Polyclad® 975 H

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Two component epoxy
Designation	**This is a product that Carboline is intending to drop from the product line. Please reach out to your Carboline Sales Representative for a product alternative.**
Description	Polyclad 975 H is an advanced 100% solids, hybrid epoxy pipeline coating. It has performance properties designed for corrosion protection of steel and ductile iron pipe exteriors, girth welds or tie-ins. Polyclad 975 H cures fast to allow quick QC and backfill times. H in 975 H stands for hand applied version. Polyclad 975 is the spray version.
Features	• Quick dry to touch and QC times • Good brush and roll properties • Color indicator confirms proper mixing • Low temperature cure 40°F (4.4°C) • Excellent cathodic protection performance • Film build up to 30 mils DFT in one coat • Excellent edge retention • Superior adhesion to steel • Excellent adhesion over prepared FBE, epoxy and polyurethane coated pipe • Can be hand applied by brush or roller
Color	Blue (0100) Other colors may be made available on special order.
Finish	Semi-Gloss (Epoxies lose gloss, discolor and eventually chalk in sunlight exposure.)
Primer	Self-priming
Dry Film Thickness	20 - 30 mils (508 - 762 microns) Typical DFT with hand application Do not exceed 50 mils in one coat.
Solids Content	By Volume 99% +/- 1%
Theoretical Coverage Rate	1588 ft²/gal at 1.0 mils (39.0 m²/l at 25 microns) 79 ft²/gal at 20.0 mils (1.9 m²/l at 500 microns) 53 ft²/gal at 30.0 mils (1.3 m²/l at 750 microns) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 0.04 lbs./gal (5 g/L)
Dry Temp. Resistance	Continuous: 200°F (93°C) Non-Continuous: 250°F (121°C)
Approvals	Meets criteria for AWWA C210-7

SUBSTRATES & SURFACE PREPARATION

General

All sharp edges shall be ground to produce a radius and all imperfections, such as, delaminations, scabs, slivers and slag shall be corrected prior to abrasive blasting. Degrease surface prior to abrasive blast in accordance to SSPC SP-1. Organic solvents, alkaline solutions, steam, hot water with detergents or other systems that will completely remove dirt, oil, grease, etc. may be used

Steel

Steel substrate must be blasted to a minimum Near-White Metal Finish (SSPC SP10 or NACE NO. 2) with a 2.5 to 4.5 mil (62 to 112 microns) dense, sharp angular profile.

PERFORMANCE DATA

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

Test Method	System	Results
Cathodic Disbondment ASTM G-95, 24°C (75°F), -1.5 V, 28 days	20 to 30 mils DFT (500 to 750 microns)	<3 mm
Cathodic Disbondment ASTM G-95, 65°C (149°F), -1.5 V, 28 days	20 to 30 mils DFT (500 to 750 microns)	<4 mm
Cathodic Disbondment ASTM G-95, 65°C (149°F), -3.0 V, 7 days	20 to 30 mils DFT (500 to 750 microns)	<5 mm
Cathodic Disbondment ASTM G-95, 80°C (176°F), -1.5 V, 28 days	20 to 30 mils DFT (500 to 750 microns)	<6 mm
Chemical resistance immersion, NACE TM 0174 method-B, 24°C for 7 days	20 to 30 mils DFT (500 to 750 microns)	Results below
Chemical tested: 10% Nitric Acid	20 to 30 mils DFT (500 to 750 microns)	Pass, no effect
Chemical tested: 10% Sodium Chloride	20 to 30 mils DFT (500 to 750 microns)	Pass, no effect
Chemical tested: 10% Sodium Hydroxide	20 to 30 mils DFT (500 to 750 microns)	Pass, no effect
Chemical tested: 5% Sulfuric Acid	20 to 30 mils DFT (500 to 750 microns)	Pass, no effect
Chemical tested: Fuel Grade Ethanol	20 to 30 mils DFT (500 to 750 microns)	Pass, no effect
Chemical tested: Toluene	20 to 30 mils DFT (500 to 750 microns)	Pass, no effect
Flexibility, CSA Z245.20-10 (12.11) at 23°C	27 to 30 mils DFT (686 to 750 microns)	Pass 1.0°/pd
Impact resistance, ASTM D2794	20 to 30 mils DFT (500 to 750 microns)	45 in-lbs (5 Joules)
Shore D hardness, ASTM D2240	30 to 40 mils DFT (750 to 1000 microns)	75-85 Shore D
Wet Adhesion, hot water soak for 24 hours,	20 to 30 mils DFT (500 to 750 microns)	Rating #1

MIXING & THINNING

Mixing

Open and make sure part B is homogenous. Mix part B if needed. Pour part B in the part A bucket. Mix until the color is uniform and the color from part B is totally incorporated.

Green kit consists of Part A in yellow 0600; Part B in blue P100
Gray kit consists of Part A in gray 0700; Part B in 0909
Blue kit consists of Part A in blue 0100; Part B in 0909

Thinning

Thinning is not required.

Ratio

4:1 Ratio by volume(Part A to Part B)

Pot Life

15 minutes @ 75°F

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

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.

Brush & Roller (General): May be hand applied by first mixing the coating then immediately pouring it onto the pipe surface. Spread the coating to desire thickness using brush or roller. Measure the film thickness with wet film gauge.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	65°F (18°C)	40°F (4°C)	20°F (-7°C)	0%
Maximum	100°F (38°C)	110°F (43°C)	110°F (43°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	Maximum Recoat Time
35°F (2°C)	15 Hours	6 Hours	12 Hours
50°F (10°C)	13 Hours	3.5 Hours	6 Hours
75°F (24°C)	3 Hours	1 Hour	4 Hours
90°F (32°C)	1.5 Hours	0.75 Hours	2 Hours

Over-coating after the maximum recoat time requires that the surface be abraded prior to application. Use a medium grit, 60 to 80 grit paper or sweep blast to roughen the surface. Clean abraded area of dust before recoat or repair.
Coating is ready for backfill when it is "thumb nail" hard. The thumb nail hardness is defined by when one cannot make a permanent indention in the coating with one's thumb.

CLEANUP & SAFETY

Cleanup: Use Thinner 2 or Thinner 225E (VOC Exempt). In case of spillage, absorb and dispose of in accordance with local applicable regulations.

Safety: Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.

Ventilation: While this is a solventless epoxy, it is common practice when used as a tank lining or in enclosed areas to circulate the air during and after application until the coating is cured. Minimal protection is needed when proper ventilation is achieved.

Caution: If product is thinned with flamable 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

Shelf Life: Part A: 12 months
Part B: 12 months

*Shelf life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

PACKAGING, HANDLING & STORAGE

Storage Temperature & Humidity	40° - 110°F (4°- 43°C) 0-90% Relative Humidity
Storage	Store Indoors.
Shipping Weight (Approximate)	2 Liter Kit (0.53 gal): 8.5 Lbs. (3.9Kg)
Flash Point (Setaflash)	Polyclad 975 H Part A: >205°F (96°C) Polyclad 975 H Part B: >205°F (96°C)

WARRANTY

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