

NCP Coatings

Single-Component (1K) Polysiloxane

Topside Coating

PRODUCT DESIGNATION

SiloxoShield N-9999 1K Siloxane Haze Gray

MIL-PRF-24635

If this product is to be applied as part of a coating system, all components of the system must be as listed on the QPL.

This NAVSEA-REVIEWED ASTM F-718 data sheet is the only data sheet approved for use when utilizing this coating for U.S. Navy preservation projects. NAVSEA's review covers only the application process for the material. The review does not denote the material as a qualified product, nor does it constitute an approval for purchase/procurement of the material. For products on the Qualified Products List (QPL) for this MILSPEC, please refer to <http://qpldocs.dla.mil/search/default.aspx>.

Questions regarding modifications or updates of this ASTM F-718 shall be directed toward:

NSWCPD

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ASTM F 718

SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

Draft Date: 1/25/18

I. GENERIC TYPE AND DESCRIPTION: Single-Component (1K) Polysiloxane Topside Coating Specification Number: MIL-PRF-24635 NOTE: For Type/Grade/Class/Application information see QPD-Type V, Class 2, Grade A & B	
II. MANUFACTURERS DATA: (a) MANUFACTURER: NCP Coatings, Niles, MI (b) PRODUCT DESIGNATION: SiloxoShield N-9999 1K Siloxane Haze Gray (c) COLOR(S): Haze Gray #26270, Ocean Gray #26173, Light Gray #26373, and Deck Gray #26008 (d) USES: Topside and freeboard areas only. (e) TECHNICAL SERVICE REPRESENTATIVE: Randy Terrill VP Technology and Quality, NCP Coatings, 269-683-3377, randy@ncpcoatings.com	
III. PROPERTIES:	
(a) PERCENT VOLUME SOLIDS (ASTM D2697):	60 %
(b) PERCENT WEIGHT SOLIDS (ASTM D2369):	64 %
(c) FLASH POINT (ASTM D3278): Closed Cup	106 °F (41 °C)
(d) WEIGHT PER VOLUME (ASTM D1475):	10.3 lb/gal (1232 g/L)
(e) PERCENT EDGE RETENTION, IF REQUIRED BY APPLICABLE SPECIFICATION (NA):	N/A
(f) SHELF LIFE:	14 Months
(g) VISCOSITY (ASTM D562):	COMPONENT A: 120 KU Max Typically 65-85 KU COMPONENT B: NA MIXED: NA
(h) PACKAGING:	Provided in 1 gallon metal cans and 5 gallon metal pails. No hardener required
(i) NUMBER OF COMPONENTS:	1 component no hardener required
(j) GLOSS (ASTM D523): 45-60 GU @ 60 °	
(k) STORAGE REQUIREMENTS: TEMPERATURE:	40 °F (4 °C) MIN. 105 °F (41 °C) MAX
ADDITIONAL PAINT STORAGE REQUIREMENTS: Store at 50 °F - 90 °F for 24 hours prior to application	
(l) VOLATILE ORGANIC COMPOUNDS (VOCS- EPA TEST METHOD 24):	1.7 lb/gal (206 g/L) less exempt solvent
(m) WEIGHT PER AREA OF DRY FILM AT 1 MIL THICKNESS:	0.0069 lb/ft ² (33.7 g/m ²)
(n) SPECIAL PROPERTIES:	Exterior color stability, low-solar absorbing (LSA), HAPs-free. Complies with the pending Navy TSR and enhanced pigment requirements.

