



POLYKEN® Synergy™ Plant Coating System

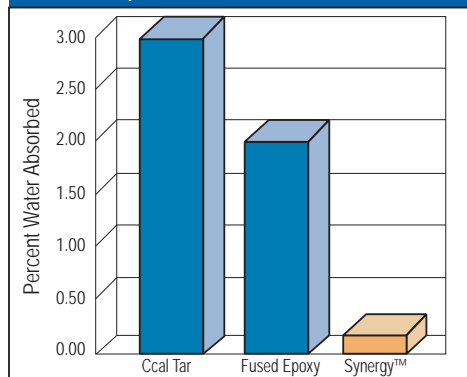
System Description

Synergy™ is a multilayer plant coating system consisting of a thermally activated primer, a cross-linked, thermoplastic elastomer layer, and a tough polyolefin top layer. During application the three layers are fused, resulting in strong mechanical and chemical bonds that maximize performance. Thermal fusion generates mechanical toughness and superior anticorrosion properties that insure long-term pipeline protection.

Product Advantages

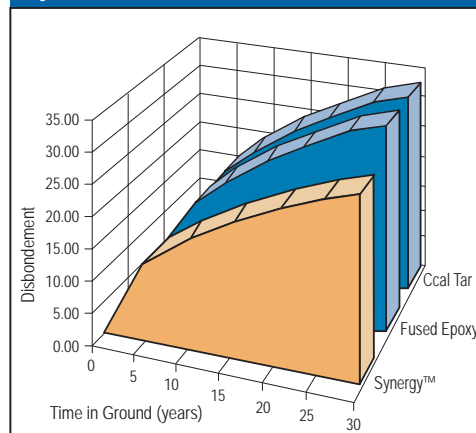
- Thermally fused polymeric system
- Impermeable to oxygen and moisture
- High shear resistance
- Incorporated SCC inhibitors
- Low cathodic protection costs
- Durable and reliable
- Flexible system design

Water Absorption (ASTM G-62)



This data illustrates the superior resistance to water absorption of the Synergy™ coating system. Less absorption means more stable cathodic protection and results in cost savings over the life of the pipeline.

In-ground Cathodic Disbondment Performance (ASTM G-19)



This data demonstrates the long-term performance of Synergy™ relative to other coating systems. Extrapolation of live-year, in-ground performance tests indicates viable coating performance for more than 30 years.

Synergy™ Plant Coating System

Fused-System Components

Primer Layer	Elastomer Layer	Polyolefin Layer
Percent solids: 20 Wt/gal: 7.4 lbs/gal Flash point: + 45° F	Thickness: 10–15 mil; .251–.381 mm	Thickness: 40–100 mil; 1.016–2.540 mm Colors: Black, white, or yellow

Fused-System Properties - 50 mil System

	English	Metric
Peel Adhesion to Pipe: • ASTM D-1000	38 lbs/in width	6.6 kg/cm width
Cathodic Disbondment: • ASTM G-8	0.3 in radius	7.6 mm radiu
Water Vapor Transmission Rate: • ASTM F-1249	< 0.03 g/100 sq in/24 hr	0.5 g/m ² /24 hr
Impact Resistance: • ASTM G-14 • ASTM G-13	50 in-lb 1000 lbs, no holidays	5.6 Joules 450 kg, no holidays
Penetration Resistance: • ASTM G-17	< 15%	< 15%
Bend Flexibility: • CSA Z245.21 • API-5L at 70°	Pass at 2.5° 6° PDL	Pass at 2.5° 6° PDL
Volume Resistivity: • ASTM D-257	10 ¹⁵ ohm-cm	10 ¹⁵ ohm-cm
Dielectric Strength: • ASTM D-1000 20-23 kv 20-23 kv		
Temperature Range: • Normal in-ground service	-30° F to 185° F *	-34° C to 85° C *

* Contact a Berry Plastics representative for specific project recommendations

DS-Synergy-REV5-0509

Berry Plastics warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the technical data sheet when used in compliance with Berry Plastics written instructions. Since many installation factors are beyond the control of Berry Plastics, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Berry Plastics liability is stated in the standard terms and conditions of sale. Berry Plastics makes no other warranty either expressed or implied. All information contained in this technical data sheet is to be used as a guide and is subject to change without notice. This technical data sheet supersedes all previous data sheets on this product.



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