

PRODUCT DATA SHEET

HBPP Heat Shrinkable Wrap-around

3-layer Girth Weld Field Joint Coatings

Description

SNI HBPP system is a 3 layer wraparound, polypropylene based heat-shrinkable sleeve and is engineered for corrosion prevention for polypropylene coated pipelines, operating at temperatures up to 120°C. HBPP is designed for higher stress conditions result of elevated temperatures.

Construction: Three-Layer system

First layer : RP10 Two component liquid epoxy.

Second layer: High shear strength polypropylene adhesive

Third layer : Radiation cross-linked, polypropylene backing,



Features & Benefits

- High shear resistance and designed to prevent hazardous operation, provide high functional performance with safety.
- Excellent performance for aging and provide best shelf life.
- High operating temperature provide excellent performance at any conditions.
- Superior cathodic disbondment and hot water immersion resistance offers the optimum barrier long term protection against corrosion
- User friendly, makes installation easy, fast and low cost.

Selection Criteria

	HBPP
Standard Reference	EN 12068, ISO 21809-3 14D 1,
Compatible line coatings	Polypropylene/FBE
Soil stress restriction	None
Max. operating temperature	120 °C
Pre-heat temperature	190 °C
Recommended pipe preparation	Sa 2 ½

Ordering Information

HBPP type products are available:

- ▶ As cut piece (pre-cut sleeve with separate 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

Sleeve width (mm): 16", 18", 20", 24"

Other width (10"-36") are available as per Customer special requirement.

Product thickness (mm)

Sleeve thickness from 2.0 to 3.5mm are available as per requirement.

Standard Ordering Options

Cut piece (Pre-Cut sleeve with separate closure patch)		Roll form (closure patches to be ordered separately)	
Example:	HBPP-12 X18/3.2	Example:	HBPP-18 X100/3.2-RL
PP	Polypropylene	PP	Polypropylene
12	Outside pipe diameter in inch	18	Roll width in inch
18	Sleeve width in inch	100	Roll length in feet
3.2	Sleeve thickness in mm	3.2	Roll thickness in mm
		-RL	Supplied in rolls

Closure Patch

Example: CP-4X18	
4	Closure patch width in inches 4" (100 mm), 6" (150 mm), 8" (200 mm)
18	Closure patch length in inches 16", 18", 20" 24"

Product Properties

PP Backing

Properties	Test Method	Typical Values
Tensile strength	ASTM D-638	32MPa
Elongation	ASTM D-638	610%
Hardness, Shore D	ASTM D-2240	62
Oxidation induction time at 220°C	ISO11357-6	165 min

Adhesive

Properties	Test Method	Typical Values
Softening point	ASTM E-28	>150°C
Lap shear	ISO21809-3	
23°C		7 N/mm ²
110°C		2 N/mm ²

Sleeve

Property	Test Method	Typical Value
Thickness – Sleeve Layers	ISO21809-3 Annex-B	3.2 mm
Holiday detection 5kV/mm+5 kV	ISO21809-3 Annex-C	No Holiday
Impact resistance	ISO21809-3 Annex-D	10 J/mm
Indentation resistance at 110 °C: Residual thickness Pressure	ISO21809-3 Annex-E	2.5 mm 10 N/mm ²
Cathodic disbondment at 28 days At 23 °C At 95 °C	ISO21809-3 Annex-G	3.2 mm 8 mm
Peel strength at 10 mm/min - to pipe surface At 23 °C At 110 °C to factory coating PP At 23 °C At 110 °C	ISO21809-3 Annex-H.1	13 N/mm 3.2 N/mm 8.82 N/mm 3.0 N/mm
Peel strength at 10 mm/min after 100-day hot-water immersion test at 110 °C to pipe surface to factory coating PP	ISO21809-3 Annex- I&H	0.87 0.80
Thermal ageing resistance (aged 100 d , at 95 °C) a. Elongation at break (E100/E70) b. Peel strength to pipe surface (P100/P70)	ISO21809-3 Annex- M	0.95 0.85
Thermal stability 130 °C for 50 weeks	ISO21809-3 Annex-N	No cracks

Note: The typical values in this data sheet are based on lab prepared samples. For project specific requirements please consult with SNI INDIA

Storage: Indoor, clean, dry away from direct sunlight in a cool place below +50°C

Installation: For proper installation and performance please refer our installation instruction

Personnel Qualification: Installation of the HBPP coating system should be carried out by SNI INDIA certified personnel



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