recommendations.

Wood
Surface must be clean, dry and sound. Prime with recommended primer. No painting should be done immediately after a rain or during foggy weather. Knots and pitch streaks must be scraped, sanded and spot primed before full coat of primer is applied. All nail holes or small openings must be properly caulked.

Pre-Finished Siding:
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. Always checks 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. DTM Bonding Primer is required.

Previously Painted Surfaces
If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest surface for adhesion. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

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	-
Power Tool Cleaning	Rusted	C St 3	C St 3	SP 3	-
	Pitted & Rusted	D St 3	D St 3	SP 3	-

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 ..... Water
R8K10 - WB Hot Weather Reducer up to 10%
Clean Up ..... Water

Airless Spray
Pressure..... 1500 psi
Hose..... 1/4" ID
Tip ..... .017" - .021"
Filter ..... 60 mesh
Reduction..... Not recommended

Conventional Spray
Gun ..... Binks 95
Fluid Nozzle 66
Air Nozzle..... 63PB
Atomization Pressure..... 50 psi
Fluid Pressure..... 15-20 psi
Reduction..... As needed up to 12½% by volume

Brush
Brush..... Nylon / polyester
Reduction..... Not recommended

Roller
Cover ..... 3/8" woven solvent resistant core
Reduction..... Not recommended

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

continued on back

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Application Bulletin

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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
Wet mils (microns)	**6.0** (150)	**10.0** (250)
Dry mils (microns)	**2.5** (63)	**4.0** (100)
~Coverage sq ft/gal (m^2/L)	**154** (3.8)	**247** (6.0)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**616** (15.1)	

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

Drying Schedule @ 7.0 mils wet (175 microns):

	@ 50°F/10°C	@ 77°F/25°C *50% RH*	@ 120°F/49°C
To touch:	1 hour	30 minutes	5 minutes
To handle:	8 hours	5 hours	15 minutes
To recoat:	8 hours	5 hours	15 minutes
To cure:	30 days	30 days	30 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.

Application temperature above 95°F (35°C) may cause dry spray, uneven sheen, and poor adhesion.

Application temperature below 50°F (10°C) may cause poor adhesion and lengthen the drying and curing time.

Sher-Cryl Acrylic is extremely sensitive to hydrocarbon containing solvents. When cleaning the surface per SSPC-SP1, use only an emulsifying industrial detergent, followed by a water rinse. Do not use hydrocarbon containing solvents.

Do not use hydrocarbon solvents for cleaning.

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

Sher-Cryl can be used as a dryfall coating in certain environmental conditions. Test product before each application. Test by spraying 15-25 feet toward paint container. All material should readily wipe clean. Temperature and humidity will affect ability to dryfall. Hot surface will cause overspray to bond to surface. Always clean overspray immediately from hot surfaces.

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

Safety Precautions

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