HSSPP Heat Shrinkable Wrap-around Sleeve

Girth weld field joint coatings for 3-layer PP coated pipes

Description

HSS PP Heat shrinkable wrap-around sleeve 3-layer system is engineered for special need of corrosion protection for high operation temperature pipeline joints. Once installed, the system effectively bonds and protects steel substrates and common main line pipe with coatings such as PP or other coatings. Especially applied for rapid installation requirement under higher stress conditions caused by elevated temperatures.

Construction: Tri-layer system

First layer: FBE or epoxy primer (sleeve installed after epoxy primer cured)

Second layer: High copolymer hot-melt adhesive

Third layer: Radiation cross-linked polypropylene backing

Features & Benefits

• Excellent multifunctional adhesive allow for lower installation pre-heat temperature and super bonding to coating.
Superior cathodic disbondment and hot water immersion resistance offers the optimum barrier long term protection against corrosion.
Easy field installation, saves time & cost, HSS PP can be installed quickly and easily in most environments

Application guide	HSSPP
Performance	DIN 30678 DIN-EN12068 ISO 21809-3
Compatible line coatings	FBE, PP
Soil stress restrictions	None
Max operating temperature	110°C
Min preheat temperature	145°C
Recommended pipe preparation	SA 2½

Ordering information

HSS 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.	Product recommend thickness(mm): 1.8, 2.2, 2.5, 3.0 Other product thickness (1.6~3.5mm) are available, please note when make order. Product recommend width(inch): 18", 20", 24", 34" Other product width (12"~34") are available, please note when make order.

Standard Ordering Options			
Cut piece		* Roll form(closure patches to be ordered separately)	
Example:	HSSPP-24X18/2.5	Example	HSSPP-20x100f/2.2-RL
PP	Polypropylene backing	100f	Roll length in feet
24	Outside pipe diameter in inch	20	Roll width in inch
18	Sleeve width in inch	2.2	Roll thickness in mm
/2.5	Sleeve thickness in mm	-RL	Supplied in rolls

Covers wide range of operating temperature ratings, offers a solution for nearly every application. Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see application table.
For proper product installation, see installation instruction.

Product properties:

Property	Test Method	Typical Value HSSPP
PP Backing		
Tensile strength	ASTM D-638	28MPa
Elongation	ASTM D-638	600%
Hardness, Shore D	ASTM D-2240	62
Hot Melt Adhesive		
Softening point	ASTM E-28	≥145°C
Sleeve installation system		
Thickness@23°C	ISO 21809-3 Annex B	>0.85xnormal value
Holiday detection at 5kV/mm+5kV@23°C	ISO 21809-3 Annex C	No Holiday
Impact resistance (holiday detection @5kv +5kv/mm after recovery)	ISO 21809-3 Annex D	10 J/mm
Indentation resistance (holiday detection @5kv +5kv/mm after recovery) residual thickness Tmax	ISO 21809-3 Annex E	10.0 N/mm2 1.8mm
Cathodic disbondment @28days @23°C Tmax limited to 95°C	ISO 21809-3 Annex G	2.0mm 8.0mm
Peel strength@10mm/min To Pipe surface primed with epoxy and to plant coating @23°C @Tmax	ISO 21809-3 Annex H	 17.5N/mm 3.2N/mm
Lap shear strength @10mm/min @23°C @Tmax	ISO 21809-3 Annex J @ 10 mm/min	 9.8 N/mm^2 1.2 N/mm^2
Thermal ageing resistance (aged @ Tmax +20°C) -Elongation at break E_{100}/E_{70} -Peel strength to pipe surface A_{100}/A_0	ISO 21809-3 Annex M	 ≥0.75 ≥0.75
Oxdiation induction time on the backing at 220℃	ISO 11357-6	≥25min
thermal stability at 130℃ for 50 weeks, installed system	ISO 21809-3 Annex N	No cracks

Service Life: More than 30 years

Normal Packing: Carton (Maximum 45kg)

Storage Condition:

-To ensure maximum performance, store CHERAY POLYMER 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 50°C or below -5°C.

-Product installation should be done in accordance with local health and safety regulations.

