



Protective & Marine Coatings
PRODUCT DATA SHEET



DURA-PLATE® UHS
EPOXY TANK LINING

Revised: May 27, 2021

PRODUCT DESCRIPTION

DURA-PLATE UHS is an ultra-high solids, edge retentive epoxy with proven long term performance as a lining for bulk storage tanks, ballast tanks, pipe internals and secondary containment. Applied using normal or plural airless spray.

INTENDED USES

An API 652 (thin and thick film) lining for the internal protection of bulk storage tanks and pipes for the storage and transport of crude oil, refined petrochemicals (including aviation fuel) and fresh water including NSF. Superior build and pit-filling capabilities makes this lining suitable for new construction and maintenance.

PRODUCT DATA

Finish:	Gloss
Colors:	Light Gray, White, Light Green
Volume Solids:	98% ± 2%, mixed
VOC (EPA Method 24):	<100 g/L; 0.83 lb/gal
Mix Ratio:	4:1 by volume

Typical Thickness:

Recommended Spreading Rate per coat:

	1 coat system		2 coat system	
	Min.	Max.	Min.	Max.
Wet mils (microns)	18.0 (450)	22.0 (550)	10.0 (250)	12.0 (300)
Dry mils (microns)	18.0 (450)	22.0 (550)	10.0 (250)	12.0 (300)
Total mils (microns)	18.0 (450)	22.0 (550)	20.0 (500)	24.0 (600)
~Coverage sq ft/gal (m²/L) per ct.	72 (1.76)	90 (2.2)	130 (32)	160 (3.9)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1568 (38.4)			

Can be applied in one coat up to 50 mils (1,250 microns).

NOTE: Brush or roll application recommended for stripe coating and repair only. Standard hardener preferred for brush & roll due to pot life.

Shelf Life:	36 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	>200°F (93°C), PMCC, mixed
Reducer:	Not recommended*
Clean Up:	M.E.K. or Reducer #104
Weight:	10.52 ± 0.2 lb/gal ; 1.26 Kg/L, mixed

*For NSF applications, consult your Sherwin-Williams Representative regarding Product Bulletin: "Dura-Plate UHS Application Guide"

Average Drying Times @ 10-22 mils wet (250-550 microns):			
<i>With standard hardener, B62V210</i>	55°F (13°C)	77°F (25°C)	100°F (38°C)
	50% RH		
Touch:	12 hours	5 hours	3 hours
Handle:	48 hours	14 hours	8 hours
Recoat:			
minimum:	48 hours	14 hours	8 hours
maximum:	21 days	14 days	14 days
Cure to service:	10 days	4 days	24 hours
Heat cure:	8 hours @ ambient, then 16 hours @ 140°F (60°C) (not NSF approved)		
Pot Life*:	30-45 minutes	30-45 minutes	20-30 minutes
Sweat-in-time:	15 minutes	none	none
<i>With low temp hardener, B62V211</i>	40°F (4.5°C)	55°F (13°C)	77°F (25°C)
	50% RH		
Touch:	24 hours	5 hours	3 hours
Handle:	48 hours	24 hours	8 hours
Recoat:			
minimum:	48 hours	24 hours	8 hours
maximum:	30 days	21 days	14 days
Cure to service:	7 days	5 days	3 days
Heat cure:	8 hours @ ambient, then 16 hours @ 140°F (60°C) (not NSF approved)		
Pot Life*:	20 minutes	20 minutes	10 minutes
Sweat-in-time:	5 minutes	none	none

*Pot life is dependent upon temperature and mass

*Drying time is temperature, humidity, and film thickness dependent.
If maximum recoat time is exceeded, abrade surface before recoating.*

