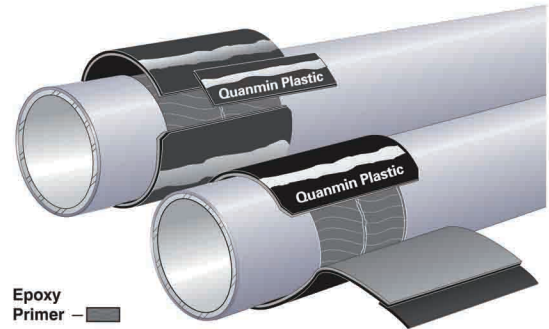




Wraparound Heat Shrink Sleeves

Quanmin Heat Shrink Sleeves provides a range of anticorrosion protection, use for field girth weld joints in distribution and transmission system. As wraparound heat-shrinkable products, provide corrosion protection solutions for oil, gas and water transmission pipelines.



3 Layer-Primer Wraparound Sleeves

3 Layer: Primer Wraparound Sleeves with Hot melt adhesive, is a three-layer field-joint coating system with Epoxy Primer coating.



- Max operating Temperature for pipeline:
65°C (149°F), 85°C (185°F)
- First layer: Solvent-free two-component Liquid epoxy;
- Second layer: Copolymer Hot-melt adhesive;
- Third layer: Radiation cross-linked HDPE backing.
- Unique hotmelt copolymer adhesive layer provide superior corrosion protection and effective long-term adhesion to pipelines operating temperature up to 85°C.
- Three-layer sleeves with epoxy primer and hotmelt copolymer have excellent resistance to both cathodic disbondment and hot water immersion even at maximum rated operating temperature.
- Available in Unisleeve construction – One-piece protective sleeve with pre-attached closure patch.
- Available in Bulk rolls consisting – Two piece protective sleeve with separate closure patch.

Applications

Oil pipelines



Gas pipelines



Water pipelines



Girth-weld joints





Heat Shrink Anticorrosion Coating System

Shandong Quanmin Plastic, China

WPS 60C

Wraparound sleeve & Epoxy System

The most widely used girth weld protection system for three-layer coated pipes

Pipelines operating Temperature up to 65°C (149°F)

Property	Test method	Typical value
Backing	Radiation cross-linked HDPE backing	
Specific Gravity	ASTM D-792	0.94g/cm ³
Tensile strength	ASTM D-638	24 MPa (3480 psi)
Elongation	ASTM D-638	600%
Hardness	ASTM D-2240	57Shore D
Dielectric strength	ASTM D-149	35 KV/mm (900 volts/mil)
Water absorption	ASTM D-570	0.04%
Color	Black	
Adhesive	High shear strength Hot melt Copolymer adhesive	
Softening point	ASTM E-28	103 °C (217 °F)
Lap shear	ASTM D-1002	243 N/cm ² (365psi) @ 23 °C(73 °F)
	@1.25mm(0.05")/min	11.5 N/cm ² (17psi) @ 65 °C(149 °F)
	EN 12068/DIN 30672	3 N/mm ² @ 23 °C(73 °F)
	@10mm(0.4")/min	0.20 N/mm ² @ 65 °C(149°F)
Sleeve		
Peel to Steel	ASTM D-1000	300 N/cm @ 23 °C(73 °F)
	@305mm (12")/min	11.4 N/cm @ 65 °C(149 °F)
	EN 12068	6 N/mm @ 23 °C(73 °F)
	@10mm (0.4")/min	0.8 N/mm @65 °C(149 °F)
	DIN 30672	14.6 N/mm @ 23 °C(73 °F)
	@100mm (4")/min	
Cathodic disbondment	ASTM G-42,30days	13mm radius,@ 65 °C(149 °F)
Impact resistance	ASTM G-14	66 in-lbs
	EN 12068 class C	>15 Nm
Penetration resistance	ASTM G-17	no holiday with10 KV detector @ 65 °C(149 °F)
	EN 12068 class C	0.9mm @ 65 °C(149 °F)
Low temperature flexibility	ASTM D-2671-C	-40 °C(-33 °F)
Pipeline Operating Temp.	65 °C(149 °F)	
Minimum Installation Temp.	70 °C(158 °F)	
Mainline Coating Compatibility	PE, FBE	
Products Thickness	WPS 60C/B & WPS 60C/C	
Backing (as supplied)	0.75mm (0.030in) to 1.04mm (0.041in)	
Backing (fully free recovered)	1.00mm (0.039in) to 1.40mm (0.055in)	
Adhesive (as supplied)	1.00mm (0.039in) to 1.50mm (0.060in)	

