POLY-COTE™ 115

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.

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:

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet mils (microns)</td>
<td>20.0</td>
<td>&gt;500*</td>
</tr>
<tr>
<td>Dry mils (microns)</td>
<td>20.0</td>
<td>&gt;500*</td>
</tr>
<tr>
<td>Coverage sq ft/gal** (m²/L)</td>
<td>3 (0.07)</td>
<td>80 (1.96)</td>
</tr>
</tbody>
</table>

*Theoretical coverage sq ft/gal (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 ft/gal (0.74 m²/L)

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

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
Cathodic Disbondment | ASTM G95, mtd A -1.5V, 30 days | <12 mm radius
Chemical Resistance | ASTM D543 | 10% H₂SO₄ <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)

Recommended Uses

- Water Conveyance Piping
- Water & Wastewater Market
- Mining
- Rail
- Pulp & Paper Industry
- Transmission Poles
- Meets AWWA C222
- 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.


*Excluding Blue
**See NSF website http://nsf.org for additional information

Performance Characteristics

Drying Schedule:

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**For Poly-Cote 115FR, approximate coverage is 30 sq ft/gal (0.74 m²/L)

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

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

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continued on back
**PRODUCT INFORMATION**

**Recommended Systems**

<table>
<thead>
<tr>
<th>PRIMERS</th>
<th>Steel- Immersion :AWWA C222</th>
<th>Steel- Immersion :AWWA D102</th>
<th>Galvanized, Immersion</th>
<th>Ductile Iron, Immersion</th>
<th>Field Repair, Immersion</th>
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<tr>
<td>Ductile Iron Pipe: Self-priming</td>
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</tbody>
</table>

*Dry Film Thickness / ct. (Mils / Microns)*

- Steel- Immersion :AWWA C222: 20.0 (400)
- Steel- Immersion :AWWA D102: 25.0 (625)
- Galvanized, Immersion: 20.0 (400)
- Ductile Iron, Immersion: 20.0 (400)
- Field Repair, Immersion: 25.0 (625)

**TOPCOATS**

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

**Advantages**

- Low permeability - improves life cycle performance and corrosion resistance.
- 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.
- 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 24 hour recoat window.

**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:
  - Steel: Large parts/structures (>50 ft²): SSPC-SP10/NACE No. 2, minimum 3 mil (75 micron) angular profile
  - Small area (<50 ft²): SSPC-SP11
  - Ductile Iron Pipe: Large parts/structures (>50 ft²): NAPF 500-03-04, minimum 3 mil (75 micron) angular profile
  - Small area (<50 ft²): NAPF 500-03-03

**Application Conditions**

**Poly-Cote 115:**
- Temperature:
  - Part A: 80°F (27°C) minimum, 160°F (71°C) maximum
  - Part B: 120°F (49°C) minimum, 160°F (71°C) maximum
  - Hose: 120°F (49°C) minimum, 160°F (71°C) maximum
  - Air: 0°F (-18°C) minimum, 120°F (49°C) maximum
  - Surface: 40°F (4.5°C) minimum, 140°F (60°C) 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
  - Air: 0°F (-18°C) minimum, 120°F (49°C) maximum
  - Surface: 40°F (4.5°C) minimum, 140°F (60°C) maximum
  - at least 5°F (2.8°C) above dew point
  - Relative humidity: 95% maximum

**ORDERING INFORMATION**

**Packaging:**
- Poly-Cote 115: 50 gallons (189L) in a 55-gallon (208L) size drum and 250 gallons (945L) in a 250-gallon (945L) size tote.
- Poly-Cote 115FR: 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.

