



# Protective & Marine Coatings

# DURA-PLATE™ UHS EPOXY TANK LINING

Revised 05/2019 Issue 8

## PRODUCT INFORMATION

### PRODUCT DESCRIPTION

A rapid return to service, high build, edge retentive tank lining.

### PRODUCT CHARACTERISTICS

<b>Flash Point:</b>	>93°C mixed
<b>Finish</b>	Gloss
<b>Colour:</b>	White, Light Green
<b>Volume Solids:</b>	98% ± 2%, mixed
<b>Weight Solids:</b>	98% ± 2%, mixed
<b>VOC:</b>	<155 g/ltr
<b>Mix Ratio:</b>	4:1 by volume

### RECOMMENDED THICKNESS

	Spreading Rate per coat:			
	1 coat system		2 coat system	
	Min.	Max.	Min.	Max.
Wet microns	450	550	250	300
Dry microns	450	550	250	300
Total microns	450	550	500	600
Theoretical Coverage m <sup>2</sup> /ltr	2.2	1.8	4	3.3

Maximum sag tolerance typically 800µm wet (784µm dry) airless spray

NOTE: Brush or roller application recommended for stripe coating and repair only.

### AVERAGE DRYING TIMES

#### Standard Hardener @ 250-550 microns wet @50% RH

	@ 13°C	@ 25°C	@ 38°C
<b>To touch:</b>	12 hours	5 hours	3 hours
<b>To handle:</b>	48 hours	14 hours	8 hours
<b>To recoat:</b>			
<b>minimum:</b>	48 hours	14 hours	8 hours
<b>maximum:</b>	21 days	14 days	14 days
<b>Cure to service:</b>	10 days	4 days	24 hours
<b>Heat Cure:</b>	8 hours @ ambient, then 16 hrs @ 60°C		
<b>Pot Life:</b>	30-40 minutes	30-40 minutes	20-30 minutes
<b>Induction Time:</b>	15 minutes	None	None

#### Low Temperature Hardener @ 250-550 microns wet @50% RH

	@ 4.5°C	@ 13°C	@ 25°C
<b>To touch:</b>	24 hours	5 hours	3 hours
<b>To handle:</b>	48 hours	24 hours	8 hours
<b>To recoat:</b>			
<b>minimum:</b>	48 hours	24 hours	8 hours
<b>maximum:</b>	30 days	21 days	14 days
<b>Cure to service:</b>	7 days	5 days	3 hours
<b>Heat Cure:</b>	8 hours @ ambient, then 16 hrs @ 60°C		
<b>Pot Life:</b>	20 minutes	20 minutes	10 minutes
<b>Induction Time:</b>	5 minutes	None	None

### RECOMMENDED USES

For use over prepared steel or concrete surfaces in industrial and marine exposures such as:

- Meets MIL-PRF-23236, Type VII, Class 5, 7, 9 and 11, Grade C
- Ballast tank interiors, Oil storage tank interiors, Refined fuel storage tank
- Potable water tanks interiors and pipe (Certified to NSF/ANSI 61)
- Water and waste treatment plants
- Primary and secondary containment areas
- Where edge protection film build properties are required
- Suitable for use with cathodic protection systems

### PERFORMANCE CHARACTERISTICS

**Substrate:** Steel

**Surface Preparation:** BS EN ISO 8501-1 2007 Sa2½

**System Tested:**

1 ct. Dura-Plate UHS @ 450 microns dft

Test Name	Test Method	Results
<b>Abrasion Resistance</b>	ASTM D4060-14, CS17 wheel, 1000 cycles, 1 kg load	20.8 mg loss
<b>Adhesion</b>	ASTM D4541-17; ASTM D3359-17	800 psi, minimum (ASTM D4541); 5A (ASTM D3359)
<b>Corrosion Weathering</b>	ASTM D5894-16 cycles, 2016 hours	Rating 10 per ASTM D610 for rusting and Rating 10 per ASTM D714 for blistering
<b>Direct Impact Resistance</b>	ASTM D2794-93(2010); ASTM G14-04(2018)	30 in. lb. (ASTM D2794); 168 in. lb. (ASTM G14)
<b>Dry Heat Resistance</b>	ASTM D2485-18	121°C
<b>Flexibility</b>	ASTM D522/D522M-17, 180° bend, 1/2" mandrel	Passes, 9.7% elongation
<b>Pencil Hardness</b>	ASTM D3363-05(2011)E2	3H

