

# **Protective Marine Coatings**



# POLY-COTE™ 115

PART A PART B B65V115 B65-115 B65-K115

**ISOCYANATE** SERIES FIELD REPAIR KIT

Revised: January 3, 2024

#### PRODUCT INFORMATION

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#### PRODUCT DESCRIPTION

POLY-COTE 115 is a flexible two component polyurethane coating formulated to provide optimal build properties, good recoatability properties and aesthetic properties. The required coating thickness can be applied in one coat – even on seams, welds, and rivets. It is a 100% solids, elastomeric, aromatic polyurethane formulated without solvents.

- Low permeability improves life cycle performance and corrosion
- Chemical resistant resistant to a broad spectrum of acidic and caustic chemicals
- Abrasion & Impact resistant reduces the need for field touch-up caused by damage from handling, transporting, and installation; Increases life cycle due to reduced abrasion and impact from foreign materials.
- foreign materials.

  Excellent adhesion exceeds 1,500 psi on properly prepared steel Good Flexibility Prevents fractures in the film caused by flexing during transportation and installation High film build properties achieve specified DFT's in a single coat even are sharp edges and angles

  Easily maintained repairs can be completed quickly with the use of the Poly-Cote 115FR Field Repair Kit

  Extended recoatability accommodates tie-ins, repairs, and low film build areas with a 48 hour recoat window

#### PRODUCT CHARACTERISTICS

Color: Beige, Gray, Black, and Blue

Finish: Gloss **Volume Solids:** 100% mixed

VOC: No measurable VOC levels

Mix Ratio: 1A:3B by volume

#### Recommended Spreading Rate per coat:

	Mini	imum	Max	imum
Wet mils (microns)	20.0	(500)	>500*	(12,500)
Dry mils (microns)	20.0	(500)	>500*	(12,500)
~Coverage sq ft/gal** (m²/L)	3	(0.07)	80	(1.96)

Theoretical coverage sq ft/gal **1600** (39.2) (m2/L) @ 1 mil / 25 microns dft

\*250 mils (6250 microns) maximum for NSF applications, 26 mils (650 microns) maximum for FDA applications

\*\*For Poly-Cote 115FR, approximate coverage is 30 sq ft/gal (0.74  $ext{m}^2/ ext{L}$ )

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

#### **Drying Schedule:**

	@ 45°F//°C	@ 75°F/24°C	@ 105°F/41°C
Tack free:	6 hours	2 hours	1 hour
To recoat:	< 48 hours	< 48 hours	< 48 hours
To handle:	36 hours	12 hours	6 hours
Immersion*:	24 hours	12 hours	6 hours

\*72 hours @ 75°F/24°C for NSF applications

f maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent. Pot life: 12-15 minutes @ 75°F/24°C

Shelf Life: 12 months, unopened Store indoors at 40°F (4.5°C) to 100°F (38°C)

Flash Point: 428°F (220°C) Reducer: Not recommended

#### RECOMMENDED USES

- Water Conveyance Piping
- Water & Wastewater Market
- Mining
- Rail
- Pulp & Paper Industry
- Transmission Poles
- Meets AWWA C222-18
- Meets USDA requirement for incidental contact

According to FDA Regulation 175.300, this product (Blue ONLY) is suitable for use on surfaces intended for use in the production, manufacturing, packing, processing, treating, transporting or storage of dry food at ambient temperatures when applied as a continuous film.

Certified through NSF in accordance with NSF/ANSI/Can Std. 61 and the extractions requirements of NSF/ANSI/CAN 600.

#### Performance Characteristics

Test Name	Test Method	Results
Abrasion Resistance	ASTM D4060, CS17 wheel, 1000 cycles, 1 kg load	<100 mg loss
Adhesion	ASTM D4541; Annex A.4 (Test Method E)	>1500 psi
	ASTM D6677	Rating - 10
Cathodic Disbondment	ASTM G95, mtd A -1.5V, 30 days	<12 mm radius
Chemical Resistance	ASTM D543	10% H <sub>2</sub> SO <sub>4</sub> <5% 30% NaCl <5% 30% NaOH <5% Diesel Fuel <5%
Dielectric Strength	ASTM D149	>250 V/mil
Elongation	ASTM D412	>40%
Flexibility (75 mils)	ASTM D522, 3" mandrel	No cracking or delamination
Hardness, Durometer	ASTM D2240	>65, Shore D
Impact Resistance	ASTM G14	>75 in-lbs
Service Temperature	Dry - Continuous: -40°F (-40°C) to 200°F (93°C Maximum Surge: 350°F (177°C) Immersion - Insulated (max): 140°F (60°C Non-Insulated: 120°F (49°C)	
Severe Wastewater Analysis Test	ASTM G210	<20% reduction from initial to final EIS values
Tensile Strength	ASTM D412	>2500 psi
Water Absorption	ASTM D570	<2%
Water Vapor Permeability	ASTM E96	0.09 inch-pounds @ 53 mils (1,325 microns)



