Protective & Marine Coatings

SHER-RELEASE SYSTEM
SEAGUARD® SURFACE COAT

PART A — P31-200 SERIES
PART B — P31V-200 SERIES

Revised 7/11

PRODUCT INFORMATION

9.57

PRODUCT DESCRIPTION

SeaGuard Surface Coat is a silicone based, biocide free, topcoat in the Sher-Release System. The low surface energy provides excellent foul release properties. The SeaGuard Surface Coat provides superior durability as compared to traditional silicone foul release systems.

Provides owners with rapid return on investment due to reduction in fuel consumption.

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Black, Red, White and Blue
Volume solids (ASTM D2697 modified):	80% (± 2%)
Components:	2
Mixing ratio (by volume)	~4:1 (Part A to Part B)
VOC as Applied (Theoretical):	1.24 lb/gal 149 g/L

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**8.0** (200)	
Dry mils (microns)	**6.0** (150)	
~Coverage sq ft/gal (m^2/L)	**214** (5.27)	
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**1283** (31.6)	

Drying Schedule @ 6.0 mils wet (150 microns):

	@ 40°F/4.5°C	@ 50°F/10°C	@ 75°F/24°C	@ 90°F/32°C
Before immersion:	48 hours	36 hours	24 hours	24 hours

If the maximum recoat window interval is exceeded, consult your Sherwin-Williams representative for corrective procedures.

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

Pot Life: 1 hour @ 75°F/24°C

Sweat-in-Time: None required

Shelf Life:	12 months, unopened **Store indoors out of direct sunlight at 40°F (4.5°C) to 80°F (27°C)**
Flash Point:	93°F (34°C) SETA
Reducer:	Not normally required. If necessary, thin up to maximum of 3 ounces per gallon using VM&P Naphtha R1K3.
Clean Up:	VM&P Naphtha R1K3

RECOMMENDED USES

- Where long-life fouling protection in severe service is required
- Where reduction in operating costs and extended drydocking intervals is desirable
- Suitable for most vessels in a wide range of operating environments trading at >10 knots
- For lower operating speeds, please inquire
- Container ships, cruise vessels, Ro-Ro's, tankers, etc.
- Structures and operating equipment including intake tunnels and tubes, trash racks, gates, water boxes, service water systems, etc.
- Industrial or municipal facilities with high water usage including Power Generation, Water Treatment, and Pulp & Paper.
- Please consult your local Sherwin-Williams Technical Representative prior to using on vessels with cooling coils or cooling equipment positioned on submerged hull exteriors due to the coating system's insulating effects.

PERFORMANCE CHARACTERISTICS

The Sher-Release System has been analyzed through the following test methods. **For specific test results consult your Sherwin Williams representative.**

- Standard practice for surface wettability of coatings, substrates and pigments by advancing contact angle measurement (ASTM D7444-08):
- Standard test method for surface wettability and absorbency of sheeted materials using an automated contact angle tester (ASTM D5725-99):
- Standard test method for measuring adhesion of organic coatings to plastic substrates by direct tensile testing (ASTM D5179-02):
- Standard test method for specular gloss at 60° (ASTM D523-89):
- Standard test method for measurement of barnacle adhesion strength in shear (ASTM D5618-94):
- Standard test method for scratch hardness of materials using a diamond stylus (ASTM G171-03):
- Standard test method for apparent shear strength of single-lap-joint adhesively bonded metal specimens by tension loading (metal-to-metal) (ASTM D1002-03):
- Standard test method for abrasion resistance of organic coatings by the taber abraser (ASTM D4060-07):
- Standard test method for adhesion of organic coatings by scrape adhesion (ASTM D2197-98):

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)

Recommended MARINE systems for Sher-Release System:

Steel, Immersion:

1 ct..	SeaGuard 6100 Epoxy	6.0	(150)
1 ct.	SeaGuard 6100 Epoxy	6.0	(150)
1 ct.	SeaGuard Tie Coat	6.0	(150)
1 ct.	SeaGuard Surface Coat	6.0	(150)

Aluminum, Immersion:

1 ct.	SeaGuard MP Epoxy	3.0-4.0	(75-100)
	or		
1 ct.	SeaGuard 6100 Epoxy	6.0	(150)
1 ct.	SeaGuard 6100 Epoxy	6.0	(150)
1 ct.	SeaGuard Tie Coat	6.0	(150)
1 ct.	SeaGuard Surface Coat	6.0	(150)

Fiberglass, Immersion:

