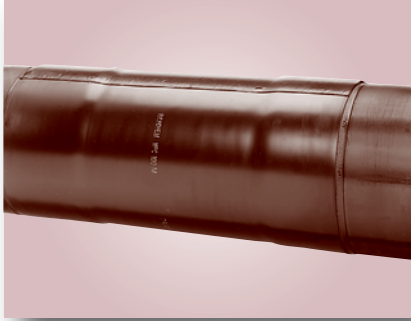


WPC65M elevated temperature Wraparound Girth Weld Sleeve



The WPC65M elevated temperature is a two-layer field-joint coating system for pipeline operating at ambient and elevated temperature.

Product description

WPC65M field-joint coating.

Construction: Two-layer system:

First layer: Visco-elastic adhesive sealant.

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

WPC65M is a wraparound heat-shrinkable sleeve specially suitable for higher stress conditions caused both by elevated temperatures and by soils with severe contraction between wet-dry cycles. The WPC65M is compatible with most commonly used steel pipe coatings and is used for girth weld protection or to recoat (rehabilitate) long pipe sections and large radius bends. WPC65M may be cut to the appropriate length to cover all pipe diameters.

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.
- Available as all-in-one unit or roll form**
 Saves money by keeping inventory and logistics costs low.
- High shear resistance**
 WPC offers 'safer protection'.
- Covers a wide range of operating temperature ratings**
 Offers a solution for nearly every application.
- No special equipment (standard gas torch & a roller) or skills required**
 Makes installation fast and easy.
 Keeps installation costs low.

Product selection guide

	WPC65M
Max. operating temperature	65°C (149°F) *
Compatible line coatings	PE, PP, FBE, Tape & Coal Tar
Min. preheat temperature	70°C (158°F)
Recommended pipe preparation	ST2½ - ST3 or SA 2½
Soil stress restrictions	Moderate

* for offshore applications with infill max operating temperature 85°C (185°F)

Product thickness

	WPC65M	WPC65M/C construction
Backing (as supplied)	0.030 in. (0.75 mm)	0.041 in (1.04mm)
Backing (fully free recovered)	0.040 in. (1.0 mm)	0.055 in (1.4 mm)
Adhesive (as supplied)	0.040 in. (1.0 mm)	0.060 in (1.5 mm)

Product properties: WPC65M (1)

Property	Test method	Typical value WPC65M
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	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	134°C (273°F)
Lap shear	ASTM D-1002	50 psi @ 23°C (73°F)
		3 psi @ 65°C (149°F)
		9 N/cm ² @ 23°C (73°F)
	EN 12068/DIN30672 @ 10 mm (0.4")/min.	1 N/cm ² @ 65°C (150°F)

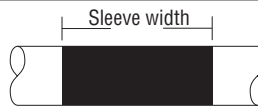
Product properties: WPC 65M (2)

Property	Test method	Typical Value WPC65M
Sleeve	Test method	
Peel to Steel	ASTM D-1000	50 lbs/in.width @ 23°C (73°F) 3 lbs/in.width, @ 65°C (149°F)
	EN 12068 @ 10 mm (0.4")/min.	1.5 N/mm @ 23°C (73°F) 0.2 N/mm @ 65°C (149°F)
Cathodic disbondment	ASTM G-42, 30 days	7 mm radius, @ 65°C (149°F)
Low temperature flexibility	ASTM D-2671-C	-14°C (-6.8°F)
Impact resistance	ASTM G-14 EN 12068, Class C	80 in-lbs > 8 Nm
Penetration resistance	ASTM G-17	no holiday with 10 kV detector @ 65°C (149°F) > 8 Nm > 15 Nm
*	EN12068 class B EN12068 class C*	
Remaining coating thickness		* for WPC65M/C construction

Ordering information

WPC65M type product is available:

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

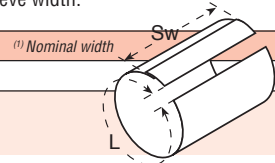


Select sleeve width that will overlap onto the mill-applied coating by 2 inches (50 mm) minimum on each side of the weld joint. Take a 10% shrinkage during installation of sleeve width into account when calculating the minimum sleeve width.

* Cut piece / Uni-sleeve

Example: WPC65M-10750X17/UNI

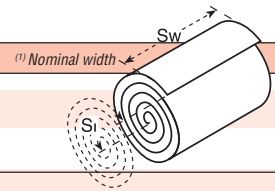
WPC...	Product type	Standard ordering options: WPC65M
10750	Outside pipe diameter in mils	2.375" – 48.000"
17	Sleeve width in inches (Sw)	11" (11.25 or 285 mm) ⁽¹⁾ , 17" (17.75 or 450 mm) ⁽¹⁾ , 24" (23.5 or 600 mm) ⁽¹⁾ , 34" (34.25 or 870 mm) ⁽¹⁾
/UNI	Designates pre-attached closure patch	optional



* Roll form (closure patches to be ordered separately)

Example: WPC65M-17x100-RL

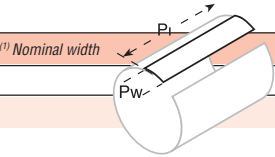
WPC65M	Product type	Standard ordering options: WPC65M
17	Roll width in inches (Sw)	11" (11.25 or 285 mm) ⁽¹⁾ , 17" (17.75 or 450 mm) ⁽¹⁾
100	Roll length in feet (Sl)	24" (23.5 or 600 mm) ⁽¹⁾ , 34" (34.25 or 870 mm) ⁽¹⁾
		100 ft (30m), 66ft



* Closure patch

Example: WPCP-IV-4X17

		(1) Nominal width
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)	11" (11.25 or 285 mm) ⁽¹⁾ , 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.

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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