HSS 120PP Heat Shrinkable Sleeve

Girth weld field joint coatings for 3-layer PP coated pipes

Description

HSS 120PP Heat shrinkable sleeve 3-layer system is engineered for special need of corrosion protection for high operation temperature pipeline joints. Once installed, the system effectively bonds and protects steel substrates and common main line pipe with coatings such as PP or other coatings. Especially applied for rapid installation requirement under higher stress conditions caused by elevated temperatures.

Construction: Tri-layer system

First layer: FBE or epoxy primer (sleeve installed after epoxy primer cured)

Second layer: High copolymer hot-melt adhesive

Third layer: Radiation cross-linked polypropylene backing

Features & Benefits

• Excellent multifunctional adhesive allow for lower installation pre-heat temperature and super bonding to coating.
Superior cathodic disbondment and hot water immersion resistance offers the optimum barrier long term protection against corrosion.
Easy field installation, saves time & cost, HSS PP can be installed quickly and easily in most environments

Application guide	HSS 120 PP
Performance	DIN 30678 DIN-EN12068 ISO 21809-3 14D-2
Compatible line coatings	FBE, PP
Soil stress restrictions	None
Max operating temperature	120°C
Min preheat temperature	145°C
Recommended pipe preparation	SA 2½

Ordering information

HSS 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.	Product recommend thickness(mm): 1.8, 2.2, 2.5, 3.0 Other product thickness (1.6~3.5mm) are available, please note when make order. Product recommend width(inch): 18", 20", 24", 34" Other product width (12"~34") are available, please note when make order.

Standard Ordering Options			
Cut piece		* Roll form(closure patches to be ordered separately)	
Example:	HSS 120PP-24X18/2.5	Example	HSS 120PP-20x100f/2.2-RL
120	Max Operation temperature	100f	Roll length in feet
24	Outside pipe diameter in inch	20	Roll width in inch
18	Sleeve width in inch	2.2	Roll thickness in mm
/2.5	Sleeve thickness in mm	-RL	Supplied in rolls

Covers wide range of operating temperature ratings, offers a solution for nearly every application. Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see application table.
For proper product installation, see installation instruction.

Product properties:

Property	Test Method	Typical Value HSS120PP
PP Backing		
Tensile strength	ASTM D-638	28MPa
Elongation	ASTM D-638	600%
Hardness, Shore D	ASTM D-2240	62
Hot Melt Adhesive		
Softening point	ASTM E-28	≥150°C
Sleeve installation system		
Thickness@23°C	ISO 21809-3 Annex B	>0.85xnormal value
Holiday detection at 5kV/mm+5kV@23°C	ISO 21809-3 Annex C	No Holiday
Impact resistance (holiday detection @5kv +5kv/mm after recovery)	ISO 21809-3 Annex D	10 J/mm
Indentation resistance (holiday detection @5kv +5kv/mm after recovery) residual thickness Tmax	ISO 21809-3 Annex E	 10.0 N/mm2 1.3mm
Cathodic disbondment @28days @23°C Tmax limited to 95°C	ISO 21809-3 Annex G	 2.5mm 8.5mm
Peel strength@10mm/min To Pipe surface primed with epoxy and to plant coating @23°C @Tmax	ISO 21809-3 Annex H	 16.8N/mm 4.8N/mm
Lap shear strength @10mm/min @23°C @Tmax	ISO 21809-3 Annex J @ 10 mm/min	 10.2N/mm^2 1.4N/mm^2
Thermal ageing resistance (aged @ Tmax +20°C) -Elongation at break E_{100}/E_{70} -Peel strength to pipe surface A_{100}/A_0	ISO 21809-3 Annex M	 ≥0.75 ≥0.75
Oxdiation induction time on the backing at 220℃	ISO 11357-6	≥25min
thermal stability at 130℃ for 50 weeks, installed system	ISO 21809-3 Annex N	No cracks

Service Life: More than 30 years

Normal Packing: Carton (Maximum 45kg)

Storage Condition:

-To ensure maximum performance, store CHERAY POLYMER 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 50°C or below -5°C.

-Product installation should be done in accordance with local health and safety regulations.

