



# Protective & Marine Coatings

# MIL-PRF-24635 SILICONE ALKYD ENAMEL

N40 SERIES  
N40A400

TYPE II  
TYPE II

STANDARD VERSION  
LSA VERSION

Revised: December 10, 2020

## PRODUCT INFORMATION

9.20

### PRODUCT DESCRIPTION

**MIL-PRF-24635** is a high solids, <340 g/L VOC, air drying, silicone alkyd enamel. Formulated for use on primed metal, GRP, wood, and plastic/composite surfaces.

- Complies with Military Specification MIL-PRF-24635 Type II, Class 1, 2, 3, Grade A,B,C
- Type II, Class 2, Grade B, color 26270 Haze Gray, N40A400, has a Low Solar Absorption (LSA) pigment package

### PRODUCT CHARACTERISTICS

<b>Finish:</b>	Low Gloss, Semi Gloss, or High Gloss LSA only
<b>Color:</b>	Various Fed. 595B colors available
<b>Volume Solids:</b>	60.0% ± 2% minimum
<b>Weight Solids:</b>	73.0% ± 2% minimum
<b>VOC (EPA Method 24):</b>	<340 g/L; 2.8 lb/gal maximum

#### Recommended Spreading Rate per coat:

	Minimum	Maximum
<b>Wet mils (microns)</b>	<b>2.5 (63)</b>	<b>4.0 (100)</b>
<b>Dry mils (microns)</b>	<b>1.5 (40)</b>	<b>2.5 (63)</b>
<b>~Coverage sq ft/gal (m<sup>2</sup>/L)</b>	<b>380 (9.3)</b>	<b>640 (15.7)</b>
<b>Theoretical coverage sq ft/gal (m<sup>2</sup>/L) @ 1 mil / 25 microns dft</b>	<b>960 (23.5)</b>	

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

#### Drying Schedule @ 2.5 mils wet (63 microns):

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 100°F/38°C
<b>To touch:</b>	4 hours	2 hours	1 hour
<b>To dry hard:</b>	12 hours	8 hours	6 hours
<b>To recoat:</b>	12 hours	8 hours	6 hours
<b>To cure:</b>	7 days	48 hours	24 hours

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

<b>Shelf Life:</b>	24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)
<b>Flash Point:</b>	100°F (38°C) SETA Flash
<b>Reducer:</b>	Not recommended
<b>Clean Up:</b>	Mineral Spirits, R1K4

### RECOMMENDED USES

For use on primed substrates in industrial and marine environments.

- Marine vessels
- Interior and exterior
- Steel
- Galvanized
- Aluminum
- Masonry
- Complies with Military Specification MIL-PRF-24635 Type II, Class 1, 2, 3, Grade A,B,C

### PERFORMANCE CHARACTERISTICS

<b>Color</b>	<b>Product/Rex Number</b>
Various Federal 595B colors	N40 Series

- Type II, Class 2, Grade B, color 26270 Haze Gray, N40A400, meets the Low Solar Absorption (LSA) requirements.

**Low Solar Absorption (LSA) Coating** minimizes sun Heat Efficiency Transfer (HET). It was developed for marine vessels and/or other structures where a durable Haze Gray, Semi-Gloss, Silicone Alkyd is required that will minimize HET into the interior of ships and/or structures.

- Type II, Class 2, Grade C, color 26270 Haze Gray, N40A500, meets the Low Solar Absorption (LSA) and Rust Stain Resistance (RSR) requirements on the outboard discharge areas.



