Protective & Marine Coatings

ENVIROLASTIC® CR965

PART A	B81V4355	ISOCYANATE SERIES
PART B	B81-4350	

Revised: July 7, 2025

PRODUCT INFORMATION

TRM.57

PRODUCT DESCRIPTION

ENVIROLASTIC CR965 is a 100% solids spray applied, aromatic polyurea coating and lining system, which exhibits extraordinary toughness and elastomeric performance characteristics. CR965 can be applied at thicknesses of 30-250 mils in multiple passes during a single application.

- Fast cure - short down time
- Low odor
- Seamless flexible and waterproof
- Impact, tear,and abrasion resistant
- Bridges moving cracks to 1/16"
- Retains physical properties at -20°F to 250°F dry heat

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Select colors available
Volume Solids:	100%
VOC (calculated)	<50 g/L ; 0.42 lb/gal
Mix Ratio:	1:1 by volume

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**30.0** (750)	**250** (6250)
Dry mils (microns)	**30.0** (750)	**250** (6250)
~Coverage sq ft/gal (m^2/L)	**6** (0.152)	**53** (1.35)

Drying Schedule @ 30.0 mils wet (750 microns):

	@ 73°F/23°C *50% RH*
To touch:	20 seconds
To recoat:	
minimum:	20 seconds
maximum:	16 hours
Gel Time:	10 seconds
Tack Free:	20 seconds
Light Traffic:	2 hours
To cure:	
Service:	24 hours

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

Pot Life:	None
Sweat-in-time:	None
Viscosity (mixed):	550 cps

Shelf Life:	12 months, unopened Store indoors at 40°F (4.5°C) to 110°F (43°C).
Flash Point:	200°F (93°C),
Reducer:	Not recommended
Clean up*:	MEK

*see Application Equipment section on Page 3

RECOMMENDED USES

Designed for use in immersion or atmospheric exposure as a tough, flexible, impact resistant, waterproof coating and lining system.

Ideally suited for use in areas to include:
- Tunnels
- Below grade waterproofing
- Geotextile linings (geo membrane)
- Secondary containment
- Basins, Ponds, and reservoirs
- Water and waste water
- Suitable for use in USDA inspected facilities

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1000 g	17.53 mg loss
Adhesion	ASTM D4541	350 psi, Concrete Failure 566 psi Steel 250 psi Wood Failure
Durometer Hardness	ASTM D2240 Shore D	22
Tear Strength	ASTM D634	265 lbf/in
Tensile Elongation	ASTM D638	270%
Tensile Modulus	ASTM D 638	100% modulus - 800 psi 300% modulus - 1,500 psi
Tensile Strength	ASTM D638	511 psi
Water Vapor	ASTM D1653-03, Method A (dry cup), Condition A; ASTM E96-00 Desiccant Method, Procedure A	105 mils (2625 microns), 77°F (25°C), 50% RH, 0.409 grains/hr ft^2 in Hg

continued on back

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RECOMMENDED SYSTEMS

		Dry Film Thickness / ct. Mils	(Microns)
Steel (coatings and linings):			
1 ct.	EnviroLastic CR965	60.0 - 80.0 mils dft*	
Steel, with hold primer (coatings and linings):			
1 ct.	Macropoxy 240	1.0 - 1.5 mils dft	
1 ct.	EnviroLastic CR965	30.0 - 250 mils dft*	
Concrete (coatings and linings):			
1 ct.	Corobond HS Epoxy Primer	3.0 - 4.0 mils dft	
1 ct.	EnviroLastic CR965	30.0 - 250 mils dft*	
Concrete or Steel, low temperature or Fast set:			
1 ct.	Macropoxy 646	3.0 - 8.0 mils dft	
or			
1 ct.	Dura-Plate 235	3.0 - 8.0 mils dft	
1 ct.	EnviroLastic CR965	30.0 - 250 mils dft*	
Geotextile Lining (earthen base)			
1 ct.	Geo textile non-woven poly propylene, 3 - 4 oz Amoco " Petromat," style 4599		
1 ct.	EnviroLastic CR965	30.0 - 250 mils dft*	

*Note: When using as a lining in immersion service, a minimum thickness of 60 mils is required. Refer to Performance Tips section.

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

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-SP10/NACE 2, 2 mil profile
- Immersion: SSPC-SP10/NACE 2, 3 mil profile

Concrete & Masonry:
Sandblast or shotblast to remove all laitance and achieve a profile equal to 80-100 grit sandpaper.

Refer to SSPC-SP13/NACE 6 or ICRI Guide 310.2R

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:
- Material*: 120°F minimum, 160°F maximum
- Air and surface: -20°F minimum, 120°F maximum
  At least 5°F above dew point

Relative humidity: 80% maximum

*Temperature needed may vary from Part A to Part B for better balance of dynamic pressures

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:
- Part A: 54.47 gallon filled drums
- Part B: 54.47 gallon filled drums

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.