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#### RECOMMENDED SYSTEMS

**PRIMERS** Steel:

Self-priming or Corothane I GalvaPac

**Galvanized Steel:** Self-priming

Ductile Iron Pipe: Self-priming Concrete & Masonry: Macropoxy 5000, Corobond 100 or SherPlate 600\*

	Dry Film T Mils	hickness / ct (Microns)
<b>Steel, Immersion: AWWA C222-18</b> 1 ct. Poly-Cote 115	20.0	(500)
Steel, Immersion: AWWA D102 1 ct. Corothane I GalvaPac (optional 1 ct. Poly-Cote 115	) 2.5 25.0	(63) (625)
<b>Galvanized, Immersion</b> 1 ct. Poly-Cote 115	20.0	(500)
<b>Ductile Iron, Immersion</b> 1 ct. Poly-Cote 115	20.0	(500)
Field Repair, Immersion 2 cts. Poly-Cote 115	25.0	(625)

#### Approved NSF System:

Concrete & Masonry, Immersion (Potable Water)

SherPlate 600 3.0-18.0 (75-450)1 ct Poly-Cote 115 60.0-80.0 (1500-2000) 1 ct.

#### Non-NSF Applications only: Concrete & Masonry, Immersion

Thick Film / Severe Service\*\*:

1 ct. Macropoxy 5000 (Clear)\*\*\* - 400-500 sq ft/gal (9.8-13.0 m²/L) Poly-Cote 115 80.0-250.0 (2000-6250) 1 ct.

#### Concrete & Masonry, Immersion Medium Film / Moderate Service\*\*:

Macropoxy 5000 (Clear)\*\*\* - 400-500 sq ft/gal (9.8-13.0 m²/L) 40.0-80.0 (1000-2000) Poly-Cote 115 1 ct.

#### Concrete & Masonry, Immersion

1 ct.	Corobond 100****	4.0-6.0	(100-150)
1 ct.	Poly-Cote 115	60.0	(1500)

<sup>\*\*</sup>consult your Sherwin-Williams representative for immersion suitability
\*\*\*primer has a maximum 7 day recoat window with Poly-Cote 115
\*\*\*\*primer has a maximum 5 day recoat window with Poly-Cote 115

#### **TOPCOATS**

Approved aliphatic urethanes. Contact your Sherwin-Williams representative for more information.

#### 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.

#### 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

Minimum recommended surface preparation:

Large parts/structures (>50 ft²): SSPC-SP10/NACE No. 2, minimum 3 mil (75 micron) angular profile SSPC-SP11

**Ductile Iron Pipe:** 

NAPF 500-03-03 Power Tool Cleaning NAPF 500-03-04 Abrasive Blast Cleaning NAPF 500-03-05 Abrasive Blast Cleaning Atmospheric: Buried & Immersion: Cast Ductile Iron Fittings:

Concrete & Masonry: SSPC-SP13/NACE No. 6 or SSPC-SP CAB1

minimum surface profile of ICRI 310.2R-CSP 3-5

**Surface Preparation Standards** 

•	Condition of Surface	ISO 8501-1 BS7079:A1	SSPC	NACE
White Metal Near White Metal		Sa 3 Sa 2.5	SP 5 SP 10	1 2
Commercial Blast Brush-Off Blast	Don't d	Sa 2 Sa 1	SP 6 SP 7	3 4
Hand Tool Cleaning	Rusted Pitted & Rusted		SP 2 SP 2	-
Power Tool Cleaning	Rusted Pitted & Rusted	C St 3 D St 3	SP 3 SP 3	-

#### Application Conditions

#### Poly-Cote 115:

Part A: 80°F (27°C) minimum, 160°F (71°C) maximum / 120°F (49°C) minimum, 160°F (71°C) Part B: maximum 120°F (49°C) minimum, 160°F (71°C) Hose: maximum 0°F (-18°C) minimum, 120°F (49°C) Air. maximum / 40°F (4.5°C) minimum, 140°F (60°C) Surface: maximum at least 5°F (2.8°C) above dew point

#### Poly-Cote 115FR:

Temperature: Part A and B: 60°F (16°C) minimum, 80°F (27°C) maximum 0°F (-18°C) minimum, 120°F (49°C) 40°F (4.5°C) minimum, 140°F (60°C) Surface: at least 5°F (2.8°C) above dew point

Relative humidity: 95% maximum

Refer to product Application Bulletin for detailed application information.