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) profile or SSPC-SP12/NACE No. 5, WJ-3/NV-2 Immersion: SSPC-SP10/NACE 2/ISO8501-1:2007 Sa 2.5, 2-3 mil (50-75 micron) profile or SSPC- SP12/NACE No. 5, WJ-2/NV-2 (marine exterior hull only)
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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<p>Airless Spray Unit.....74:1 pump, minimum Pressure.....6000 psi minimum (415 bar) Hose.....3/8" ID (9.5 mm) Tip......019"-.021" (0.48-0.53 mm) Filter.....30 mesh</p> <p>During extended downtime or after a long period of continuous spraying, it may be required to flush equipment with MEK or Reducer #104.</p> <p>Plural Component Equipment.....Acceptable</p> <p>Brush.....For stripe coating and repair only Brush.....Nylon/Polyester or Natural Bristle</p> <p>Roller.....For stripe coating and repair only Cover.....3/8" woven with solvent resistant core</p> <p>If specific application equipment is not listed above, equivalent equipment may be substituted.</p>	<p>Temperature (air & surface): Standard Hardeners: 50°F (10°C) minimum, 110°F (43°C) maximum Low Temp Hardener: 40°F (4.5°C) minimum, 77°F (25°C) maximum At least 5°F (2.8°C) above dew point</p> <p>Material should be 70°F (21°C) to 85°F (29°C) for optimal performance.</p> <p>Relative humidity: 85% maximum</p>																																																
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<table border="1"> <thead> <tr> <th>Dry Film Thickness / ct.</th> <th>Mils</th> <th>(Microns)</th> </tr> </thead> <tbody> <tr> <td>Steel, Immersion (Potable Water)</td> <td></td> <td></td> </tr> <tr> <td>1 Ct. Dura-Plate UHS</td> <td>16.0-50.0</td> <td>(400-1250)</td> </tr> <tr> <td>or</td> <td></td> <td></td> </tr> <tr> <td>2 Cts. Dura-Plate UHS</td> <td>8.0-25.0</td> <td>(200-625)</td> </tr> <tr> <td>or</td> <td></td> <td></td> </tr> <tr> <td>3 Cts. Dura-Plate UHS</td> <td>6.0-16.0</td> <td>(150-400)</td> </tr> <tr> <td>Steel, Immersion & Atmospheric</td> <td></td> <td></td> </tr> <tr> <td>2 Cts. Dura-Plate UHS</td> <td>6.0-7.0</td> <td>(150-175)</td> </tr> <tr> <td>or</td> <td></td> <td></td> </tr> <tr> <td>1 Ct. Dura-Plate UHS</td> <td>18.0-22.0</td> <td>(450-550)</td> </tr> <tr> <td>or</td> <td></td> <td></td> </tr> <tr> <td>2 Cts. Dura-Plate UHS</td> <td>10.0-12.0</td> <td>(250-300)</td> </tr> <tr> <td>Steel, with Hold Primer</td> <td></td> <td></td> </tr> <tr> <td>1 Ct. Macropoxy 240</td> <td>1.0-1.5</td> <td>(25-37)</td> </tr> <tr> <td>1 Ct. Dura-Plate UHS</td> <td>18.0-22.0</td> <td>(450-550)</td> </tr> </tbody> </table> <p>NOTE: Dura-Plate UHS may be applied at alternate thicknesses, up to 50 mils (1,250 microns), depending on application conditions. Consult your Sherwin-Williams representative for additional information.</p> <p>The systems listed above are representative of the product's use, other systems may be appropriate.</p>	Dry Film Thickness / ct.	Mils	(Microns)	Steel, Immersion (Potable Water)			1 Ct. Dura-Plate UHS	16.0-50.0	(400-1250)	or			2 Cts. Dura-Plate UHS	8.0-25.0	(200-625)	or			3 Cts. Dura-Plate UHS	6.0-16.0	(150-400)	Steel, Immersion & Atmospheric			2 Cts. Dura-Plate UHS	6.0-7.0	(150-175)	or			1 Ct. Dura-Plate UHS	18.0-22.0	(450-550)	or			2 Cts. Dura-Plate UHS	10.0-12.0	(250-300)	Steel, with Hold Primer			1 Ct. Macropoxy 240	1.0-1.5	(25-37)	1 Ct. Dura-Plate UHS	18.0-22.0	(450-550)	<p>ADDITIONAL NOTES</p> <p>Do not tint Part A.</p> <p>Clear Hardeners B62V210 and B62V211 may be tinted with up to 1½ oz. per gallon with Maxitoner Colorant, Phthalo Green or Black (both NSF approved) ONLY.</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>White B62W211 contains OAP fluorescent pigment (NSF approved).</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>Note: Recommended application procedure direct to steel: Apply a 5.0-6.0 mil (125-150 micron) coat to the substrate. Allow material to "wet" the surface. Then apply additional material, to bring total film thickness to the recommended range.</p> <p>Suitable for use with cathodic protection systems.</p>
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