

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	High solids polyamine-epoxy
<b>Description</b>	Polyclad 951 flowliner is an epoxy lining for "dry" natural gas transmission pipelines. It is designed to increase flow efficiency of natural gas in pipelines. This lining provides a smooth surface inside the pipe that will increase flow and reduce energy cost of transporting natural gas. Polyclad 951 offers corrosion protection of pipes during storage. It fully meets criteria of API RP 5L2 for gas transmission pipelines.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Improves flow efficiency in gas pipes</li> <li>• Excellent flow and leveling</li> <li>• Single-coat application</li> <li>• Hard, smooth, glossy finish</li> <li>• Excellent abrasion resistance</li> <li>• Meets all criteria of API RP 5L2</li> <li>• Long pot life</li> </ul>
<b>Color</b>	Red 0500
<b>Gloss</b>	70+ @ 60°
<b>Finish</b>	Gloss
<b>Primer</b>	Self-priming
<b>Dry Film Thickness</b>	2 - 4 mils (51 - 102 microns) per coat
<b>Physical Properties</b>	<ul style="list-style-type: none"> <li>• Specific gravity of 1.44</li> <li>• Weight solids of 80% +/- 1%</li> <li>• Viscosity with 10% thinning is 20-25 seconds Zahn #3 cup</li> <li>• Double viscosity @ 72°F (22°C) after 4 hours</li> </ul>
<b>Solids Content</b>	By Volume 64% +/- 1%
<b>HAPs Values</b>	1.48 lbs/solid gallon
<b>Theoretical Coverage Rate</b>	1027 ft <sup>2</sup> /gal at 1.0 mils (25.2 m <sup>2</sup> /l at 25 microns) 513 ft <sup>2</sup> /gal at 2.0 mils (12.6 m <sup>2</sup> /l at 50 microns) 257 ft <sup>2</sup> /gal at 4.0 mils (6.3 m <sup>2</sup> /l at 100 microns) Allow for loss in mixing and application.
<b>VOC Values</b>	<b>As Supplied</b> : 291 g/l (2.43 lbs./gal) Thinner 2 : 12 oz/gal - 349 g/l (2.9 lbs./gal)
<b>Dry Temp. Resistance</b>	Continuous: 248°F (120°C)

## SUBSTRATES & SURFACE PREPARATION

<b>General</b>	Surfaces must be clean and dry before abrasive blasting. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
<b>Steel</b>	SSPC-SP6, NACE 3, Sa 2 <b>Surface Profile:</b> 1.2-2.5 mils (30-63 microns)

## PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	System	Results
API 5L2	One coat Polyclad 951	Pass

## MIXING & THINNING

**Mixing** | Power mix part A separately, then combine part B in to part A and power mix. **DO NOT MIX PARTIAL KITS.** Requires short 15 min sweat-in time. Mix ratio by volume is 25.7 to 1.

**Thinning** | Thinning will be required to properly atomize the mixed material. Thin up to 10% (13 oz/gal) with Thinner #2 or #76. Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

**Pot Life** | 6 Hours at 75°F (24°C) usable pot life

## APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

**Conventional Spray** | Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap. Adjust air pressure to approximately 50 psi at the gun and provide 10-20 lbs. of pot pressure.

**Airless Spray** | Pump Ratio: 30:1 (min.)  
 Material Hose: 3/8" I.D. (min.)  
 Tip Size: .013"- .021"  
 Output PSI: 1800-2500  
 Filter Size: 60 mesh  
 PTFE packings are recommended and available from the pump manufacturer

**Brush** | Recommended for small areas and repairs only. Use a high quality medium bristle brush, and apply a very light crisscross brush coat. Allow to dry for approximately 5 minutes. Normally, a film thickness of 1-2 mils (25-50 microns) can be obtained per coat by this method.

## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	125°F (52°C)	120°F (49°C)	90%

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate.

## CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Touch
70°F (21°C)	10.5 Hours	5 Hours
90°F (32°C)	5 Hours	2 Hours

## CLEANUP & SAFETY

<b>Cleanup</b>	Use Thinner #2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
<b>Safety</b>	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.
<b>Ventilation</b>	When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved supplied air respirator
<b>Caution</b>	This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## PACKAGING, HANDLING & STORAGE

<b>Shelf Life</b>	Part A & B: Min. 24 months at 75°F (24°C) When kept at recommended storage conditions and in original unopened containers.
<b>Storage Temperature &amp; Humidity</b>	40° - 110°F (4° - 43°C) 0-100% Relative Humidity
<b>Storage</b>	Store Indoors.
<b>Shipping Weight (Approximate)</b>	5 Gallon Kit - 65 lbs (29 kg)
<b>Flash Point (Setaflash)</b>	Part A: 20°F (-6.6°C) Part B: 55°F (12°C)

## WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.