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IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

- (a) INITIAL CLEANLINESS: Apply over properly cleaned and primed surfaces. See graph on page 4, Maximum Time to Recoat.
- (b) TOUCH-UP CLEANLINESS: Ensure the area is clean and dry. Light sand any areas that have dried more than 24 hours before recoating to ensure good adhesion.
- (c) PROFILE (N/A): N/A mils MIN. N/A mils MAX. Refer to the primer requirements.
- (d) SPECIAL INSTRUCTIONS: Mix coating thoroughly before application.
Surface preparation is key to the coating's adhesion, appearance, and longevity. With that in mind, please adhere to the following steps when painting over aged coatings.
 1. Clean entire surfaces to be coated with fresh water and allow to completely dry
 2. Sand all surfaces to be coated with 80-100 grit aluminum oxide paper, either manually or with orbital sanders
 3. Wipe away sanding residue with damp clean rags
 4. After masking where appropriate, apply N-9999 via brush and roller (3/8" nap preferable). Apply at 2-3 mils WFT. This equates to a rate of approximately 320 ft²/gallon.
 5. Remove masking the next day
 6. Note – Do not apply in thick fog or impending marine layer, coating may cure cloudy and not to a nice semi-gloss sheen.
- (e) PRIMER REQUIREMENTS: Prime with NCP MIL-DTL-24441, Seaguard 5000, Interbond 998 or other approved NAVSEA primer. Light sanding and solvent wipe may be needed if the primer has dried more than 48 hours. Refer to primer ASTM F718 for additional information.
- (f) MAXIMUM ALLOWABLE CONDUCTIVITY (NACE SP0508-2010): Maximum allowable conductivity is 70 microsiemens/cm. Maximum allowable chlorides is 5 micrograms/cm² (50 mg/m²).
- (g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWED: Per Standard item 009-32, limit square footage of surface being prepped to avoid flash rust or meet applicable NACE/SSPC WJ-2L Standard. Refer to primer ASTM F718 for additional information.

SPECIAL SAFETY PRECAUTIONS:

Avoid extreme heat – **keep away from flame or other ignition sources.**

V. MIXING PROCEDURES:

- (a) MIXING RATIOS BY WEIGHT: N/A – Single-Component (1K)
BY VOLUME: N/A – Single-Component (1K)
- (b) INDUCTION TIME: N/A Minutes Single-Component (1K) with no hardener required
- (c) RECOMMENDED CLEANING SOLVENT – THINNING - (NO THINNING ALLOWED)
 CONFINED AREAS – NO THINNING ALLOWED
 NON-CONFINED AREAS – NO THINNING ALLOWED
 CLEAN UP – 1) Methyl Amyl Ketone (MAK)
 2) Light Aromatic Naphtha
- (d) POT LIFE: A slight skin will begin to form after 45 min. to 1 hr. in a roller pan at 90+°F. A skin will eventually form on material in the can if the lid remains open when not in use.
- (e) SPECIAL INSTRUCTIONS: Mix for a minimum of 5 minutes or until coating is uniform, no hardener required. This is a 1K paint that does not require a hardener.

VI. APPLICATION:

- (a) ENVIRONMENTAL LIMITATIONS:

SUBSTRATE TEMPERATURE:	50 °F (10 °C) MIN	120 °F (49 °C) MAX.
AMBIENT TEMPERATURE:	50 °F (10 °C)	105 °F (41 °C) MAX.
DIFFERENCE ABOVE THE DEW POINT:		5 °F (-15 °C)
MAXIMUM PERCENT RELATIVE HUMIDITY		80 % RH
MINIMUM PERCENT RELATIVE HUMIDITY		30 % RH
- (b) FILM THICKNESS (SSPC PA2-73T): PER COAT:

	2-3 MILS WET MIN.	6 MILS WET MAX.
	1.2-1.8 MILS DRY MIN.	3.6 MILS DRY MAX.

