Protective & Marine Coatings

SEAGUARD® 6000

MARINE EPOXY / ALUMINUM & BRONZE TONE

PART A	N11S400	ALUMINUM
PART A	N11S405	BRONZE TONE
PART B	N11V400	HARDENER

Revised: October 14, 2013

PRODUCT INFORMATION

PRODUCT DESCRIPTION

SEAGUARD 6000 MARINE EPOXY / ALUMINUM AND BRONZE TONE is a modified epoxy phenalkamine, formulated specifically for immersion and atmospheric service in marine and industrial environments. SeaGuard 6000 is a versatile anti-corrosive coating that can be applied at temperatures as low as 20°F.

- Complies with IMO Performance Standard for Protective Coatings SOLAS REGULATIONS II-1/3-2 and XII/6.3
- Self-priming
- Low temperature application
- Surface tolerant - damp surfaces
- Provides salt water and fresh water immersion resistance

PRODUCT CHARACTERISTICS

Finish:	Low Sheen
Colors:	Aluminum (N11S400) and Bronze Tone (N11S405)
Volume Solids:	67% ± 2%, mixed
Weight Solids:	80% ± 2%, mixed
VOC (EPA Method 24):	
Unreduced:	<300 g/L; 2.50 lb/gal
Reduced 10%:	<340 g/L; 2.80 lb/gal
Mix Ratio:	4:1 by volume (2 component)

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils:	**8.0**	**11.0**
Dry mils:	**5.0**	**7.0**
~Coverage sq ft/gal:	**154**	**215**

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

Drying Schedule @ 6.0 mils wet @ 50% RH:

	@ 40°F	@ 77°F	@ 120°F
To touch:	3.5 hours	2 hours	20 minutes
To handle:	12 hours	3.5 hours	40 minutes
To recoat:			
minimum:	12 hours	3.5 hours	40 minutes
maximum:	30 days	30 days	30 days
To cure:	14 days	7 days	3 days
Pot Life:	8 hours	4 hours	1 hour
Sweat-in-time:	30 minutes	15 minutes	5 minutes

If maximum recoat time is exceeded, abrade surface before recoating.

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

Shelf Life:	36 months, unopened Store indoors at 40°F to 100°F.
Flash Point:	116°F Seta Flash
Reducer/Clean up:	
Below 50°F:	R2K4
Above 50°F:	R7K104

RECOMMENDED USES

For use over properly prepared steel substrates, including:

- Salt water and fresh water immersion service
- Ballast tanks
- Offshore and marine structures
- Bilges and wet void areas
- Decks and superstructures
- Underwater hulls
- Fabrication and new construction
- Maintenance and repair
- As an anti-corrosive primer when used as part of an underwater hull system with anti-fouling coatings
- Approved with FIRETEX M90 series

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP10

System Tested*:

2 cts. SeaGuard 6000 @ 6.5 mils dft/ct

*unless otherwise noted below

IMMERSION
(Ambient temperature)

- Salt Water.....Recommended
- Fresh Water.....Recommended
- Ballast Tank Mix .....Recommended

Epoxy coatings may darken or yellow following application and curing.

Tested by Det Norske Veritas (DNV). According to DNV Procedure, testing and classification of ballast tank coatings, REV-02. Tested to the DNV Procedure over a Pre-rusted and Hydro-Jetted substrate.

Recieved Highest Obtainable rating B1

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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct. Mils
Steel, atmospheric service:	
1-2 cts. SeaGuard 6000	5.0-7.0
1-2 cts. Macropoxy 646	5.0-10.0
OR	
1-2 cts. SeaGuard 6000	5.0-7.0
1-2 cts. Sherthane 2K	2.0-4.0
Steel, immersion service:	
2 cts. SeaGuard 6000	5.0-7.0
Steel, Underwater Hull with Antifouling:	
2 cts. SeaGuard 6000	5.0-7.0
2 cts. SeaGuard Antifouling*	

*Consult your Sherwin-Williams Marine Representative for the appropriate Antifouling coating.

