



Protective & Marine Coatings

ENVIROLASTIC® 840 DTM HIGH GLOSS POLYASPARTIC URETHANE

PART A
PART B

B65-840
B65V840

SERIES
HARDENER

Revised: July 12, 2022

PRODUCT INFORMATION

5.51

PRODUCT DESCRIPTION

ENVIROLASTIC 840 DTM HIGH GLOSS URETHANE is a two-component, fast-dry, direct-to-metal polyaspartic urethane finish with outstanding exterior durability.

- Good color and gloss retention
- Fast dry
- Corrosion resistance
- Chemical resistance
- High gloss Distinctness of Image (DOI)
- <200 g/L

PRODUCT CHARACTERISTICS

Finish:	High gloss, 85+ units @ 60 degrees
Color:	Extra White and Ultradeep tint bases, other colors available upon request
Volume Solids:	56%, ± 2%, mixed
Weight Solids:	63%, ± 2%, mixed
VOC (EPA Method 24):	<200 g/L; 1.67 lb/gal, mixed
Mix Ratio:	2:1 by volume

Recommended Spreading Rate per coat*:

	Minimum	Maximum
Wet mils (microns)	5.5 (138)	9.0 (225)
Dry mils (microns)	3.0 (75)	5.0 (125)
~Coverage sq ft/gal (m ² /L)	179 (4.4)	299 (7.3)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	896 (22.0)	

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

*See Application Procedures section.

Drying Schedule @ 10.0 mils (250 microns) wet:

	@ 50°F/10°C	@ 77°F/25°C 50% RH	@ 120°F/49°C
To touch:	1.5 hours	20 minutes	15 minutes
To handle:	3 hours	2 hours	1 hour
To recoat:			
minimum:	1.5 hours*	20 minutes*	15 minutes*
maximum:	24 hours	24 hours	24 hours
To cure:	7 days	4 days	2 days

*Required: Apply a tack coat of ~1 mil (25 microns) wet. Wait min. 2 minutes before applying full coat. A second coat, if required, can be applied after 20 minutes @ 77°F/25°C following the same procedure. If maximum recoat time is exceeded, abrade surface before recoating.

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

Pot Life: 2 hours 1 hour 30 minutes

Pot life is temperature and humidity dependent.

Sweat-in-Time: None required

Shelf Life: Part A: 24 months
Part B: 12 months
Store indoors at 40°F (4.5°C) to 100°F (38°C)

Flash Point: Part A: 55°F (13°C), PMCC
Part B: 80°F (27°C)

Reducer: None required

Clean Up: MEK (R6K10)

RECOMMENDED USES

- Frac tanks
- Tank exteriors
- Structural steel
- Designed for new construction and refurbishment
- Suitable for use in USDA inspected facilities
- Production equipment
- Transport trailers
- Rolling stock

PERFORMANCE CHARACTERISTICS

Substrate*: Steel

Surface Preparation*: SSPC-SP6/NACE 3

System Tested*:

1 ct. Envirolastic 840 DTM @ 3.0-5.0 mils (75-125 microns) dft/ct

*unless otherwise noted below

Test Name	Test Method	Results
Adhesion	ASTM D4541	568 psi
	ASTM D6677	Rating 10
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 Kg load	180 mg loss
Flexibility	ASTM D522, 180° bend, 1/4" mandrel	Passes
Moisture Condensation Resistance	ASTM D4585, 1000 hours	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting
Pencil Hardness	ASTM D3363	HB
Salt Fog Resistance	ASTM B117, 1000 hours	Rating 10 per ASTM D714 for blistering; Rating 10 per ASTM D610 for rusting



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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Steel:		
1 ct.* Envirolastic 840 DTM Urethane	3.0-5.0	(75-125)
Steel:		
1 ct. Industrial Wash Primer,	.2-.4	(5-10)
1 ct. Envirolastic 840 DTM,	3.0-5.0	(75-125)

*Required: Apply a tack coat of ~1 mil (25 microns) wet. Wait min. 2 minutes before applying full coat. A second coat, if required, can be applied after 20 minutes @ 77°F/25°C following the same procedure.

