



Protective & Marine Coatings
PRODUCT DATA SHEET



NOVA-PLATE® 325

HIGH TEMPERATURE, HIGH PRESSURE RESISTANT TANK LINING

Revised: June 9, 2023

PRODUCT DESCRIPTION

NOVA-PLATE 325 is a plural applied ceramic and glass flake novolac-phenolic coating which has been tested and approved via 3rd party testing for NORSOK M-501, System No. 7C up to 356°F (180°C). As a lining, Nova-Plate 325 has high build and fast return to service capabilities with high temperature, pressure and superior tolerance to aggressive chemicals making this product suitable for service up to 300°F (149°C) in Oil and Gas and Mining applications.

INTENDED USES

Process vessels, operating at higher temperatures and pressures, for crude oil and produced water service. Suitable for mining and mineral processing where superior abrasion and acid resistance is required. Suitable for new construction and maintenance. Recommended for external girth welds and repair coating for high operating, fusion bonded systems.

PRODUCT DATA

Finish:	Gloss	Average Drying Times:			
Colors:	White	50°F (10°C)	77°F (25°C)	90°F (32°C)	
Volume Solids:	100% mixed		50% RH		
VOC (EPA Method 24):	<100 g/L; 0.83 lb/gal, mixed	Touch:	6.5 hours	2.5 hours	1.5 hours
Mix Ratio:	2:1 by volume	Dry hard:	26 hours	7 hours	5 hours
Typical Thickness:		Recoat:			
<u>Recommended Spreading Rate per coat:</u>		minimum:	6.5 hours	2.5 hours	1.5 hours
		maximum:	21 days	21 days	9 days
Wet mils (microns)	Minimum	Cure to service:	5 days	24 hours	24 hours
Dry mils (microns)	20.0 (500)	Pot Life:	40 minutes	20 minutes	15 minutes
~Coverage sq ft/gal (m²/L)	40 (1.0)	Sweat-in-time:		none required	
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1604 (39.4)	<i>If maximum recoat time is exceeded, mechanically abrade film prior to applying additional coat.</i>			
<i>NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.</i>					
Shelf Life:	24 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).				
Flash Point:	201°F (94°C), PMCC, mixed				
Reducer:	Not recommended				
Clean Up:	M.E.K. or Reducer #104				
In California:	Reducer #111 or Acetone				
Weight:	10.80 ± 0.3 lb/gal ; 1.29 Kg/L, mixed				

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: Immersion: SSPC-SP10/NACE 2, 2.0-4.0 mil (50-100 micron) sharp and angular profile [Medium (G) (ISO 8503-2)]

Concrete & Masonry: Secondary Containment: 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	
Plural Component Equipment			Temperature:	
Pump.....	WIWA DUOMIX 2:1, Graco Extreme Mix, Graco XM, or Graco XP		Air & Surface:	50°F (10°C) minimum, 110°F (43°C) maximum
Pressure.....	4000 psi minimum (276 bar)		Relative humidity:	85% maximum
Hose.....	3/8" ID (9.5 mm)		APPROVALS	
Tip.....	.021"-.025" (0.53-0.64 mm)		<ul style="list-style-type: none">Meets the requirements of the API 652 guideline as a thick film reinforced lining when applied in accordance with API 653 inspectionsTested and approved via 3rd party testing for NORSOK M-501, System No. 7C up to 180°C/356°F	
Pump heater setting.....	110°F-130°F (43°C-54°C) do not exceed 140°F (60°C)			
Material temperature at gun tip.....	110°F-130°F (43°C-54°C) vary as needed		ADDITIONAL NOTES	
BrushFor stripe coating and repair only			Repair of Pitted Tank Bottoms	
Brush.....	Nylon/Polyester or Natural Bristle		Extensive, deep pitting:	
RollerFor stripe coating and repair only			Options:	
Cover.....	3/8" woven with solvent resistant core		Option 1 ...Apply a full wet coat, by spray application, of Nova-Plate 325. If necessary, follow with rubber squeegee to work material into and fill the pitted areas. After recommended drying time, apply a full coat of Nova-Plate 325 at recommended film thickness.	
If specific application equipment is not listed above, equivalent equipment may be substituted.			Option 2 ...Weld new steel plates, or use puddle welds, as required to repair pitted areas. Coat areas as recommended.	
RECOMMENDED SYSTEMS			Shallow pitting, isolated areas: Same as number 1 above.	
Dry Film Thickness / ct.			When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross-coat spray at a right angle.	
	Mils	(Microns)	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.	
Steel, Immersion			No reduction of material is recommended as this can affect film build, appearance, and adhesion.	
1 Ct. Nova-Plate 325	20.0-40.0	(500-1000)	Stripe coat all crevices, welds, and sharp angles to prevent early failure in these areas.	
Steel, Non-Pressurized Immersion			Do not mix previously catalyzed material with new.	
With hold primer			Do not apply the material beyond recommended pot life.	
1 Ct. Macropoxy 240	1.0-1.5	(25-40)	Remove and solvent clean tip housing every 20-30 minutes.	
(as required for blast hold primer)			For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.	
1 Ct. Nova-Plate 325	20.0-40.0	(500-1000)	Final cure must be confirmed in accordance with ASTM D5402, "Assessing the Solvent Resistance of Organic Coatings Using Solvent Rubs". Test shall consist of 50 double rubs with MEK. Test shall confirm no loss of DFT, and no coating residue on rubbing cloth.	
Steel, Non-Pressurized Immersion			Additional packaging available: 300 x 150 mL cartridges for repair.	
Where brush applied Novolac Epoxy stripe coat required			HEALTH AND SAFETY	
1 Ct. Epo-Phen FF	2.0-3.0	(50-75)	Refer to the SDS sheet before use.	
1 Ct. Nova-Plate 325	20.0-40.0	(500-1000)	Published technical data and instructions are subject to change without notice. Contact your Sherwin-Williams representative for additional technical data and instructions.	
NOTE: It is inevitable that film thickness in excess of that specified will be applied. In the case of Nova-Plate 325, spot-areas of 60 mils (1,500 microns) are acceptable, providing the 80:20 rule* is met.			DISCLAIMER	
*80% of all thickness measurements shall be greater than, or equal to the nominal dft and none of the remaining 20% measurements shall be below 0.8 x nominal dft.			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.	
The systems listed above are representative of the product's use, other systems may be appropriate.				
WARRANTY				
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