#### ORDERING INFORMATION

Packaging: Poly-Cote 115:

50 gallons (189L) in a 55-gallon (208L) size drum, 250 gallons (945L) in a 250-gallon (945L) size tote, and 5 gallons (18.9L) in a 5-gallon (18.9L) size pail. Two 0.5-gallon kits: two 1-gallon (3.78L) containers of Part B filled at 0.375 gallons (1.42L) each and two full-filled pint (0.125 gallons / 0.47L) containers of Part A ISO. Poly-Cote 115FR:

Weight: Part A:  $\begin{array}{c} 10.85 \pm 0.2 \; lb/gal \; ; \; 1.30 \; Kg/L \\ 10.3 \pm 0.15 \; lb/gal \; ; \; 1.23 \; Kg/L \\ 10.7 \pm 0.2 \; lb/gal \; ; \; 1.28 \; Kg/L \end{array}$ Part B: Mixed:

#### 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.

<sup>\*</sup>SherPlate 600 must be topcoated within 48 hours



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**ISOCYANATE** SERIES FIELD REPAIR KIT

Revised: January 3, 2024

## 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.

Remove all oil and grease from surface by Solvent Cleaning per SSPC-SP1. The substrate shall not contain soluble salt concentrations in excess of 3 ppm for chlorides, 5 ppm for nitrates, and 10 ppm for sulfates. Surface with soluble salt concentrations in excess of these values shall be cleaned until satisfactory results excess of these values shall be cleaned until satisfactory results are obtained. Minimum surface preparation for large surfaces shall be Near White Metal Blast Cleaning per SSPC-SP10/NACE No. 2. Blast clean all surfaces using sharp, angular abrasive for optimum surface profile (3 mils or greater average, with no individual reading being less than 2.5 mils per NACE RP0287). Small surface areas (<50 sq. ft.) shall be Power Tool Cleaned To Bare metal per SSPC-SP11. Grind all surfaces utilizing mechanical scarification capable of producing the greatest surface profile and shall be performed in a perpendicular pattern to the direction of flow on the substrate. Remove all weld spatter, smooth all rough welds, and round all sharp edges by grinding prior to abrasive blasting.

Existing coating shall be feathered 1.5 in. to 3 in. when coating adjacent bare steel, such as girth welds. Prior to coating, the applicator will tape off, using duct tape, a line between feathered coating and the remaining non-blasted coating and ensure the edge of tape is on the roughened coating.

Cleaned surface shall be dry air blasted and either brushed off or vacuumed, in a manner to remove dust and debris prior to coating, and shall be coated before any rust blooming occurs. Any cleaned steel showing rust stains shall be re-prepared prior to coating.

**Ductile Iron Pipe, Atmospheric Service:**Minimum surface preparation is Power Tool Clean per NAPF 500-03-03. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

**Ductile Iron Pipe, Buried and Immersion Service:** 

Minimum surface preparation is Abrasive Blast Cleaning per NAPF 500-03-04. Ductile iron pipe external surfaces, in some cases, can be damaged by excessive abrasive blast cleaning beyond this standard. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

**Ductile Iron Fittings:** 

Minimum surface preparation is Abrasive Blast Cleaning of Cast Ductile Iron Fittings per NAPF 500-03-05. Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

Concrete & Masonry
Minimum surface preparation shall be per SSPC-SP13/NACE No.
6 Concrete Surface Preparation or SSPC-SP CAB1. The prepared substrate shall have a minimum surface profile of ICRI 310.2R CSP 3-5. Primer application to concrete shall take place in the evening while the substrate temperature is falling to aid in the prevention of outgassing related problems. The primer shall be applied via brush and roller or spray applied and backrolled.

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

#### APPLICATION CONDITIONS

oly-Cote 115: emperature:	
Part A:	80°F (27°C) minimum, 160°F (71°C) maximum
Part B:	120°F (49°C) minimum, 160°F (71°C)
Hose:	120°F (49°C) minimum, 160°F (71°C) maximum
Air:	0°F (-18°C) minimum, 120°F (49°C)
Surface:	40°F (4.5°C) minimum, 140°F (60°C) maximum
oly-Cote 115FR:	at least 5°F (2.8°C) above dew point
omporaturo:	

Temperature: Part A and B: 60°F (16°C) minimum, 80°F (27°C) maximum

0°F (-18°C) minimum, 120°F (49°C) maximum 40°F (4.5°C) minimum, 140°F (60°C) Surface:

maximum at least 5°F (2.8°C) above dew point

Relative humidity: 95% 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.

