POLYKEN® # 980/955

Coating System for pipelines

Polyken® Pipeline Coatings

System Description

The Polyken 980,955 is a multilayer system used for the protection of steel pipelines. Polyken 1019,1027,1033A or 1039 Liquid Adhesives can be used as primers for this system.In addition to serving as primers, these liquid adhesives themselves represent an anticorrosion layer and provide a uniformly smooth contact surface to promote high adhesion of the coating system to the pipe. They are designed for machine or brush application and formulated with stress-corrosion cracking inhibitors. The Anti-Corrosion layer Polyken #980 is engineered to assure a high bond to the primed surface with excellent conformability characteristics. The mechanical protection layer Polyken #955, achieves a complete bond to the #980 inner layer, providing maximum handling and in-service protection for the coating system. The adhesives in these and all Polyken tape systems contain proven anti-microbial additives. The Polyken 980/955 can also be used for ductile iron pipes, in this case the use of 1027 primer is recommended.

Product Features/Benefits

- Worldwide reference lists
  Proven long-term in-ground performance
- Impermeable to oxygen and moisture
- Resistant to soil stress
  Superior in-ground performance
- Uniform coating thickness
  Plant coating quality with in-situ application
- Low cathodic protection-current requirements
  Saving cost over the life of the pipeline
- Compatible with all pipe diameters and generic plant coating systems
  Minimizes inventory, thus saving money

Product Selection Guide

Max operating temperature	85°C (185°F) for pipe diameters up to 36" or DN 900
Recommended primer	1019,1027,1033A or 1039
Recommended pipe preparation	SSPC-SP6/NACE3 or SA 2 1/2
Additional weld stripping	933-25
Repair material	934-35 or PERP
Performance	AWWA C214

Product Construction

	Inner Layer (Black)				Outer Layer (Black or White)			
	980-15	**980-20**	**980-25**	**980-30**	**955-15**	**955-20**	**955-25**	**955-30**
Backing	9 mils (0.229mm)	9.5 mils (0.241 mm)	10 mils (0.254 mm)	10 mils (0.254mm)	10 mils (0.254 mm)	15 mils (0.381mm)	20 mils (0.508 mm)	25 mils (0.635 mm)
Adhesive	6 mils (0.152mm)	11 mils (279 mm)	15 mils (0.381 mm)	20 mils (0.508 mm)	5 mils (0.127 mm)	5 mils (0.127 mm)	5 mils (0.127 mm)	5 mils (0.127 mm)

When used for ductile iron pipes innerlayer 980-25 or 980-30 and outer layer 955-25 or 955-30 are recommended.

Product Properties	Test method	Typical Value	Typical Value
		980-25	**955-25**
Tensile Strength	ASTM D1000	30 lbs/in (52 N/cm)	40 lbs/in (70 N/cm)
Elongation	ASTM D1000	225%	400%
System Properties 50 mil system: 980-25 + 955-25			
Peel Adhesion to Primed Steel	ASTM D1000	300 oz/in (33 N/cm)	
Cathodic Disbondment:	ASTM G8	0.25 in radius (6.4 mm)	
Water Vapor Transmission Rate	ASTM F1249 (100°F, 100% RH)	0.03g/100in^2/24hr (0.5g/m^2)	
Volume Resistivity	ASTM E257	2.5 x 10^{15} ohm•cm	
Dielectric Breakdown	ASTM D1000	650 volts/mil (25.6 kV/mm)	
Dielectric Strength	ASTM D149	20-23 kV	
Impact resistance	ASTM G-14	50 in-lbs (5.5 Nm)	
Impact resistance	ASTM G-13	1000 lbs, no holidays (4450 N, no holidays)	
Penetration resistance	ASTM G-17	<15%	

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Ordering Information

Polyken 980 and 955 Tape Coatings are available in roll form

Example : **980-25 BKL 9x800**

980	**Product type**	**Standard Ordering options**
25	Total tape thickness in mils	20 mils (0.51 mm), 25 mils (0.635 mm), 30 mils (0,762 mm)
BLK	Tape backing color	Black (BLK)
9	Tape width in inches	4"(101 mm), 6"(152 mm), 9"(228 mm), 12"(305 mm), 18" (457 mm)
800	Tape roll length in feet	100 ft (30M), 200 ft(61M), 400 ft(122M), 600 ft (183M), 800 ft (244M)

Example : **955-25 WHI 9x800**

955	**Product type**	**Standard Ordering options**
25	Total tape thickness in mils	15 mils (0.381 mm), 20 mils (0.508 mm), 25 mils (0.635 mm), 30 mils (0.762mm)
WHI	Tape backing color	White (WHI), Black (BLK)
9	Tape width in inches	4"(101 mm), 6"(152 mm), 9"(228 mm), 12"(305 mm), 18" (457 mm)
800	Tape roll length in feet	100 ft(30M), 200 ft(61M),400 ft(122M),600 ft(183M), 800 ft(244M)

For ordering options please contact your Berry Plastics representative.

Equation for Pipe Coating Requirements

$$\frac{\text{(Width of Coating in inches) x (Area of pipe in square feet)*}}{\text{(Width of Coating in inches – Overlap in inches) x100}} = \text{Squares** of Coating Required}$$

** Area of pipe in square feet = (Diameter in inches) / 12 x 3.1416 x (Length in ft)*

** One Square = One hundred square feet = 9.29 square meters

$$\frac{\text{(Width of Coating in mm) x (Area of pipe in square meter)*}}{\text{(Width of Coating in mm – Overlap in mm)}} = \text{Square meters of Coating Required}$$

**Area of pipe in square meter = (Diameter in mm) /1000 x 3.1416 x (Length in meter)*

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