NAVSEA REVIEWED ASTM F-718

NCP Coatings

SiloxoShield N-9153 2K Siloxane Haze Gray, Two Component (2K) Polysiloxane Topside Coating

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

NSWCPD_ASTM_F718.fct@navy.mil

SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

Date: 5/5/18

I. GENERIC TYPE AND DESCRIPTION: Two Component (2K) Polysiloxane Topside Coating
Specification Number: MIL-PRF-24635
NOTE: For Type/Grade/Class/Application information see QPD- Type V, & VI, Class 2, Grade B

II. MANUFACTURERS DATA:

(a) MANUFACTURER: NCP Coatings, Niles, MI 49120

(b) PRODUCT DESIGNATION: SiloxoShield N-9153 2K Siloxane Haze Gray

(c) COLOR(S): Fed Std. 595B: 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): 78.1 +/-2.0 %

(b) PERCENT WEIGHT SOLIDS (ASTM D2369): 80.0 +/-2.0 %

(c) FLASH POINT (ASTM D3278) 100 °F (38 °C)

(d) WEIGHT PER VOLUME (ASTM D1475):

COMPONENT A:	13.5+/-0.3 lb/gal @ (	1,618 g/L)
COMPONENT B:	9.7+/-02 lb/gal @ (	1,162 g/L)
MIXED:	A/B 12.2+/-0.3 lb/gal @ (	1,462 g/L)

(e) PERCENT EDGE RETENTION, IF REQUIRED BY APPLICABLE SPECIFICATION (N/A): %

(f) SHELF LIFE: 24 Months

(g) VISCOSITY (ASTM D562):

COMPONENT A:	95-115 KU @	77 °F(	25 °C)
COMPONENT B:	40-55 KU @	77 °F(	25 °C)
MIXED:	60-80 KU @	77 °F(	25 °C)

(h) PACKAGING: 3 gallons (1-gallon container of N-9153B and 1-5 gallon container with 2 gallons of N-9153A)

(i) NUMBER OF COMPONENTS: 2

(j) GLOSS (ASTM D523): 45-60 GU

(k) STORAGE REQUIREMENTS: TEMPERATURE: 40 °F (4 °C) MIN. 105 °F (41°C) MAX.

ADDITIONAL PAINT STORAGE REQUIREMENTS:
Store at 60°F - 85°F for 24 hours prior to application.

(l) VOLATILE ORGANIC COMPOUNDS (VOCS- EPA TEST METHOD 24): <0.2 lb/gal (<24 g/L)

(m) WEIGHT PER AREA OF DRY FILM AT 1 MIL THICKNESS: 0.008 lb/sq. ft. (39.1 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.

SHIPBUILDERS AND MARINE PAINTS AND COATINGS PRODUCT/PROCEDURE DATA SHEET

Date: 5/5/18

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

(a) INITIAL CLEANLINESS: SSPC - SP 10 Near White Metal Blast

(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): Refer to primer mils MIN. mils MAX.

(d) SPECIAL INSTRUCTIONS: Mix coating thoroughly before applicaiton.
*See Additional Data/Instructions on page 5 for section IV

(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 F18 for additional information.

(f) MAXIMUM ALLOWABLE CONDUCTIVITY (NACE SP0508-2010):
Maximum allowable conductivity is 70 microsiemens/cm^2 Maimum allowable chlorides 5 micrograms/cm^2 (50 mg/cm^2)

(g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWED: **See additional Data/Instructions on page 5 for section IV

SPECIAL SAFETY PRECAUTIONS:

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

V. MIXING PROCEDURES:

(a) MIXING RATIOS BY WEIGHT: 2.52:1 (base to hardener)
BY VOLUME: 2:1 (base to hardener)

(b) INDUCTION TIME: N/A Minutes

(c) RECOMMENDED CLEANING SOLVENT (NO THINNING ALLOWED): Confined Areas - No Thinning Allowed
Non-Confined Areas - No Thinning Allowed

(d) POT LIFE:

10 Hr(s) @	50 °F	(	10 °C)
6 Hr(s) @	70 °F	(	21 °C)
4 Hr(s) @	90 °F	(	32 °C)

Graphs included on page 4

(e) SPECIAL INSTRUCTIONS: Pre-mix Part A (base component) for 3-5 minutes to ensure all material is lifted off bottom of container and is uniformly dispersed. Mix Part A and Part B together for a minimum of 5 minutes. Use of mechanical mixer is required.

VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS:

SUBSTRATE TEMPERATURE:	50 °F	(10 °C) MIN.	120 °F	(49 °C) MAX.	
AMBIENT TEMPERATURE:	50 °F	(10 °C) MIN.	105 °F	(41 °C) MAX.	
MINIMUM SUBSTRATE TEMPERATURE:	50°F (10°C)				
DIFFERENCE ABOVE THE DEW POINT:	5 °F	(2 °C)			
MAXIMUM PERCENT RELATIVE HUMIDITY:	80 %				

(b) FILM THICKNESS (SSPC PA2-73T):

PER COAT:	
3 mils WET MIN.	6 mils WET MAX.
2 mils DRY MIN.	5 mils DRY MAX.
TOTAL SYSTEM:	
4.0 mils DRY MIN.	8.0 mils DRY MAX.

Date: 5/5/18

(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 (	35 °C)

Maximum Overcoat Window:

336 Hr(s) @	50 °F (	10 °C)
240 Hr(s) @	75 °F (	24 °C)
168 Hr(s) @	95 °F (	35 °C)

Dry to Handle:

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

Dry to Service:

240 Hr(s) @	50 °F (	10 °C)
144 Hr(s) @	75 °F (	24 °C)
96 Hr(s) @	95 °F (	35 °C)

Graphs included on page __4__ or additional information included on page__3__

(d) EQUIPMENT REQUIREMENTS:
Coating can be applied using standard airless spray, bursh and for roll application use a 3/8" or 1/4" nap roller. For spray applications a 0.017"-.019"tip is recommended.

(e) SPECIAL INSTRUCTIONS:
Do not apply when humidity is less than 20% RH or greater than 80% RH. Do not apply when metal temperature is under 50F or over 120F. At time application, in accordance with NAVSEA Standard Item 009-32, material temperature should be no lower than 50F or higher than 90F. Caution should be taken that the surface temperature is at least 5F above the dew point at application.

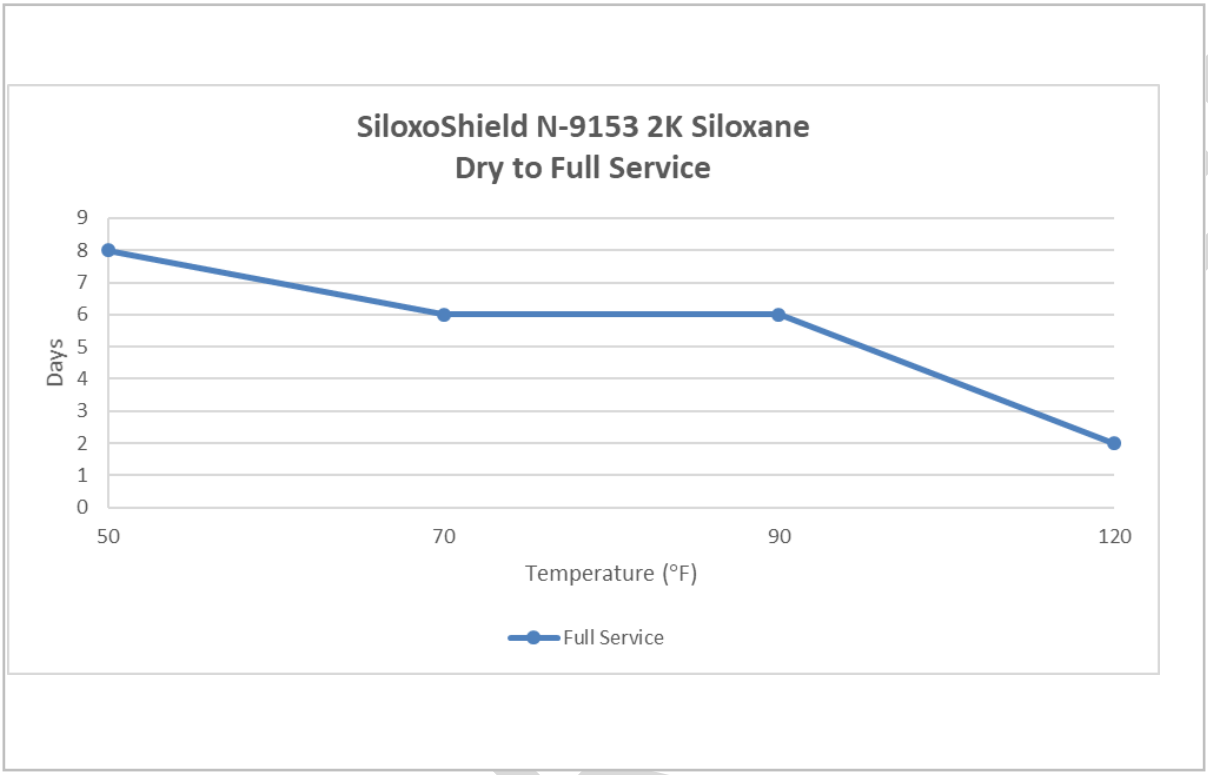
IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR CRITICAL APPLICATIONS:
Lightly sand to insure adhesion