Reducer	Not recommended
Clean Up	MEK R6K10
Purge Solvent	MEK R6K10

Recommended Spray Equipment\*

Pneumatic Spray Pump......Graco Hydra-Cat with a King Air
Motor or XP 50 or larger system with remote manifold

Hydraulic Spray

Pump......Graco/Reactor or HXP3 system with #120 (resin) and #40 (Activator) cylin-Transfer Pumps 5:1 Graco Monark or larger
Pressure 2000 psi at gun pressure
Hose 3/8" Resin, 1/4" Isocyanate, 1/4" whip
hose from mixing manifold to gun, 25'
maximum whip hose length with 3/8"

Y 5" to the mixing tubes with a 1/8 length of the control of the co X 5" static mixing tubes with a 12 element disposable plastic insert. Tip ......0.021" minimum

Conventional Spray......Not recommended

Brush\*\* ..... Repairs and touch only\*\*

\*Application training is required and spray equipment must be approved by Sherwin-Williams Technical Service.

\*\*For touch up and repair utilize Sherwin-William Poly-Cote 115FR.

If specific application equipment is not listed above, equivalent equipment may be substituted and must be approved by Sherwin-Williams Technical Service.



# Protective & Marine Coatings



# POLY-COTE™ 115

PART A PART B

B65V115 B65-115 B65-K115 ISOCYANATE SERIES FIELD REPAIR KIT

Revised: January 3, 2024

## APPLICATION BULLETIN

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#### **APPLICATION PROCEDURES**

Surface preparation must be completed as indicated.

**Mixing Instructions:** Agitate components thoroughly before use. Do not thin. Do not mix part A and B together (Except for Poly-Cote 115FR). Caution: Do not agitate at high speed or in a manner that would whip air or moisture in to the product. Both components should be heated to approximately 120°F (49°C) - 160°F (71°C) to achieve spray pattern consistency.

For Poly-Cote 115FR, agitate individual components for 3 minutes prior to combining them. Add the "B" Component to the "A" component and immediately agitate for 3 minutes. Immediately transfer the material from the container to the surface using the supplied brush like a spatula to get a large volume of material transferred to the substrate and then brush the material to a smooth appearance. Poly-Cote 115FR is intended to be applied in 2 coats. Apply the second coat while the first coat is still sticky but with no transfer of material onto your finger. (2 - 2.5 hours cure @ 75°F (24°C) approximate cure time).

Plural component application required for Poly-Cote 115, 1A:3B by volume

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

#### Recommended Spreading Rate per coat:

	Minimum		Maximum	
Wet mils (microns)	20.0	(500)	>500*	(12,500)
Dry mils (microns)	20.0	(500)	>500*	(12,500)
~Coverage sq ft/gal** (m²/L)	3	(0.07)	80	(1.96)
Theoretical coverage sq ft/gal	1600	(30.2)		

(m²/L) @ 1 mil / 25 microns dft 1600 (39.2) \*250 mils (6250 microns) maximum for NSF applications, 26 mils

(650 microns) maximum for FDA applications

\*\*For Poly-Cote 115FR, approximate coverage is 30 sq fl/gal (0.74 m<sup>2</sup>/L)

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

#### **Drying Schedule:**

	@ 45°F/7°C	@ 75°F/24°C	@ 105°F/41°C
Tack free:	6 hours	2 hours	1 hour
To recoat:	< 48 hours	< 48 hours	< 48 hours
To handle:	36 hours	12 hours	6 hours
Immersion*:	24 hours	12 hours	6 hours
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72 hours @ 75°F/24°C for NSF applications

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

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

Pot life: 12-15 minutes @ 75°F/24°C

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

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#### PERFORMANCE TIPS

For immersion applications, a minimum total dry film thickness of 20 mils (500 microns) for steel is required. Always spark test in accordance with NACE SP0188 for steel after application. Repair holidays prior to placing substrate into service using Poly-Cote 115FR.

Use only heated, plural component equipment capable of producing 4,000 psi output consistently.

In order to prevent blockage of spray equipment, clean equipment thoroughly before use. For extended downtime, flush thoroughly with MEK R6K10 and then fill lines with Butoxyethanol R6K25 for storage.

While spraying, use 50% overlap with each pass of the gun to avoid holidays, bare areas, and pinholes. All application shall be done in a manner that mitigates runs and sags and provides complete coverage on all surfaces, including difficult to spray areas like welds, seams and angles.

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, climatic conditions, and excessive film build.

Do not agitate in a manner that would whip air and moisture in to the product.

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

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

#### **CLEAN UP INSTRUCTIONS**

Clean spills and spatters immediately with MEK R6K10. Clean tools and equipment immediately after use (including both A and B sides of plural component spray system) with MEK R6K10.

#### SAFETY PRECAUTIONS

Refer to the SDS sheet before use.

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#### WARRANTY

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