

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/B is compatible with standard pipe coatings WaterWrap can also be used for coating bare, replacement pipe sections and

large radius bends WaterWrap System-B is designed to be applied with a minimum preheating and is ideal for large diameter pipe. The installation is carried out directly on the cleaned and dried (pre-heated) pipe surface. The use of the 939 filler is required when the step down on the weld bead is $\geq 1/4"$. The filler 939 is a thick mastic-like butyl rubber designed to fill and smooth transition areas. The semi-tacky composition remains flexible and easily molded in place to conform around irregular shapes. 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.

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.**

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)
Sleeve % recovery	28%

Product properties: WaterWrap (1)

Property	Test method	Typical Value
Backing		
Tensile strength	ASTM D-638	3300 psi (22.8 MPa)
Elongation	ASTM D-638	600%
Hardness, Shore D	ASTM D-2240	58 min
Shrink force	ASTM D-638	40 psi
Dielectric strength	ASTM D-149	900 volts/mil (35 KV/mm) 31 kV/mm
Water absorption	ASTM D570 23°C (73°F) 24 hrs	0,05 %
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/cm ²

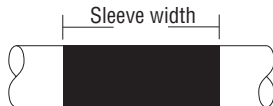
Product properties: WaterWrap (2)

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	/B, /1-1.5, /1.2-1, /1.4-1, /C
/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	/B, /1-1.5, /1.2-1, /1.4-1, /C

⁽¹⁾ Minimum width

* Closure patch

Example: WPCP-IV-4X17

WaterWrap	Product type	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 latest application table AT-GIRTHWELD.

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