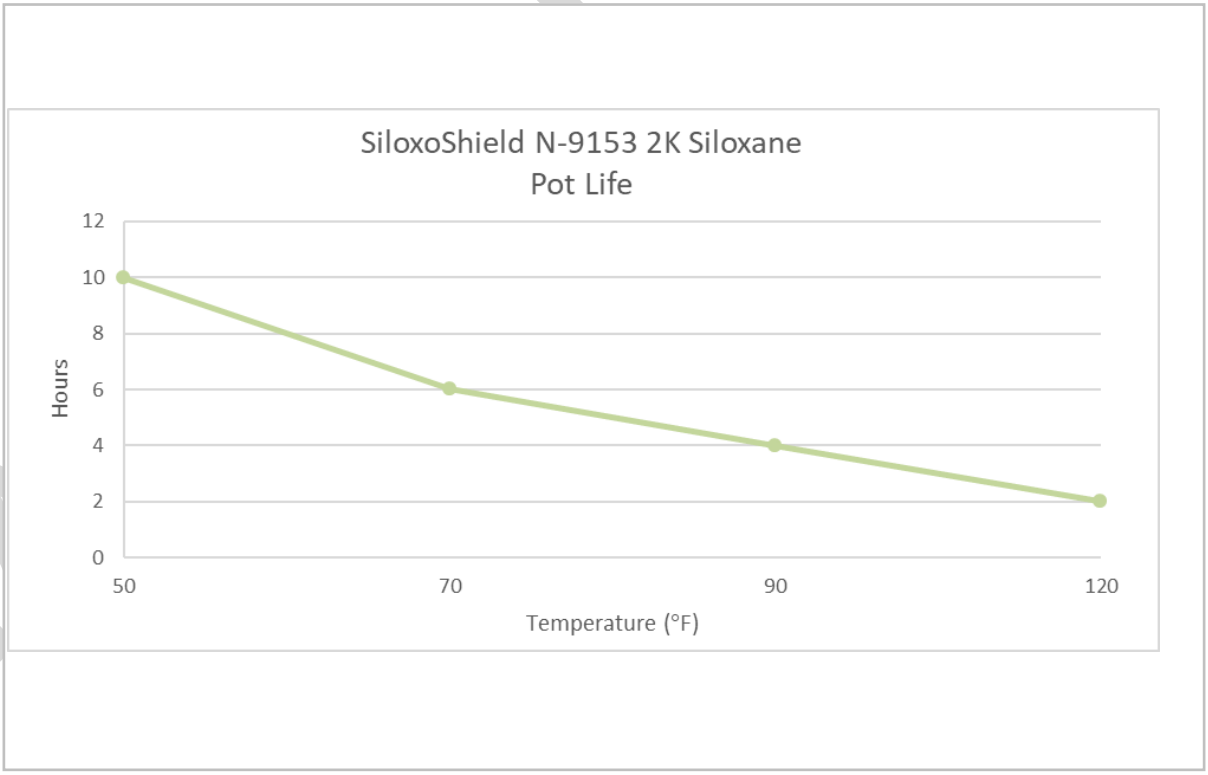
IF OVERCOAT WINDOW HAS BEEN EXCEEDED FOR NON-CRITICAL APPLICATIONS:
Lightly sand to insure adhesion

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

Date: 5/5/18

GRAPHS FOR POT LIFE AND CURE TIMES:





Date: 5/5/18

ADDITIONAL DATA/INSTRUCTIONS:
I. GENERIC TYPE AND DESCRIPTION: N/A

II. MANUFACTURERS DATA: N/a

III. PROPERTIES: N/A

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

V. MIXING PROCEDURES: Mix coating thoroughly

VI. 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-9153 via brush and roller (3/8" nap preferable). Apply at 2-3 mils WFT. This equates to a rate of approximately 320 ft^2/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-glass sheen

**Page 2 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.