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: SSPC-SP6, 1.5-2 mils (38-50 microns) profile

Surface Preparation Standards

Condition of Surface	ISO 8501-1 BS7079:A1	Swedish Std. SIS055900	SSPC	NACE
White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
Brush-Off Blast	Sa 1	Sa 1	SP 7	4
Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
Power Tool Cleaning	Pitted & Rusted D St 3	D St 3	SP 3	-

TINTING

Tint at ~100% tint strength with Maxitoner Colorants. Extra White maximum 2.5 oz./gallon, mixed. Ultra Deep maximum 8oz./gallon, mixed.

APPLICATION CONDITIONS

Temperature: 35°F (1.6°C) minimum, 120°F (49°C) maximum
(air, surface, and material)
At least 5°F (2.8°C) above dew point

Relative Humidity: 85% maximum

ORDERING INFORMATION

Packaging:

Part A: 3.33 gallons (12.59L)
Part B: 1.67 gallon (6.31L)

Weight: 12.1 ± 0.2 lb/gal ; 1.45 Kg/L, mixed
(may vary with color)

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

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.

DISCLAIMER

The systems listed above are representative of the product's use, other systems may be appropriate. Please contact Sherwin-Williams for compatibility questions.

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APPLICATION BULLETIN

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(air, surface, and material)
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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.

ReducerNone required

Clean UpMEK (R6K10)

Airless Spray

Unit.....30:1
Pressure.....1500-2400 psi
Hose.....1/4" or 3/8" ID
Tip011"-.015"
Filter120 mesh
Reduction.....Not recommended

Conventional Spray

GunBinks 95
Fluid Nozzle66
Air Nozzle.....63PB
Atomization Pressure.....40-60 psi
Fluid Pressure.....20-25 psi
Reduction.....Not recommended
(if needed use up to 3% R7K111. Over reduction can lead to poor sag control.)

Brush (small areas only)

Brush.....Natural Bristle

Roller (small areas only)

Cover1/4" woven with solvent resistant core

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

Surface Preparation Standards

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White Metal	Sa 3	Sa 3	SP 5	1
Near White Metal	Sa 2.5	Sa 2.5	SP 10	2
Commercial Blast	Sa 2	Sa 2	SP 6	3
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Hand Tool Cleaning	C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Rusted	C St 3	C St 3	SP 3	-
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APPLICATION PROCEDURES

Surface preparation must be completed as indicated.

Mix contents of each component thoroughly with low speed power agitation. Make certain no pigment remains on the bottom of the can. Then combine two parts by volume of Part A with one part by volume of Part B. Thoroughly agitate the mixture with power agitation. Re-stir before using.

Required: Apply a tack coat of ~1 mil (25 microns) wet. Wait min. 2 minutes before applying full coat. A second coat, if required, can be applied after 20 minutes @ 77°F/25°C following the same procedure.

If reducer solvent is used, add only after both components have been thoroughly mixed.

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

Recommended Spreading Rate per coat*:

	Minimum	Maximum
Wet mils (microns)	5.5 (138)	9.0 (225)
Dry mils (microns)	3.0 (75)	5.0 (125)
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Drying time is temperature, humidity, and film thickness dependent.

Pot Life: 2 hours 1 hour 30 minutes

Pot life is temperature and humidity dependent.

Sweat-in-Time: None required

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

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PERFORMANCE TIPS

When using spray application, use a 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. If necessary, cross spray at a right angle.

Excessive reduction of material can affect film build, appearance, adhesion, and performance.

Do not apply the material beyond recommended pot life.

Do not use Quik-Thane Urethane Accelerator.

Do not mix previously catalyzed material with new.

Not intended for use with universal primers

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with MEK (R6K10).

Mixed coating is sensitive to water. Use water traps in all air lines. Moisture contact can reduce pot life and affect gloss and color.

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

CLEAN UP INSTRUCTIONS

Clean spills and spatters immediately with MEK, R6K10. Clean tools immediately after use with MEK, R6K10. Follow manufacturer's safety recommendations when using any solvent.

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