



Protective & Marine Coatings

ENVIROLASTIC® AR530 BRUSH GRADE

PART A
PART B

B81V4100
B81-4100

ISOCYANATE
SERIES

Revised: May 6, 2016

PRODUCT INFORMATION

TRM.81

PRODUCT DESCRIPTION

ENVIROLASTIC AR530 BRUSH GRADE is a high solids, fluid applied polyurea elastomer repair material that is based on proprietary polyurea formulation and a modified amine curing mechanism. It can be applied at thicknesses of 10-250 mils (250-6250 microns) in consecutive multiple applications.

- Fast cure short downtime
- Low VOCs and low odor
- Seamless flexible and waterproof
- Bridges moving cracks to 1/8"
- Retains physical properties at -20°F (-29°C) to 250°F (121°C)

PRODUCT CHARACTERISTICS

Finish:	Semi-Gloss
Color:	Select colors available
Volume Solids:	100%
VOC (calculated):	0
Mix Ratio:	1:1

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	10.0 (250)	250.0 (6250)
Dry mils (microns)	10.0 (250)	250.0 (6250)
~Coverage sq ft/gal (m ² /L)	6 (0.15)	160 (3.9)
Theoretical coverage sq ft/gal (m ² /L) @ 1 mil / 25 microns dft	1600 (39.2)	

NOTE: May require multiple coats.

Drying Schedule @ 15.0 mils wet (375 microns):

@ 73°F/23°C
50% RH

To touch:	20 minutes
To recoat:	
minimum:	20 minutes
maximum:	16 hours
Gel time:	5 minutes
Tack free:	20 minutes
Light traffic:	1 hour
Vehicular traffic:	2 hours
To cure:	24 hours

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

Pot Life:	3-5 minutes
Sweat-in-time:	None

Shelf Life:	12 months, unopened Store indoors at 70°F (21°C) to 90°F (32°C).
Flash Point:	200°F (93°C)
Viscosity (mixed):	300 cps
Reducer:	Not recommended Butyl Cellusolve™ (R6K25) or Dowanol PM™
Clean Up:	

RECOMMENDED USES

Designed for use as a repair material for polyurea coatings and linings in immersion and atmospheric applications.

Ideally suited for use on systems such as:

- Tank linings
- Secondary containment
- Hopper and tank car linings
- Waterproof deck coatings
- Industrial floor and walls
- Chimney seals in manholes
- Acceptable for use in USDA inspected facilities

PERFORMANCE CHARACTERISTICS

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060	1000 g 1000 cycles CS-17: 5 mg loss
Adhesion	ASTM D4541	Concrete - 350 psi; Steel - 850 psi; Wood - 250 psi
Coefficient of Linear Thermal Expansion	ASTM C531 (in/in°F)	4 x 10 ⁻⁵
Crack Bridging (@ -26°C (-15°F) @ 1/8")	ASTM C836	Pass
Durometer Hardness	ASTM D2240	Shore D-50
Gardner Impact	ASTM D2794 (1/32" steel panels)	>160 in-lbs, direct and indirect
Mandrel Bend	ASTM D522 Conical Bend (1/32" steel panel)	Pass
Tear Strength	ASTM D624	525 pli
Tensile Elongation	ASTM D638	530%
Tensile Modulus	ASTM D638	100% Modulus - 1,400 psi; 300% Modulus - 1,800 psi
Tensile Strength	ASTM D638	2,440 psi



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RECOMMENDED SYSTEMS

	Dry Film Thickness / ct.	
	Mils	(Microns)
Steel:		
EnviroLastic AR530 Brush Grade	10.0-250.0*	(250-6250)*
Concrete, low temperature or fast set:		
**1 ct. Corobond LT Epoxy Primer	4.0-8.0	(100-200)
EnviroLastic AR530 Brush Grade	10.0-250.0*	(250-6250)*

*Number of coats depends on depth of repair.

**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, 3 mil (75 micron) profile	
Immersion:	SSPC-SP10/NACE 2, 3 mil (75 micron) profile	
Concrete & Masonry:		
	SSPC-SP13/NACE 6 or ICRI No. 310.2R., CSP 3-5	

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	Rusted C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted C St 3	C St 3	SP 3	-
	Pitted & Rusted D St 3	D St 3	SP 3	-

TINTING

Do not tint.

