

HSS60 Heat Shrinkable Sleeve

3-layer Girth weld field joint coatings

Description

HSS60 Heat shrinkable sleeve is designed for corrosion protection of girth weld joint buried steel pipeline, especially for 3PE/ FBE factory coating pipeline.

Construction: Three-layer system

First layer: Liquid epoxy primer CP-1, solvent-free two-component
Wet film application

Second layer: High shear strength hot-melt copolymer adhesive

Third layer: Radiation cross-linked, high density polyethylene backing,
backing with **TIP** (Temperature Indicator Pattern) is optional.



Features & Benefits

- Excellent multifunctional adhesive allow for lower installation pre-heat temperature and super bonding to 3LPE 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.
- Pattern backing provides a "heating temperature indicator" for application of heat, ensures correct application heating.

Application guide

HSS 60

Standard reference	ISO 21809-3 2016 14B-1 EN 12068 Class C 60 UV NACE RP0303
Compatible line coatings	FBE, 3LPE
Soil stress restriction	None
Max operating temperature	65°C
Preheat temperature	50 - 70°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.

Sleeve width(mm): 18", 20", 24", 36"

Other width (10"-36") are available, please note when make order.

Product thickness (mm)		
Adhesive	Total thickness (as supplied)	Total thickness (recovered on pipe)
1.0	1.8	2.0
1.2	2.2	2.4
1.5	2.5	2.8
1.5	2.7	3.0
1.7	3.2	3.5

Other sleeve thickness (1.4~3.5mm) are available,
Please note when place order.

Standard Ordering options

	Cut piece		* Roll form(closure patches to be ordered separately)
Example:	HSS 60-24X18/2.5	Example	HSS 60-20x100f/2.7-RL
60	Operating temperature 60°C	60	Operating temperature 60°C
24	Outside pipe diameter in inch	100f	Roll length in feet
18	Sleeve width in inch	20	Roll width in inch
/2.5	Sleeve thickness in mm	2.7	Roll thickness in mm
		-RL	Supplied in rolls

Tape 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.

HSS type products are installed with CP-1 Epoxy primer, epoxy primers are ordered separately.

For more ordering information on epoxy primers see application tables.

Product properties:

Physical Properties	Test Method	HSS60 Typical Value
PE backing		
Tensile strength at 23°C	NACE PRO0303/ ASTM D-638	22 Mpa
Elongation to break	NACE PRO0303/ASTM D-638	600%
Hardness	ASTM D2240	57
Volume Resistivity @ 23°C	ASTM D257	1.2x10 ¹⁷ ohm-cm
Adhesion properties		
Holiday detection at 5KV/mm+5KV	ISO 21809-3 Annex C	No Holidays
Impact resistance (holiday detection at 5 KV/mm+5 KV)	ISO 21809-3 Annex D EN12068	>15J
Indentation Resistance @ T _{max} : Pressure Residual thickness	ISO 21809-3 Annex E EN12068	10 N/mm ² 1.7mm,no holiday at 15KV
Cathodic Disbondment @23°C, 30 days @ 65°C, 30 days	ISO 21809-3 Annex G EN12068	2.0 mm 6.0 mm
Adhesion strength at 10 mm/min @ 23°C @T _{max}	ISO 21809-3 Annex H EN12068	168 N/cm 6 N/cm
Peel strength at 10 mm/min to pipe surface and to polyolefin plant coating after 100-day hot-water immersion test at T _{max} P ₁₀₀ /P ₀	ISO 21809 -3 Annex H & I	0.80
Lap shear strength at 10 mm/min @23°C @ T _{max}	ISO 21809 -3 Annex J	3.6 N/mm ² 0.32 N/mm ²
Thermal Ageing Resistance (aged at T _{max} + 20 °C) --Elongation to break E ₁₀₀ /E ₇₀ --Peel strength to pipe surface P ₁₀₀ /P ₇₀	ISO 21809-3, Annex M	0.85 0.85

Service Life: More than 40 years**Normal Packing:** Carton (Maximum 30kg)**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 40°C or below -20°C.
- Product installation should be done in accordance with local health and safety regulations.

Shelf Life: 18 month, under correct storage condition.