**Weight:**
- Part A: 10.85 ± 0.2 lb/gal; 1.30 Kg/L
- Part B: 10.3 ± 0.15 lb/gal; 1.23 Kg/L
- Mixed: 10.7 ± 0.2 lb/gal; 1.28 Kg/L

**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.

**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.

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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**
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 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**
Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01. 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 are obtained. Minimum surface preparation for large surfaces shall be Abrasive Blast Cleaning for Ductile Iron Pipe per NAPF 500-03-04. Blast clean all surfaces using sharp, angular abrasive for optimum surface profile (3 mils / 75 microns or greater, with no individual reading being less than 2.5 mils / 63 microns per NACE RP0287). Small surface areas (<50 sq. ft.) shall be Power Tool Cleaned per NAPF 500-03-03. 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.

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**Application Conditions**

**Poly-Cote 115:**
- **Temperature:**
  - Part A: 80°F (27°C) minimum, 160°F (71°C) maximum
  - Part B: 120°F (49°C) minimum, 160°F (71°C) maximum
- **Hose:**
  - 0°F (-18°C) minimum, 120°F (49°C) maximum
- **Surface:**
  - 40°F (4.5°C) minimum, 140°F (60°C) maximum
- **Relative humidity:**
  - 95% maximum

**Poly-Cote 115FR:**
- **Temperature:**
  - Part A and B: 60°F (16°C) minimum, 80°F (27°C) maximum
  - Air: 0°F (-18°C) minimum, 120°F (49°C) maximum
- **Surface:**
  - 40°F (4.5°C) minimum, 140°F (60°C) maximum
- **Relative humidity:**
  - 95% maximum

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**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
- **Transfer Pumps:** 5:1 Graco Monark or larger
- **Pressure:** 2000 psi at gun pressure
- **Hose:** 3/8” Resin, ¼” Isocyanate, ¼” whip hose from mixing manifold to gun; 25’ maximum whip hose length with 3/8” X 5” static mixing tubes with a 12 element disposable plastic insert.
- **Tip:** 0.021” minimum

**Hydraulic Spray**
- **Pump:** Graco/Reactor or HXP3 system with #120 (resin) and #40 (Activator) cylinder setup
- **Transfer Pumps:** 5:1 Graco Monark or larger
- **Pressure:** 2000 psi at gun pressure
- **Hose:** 3/8” Resin, ¼” Isocyanate, ¼” whip hose from mixing manifold to gun; 25’ maximum whip hose length with 3/8” 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**

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

**For touch up and repair utilize Sherwin-Williams 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.

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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 on the surface. 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 or tacky, preventing complete cure (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:

| Wet mils (microns) | 20.0 (500) | >500* (12,500) |
| Dry mils (microns) | 20.0 (500) | >500* (12,500) |
| ~Coverage sq ft/gal** | 3 (0.07) | 80 (1.96) |
| Theoretical coverage sq ft/gal | 1600 (39.2) |

**For Poly-Cote 115FR, approximate coverage is 30 sq ft/gal (0.74 m²/L)

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

Drying Schedule:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Wet Mils</th>
<th>Dry Mils</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ 45°F/7°C</td>
<td>@ 75°F/24°C</td>
<td>@ 105°F/41°C</td>
<td></td>
</tr>
<tr>
<td>Tack free</td>
<td>6 hours</td>
<td>2 hours</td>
<td>1 hour</td>
</tr>
<tr>
<td>To recoat</td>
<td>&lt; 24 hours</td>
<td>&lt; 24 hours</td>
<td>&lt; 24 hours</td>
</tr>
<tr>
<td>To handle</td>
<td>36 hours</td>
<td>12 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>Immersion*</td>
<td>24 hours</td>
<td>12 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>*72 hours @ 75°F/24°C for NSF applications</td>
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</tbody>
</table>

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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POLY-COTE™ 115

APPLICATION BULLETIN 5.57

PART A B65V115
PART B B65-115
B65-K115

ISOCYANATE SERIES
FIELD REPAIR KIT

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 before use or before extended downtime with MEK R6K10.

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

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.

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

CLEAN UP INSTRUCTIONS

Clean spills and splatters 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

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