1 ct..	SeaGuard 6100 Epoxy	6.0	(150)
1 ct.	SeaGuard 6100 Epoxy	6.0	(150)
1 ct.	SeaGuard Tie Coat	6.0	(150)
1 ct.	SeaGuard Surface Coat	6.0	(150)

Recommended PROTECTIVE & INDUSTRIAL systems for Sher-Release System:

Steel, Immersion:

1 ct.	Macropoxy 646 PW	6.0	(150)
1 ct.	Macropoxy 646 PW	6.0	(150)
1 ct.	SeaGuard Tie Coat	6.0	(150)
1 ct.	SeaGuard Surface Coat	6.0	(150)

Steel, Immersion:

1 ct.	Euronavy ES301L	6.0	(150)
1 ct.	Euronavy ES301L	6.0	(150)
1 ct.	SeaGuard Tie Coat	6.0	(150)
1 ct.	SeaGuard Surface Coat	6.0	(150)

Steel, Immersion:

1 ct.	Euronavy ES301K	6.0	(150)
1 ct.	Euronavy ES301K	6.0	(150)
1 ct.	SeaGuard Tie Coat	6.0	(150)
1 ct.	SeaGuard Surface Coat	6.0	(150)

Steel, Immersion:

1 ct.	Macropoxy 646 - 100 PW	6.0	(150)
1 ct.	Macropoxy 646 - 100 PW	6.0	(150)
1 ct.	SeaGuard Tie Coat	6.0	(150)
1 ct.	SeaGuard Surface Coat	6.0	(150)

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

Sher-Release System

Apply over SeaGuard Tie Coat. Observe specified recoat intervals. Tie coat must be dry and free of any surface contamination.

* Consult your Sherwin-Williams representative for advice.

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: 40°F (4.5°C) minimum, 90°F (32°C) maximum
(air and surface)
At least 5°F (2.8°C) above dew point

Material should be at least 40°F (4.5°C) for optimal performance.

Relative humidity: 80% maximum

*Protect mixed material from water

ORDERING INFORMATION

Packaging:
Part A: 4.05 gallons (15.3L) in a 5-gallon (18.9L) container
Part B: 0.95 gallons (3.60L) in a 1-gallon (3.78L) container

Shipping weight (approx):	**lb**	**kg**
5-gal (18.9L) kit	40	18.1

Shelf life when stored indoors at 40°F (4.5°C) to 80°F (25°C) 1 year from shipment date

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

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	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
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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: 40°F (4.5°C) minimum, 90°F (32°C) maximum (air and surface)
At least 5°F (2.8°C) above dew point

Material should be at least 40°F (4.5°C) for optimal performance.

Relative humidity: 80% 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 VM&P Naphtha R1K3.** Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions. Thoroughly mix material using a mixer powered by air or an explosion-proof electric motor.

*It is recommended to use dedicated fluid lines for this material

Reducer/Clean Up ..... VM&P Naphtha R1K3

Airless Spray

Unit.....Graco 56:1 or equivalent
Pressure.....3600-4000 psi
Hose.....3/8"
Tip.....0.021 inch (0.53mm)
Filter.....40 or 60 mesh
Reduction.....Not recommended
(Thin only for workablilty)

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

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APPLICATION PROCEDURES

Sher-Release System

1. Thinning generally not needed. Thin only for workability; no more than 3 ounces VM&P Naphtha R1K3 per gallon (3.78L) of Seaguard Surface Coat.

2. Apply a wet coat in even, parallel passes; overlap each pass 50 percent to avoid pinholes, bare areas or holidays. Give special attention to weld seams, rough or badly pitted areas.

- Apply the first coat of epoxy as per specification / product data sheet instructions.
- The SeaGuard Tie Coat is applied at 6 mils (150 microns) DFT. Please refer to detailed specification.

3. For touch-up and repair, utilize the Sherwin-Williams Repair procedure. Consult your representative for specific recommendations.

4. CLEAN APPLICATION EQUIPMENT IMMEDIATELY AFTER USE! Very thorough cleaning with VM&P Naphtha R1K3, leaving no residue, is required to prevent hardening and setting of sprayer ball valves. After cleaning, flush the pump and lines thoroughly with VM&P Naphtha R1K3. For best results, always purge spray equipment before use with VM&P Naphtha R1K3

Avoid overspray onto adjacent areas to prevent contamination issues (fish eyes, etc...).

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with VM&P Naphtha R1K3. Clean tools immediately after use with VM&P Naphtha R1K3. Follow manufacturer's safety recommendations when using any solvent.

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PERFORMANCE TIPS

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 based upon 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 mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

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

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