Protective & Marine Coatings

DURA-PLATE® 8200
HIGH TEMPERATURE EPOXY

PART A	B62-480	SERIES
PART B	B62V480	HARDENER

Revised: June 9, 2023

PRODUCT INFORMATION

4.87

PRODUCT CHARACTERISTICS

DURA-PLATE 8200 is an advanced technology ceramic novolac epoxy. It is engineered to provide protection from crude oil mixes and aggressive chemicals stored at high temperatures in high gradient environments. It can be applied by plural or single leg application and cures to service in 24 hours in most cases.

- Excellent cathodic disbondment resistance
- One coat protection
- Low permeation rate for tank lining service
- Solvent-free
- Single coat application
- Excellent thermal compatibility with steel and concrete
- Quick return to service (24 hours in most cases)
- Resists thermal cracking
- Low odor

RECOMMENDED USES

- High temperature immersion tank lining (e.g. crude up to 275°F/135°C)
- Floor and chemical trenches in process areas
- Secondary containment areas
- Bulk petroleum storage tank lining
- Chemical process equipment and pads exposed to acids
- Internal pipeline and vessel linings
- Geographies with high temperature gradients
- Water & Wastewater treatment plant applications

PRODUCT CHARACTERISTICS

Finish:	Gloss
Color:	White, Gray
Volume Solids:	98%, ± 2%, mixed
VOC (calculated):	3.98 g/L ; 0.03 lb/gal, mixed
Mix Ratio:	3A:1B by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**12.0** (300)	**35.0** (875)
Dry mils (microns)	**12.0** (300)	**35.0** (875)
~Coverage sq ft/gal (m^2/L)	**45** (1.1)	**131** (3.2)
Theoretical coverage sq ft/gal (m^2/L) @ 1 mil / 25 microns dft	**1572** (38.6)	

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

Drying Schedule @ 20 mils wet (500 microns):

	@ 50°F/10°C	@ 77°F/25°C *85% RH*	@ 140°F/60°C
To touch:	5 hours	4 hours	1 hour
To recoat:			
minimum:	8 hours	3 hours	1 hour
maximum:	14 days	14 days	Not Recommended
Cure to Service:	7 days	24 hours	4 hours

If maximum recoat time is exceeded, abrade surface before recoating.

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

Pot Life: 35 minutes @ 75°F/24°C

Sweat-in-time: None required

Shelf Life:	Part A - 12 months, unopened Part B - 12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C).
Flash Point:	185°F (85°C), Pensky-Martins closed cup, mixed
Reducer:	Reducer #54 (K54)
Clean Up:	MEK or Acetone

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS-17 Wheel, 1000 cycles, 1 kg load	35 mg loss
Adhesion (Dry)	ASTM D4541	>3,000 psi
Adhesion (5 days in 158°F/70°C water)	ASTM D4541	>3,000 psi
Hardness, Shore D	ASTM D2240	>80
Compressive Strength	ASTM D695	13,000 psi
Autoclave	NACE TM0185 275°F (135°C) @ 1000 psi 4 days	No effect
Autoclave	NACE TM0185 248°F (120°C) @ 100 psi 14 days	No effect
Impact	CSA Z245.20-14 -22°F (-30°C) @ 1.5 joules	No cracking No Holidays
Pressurized Atlas Cell	NACE TM0174 149°F (65°C) @ 50 psi 28 days	No effect

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel:			
1 ct.	Dura-Plate 8200	12.0-35.0	(300-875)
Steel:			
2 cts.	Dura-Plate 8200	12.0-20.0	(300-500)
Concrete:			
1 ct.	Corobond 100 Epoxy Primer/Sealer	4.0-6.0	(100-150)
1 ct.	Dura-Plate 8200	12.0-35.0	(300-875)

Note: All epoxies yellow and chalk. Contact with high purity chemicals may also adversely effect color and should have a coupon immersed in representative cargo if color is important.

The systems listed above are representative of the product's use, other systems may be appropriate.

DISCLAIMER

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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.

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:

Steel:
- Atmospheric: SSPC-SP6/NACE 6/ ISO8501-1:2007 Sa 2, 2 mil (50 micron) sharp and angular anchor profile [Medium (G) (ISO 8503-2)]
- Immersion: SSPC-SP10/NACE 2, 2-4 mil (50-100 micron) sharp and angular profile [Medium (G) (ISO 8503-2)]

Concrete:
- 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

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	SSPC	NACE
White Metal		Sa 3	SP 5	1
Near White Metal		Sa 2.5	SP 10	2
Commercial Blast		Sa 2	SP 6	3
Brush-Off Blast		Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	SP 2	-
	Pitted & Rusted	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	SP 3	-
	Pitted & Rusted	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:	50°F (10°C) minimum, 140°F (60°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:
- Part A: 3 gallons (13.36L) in a 5 gallon pail
- Part B: 1 gallon (3.79L) in a 1 gallon can

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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APPLICATION BULLETIN

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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.