DISCLAIMER

WARRANTY

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APPLICATION BULLETIN

TRM.57

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.

Iron & 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. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (3 mils). Remove all weld spatter and round all sharp edges by grinding. Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Iron & Steel (atmospheric 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. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (2 mils).Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Poured Concrete

New

For surface preparation, refer to SSPC-SP13/NACE 6. Surface must be clean, dry, sound, and offer sufficient profile to achieve adequate adhesion. Minimum substrate cure is 28 days at 75°F. Remove all form release agents, curing compounds, salts, efflorescence, laitance, and other foreign matter by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Refer to ASTM D4260. Rinse thoroughly to achieve a final pH between 10.0 and 13.0. Allow to dry thoroughly prior to coating.

Old

Surface preparation is done in much the same manner as new concrete; however, if the concrete is contaminated with oils, grease, chemicals, etc., they must be removed by cleaning with a strong detergent. Refer to ASTM D4258. Form release agents, hardeners, etc. must be removed by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. If surface deterioration presents an unacceptably rough surface, Steel-Seam FT910 is recommended to patch and resurface damaged concrete.

Fill all cracks, voids and bugholes with Steel-Seam FT910.

Always follow the ASTM methods listed below:

ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F 1869 Standard Test Method for Measuring Moisture Vapor Emmission Rate of Concrete

Immersion Service:

In addition to the above surface preparation, Brush Blasting of the concrete surface is required.

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:	
Material*:	120°F minimum, 160°F maximum
Air and surface:	-20°F minimum, 120°F maximum
	At least 5°F above dew point
Relative humidity:	80% maximum

*Temperature needed may vary from Part A to Part B for better balance of dynamic pressures

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 compatible with the existing environmental and application conditions.

Reducer .....Not recommended

Clean-up .....MEK

Equipment not used for 3 months or more should be flushed and left with Butyl Cellusolve™ inside and sealed.

Plural Component Heated Spray Equipment:

Equipment.....1:1 Heated Plural Component Proportioner capable of at least 2500 psi
Gun .....mechanical, air, or solvent purged impingement mix gun
Min Impingement
Port Size .....020 in. (0.50 mm)
Fluid Pressure.....2200 psi
Air Pressure .....100 psi
Inlet Strainer Screen .....30 mesh
Gun Screen.....80 mesh

If specific application equipment is listed above, equivalent equipment may be substituted. Consult your Sherwin-Williams Technical Service representative for specific equipment recommendations.

continued on back

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TRM.57

APPLICATION PROCEDURES

Surface preparation must be completed as indicated. Route and seal all cracks greater than 1/16" with EnviroLastic JS80 SL

Mixing Instructions:
Agitate resin blend (B) component thoroughly with a drum mixer before use to disperse pigment and assure homogeneity. Do not thin. Do not mix "A" and "B" resins together. **Caution: Do not agitate in air and moisture.**

Apply coating/lining at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	**30.0** (750)	**250** (6250)
Dry mils (microns)	**30.0** (750)	**250** (6250)
~Coverage sq ft/gal (m^2/L)	**6** (0.152)	**53** (1.35)

Drying Schedule @ 30.0 mils wet (750 microns):

	@ 73°F/23°C *50% RH*
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maximum:	16 hours
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Tack Free:	20 seconds
Light Traffic:	2 hours
To cure:	
Service:	24 hours

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

Pot Life:	None
Sweat-in-time:	None
Viscosity (mixed):	550 cps

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. Clean tools and equipment immediately after use (including both A & B sides of plural component spray system) with MEK. Equipment not used for 3 months or more should be flushed and left with Butyl Cellusolve™ inside and sealed.

DISCLAIMER

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 Information and Application Bulletin.

PERFORMANCE TIPS

For concrete, appropriate moisture testing should be conducted prior to applying the coating.

**Where primers are used, do not fill the profile on concrete or steel with excess primer. Topcoat epoxy primers immediately after they become tack free. "Tack free" is defined as slight to medium pressure with a gloved hand, placed on a primed surface, that when lifted shows a slight imprint or distortion to the surface, with no transfer of primer to the glove.

For immersion applications, a minimum total dry film thickness of 40 mils on steel and 60 mils on concrete is required.

For Immersion Service: Spark test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete. Repair holidays found in accordance with these ASTM methods.

May be applied in one or two coats to achieve the recommended film thickness.

For steel, stripe coat all chine, welds, bolted connections, and sharp angles to prevent early failure in these areas. For concrete, all cracks must receive a 6" wide by 30 mil dft detail coat.

Use only heated, plural component equipment capable of producing 2,500 psi at 160°F and 2 gallon/minute output consistently.

In order to avoid blockage of spray equipment, clean equipment before use or before periods of extended downtime with MEK. Equipment not used for 3 months or more should be flushed and left with Butyl Cellusolve™ inside and sealed.

While spraying, 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.

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.

Do not agitate in air and moisture.

Consult your Sherwin-Williams representative for specific application and performance recommendations.

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

SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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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.