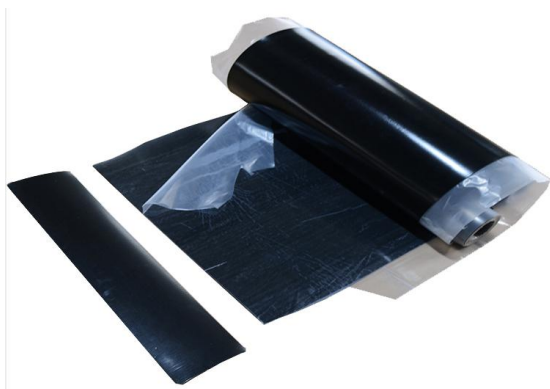


WSS60&80 wraparound heat shrink sleeve



Description:

WSS60&80 wraparound heat shrink sleeves is designed for corrosion protection of girth weld joint of buried and exposed steel pipes, especially for 3-layer coated oil and gas pipeline.

Construction: 3-layer PE system

First layer: Liquid epoxy primer, solvent-free two-component.

Second layer: High shear strength hot-melt copolymer adhesive.

Third layer: Radiation cross-linked, high density polyethylene backing (HDPE).

Product Features/Benefits:

- Excellent multifunctional adhesive allows for lower installation preheat temperature and super bonding to PE, PP and FBE, offer fully resistant to shear forces induced by soil and thermal movements.
- Superior cathodic disbondment and hot water immersion resistance offers the optimum barrier long-term protection against corrosion.
- Saves time & cost by lower preheat temperature, wet epoxy primer application.

Product backing properties:

Property	Unit	WS60	WSS80	Test according
Tensile Strength	psi	3000 (20Mpa)	3300 (20Mpa)	ASTM D638
Elongation at break	%	600	660	ASTM D638
Design temperature	°C	≥60	≥80	ASTM D638
Shrink Force	psi	35	35	ASTM D638@150 °C (302°F)
Dielectric Strength	volts/mil	900 (35kV/mm)	900 (35kV/mm)	ASTM D149
Water Absorption	Wt	< 0.05%	< 0.05%	ASTM D 570
Volume Resistivity	Ω-cm	1x 10 ¹⁶	1x 10 ¹⁶	ASTM D570

Adhesive properties:

No.	Item	Index	Test according	
1	Softening point (ball and ball method) 50°C	≥ 90 °C	GB/T4507	
2	Softening point (ball and ball method) 70°C	≥ 110 °C	GB/T4507	
3	Embrittlement temperature (°C)	≤ -15	SY/T0413-2002	
4	Lap shear strength (MPa) (23°C)	≥ 1.0	GB/T7124	
5	Peel strength (N/cm) (Cohesive destruction)	Heat shrinkable tape/polyethylene layer 23±2°C /50±2°C	≥ 70 ≥ 15	GB/T2792
		Heat shrinkable tape/epoxy primer steel 23±2°C /50±2°C	≥ 70 ≥ 15	
		Heat shrinkable sleeve (belt)/steel 23±2°C /50±2°C	≥ 70 ≥ 15	

Primer properties:

No.	Item	Index	Test according
1	Thickness (wet film) (um)	≥ 100	Measured
2	Adhesion (level)	≤ 2	SY/T0315-97 Appendix H
3	Cathodic stripping (65°C,48h) (mm)	≤ 10	SY/T0413-2002 Appendix B
4	Shear strength after curing (MPa)	≥ 5.0	SY/T0041

Product selection guide:

	WSS50 (mastic)	WSS 60	WSS 80
Standard reference	EN 12068 Class C50 ISO/DIS 21809-3	EN 12068 Class C50 NACE RP0303 ISO/DIS 21809-3	EN 12068 Class C50 NACE RP0303 ISO/DIS 21809-3
Compatible line coatings	PE, FBE, Coal Tar, AE	FBE, PE, PP	FBE, PE, PP
Soil stress restriction	None	None	None
Max operating temperature	60°C	60°C	80°C
Preheat temperature	50 - 60°C	50 - 70°C	60 - 80°C
Recommended pipe preparation	SA 2½ or ST 3.0	SA 2½ or ST 3.0	SA 2½

Ordering information:

WSS80 products are available: •as cut piece (pre-cut sleeve with separate closure patch) •as a roll (closure patches to be ordered separately)	Range for available dimension:	
	Sleeve length for 28 inch pipe	$L=\pi \times D \times 1.07 + 120(\text{mm})$, thus for 28 inch pipe, it will require 2500mm



•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.
Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see application table.

Sleeve width	450mm, 480mm, 500mm, 520mm and 550mm supplied PE shrink sleeves width.
Sleeve thickness	1.8mm, 2.0mm, 2.2mm, 2.5mm, 2.8mm, 3.0mm and 3.2mm
Primer thickness	wet film and dry film. We can provide 120um, 150um, 200um, 300um and 400um primer thickness.

Application table: (All dimensions are in mm)

Pipe Size		Pipe OD	Sleeve Length	Closure Width	Backing / Adhesive thickness
DN(mm)	Inch (")	(mm)	(mm)	(mm)	
100	4	114	500	100	≥1.2/0.8
125	5	141	600	100	≥1.2/0.8
150	6	168	690	100	≥1.2/0.8
200	8	219	850	125	≥1.2/0.8
250	10	273	1040	125	≥1.2/0.8
300	12	324	1230	125	≥1.2/0.8
350	14	356	1340	125	≥1.2/0.8
400	16	406	1490	125	≥1.5/0.8
450	18	457	1660	125	≥1.5/0.8
500	20	508	1840	125	≥1.5/0.8
600	24	610	2180	150	≥1.5/0.8
700	28	711	2400	150	≥1.5/0.8
800	32	813	2750	150	≥1.5/0.8
900	36	914	3090	150	≥1.5/0.8
1000	40	1016	3430	200	≥1.5/0.8
1100	44	1120	3780	200	≥1.5/0.8
1200	48	1220	4120	200	≥1.5/0.8
1400	56	1420	4790	200	≥1.5/0.8
1500	60	1520	5130	200	≥1.5/0.8
1600	64	1620	5460	200	≥1.5/0.8
1700	68	1720	5800	200	≥1.5/0.8
1800	72	1820	6130	200	≥1.5/0.8
1900	76	1920	6470	200	≥1.5/0.8
2000	80	2020	6800	200	≥1.5/0.8
2200	88	2200	7410	200	≥1.5/0.8

Service Life: More than 30 years

Normal Packing: Carton (Maximum 45kg)

Shelf Life: 2 years, under correct storage condition.

Storage Condition:

- To ensure maximum performance, Dasheng products in a dry, ventilated area.
- Keep products sealed in original cartons and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements.
- Avoid prolonged storage at temperatures above 40°C or below -20°C.
- Product installation should be done in accordance with local health and safety regulations.

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