



**Protective & Marine Coatings**  
PRODUCT DATA SHEET



**NOVA-PLATE® UHS**  
EPOXY NOVOLAC TANK LINING

Revised: June 9, 2023

**PRODUCT DESCRIPTION**

**NOVA-PLATE UHS** is a solvent free, edge retentive epoxy novolac with proven long term performance as a lining for bulk storage tanks, pipe internals and secondary containment where a higher degree of resistance is needed.

**INTENDED USES**

An API 652 compliant (thin and thick film) lining for the internal protection of bulk storage tanks, vessels and pipes for the storage and processing of crude oil (at elevated temperatures), refined petrochemicals and solvents (including methanol). Superior build and pit-filling capabilities makes this lining suitable for new construction and maintenance.

**PRODUCT DATA**

<b>Finish:</b>	Gloss				<b>Average Drying Times:</b>			
<b>Colors:</b>	Light Gray, White, Green				<i>with fast cure hardener</i> <b>55°F (13°C)</b> <b>77°F (25°C)</b> <b>100°F (38°C)</b>			
<b>Volume Solids:</b>	100% mixed				<b>50% RH</b> <b>50% RH</b> <b>50% RH</b>			
<b>VOC (EPA Method 24):</b>	<100 g/L; 0.83 lb/gal				<b>Touch:</b> 9 hours    3 hours    1.25 hours			
<b>Mix Ratio:</b>	4:1 by volume				<b>Handle:</b> 24 hours    12 hours    4.25 hours			
<b>Typical Thickness:</b>					<b>Recoat:</b>			
	<b>Recommended Spreading Rate per coat:</b>				<b>minimum:</b> 24 hours    12 hours    4.25 hours			
	1 coat		2 coats direct		<b>maximum:</b> 21 days    21 days    14 days			
	Min.	Max.	Min.	Max.	<b>Cure to service:</b> 7 days    5 days    5 days			
<b>Wet mils (microns)</b>	15.0 (375)	35.0 (875)	10.0 (250)	12.0 (300)	<b>Pot Life:</b> 50 minutes    25 minutes    10 minutes			
<b>Dry mils (microns)</b>	15.0 (375)	35.0 (875)	10.0 (250)	12.0 (300)	<b>Sweat-in-time:</b> none required			
<b>Total mils (microns)</b>	15.0 (375)	35.0 (875)	20.0 (500)	24.0 (600)	<i>with standard hardener</i> <b>55°F (13°C)</b> <b>77°F (25°C)</b> <b>100°F (38°C)</b>			
<b>~Coverage sq ft/gal (m<sup>2</sup>/L) per ct.</b>	45 (1.1)	105 (2.6)	130 (32)	160 (3.9)	<b>50% RH</b> <b>50% RH</b> <b>50% RH</b>			
<b>Theoretical coverage sq ft/gal (m<sup>2</sup>/L) @ 1 mil / 25 microns dft</b>	1604 (39.4)				<b>Touch:</b> 15 hours    4 hours    2 hours			
<b>NOTE:</b> Brush or roll application recommended for stripe coating and repair only. Standard hardener preferred for brush & roll due to pot life.					<b>Handle:</b> 36 hours    14 hours    6 hours			
<b>Shelf Life:</b>	24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).				<b>Recoat:</b>			
<b>Flash Point:</b>	>230°F (110°C), PMCC, mixed				<b>minimum:</b> 36 hours    14 hours    6 hours			
<b>Reducer:</b>	Not recommended				<b>maximum:</b> 21 days    21 days    14 days			
<b>Clean Up:</b>	M.E.K. or Reducer #104				<b>Cure to service:</b> 7 days    5 days    5 days			
<b>Weight:</b>	11.20 ± 0.3 lb/gal ; 1.34 Kg/L, mixed				<b>Pot Life:</b> 90 minutes    40 minutes    20 minutes			
					<b>Sweat-in-time:</b> none required			
					<i>Pot life is dependent upon temperature and mass.</i>			
					<i>If maximum recoat time is exceeded, abrade surface before recoating.</i>			
					<i>Drying time is temperature, humidity, and film thickness dependent.</i>			