HSS 130PP Heat Shrinkable Sleeve

Girth weld field joint coatings for 3-layer PP coated pipes

Description

HSS 130PP Heat shrinkable sleeve 3-layer system is engineered for special need of corrosion protection for high operation temperature pipeline joints. Once installed, the system effectively bonds and protects steel substrates and common main line pipe with coatings such as PP or other coatings. Especially applied for rapid installation requirement under higher stress conditions caused by elevated temperatures.

Construction: Tri-layer system

First layer: FBE or epoxy primer (sleeve installed after epoxy primer cured)

Second layer: High copolymer hot-melt adhesive

Third layer: Radiation cross-linked polypropylene backing

Features & Benefits

• Excellent multifunctional adhesive allow for lower installation pre-heat temperature and super bonding to coating.
Superior cathodic disbondment and hot water immersion resistance offers the optimum barrier long term protection against corrosion.
Easy field installation, saves time & cost, HSS PP can be installed quickly and easily in most environments

Application guide	HSS 130PP
Performance	DIN 30678 DIN-EN12068 ISO 21809-3 14D-2
Compatible line coatings	FBE, PP
Soil stress restrictions	None
Max operating temperature	130°C
Min preheat temperature	145°C
Recommended pipe preparation	SA 2½

Ordering information

HSS 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.	Product recommend thickness(mm): 1.8, 2.2, 2.5, 3.0 Other product thickness (1.6~3.5mm) are available, please note when make order. Product recommend width(inch): 18", 20", 24", 34" Other product width (12"~34") are available, please note when make order.

Standard Ordering Options			
Cut piece		* Roll form(closure patches to be ordered separately)	
Example:	HSS 130PP-24X18/2.5	Example	HSS 130PP-20x100f/2.2-RL
PP	Polypropylene backing	100f	Roll length in feet
24	Outside pipe diameter in inch	20	Roll width in inch
18	Sleeve width in inch	2.2	Roll thickness in mm
/2.5	Sleeve thickness in mm	-RL	Supplied in rolls

Covers wide range of operating temperature ratings, offers a solution for nearly every application. Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see application table.
For proper product installation, see installation instruction.

Product properties:

Property	Test Method	Typical Value HSS130PP
PP Backing		
Tensile strength	ASTM D-638	28MPa
Elongation	ASTM D-638	600%
Hardness, Shore D	ASTM D-2240	60
Hot Melt Adhesive		
Softening point	ASTM E-28	≥150°C
Sleeve installation system		
Thickness@23°C	ISO 21809-3 Annex B	>0.85xnormal value
Holiday detection at 5kV/mm+5kV@23°C	ISO 21809-3 Annex C	No Holiday
Impact resistance (holiday detection @5kv +5kv/mm after recovery)	ISO 21809-3 Annex D	10 J/mm
Indentation resistance (holiday detection @5kv +5kv/mm after recovery) residual thickness @130℃	ISO 21809-3 Annex E	 10.0 N/mm2 >1.2mm
Cathodic disbondment，28days @23°C @ 95°C	ISO 21809-3 Annex G	 2.5mm 7.5mm
Peel strength@10mm/min To Pipe surface primed with epoxy and to plant coating @23°C @130℃	ISO 21809-3 Annex H	 16.5N/mm 4.2N/mm
Lap shear strength @10mm/min @23°C @130℃	ISO 21809-3 Annex J @ 10 mm/min.	 9.3N/mm^2 1.2N/mm^2
Thermal ageing resistance (aged @ Tmax +20°C) -Elongation at break E_{100}/E_{70} -Peel strength to pipe surface A_{100}/A_0	ISO 21809-3 Annex M	 ≥0.85 ≥0.85
Oxdiation induction time on the backing at 220℃	ISO 11357-6	≥25min
thermal stability at 130℃ for 50 weeks, installed system	ISO 21809-3 Annex N	No cracks

Service Life: More than 30 years

Normal Packing: Carton (Maximum 45kg)

Storage Condition:

-To ensure maximum performance, store CHERAY POLYMER 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 50°C or below -5°C.

-Product installation should be done in accordance with local health and safety regulations.