



The WPC-C30 with *PCI* (Permanent Change Indicator) is a two-layer field- joint coating system for pipeline operating at ambient temperature.

Product description

WPC-C30 field-joint coatings.

Construction: Two-layer system:

First layer: Visco-elastic low preheat butyl rubber adhesive.

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

WPC-C30 is a wrap-around heat-shrinkable, ready-to-fit assembly for the corrosion protection of field girth weld joints in distribution and transmission networks, for use especially in low shear or low stress environments and in moderate climates. (Above pipe diameter DN500 (20") in high shear and high stress environments, the use of WPC-C50,

HTLP60 is recommended or contact a Berry Plastics representative).

WPC-C30 is compatible with standard pipe coatings. WPC-C30 can also be used for coating bare, replacement pipe sections and large radius bends. The system is designed to be applied with minimum preheating of the pipe.

The installation is carried out directly on the cleaned and pre-heated pipe surface without any primer being required. During installation, the heat-shrinkable sleeve is wrapped around and shrunk to form a tight fit around the joint. During recovery, the adhesive softens and flows to form a perfect bond with the pipe surface providing protection against corrosion. The radiation cross-linked outer layer forms a tough barrier against mechanical damage and moisture transmission.

Product features/benefits

- **Dimpled backing provides a "permanent change" indicator for application of heat**
Ensures correct application heat & allows easy post-heat inspection. Reliable inspectability at any time.
- **Low preheat sensitivity & proven functionality**
Installation friendly in combination with high functional performance.
- **High impact and penetration resistance**
Tough, but flexible even at low temperatures!
- **Available as all-in-one unit or roll form**
Saves money by keeping inventory and logistics costs low.
- **Sealing adhesive automatically flows and repairs minor mechanical damages**
"Self-healing effect". Saves extra intervention steps.
- **No special equipment or skills required**
Makes installation fast and easy. Keeps installation costs low.

Product selection guide

	WPC-C30
Max operating temperature	50°C (122°F)
Compatible line coatings	PP, PE, FBE, Coal Tar, Tape & Asphalt
Min preheat temperature	60°C (140°F)
Recommended pipe preparation	ST2½ - ST3 or SA 2½
Soil stress restrictions	Moderate
Performance	EN 12068 class C30

Product thickness

	WPC-C30
Backing (as supplied)	0.9 mm (35 mils)
Backing (fully free recovered)	1.2 mm (47 mils)
Mastic sealant (as supplied)	1.2 mm (47 mils)

Product properties: WPC-C30 (1)

WPC-C30		
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	55
Shrink force	ASTM D-638 150°C (302°F)	40 psi
Dielectric strength	ASTM D-149	900 volts/mil (35 KV/mm)
Water absorption	ASTM D-570	0.05%
Adhesive		
Softening point	ASTM E-28	92°C (198°F)
Lap shear	EN 12068 @ 10 mm (0.4")/min.	8 N/cm ²

Product properties: WPC-C30 (2)

WPC-C30		
Property	Test method	Typical Value
Sleeve		
Peel to Steel	ASTM D-1000 EN 12068 @ 10mm (0.4")/min.	0.9 N/mm
Cathodic disbondment	EN 12068, 30 days	9 mm radius
Impact resistance	ASTM G-14 EN 12068	> 15 Nm
Penetration resistance	ASTM G-17 EN 12068 class B30 (1 N/mm ²) class C30 (10 N/mm ²)	no holiday with 10 kV detector > 0.6 mm *

* Remaining coating thickness

Ordering information

WPC-C30 type products are available:

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



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 10% shrinkage during installation of sleeve width into account when calculating the minimum sleeve width.

* Uni-Sleeve (pre-attached closure patch)

Example: WPC-C30-DN250-450

Standard Ordering options

DN250	Pipe diameter in DN	DN50 – DN 1700
17	Sleeve width in inches (Sw)	17" (17.75 or 450 mm) ⁽¹⁾ 24" (23.5 or 600 mm) ⁽¹⁾ ; 34" (34.25 or 870 mm) ⁽¹⁾
450	Sleeve width in mm (Sw)	17" (17.75 or 450 mm) ⁽¹⁾ ; 24" (23.5 or 600 mm) ⁽¹⁾

⁽¹⁾ Above pipe diameter 20" (DN500) in high shear and high stress environments, the use of WPC-C50, HTLP60 or others are recommended.

⁽²⁾ Nominal width

* Roll form (closure patches to be orderd separately)

Example: WPC-C30-17x100-RL

Standard Ordering options

17	Roll width in inches (Sw)	17" (17.75 or 450 mm) ⁽¹⁾
100	Roll length in feet (SI)	24" (23.5 or 600 mm) ⁽¹⁾ ; 34" (34.25 or 870 mm) ⁽¹⁾ 100 ft (= 30 m), 66 ft (= 20 m, for C30/width 34" (870 mm) only)

* Closure patch

Example: WPCP-IV-4x17

4	Closure patch width in inches (Pw)	4" (100 mm), 6" (150 mm), 8" (200 mm)
17	Closure patch length in inches (PI)	17" (17.75 or 450 mm) ⁽¹⁾ 24" (23.5 or 600 mm) ⁽¹⁾ ; 34" (34.25 or 870 mm) ⁽¹⁾

Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see latest application table AT-GIRTHWELD
For proper product installation, see latest installation instruction.



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Local Distributor / Representative:

For contact details of local Distributors / Representatives
Please visit www.berrycpg.com.

Headquarters
Franklin, MA, USA
Tel: +1 508 918 1714
US Toll Free: +1 800 248 0149
Fax: +1 508 918 1910
CPG@berrypastics.com

Houston, TX, USA
Tel: +1 713 676 0085
US Toll Free: +1 888 676 7202
Fax: +1 713 676 0086
CPGH@berrypastics.com

Tijuana, Mexico
Tel USA +1 858 633 9797
Fax US: +1 858 633 9740
Tel Mexico: +52 664 647 4397
Fax Mexico: +52 664 607 9105
CPGTJ@berrypastics.com

Westerlo, Belgium
Tel. +32 14 722500
Fax +32 14 722570
CPGE@berrypastics.com

Baroda, India
Tel: +91 2667 264721
Fax: +91 2667 264724
CPGIN@berrypastics.com