# Protective & Marine Coatings

# MIL-PRF-24635 SILICONE ALKYD ENAMEL

N40 SERIES  
N40A400

TYPE II  
TYPE II

STANDARD VERSION  
LSA VERSION

Revised: December 10, 2020

## PRODUCT INFORMATION

9.20

### RECOMMENDED SYSTEMS

		Dry Film Thickness / ct.	
		Mils	(Microns)
<b>Steel, alkyd primer:</b>			
1 ct.	TT-P-645 Primer	1.75-3.5	(45-88)
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)
<b>Steel, epoxy : primer:</b>			
2 cts.	MIL-DTL-24441 Epoxy Primer	3.0-4.0	(75-100)
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)
<b>Steel, alkyd primer:</b>			
1 ct.	Kem Kromik Universal Metal Primer	2.5-3.5	(63-88)
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)
<b>Aluminum:</b>			
1 ct.	DTM Wash Primer	0.7-1.3	(18-32)
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)
<b>Concrete Block:</b>			
1 ct.	Heavy Duty Block Filler	10.0-18.0	(250-450)
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)
<b>Galvanized Metal:</b>			
1 ct.	Galvite HS	3.0-4.5	(75-112)
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)
<b>Wood:</b>			
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)
<b>Previously Painted:</b>			
1-2 cts.	MIL-PRF-24635	1.5-2.5	(40-63)

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.

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. 310.2R, CSP 1-3

Wood, interior: Clean, smooth, dust free

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

### APPLICATION CONDITIONS

Temperature: 40°F (4.5°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: 8.7 - 12.0 ± 0.2 lb/gal ; 1.05 - 1.45 Kg/L depending on color and class

### 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.



# Protective & Marine Coatings

# MIL-PRF-24635 SILICONE ALKYD ENAMEL

N40 SERIES  
N40A400

TYPE II  
TYPE II

STANDARD VERSION  
LSA VERSION

Revised: December 10, 2020

## APPLICATION BULLETIN

9.20

### 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

Minimum surface preparation is Hand Tool Clean per SSPC-SP2. 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 mils / 50 microns). Prime any bare steel within 8 hours or before flash rusting occurs.

#### Aluminum

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

#### 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.

#### 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, or if this product attacks the previous finish, removal of the previous coating may be necessary. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

### APPLICATION CONDITIONS

Temperature: 40°F (4.5°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** ..... Not recommended

**Clean Up** ..... Mineral Spirits, R1K4

#### Airless Spray

Pressure.....2700-3000 psi  
Hose.....3/8" ID  
Tip .....0.15"  
Filter.....100 mesh  
Reduction.....Not recommended

#### Conventional Spray

Gun .....DeVilbiss MBC-150  
Fluid Tip .....E  
Fluid Nozzle .....E  
Atomization Pressure.....50 psi  
Fluid Pressure.....15-20 psi  
Reduction.....not recommended

#### 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.

#### 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	-



# Protective & Marine Coatings

# MIL-PRF-24635 SILICONE ALKYD ENAMEL

N40 SERIES  
N40A400

TYPE II  
TYPE II

STANDARD VERSION  
LSA VERSION

Revised: December 10, 2020

## APPLICATION BULLETIN

9.20

### APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

**Mixing Instructions:** Mix paint thoroughly 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
<b>Wet mils</b> (microns)	<b>2.5</b> (63)	<b>4.0</b> (100)
<b>Dry mils</b> (microns)	<b>1.5</b> (40)	<b>2.5</b> (63)
<b>~Coverage sq ft/gal</b> (m <sup>2</sup> /L)	<b>380</b> (9.3)	<b>640</b> (15.7)
<b>Theoretical coverage sq ft/gal</b> (m <sup>2</sup> /L) @ 1 mil / 25 microns dft	<b>960</b> (23.5)	

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

#### Drying Schedule @ 2.5 mils wet (63 microns):

	@ 50°F/10°C	@ 77°F/25°C	@ 100°F/38°C
		<b>50% RH</b>	
<b>To touch:</b>	4 hours	2 hours	1 hour
<b>To dry hard:</b>	12 hours	8 hours	6 hours
<b>To recoat:</b>	12 hours	8 hours	6 hours
<b>To cure:</b>	7 days	48 hours	24 hours

*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 Mineral Spirits, R1K4. Clean tools immediately after use with Mineral Spirits, R1K4. Follow manufacturer's safety recommendations when using any solvent.

### 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.

### 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.

No reduction of material is recommended as it can affect film build, appearance, and adhesion.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with Mineral Spirits, R1K4.

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

### 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.