

POLYKEN[®] 942 / 955 EN

Product Information

Product description: The Polyken[®] 942/955 EN System is a multilayer coating system designed for the corrosion protection of pipelines operating in highly corrosive environments and exposed to high mechanical stresses that may be present particularly on large diameter pipes. The system consists of Polyken[®] 1027 liquid adhesive, Polyken[®] 942 three ply anti-corrosion inner layer and Polyken[®] 955-EN mechanical outer layer and is fully certified to the DIN 30672 and EN12068 class C50 standards.

The Polyken[®] 942 three ply adhesive system produces a strong cohesive bond to the primed steel surface and to the mechanical outer layer. At the spiral overlap it fully amalgamates and forms a sleeve-type coating. The tough mechanical properties of the Polyken[®] 955-EN outer layer provides stable protection to the three ply anti-corrosion inner layer and to the pipe during handling and installation.

Features:

- Fully amalgamating overlapping areas
- Worldwide reference lists
- Impermeable to oxygen and moisture
- Resistant to soil stress
- Uniform coating thickness
- Low cathodic protection current requirements
- Compatible with all pipe diameters and generic plant coating systems

Benefits:

- Forming a sleeve-type coating
- Proven long-term in-ground performance
- Superior in-ground performance
- Plant coating quality with in-situ application
- Saving cost over the life of the pipeline
- Minimizes inventory, thus saving money

Product selection guide

Max operating temperature	65°C (150°F)
Recommended primer	1027
Compatible line coatings	PE, FBE, CTE, Tape and Coal Tar
Recommended pipe preparation	St 3 or Sa 2½
Performance	DIN 30672 class C50, EN12068 class C50
Total installed tape system Thickness	Min. 2.5 mm (100 mils)

Ordering information

Polyken[®] 942 and 955 EN Tape Coatings are available in roll form.

Example	942 4X50FT 4.1 cm	
942	Product type	<i>Standard Ordering options</i>
4	Total width in inch	2" (50.8mm), 4" (101.6mm), 6" (152.4mm)
50FT	Tape roll length in feet	50 ft (15.2m), 100ft (30.5m), 200ft (61m)
4.1 cm	Core inner diameter	1.6"(41mm), 3"(76mm)
	955 EN BLK 4X50FT 4.1 cm	
955 EN	Product type	<i>Standard Ordering options</i>
BLK	Tape backing color	Black (BLK)
4	Total width in inch	2" (50.8mm), 4" (101.6mm), 6" (152.4mm)
50FT	Tape roll length in feet	50 ft (15.2m), 100ft (30.5m), 200ft (61m)
4.1 cm	Tape inner core diameter	1.6"(41mm), 3"(76mm)

Note: 942/955 EN tapes are installed with Polyken[®] 1027 liquid adhesive, see the latest datasheet for Polyken[®] 1027

Product properties of Polyken[®] 942 / 955 EN

Property	Method	Typical values		Units
		942	955	
Tensile Strength	EN 12068	6.1	7.9	N/mm
Elongation	EN 12068	> 300	> 300	%
Saponification value	DIN 30672	<3	<1	mg KOH/g

System properties of Polyken[®] 942 / 955 EN

Property	Method	Require-ments	Typical values	Units
Shear Resistance to Primed	EN 12068	>0.05	0.07	N/mm ²
Peel Adhesion to Primed Steel	EN 12068	>1.0	1.2	N/mm
Peel Adhesion Inner to Inner	EN 12068	>1.5	2.2	N/mm
Peel Adhesion Outer to Inner	EN 12068	>1.5	2.4	N/mm
Peel Adhesion Outer to Outer	EN 12068	>0.2	1.3	N/mm
Cathodic Disbondment	EN 12068	<20	5	mm radius
Specific Electrical Resistance	EN 12068	>10 ⁸	2x10 ¹¹	Ohm-m ²
Dielectric Strength	ASTM D149		50	KV
Impact resistance	EN 12068	>15	>15	J
Penetration resistance	EN 12068	>0.6 *	1 *	mm

* mm remaining thickness

Equation for Pipe Coating Requirements

Square meters of coating required = $\frac{(\text{Width of coating in mm}) \times (\text{Area of pipe in square meter})^*}{(\text{width of coating in mm} - \text{overlap in mm})}$

* Area of pipe in m² = (Diameter in mm / 1000) x 3.1416 x Length in meter

Information

Documentation Extensive information is available on our web-site. Application instructions and other documentation can be obtained by contacting our offices, from our local distributor or by sending email to info@sealforlife.com

Certified staff Application of the described coating system should be carried out by certified personnel.