

WaterWrap Wrap-around Girth Weld Sleeve



WaterWrap with PCI (Permanent Change Indicator) is a 2-layer field-joint coating system designed for corrosion protection of buried large diameter water pipelines operating at ambient temperature.

Product description

Construction: 2-layer system:

First layer: Visco-elastic low preheat adhesive sealant.

Second layer: Thick-walled, radiation cross-linked, high density polyethylene with **PCI** (Permanent Change Indicator)

WaterWrap is a wrap-around heat-shrinkable, ready-to-fit assembly for the corrosion protection of field girth weld joints in water distribution and transmission systems.

WaterWrap is compatible with standard pipe coatings.

WaterWrap can also be used for coating bare, replacement pipe sections and large radius bends. The system is designed to be applied with minimum preheating and is ideal for large diameter water pipe with $>3/8"$ wall thickness.

The installation is carried out directly on the cleaned and dried (pre-heated) pipe surface without primer. During installation, the heat-shrinkable sleeve is wrapped around the pipe and heat is applied. The heat activated backing contracts to form a tight fit around the joint eliminating entrapped air and filling the smallest of crevices with a high quality, corrosion inhibiting Visco-elastic adhesive sealant. The permanently cross-linked polyolefin outer layer forms a tough barrier against mechanical damage and moisture transmission.

Product features/benefits

- **Contains no asphalt**
Does not off-gas toxic vapors.
Safe to use.
- **Offers two Permanent Change Indicators (PCI)**
Underheat Indicator - Ensures correct application heat to entire sleeve.
Overheat Indicator - Ensures no excess heat.
Result - Reliable installation and full inspectability at any time after installation.
- **High modulus of elasticity backing**
Greater soil stress resistance.
Better overall performance.
- **High impact and penetration resistance**
Tough, but flexible throughout.
- **High shrink force**
Optimizes flow & fill of visco-elastic adhesive sealant.
Greater, long term protection.
- **Low application preheat**
Makes installation fast and easy.
Keeps installation costs low.
- **No special equipment or skills required**
Easy to install.
Saves time.
- **Suitable for internal welding application under approved conditions and for pipes with $>3/8"$ wall thickness. For $\leq 3/8"$, refer to Waterwrap-IW Data sheet.**
Saves application time.
Safer work environment.

Product selection guide

	WaterWrap
Max operating temperature	50°C (122°F)
Compatible line coatings	PE, FBE, Coal Tar, Tape & Asphalt
Min preheat temperature	20°C (68°F)
Surface preparation	SP 2 or SP 3 Ref. AWWA C216
Performance	AWWA C216-00

Product thickness

	WaterWrap/B
Total supplied thickness	0.088 in. (2.2 mm)
Backing thickness	0.028 in. (0.7 mm)
Adhesive thickness	0.060 in. (1.5 mm)
Fully free recovered	0.121 in. (3.0 mm)

Product properties: WaterWrap (1)

Property	Test method	Typical Value
Backing		
Tensile strength	ASTM D-638	3400 psi
Elongation	ASTM D-638	700%
Hardness, Shore D	ASTM D-2240	58 min
Shrink force	ASTM D-638	40 psi
	150°C (302°F)	
Dielectric strength	ASTM D-149	770 volts/mil 31 kV/mm
Water absorption	ASTM D570 23°C (73°F) 24 hrs	0,04 %
Adhesive		
Softening point	ASTM E-28	> 205°C (401°F)
Lap shear	ASTM D-1002 EN12068 @ 10 mm(0.4")/min.	> 18 psi > 5 N/cm²

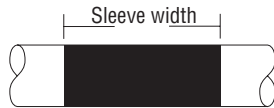
Product properties: WaterWrap (2)

Property	Test method	Typical Value
Sleeve		
Peel to Steel	ASTM D-1000, @ 23C, 10"/min.	> 20 lbs/in.
	EN12068 @ 10 mm (0.4")/min.	> 4 N/cm
Cathodic disbondment	ASTM G8, 30 days	< 10mm @ 23C
Impact resistance	ASTM G-14	70 in-lbs
	EN12068	> 8 Nm for /B, >15 Nm for /C
Penetration resistance	ASTM G-17	Pass, no holiday with 12.5 KV detector
	EN12068, class B30 & C30	0.80 - 1.05 mm residual thickness

Ordering information

WaterWrap type product is available in Black :

- as Uni-sleeve (pre-cut sleeve with pre-attached closure patch)
- as a roll (closure patches to be ordered separately)



* **Cut piece / Uni-sleeve,**

Example: WaterWrap -56000X17/B/UNI

WaterWrap	Product type	Standard Ordering options
56000	Outside pipe diameter in mils	Up to 144" (DN 3600) Larger Diameters available on request
17	Sleeve width in inches (Sw) ⁽¹⁾	min. 6", 9", 12", 14", 17", 20", 24" & 34" Other widths available on request
/B	Designates total product thickness construction, as supplied	See product thickness section (above)
/UNI	Designates pre-attached closure patch	optional

⁽¹⁾ Minimum width

* **Roll form** (closure patches to be ordered separately)

Example: WaterWrap -17x100/B-RL

WaterWrap	Product type	Standard Ordering options
17	Roll width in inches (Sw) ⁽¹⁾	min. 6" - max. 34"
100	Roll length in feet (Sl)	100 ft (= 30 m)
/B	Designates total product thickness construction, as supplied	See product thickness section (above)

⁽¹⁾ Minimum width

* **Closure patch**

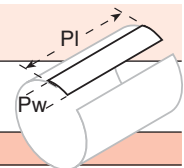
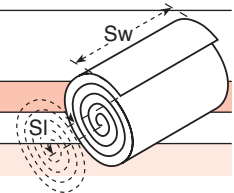
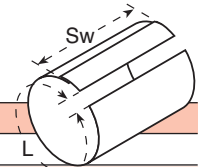
Example: WPCP-IV-4X17

		Standard Ordering options
4	Closure patch width in inches (Pw)	4" (100 mm), 5" (125 mm), 6" (150 mm), 8" (200 mm)
17	Closure patch length in inches (Pl)	same as sleeve width: min. 6" - max. 34"

Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see application table AT-GIRTHWELD-REV-5-05/06.

Select sleeve width that will overlap onto the mill-applied coating by 2 inches (50 mm) minimum on each side of the weld joint.

Take a 5% shrinkage during installation of sleeve width into account when calculating the minimum sleeve width.





Oficinas en Estados Unidos

Polyken
1211 San Dario Ave. No. 1481
Laredo, Tx. 78040
Tel. : (956) 220-3812

Oficinas México:

Polyken
Prolongación Estadio Azteca No.18
Col.: El Caracol, C.P.: 04300
México, D.F., Delegación: Coyoacan
Tel.: (55) 5528-0161; (55) 5528-0052
Fax.: (55) 5424-1920
ventasyservicio@polyken.com.mx
direccion@polyken.com.mx

Bodega en Estados Unidos

Polyken
406 Enterprise Rd.
Interamerica Park
Laredo, Tx 78045
Tel.: (956) 727-2491
Fax.: (956) 724-8509
Contacto: Jesús Alberto Marina Delgado