**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.

**Minimum recommended surface preparation:**

Iron & Steel:	Atmospheric: SSPC-SP6/NACE 3/ ISO8501-1:2007 Sa 2, 2 mil (50 micron) sharp and angular profile [Medium (G) (ISO 8503-2)] or SSPC-SP12/NACE No. 5, WJ-3/NV-2 Immersion: SSPC-SP10/NACE 2, 2-3 mil (50-75 micron) sharp and angular profile [Medium (G) (ISO 8503-2)] or SSPC-SP12/NACE No. 5, WJ-2/NV-2 ( <b>marine exterior hull only</b> )
Concrete & Masonry:	Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R CSP 2-3 Immersion: SSPC-SP13/NACE 6-4.3.1 or 4.3.2, or ICRI No. 310.2R CSP 2-3



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APPLICATION	APPLICATION CONDITIONS									
<p><b>Airless Spray</b>            Unit.....68:1 pump, minimum            Pressure.....6000 psi minimum (413 bar)            Hose.....3/8" ID (9.5 mm)            Tip......019"-.021" (0.48-0.53 mm)            Filter.....30 mesh</p> <p>In order to avoid blockage of airless spray equipment and hose, flush equipment at least once every hour and before periods of extended downtime with M.E.K. or Reducer #104.</p> <p><b>Plural Component Equipment</b>            Unit.....50:1 or greater            Pressure.....4000 psi minimum (275 bar)            Hose.....3/8" ID (9.5 mm)            Tip......017"-.019" (0.43-0.48 mm)            Fluid Temperature at tip..90°F-95°F (32°C-35°C)</p> <p><b>Brush</b> .....For stripe coating, laminate systems, and repair only            Brush.....Nylon/Polyester or Natural Bristle</p> <p><b>Roller</b> .....For stripe coating, laminate systems, and repair only            Cover .....3/8" woven with solvent resistant core</p> <p>Consult your local Technical Service Representative for further equipment questions and best practices.</p>	<p><b>Temperature (air &amp; surface):</b>            50°F (10°C) minimum, 110°F (43°C) maximum            At least 5°F (2.8°C) above dew point            Material should be 77°F (25°C) to 100°F (38°C) for optimal performance.</p> <p>Relative humidity: 85% maximum</p>									
	<b>APPROVALS</b>									
	<ul style="list-style-type: none"> <li>Meets MIL-PRF-23236, Type VII, Class 5, 7, 13 and 19, Grade C</li> </ul>									
	<b>ADDITIONAL NOTES</b>									
	<p>Do not tint Part A. Hardeners may be tinted with up to 1-1/2 oz per gallon with Maxitoner Colorants.</p> <p>Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.</p> <p>Do not mix previously catalyzed material with new.</p> <p>Blue OAP contains fluorescent pigment.</p> <p>Guidance on techniques and required equipment to inspect a coating system incorporating Opti-Check OAP Technology can be found in SSPC-TU 11.</p> <p>May be applied up to 60.0 mils (1500 microns) dft in one coat if required.</p>									
<b>RECOMMENDED SYSTEMS</b>										
<table border="1"> <thead> <tr> <th>Dry Film Thickness / ct.</th> <th>Mils</th> <th>(Microns)</th> </tr> </thead> <tbody> <tr> <td><b>Steel, Immersion &amp; Atmospheric</b> 2 Cts. Nova-Plate UHS</td> <td>10.0-12.0</td> <td>(250-300)</td> </tr> <tr> <td><b>Steel, Immersion &amp; Atmospheric</b> 1 Ct. Nova-Plate UHS</td> <td>15.0-35.0</td> <td>(375-875)</td> </tr> </tbody> </table> <p>NOTE: Nova-Plate UHS may be applied at alternate thicknesses, up to 60 mils (1,500 microns), depending on application conditions. Consult your Sherwin-Williams representative for additional information.</p>	Dry Film Thickness / ct.	Mils	(Microns)	<b>Steel, Immersion &amp; Atmospheric</b> 2 Cts. Nova-Plate UHS	10.0-12.0	(250-300)	<b>Steel, Immersion &amp; Atmospheric</b> 1 Ct. Nova-Plate UHS	15.0-35.0	(375-875)	
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<p>The systems listed above are representative of the product's use, other systems may be appropriate.</p>										
<b>WARRANTY</b>										
<p>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.</p>										
	<b>HEALTH AND SAFETY</b>									
	<p>Refer to the SDS 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.</p>									
	<b>DISCLAIMER</b>									
	<p>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 Sheet.</p>									