Sleeves Standard Ordering Size:

Roll width: 285mm (11in), 450mm (17in), 500mm (20in), 600mm (24in), 870mm (34in)

Roll length: 20m (66ft), 30m (100ft).

Sleeve cut lengths and appropriate closure patch widths depend on the pipe size.

Closure Standard Ordering Size:

Width: 100mm (4in), 150mm (6in), 200mm (8in)

Length: 285mm (11in), 450mm (17in), 500mm (20in), 600mm (24in), 870mm (34in)



Heat Shrink Anticorrosion Coating System

Shandong Quanmin Plastic, China

WPS 80C

Wraparound sleeve & Epoxy System

The most widely used girth weld protection system for three-layer coated pipes

Pipelines operating Temperature up to 85°C (185°F)

Property	Test method	Typical value
Backing	Radiation cross-linked HDPE backing	
Specific Gravity	ASTM D-792	0.94g/cm ³
Tensile strength	ASTM D-638	24 MPa (3480 psi)
Elongation	ASTM D-638	600%
Hardness	ASTM D-2240	57 Shore D
Dielectric strength	ASTM D-149	35 KV/mm (900 volts/mil)
Water absorption	ASTM D-570	0.04%
Color	Black	
Adhesive	High shear strength Hot melt Copolymer adhesive	
Softening point	ASTM E-28	120 °C (248 °F)
Lap shear	ASTM D-1002	408 N/cm ² (613 psi) @ 23 °C(73 °F)
	@1.25mm(0.05")/min	43 N/cm ² (65 psi) @ 80 °C(176 °F)
	EN 12068/DIN 30672	2.3 N/mm ² @ 23 °C(73 °F)
	@10mm(0.4")/min	0.18 N/mm ² @ 80 °C(176 °F)
Sleeve		
Peel to Steel	ASTM D-1000	255 N/cm @ 23 °C(73 °F)
	@305mm (12")/min	9.7 N/cm @ 80 °C(176 °F)
	EN 12068	5.1 N/mm @ 23 °C(73 °F)
	@10mm (0.4")/min	0.68 N/mm @ 80 °C(176 °F)
	DIN 30672	12.4 N/mm @ 23 °C(73 °F)
	@100mm (4")/min	
Cathodic disbondment	EN 12068,30days	11mm radius,@ 80 °C(176 °F)
	ASTM G-42,30days	16mm radius,@ 80 °C(176 °F)
Impact resistance	ASTM G-14	95 in-lbs
	EN 12068 class C	> 15 Nm
Penetration resistance	ASTM G-17	no holiday with10 KV detector @ 80 °C(176 °F)
	EN 12068 class C	0.9mm @ 80 °C(176 °F)
Low temperature flexibility	ASTM D-2671-C	-25 °C(-13 °F)
Pipeline Operating Temp.		85 °C(185 °F)
Minimum Installation Temp.		70 °C(158 °F)
Mainline Coating Compatibility		PE, FBE,
Products Thickness	WPS 80C/B & WPS 80C/C	
Backing (as supplied)	0.75mm (0.030in) to 1.50mm (0.060in)	
Backing (fully free recovered)	1.00mm (0.039in) to 2.00mm (0.078in)	
Adhesive (as supplied)	1.00mm (0.039in) to 1.60mm (0.062in)	

Sleeves Standard Ordering Size:

Roll width: 285mm (11in), 450mm (17in), 500mm (20in), 600mm (24in)

Roll length: 20m (66ft), 30m (100ft).

Sleeve cut lengths and appropriate closure patch widths depend on the pipe size.

Closure Standard Ordering Size:

Width: 100mm (4in), 150mm (6in), 200mm (8in)

Length: 285mm (11in), 450mm (17in), 500mm (20in), 600mm (24in)