TOTAL SYSTEM: If applying 2 coats the total DFT should be

	4.0 MILS DRY MIN.	6.0 MILS DRY MAX.
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(c) DRY TIMES (ASTM D1640):

Minimum Overcoat Window:

24 Hr(s) @	50 °F (10 °C)
7 Hr(s) @	75 °F (24 °C)
6 Hr(s) @	95 °F (24 °C)
5 Hr(s) @	120 °F (49 °C)

Maximum Overcoat Window:

72 Hr(s) @	50 °F (10 °C)
24 Hr(s) @	75 °F (24 °C)
24 Hr(s) @	95 °F (35 °C)
12 Hr(s) @	120 °F (49 °C)

Dry to Touch:

4 Hr(s) @	50 °F (10 °C)
2 Hr(s) @	75 °F (24 °C)
2 Hr(s) @	95 °F (35 °C)
1 Hr(s) @	120 °F (49 °C)

Dry to Handle

16 Hr(s)@	50 °F (10 °C)
10 Hrs(s)@	75 °F (24 °C)
6 Hrs(s)@	95 °F (35 °C)
3 Hrs(s)@	120 °F (49 °C)

Dry to Full Service	8 Days @	50 °F (10 °C)
	6 Days @	75 °F (24 °C)
	4 Days @	95 °F (35 °C)
	2 Days @	120 °F (49 °C)

Graphs included on page 4 or additional information included on page 3 below

(c) EQUIPMENT REQUIREMENTS: Coating can be applied using standard airless spray, brush and for roll application use a 3/8" or 1/4" nap roller. For spray applications a 0.017"-0.019" tip is recommended.

(d) SPECIAL INSTRUCTIONS: Product requires humidity to cure. Do not apply when humidity is less than 30% or great than 80%. Do not apply when metal temperature is under 50° or over 120°F. At time of application, in accordance with NAVSEA Standard Item 009-32, material temperature should be no lower than 50°F or higher than 90°F. Caution should be taken that the surface temperature is at least 5°F above the dew point at application.

The container of unused material should be tightly closed when not in use, as exposure to atmospheric moisture will cure the material. The material should not be used if a thick skin has developed inside the container.

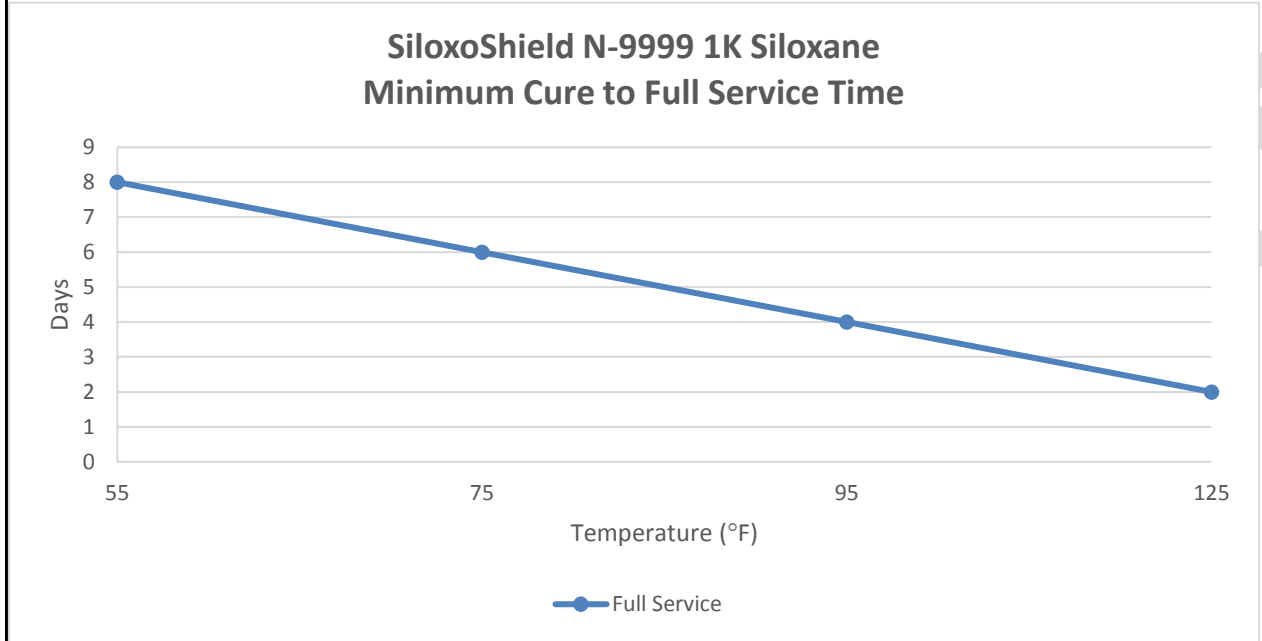
IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR CRITICAL APPLICATIONS: Lightly sand to insure adhesion

IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR NON-CRITICAL APPLICATIONS: Lightly sand to insure adhesion

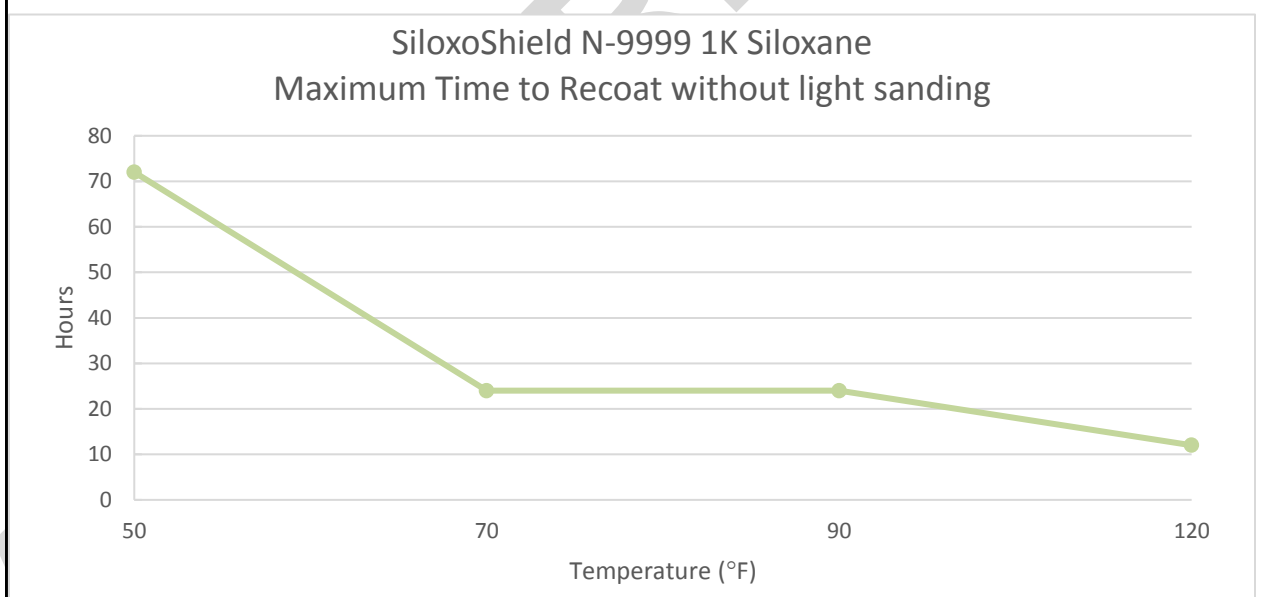
LIGHTLY SAND ALL AREAS INCLUDING TIE IN AREAS THAT HAVE DRIED LONGER THAT NOTED IN THE MAXIMUM OVERCOAT WINDOW IN SECTION VI C ABOVE.

Draft Date: 1/25/18

GRAPH FOR CURE



GRAPH FOR RECOAT



Sanding required above the green line of the recoat graph.
No Sanding required below the green line of the recoat graph.

Draft Date: 1/25/18

ADDITIONAL DATA/INSTRUCTIONS:

I. GENERIC TYPE AND DESCRIPTION: N/A

II. MANUFACTURERS DATA: N/A

III. PROPERTIES: N/A

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS: N/A

V. MIXING PROCEDURES: N/A

VI. APPLICATION: N/A

NAVSEA REVIEWED