FIRETEX ONLY:

Steel & Galvanized Substrates being primed for FIRETEX M90/02 only:

1 ct.	SeaGuard 6000 Bronze Tone	2.0-5.0

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

DISCLAIMER

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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:
Atmospheric: SSPC-SP2 or SSPC-SP12/NACE No. 5, WJ-3/SC-2
Immersion: SSPC-SP10/NACE 2, 2.0 mil profile or SSPC-SP-12/NACE No. 5, WJ-2/SC-2

Galvanized, atmospheric: 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	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

Do not tint.

APPLICATION CONDITIONS

Temperature:
air and surface: 20°F minimum, 120°F maximum
material: 40°F minimum
At least 5°F above dew point

Relative humidity: 85% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging: 1 gallon and 5 gallon containers
1 gallon kit: contains Part A and Part B
5 gallon mix: Part A - 4 gallon in a 5 gallon container
Part B - 1 gallon

Weight per gallon: 11.87 ± 0.2 lb, 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.

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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, Immersion Service:
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2 or SSPC-SP12/NACE No. 5. For SSPC-SP10/NACE 2, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2.0 mils). For SSPC-SP12/NACE No. 5, all surfaces to be coated shall be cleaned in accordance with WJ-2/SC-2 standards. Pre-existing profile should be approximately 2.0 mils. Light rust bloom is allowed. Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned.

Iron & Steel, Atmospheric Service:
Minimum surface preparation is Hand Tool Clean per SSPC-SP2 or SSPC-SP12/NACE No. 5. For surfaces prepared by SSPC-SP2, first remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. For better performance, use Commercial Blast Cleaning per SSPC-SP6/NACE 3, blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2.0 mils). For surfaces prepared by SSPC-SP12/NACE No. 5, all surfaces shall be cleaned in accordance with WJ-3/SC-2. Pre-existing profile should be approximately 2.0 mils. Prime any bare steel the same day as it is cleaned.

Galvanized Steel:
Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1 (recommended solvent is VM&P Naphtha). 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.

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
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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:	
air and surface:	20°F minimum, 120°F maximum
material:	40°F minimum
	At least 5°F 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
Below 50°F R2K4
Above 50°F R7K104

Airless Spray
Unit.....30:1 Pump
Pressure.....2400-2800 psi
Hose.....1/4"-3/8" ID
Tip .....017" - .021"
Filter.....60 mesh
Reduction.....As needed up to 10% by volume

Conventional Spray
Gun .....DeVilbiss MBC-510
Fluid Tip .....E
Air Nozzle.....704
Atomization Pressure.....60-65 psi
Fluid Pressure.....5-15 psi
Reduction.....As needed up to 10% by volume

Brush
Brush.....Natural Bristle
Reduction.....Not recommended

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

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

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly using 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. Allow the material to sweat-in as indicated prior to application. Re-stir before using.

If reducer solvent is used, add only after both components have been thoroughly mixed, after sweat-in.

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

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils:	**8.0**	**11.0**
Dry mils:	**5.0**	**7.0**
~Coverage sq ft/gal:	**154**	**215**

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

Drying Schedule @ 6.0 mils wet @ 50% RH:

	@ 40°F	@ 77°F	@ 120°F
To touch:	3.5 hours	2 hours	20 minutes
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To recoat:			
minimum:	12 hours	3.5 hours	40 minutes
maximum:	30 days	30 days	30 days
To cure:	14 days	7 days	3 days

If maximum recoat time is exceeded, abrade surface before recoating.

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

Pot Life:	8 hours	4 hours	1 hour
Sweat-in-time:	30 minutes	15 minutes	5 minutes

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 R7K104. Clean tools immediately after use with R7K104. Follow manufacturer's safety recommendations when using any solvent.

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PERFORMANCE TIPS

Stripe coat 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 mix previously catalyzed material with new.

Do not apply the material beyond recommended pot life.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Reducer R7K104.

Anti-slip additives may be added to the coating to provide some slip resistance.

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

SAFETY PRECAUTIONS

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