#### IMMERSION (Ambient temperature):

- Ballast Tank mix ..... Recommended
- Crude oil ..... Recommended
- Diesel fuel ..... Recommended
- Ethanol or Gasohol ..... Recommended
- Fresh water/Potable Water ..... Recommended
- Fuel oil ..... Recommended
- MTBE, TAME, ETBE ..... Recommended
- Refined petroleum products ..... Recommended
- Sea water ..... Recommended
- Hi-Aromatic Petrol ..... Recommended
- Methanol or methanol blends ..... Not Recommended

### PACKAGE

<b>Pack Size:</b>	5 and 17.5 litre units
<b>Shelf Life:</b>	36 months, store indoors at 5°C to 38°C
<b>Thinning:</b>	Not Recommended
<b>Cleanser:</b>	No 13
<b>Hardener:</b>	3.5ltr in 5ltr can
<b>Weight:</b>	1.26 Kg/ltr ± .04



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## PRODUCT INFORMATION

### APPLICATION CONDITIONS

Temperature (air, surface):  
10°C minimum, 43°C maximum  
3°C above dew point  
Material should be 21°C to 29°C for optimum application characteristics

**Relative humidity:** 85% maximum

**Note:** Recommended application procedure direct to steel: Apply a 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.

Application of coating above maximum or below minimum recommended spreading rate may adversely affect coating performance

### SURFACE PREPARATION

Minimum recommended 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.

#### Atmospheric Service:

Gritblast using sharp angular abrasive to:  
BS EN ISO 8501-1:2007 Sa2 (Surface profile 50 - 75µ)  
UHP water jetting to SSPC / NACE WJ-3/NV2  
(To reveal pre-existing profile of 50µ)  
UHP cleaned steel shall be primed before flash rusting occurs.

#### Immersion Service:

Gritblast using sharp angular abrasive to:  
BS EN ISO 8501-1:2007 Sa2½ (Surface profile 50 - 75µ)  
UHP water jetting to SSPC / NACE WJ-2/NV2  
(To reveal pre-existing profile of 50µ)  
UHP cleaned steel shall be primed before flash rusting occurs.

### 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 cleanser. Any reduction must be compliant with existing VOC regulations and compatible with the existing environmental and application conditions.

**Thinner** .....Not recommended

**Cleanser** .....No 13

#### Airless Spray

Unit.....74:1 Pump, minimum  
Pressure.....6000 psi minimum  
Hose.....3/8" ID  
Tip .....0.019" - .021"  
Filter.....30 mesh

**In order to avoid blockage of spray equipment and hose, flush equipment with Cleanser No 13 regularly and before periods of extended downtime.**

**Brush and Roller:** For stripe coating and repair only

**Mixing Instructions:** Mix contents of each component thoroughly using low speed power agitation. Make certain no pigment remains on the bottom or the sides of the can. Due to aeration in the base that occurs during manufacture, fill level may appear greater than 14L. Do not adjust prior to mixing. Combine Base with Hardener. Thoroughly agitate the mixture with power agitation.

To ensure that no unmixed material remains on the sides or bottom of the cans after mixing, visually observe the container by pouring the material into a separate container.

Always mix full pack size, units must not be split for part mixing.

Apply paint at the recommended film thickness and spreading rate as indicated below:

### CLEAN UP INSTRUCTIONS

Clean spills, tools and spatters immediately with cleanser No 13.

### SAFETY PRECAUTIONS

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.

### WARRANTY

Any person or company using the product without first making further enquiries as to the suitability of the product for the intended purpose does so at their own risk, and Sherwin-Williams can accept no liability for the performance of the product, or for any loss or damage arising out of such use.

The information detailed in this Data Sheet is liable to modification from time to time in the light of experience and of normal product development, and before using, customers are advised to check with Sherwin-Williams, quoting the reference number, to ensure that they possess the latest issue.