APPLICATION CONDITIONS

Temperature:	
Material:	60°F (16°C) minimum, 120°F (49°C) maximum
Air and surface:	-20°F (-29°C) minimum, 120°F (49°C) maximum At least 5°F (2.8°C) above dew point
Relative humidity:	80% maximum

Refer to product Application Bulletin for detailed application information.

ORDERING INFORMATION

Packaging:	
Part A:	5 gallons (18.9L)
Part B:	5 gallons (18.9L)

SAFETY PRECAUTIONS

Refer to the MSDS 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

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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.

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/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (3 mils / 75 microns). Remove all weld spatter and round all sharp edges. 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/NACE 2. Blast clean all surfaces using a sharp, angular abrasive for optimum surface profile (3 mils / 75 microns). Prime any bare steel the same day as it is cleaned or before flash rusting occurs.

Concrete and Masonry

For surface preparation, refer to SSPC-SP13/NACE 6, or ICRI No. 310.2R, CSP 3-5. Surfaces should be thoroughly clean and dry. Concrete and mortar must be cured at least 28 days @ 75°F (24°C). Remove all loose mortar and foreign material. Surface must be free of laitance, concrete dust, dirt, form release agents, moisture curing membranes, loose cement and hardeners. Fill bug holes, air pockets and other voids with Steel-Seam FT910. Primer required.

Follow the standard methods listed below when applicable:

ASTM D4258 Standard Practice for Cleaning Concrete.
ASTM D4259 Standard Practice for Abrading Concrete.
ASTM D4260 Standard Practice for Etching Concrete.
ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete.
SSPC-SP 13/Nace 6 Surface Preparation of Concrete.
ICRI No. 310.2R Concrete Surface Preparation.

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 3-5.

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	Rusted C St 2	C St 2	SP 2	-
Pitted & Rusted	D St 2	D St 2	SP 2	-
Power Tool Cleaning	Rusted C St 3	C St 3	SP 3	-
Pitted & Rusted	D St 3	D St 3	SP 3	-

APPLICATION CONDITIONS

Temperature:
Material: 60°F (16°C) minimum, 120°F (49°C) maximum
Air and surface: -20°F (-29°C) minimum, 120°F (49°C) maximum
At least 5°F (2.8°C) above dew point
Relative humidity: 80% 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.

Reducer Not recommended

Clean-up Butyl Cellulosolve™ (R6K25) or Dowanol PM™

Plural Component Dual Feed Metering Equipment:

Equipment..... AST GMP-075 "Big Pro"
Static mixer 1/2" dia, 32 element
Reduction..... Not recommended

Plural Component Air Powered Caulk Guns:

Static mixer 1/2" dia, 32 element
Reduction..... Not recommended

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: For small repair areas, combine one Part B resin to one Part A ISO for each 1 pint batch. Do not pre-mix either component. Always add the Part B resin to the Part A ISO. Mix with margin trowel for 15 to 30 seconds until uniform. For large repair areas use plural component equipment.

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

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	10.0 (250)	250.0 (6250)
Dry mils (microns)	10.0 (250)	250.0 (6250)
~Coverage sq ft/gal (m ² /L)	6 (0.15)	160 (3.9)
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NOTE: May require multiple coats.

Drying Schedule @ 15.0 mils wet (375 microns):

@ 73°F/23°C
50% RH

To touch:	20 minutes
To recoat:	
minimum:	20 minutes
maximum:	16 hours
Gel time:	5 minutes
Tack free:	20 minutes
Light traffic:	1 hour
Vehicular traffic:	2 hours
To cure:	24 hours

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

Pot Life:	3-5 minutes
Sweat-in-time:	None

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 Butyl Cellulosolve™ (R6K25) or Dowanol PM™. Clean tools and equipment immediately after use (including both "A" and "B" sides of plural component spray system) with Butyl Cellulosolve™ (R6K25) or Dowanol PM™.

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PERFORMANCE TIPS

For concrete, always perform Calcium Chloride test as per ASTM F1869. Do not proceed with MVE >3 lbs.

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 (1500 microns) on concrete is required.

For Immersion Service: (if required) Holiday test in accordance with ASTM D5162 for steel, or ASTM D4787 for concrete.

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 (750 micron) dft detail coat.

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.

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

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

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