

HBPP HEAT SHRINKABLE WRAP-AROUND SLEEVE

PRODUCT DATA SHEET

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	Two component liquid epoxy
Second layer	High shear strength polypropylene adhesive
Third layer	Radiation cross-linked, polypropylene backing,



FEATURES AND BENIFITS

- ▶ 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	ISO 21809-3 (14D-1) EN12068
Compatible line coatings	Polypropylene/FBE
Soil stress restriction	None
Max. operating temperature	120 °C
Pre-heat temperature	90 TO 110 °C
Recommended pipe preparation	Sa 2 1/2

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)		
Backing (as supplied)	Adhesive (as supplied)	Total thickness (recovered on pipe)
1.1	1.4	2.8
1.2 /1.4	1.4 ~ 1.6	3.0
1.6	1.7	3.5

Other sleeve thickness from 2.5 to 3.5mm are available as per requirement. The above thickness combinations are minimum & general. For customize thickness , please consult with SNI

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"

Sleeve cut lengths and appropriate closure patch widths depend on the pipe size & product construction, please consult with SNI Representative and refer installation instruction. HBPP type product is installed with RP10 Epoxy primer. Epoxy primer is ordered separately. For more ordering information please refer product data sheet.

PRODUCT PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUES
PP BACKING		
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
Di-electric voltage breakdown	ASTM D-149	35kV/mm
ADHESIVE		
Melting point	ASTM D3418	150°C
Lap shear	ISO 21809-3	
23°C		7 N/mm ²
110°C		2 N/mm ²

SLEEVE

Thickness - Sleeve Layers	ISO 21809-3 Annex-B	3.0 mm (on Body)
	ISO 21809-3 Annex-B	2.8mm (on Weld)
Holiday detection 5kV/mm+5 kV	ISO 21809-3 Annex-C	No Holiday
Impact resistance	ISO 21809-3 Annex-D	>10 J/mm
Indentation resistance at 110 °C: Residual thickness Pressure	ISO 21809-3 Annex-E	2.5 mm 10 N/mm ²
Cathodic disbondment at 28 days At 23 °C At 95 °C	ISO 21809-3 Annex-G	2.7 mm 8 mm
Peel strength at 10 mm/min - to pipe surface At 23 °C At 105 °C to factory coating PP At 23 °C At 105 °C	ISO 21809-3 Annex-H.1	13 N/mm >4 N/mm >8 N/mm 3.6N/mm
Peel strength at 10 mm/min after 100-day hot-water immersion test at 105 °C to pipe surface (P100/P0) to factory coating PP (P100/P0)	ISO 21809-3 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)	ISO 21809-3 Annex- M	0.95 0.85
Thermal stability 130 °C for 50 weeks	ISO 21809-3 Annex-N	No cracks

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

PERSONAL QUALIFICATION

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



Please read all information in the general guidelines, product data sheets, guide specifications, and material safety data sheets (MSDS) before applying the material. Published technical data and instructions are subject to change without notice. Contact your local SNI India LLP representative or visit our website for current technical data and instructions.

Disclaimer

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