Steel (immersion service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2, or SSPC-SP12/NACE No. 5. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2-4 mils / 50-100 microns).

Steel (atmospheric service)
Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. Minimum surface preparation is Commercial Blast Cleaning per SSPC-SP6/NACE 3. For better performance, use SSPC-SP10/NACE 2. Blast clean all surfaces using a sharp angular abrasive for optimum surface profile (2 mils / 50 microns minimum). Prime any bare steel within 8 hours or before flash rusting occurs.

Concrete
For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 2-3. Surfaces should be thoroughly clean and dry. Concrete must be cured at least 28 days @ 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Primer required.

Concrete, Immersion Service:
For surface preparation, refer to SSPC-SP13/NACE 6, Section 4.3.1 or 1.3.2 or ICRI No. 310.2R, CSP 2-3.

Surface Preparation Standards

	Condition of Surface	ISO 8501-1 BS7079:A1	SSPC	NACE
White Metal		Sa 3	SP 5	1
Near White Metal		Sa 2.5	SP 10	2
Commercial Blast		Sa 2	SP 6	3
Brush-Off Blast		Sa 1	SP 7	4
Hand Tool Cleaning	Rusted	C St 2	SP 2	-
	Pitted & Rusted	D St 2	SP 2	-
Power Tool Cleaning	Rusted	C St 3	SP 3	-
	Pitted & Rusted	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:	50°F (10°C) minimum, 140°F (60°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.

Clean up: .....MEK or Acetone

Airless Spray
- Pump.....70:1 minimum
- Hose.....3/8" ID
- Tip .....021"-.027"
- Pressure.....6000 psi minimum
- Reduction.....Not necessary, but can be reduced up to 3 oz./gal of Reducer #54 (K54) if required.

Plural Application
- Pump.....56:1 minimum
- Hose.....3/8" (9.5 mm) ID
- Tip .....025"-.029"
- Pressure.....4000 psi minimum

Notes:
- Heat Part A to 135°F and Part B to 90°F. If you have heated hoppers, set them at 120°F for the part A and 90°F for the part B.
- If remote mixing, A-side hose of 1/2" diameter and B-side hose of 3/8" diameter and a mix fluid hose of 1/2" diameter with a 1/4" whip. Do not exceed 50 feet of mixed fluid hose to the whip.
- If mixing at the pump, would suggest the 1/2" mix fluid hose and 1/4" whip. Do not exceed 50 feet of mixed fluid hose to the whip.
- A static mix tube (3/8" x 6" from Graco, or a similar from WIWA) at the manifold and one at the mix fluid/whip connection is recommended
- Recommend insulating the mix fluid hose with close cell foam.

Brush
- Brush.....Medium natural bristle
- Reduction.....As needed, up to 5% by volume with Reducer #54 (K54)

Roller
- Cover .....3/8" woven with solvent resistant core
- Reduction.....As needed, up to 5% by volume with Reducer #54 (K54)

If specific application equipment is not listed above, equivalent equipment may be substituted.

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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mixing Instructions: Mix individual components then combine 3 parts A with 1 part B and mix until homogenous. Only mix full units. Be sure to mix material from the bottom and sides of the containers.

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

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**12.0** (300)	**35.0** (875)
Dry mils (microns)	**12.0** (300)	**35.0** (875)
~Coverage sq ft/gal (m^2/L)	**45** (1.1)	**131** (3.2)
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NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Drying Schedule @ 20 mils wet (500 microns):

	@ 50°F/10°C	@ 77°F/25°C *85% RH*	@ 140°F/60°C
To touch:	5 hours	4 hours	1 hour
To recoat:			
minimum:	8 hours	3 hours	1 hour
maximum:	14 days	14 days	Not Reccomended
Cure to Service:	7 days	24 hours	4 hours

If maximum recoat time is exceeded, abrade surface before recoating.

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

Pot Life: 35 minutes @ 75°F/24°C

Sweat-in-time: None required

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 MEK or Acetone. Clean tools immediately after use with MEK or Acetone. Follow manufacturer's safety recommendations when using any solvent.

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PERFORMANCE TIPS

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

SAFETY PRECAUTIONS

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