



GTS-PP-65

Hybrid Shrink Sleeve for Protection of Subsea Pipeline Field Joints
Polypropylene Backing Layer and Mastic Adhesive Layer

For more than 35 years, Canusa-CPS has been a leading developer and manufacturer of specialty pipeline coatings for the sealing and corrosion protection of pipeline joints and other substrates. Canusa-CPS high performance products are manufactured to the highest quality standards and are available in a number of configurations to accommodate many specific project applications.

Product Description

The GTS-PP-65 hybrid shrink sleeve system provides excellent long-term adhesion and superior mechanical protection properties for subsea pipelines coated with a wide range of anti-corrosion coatings, including 3LPE, 3LPP, FBE, AE and CTE materials.

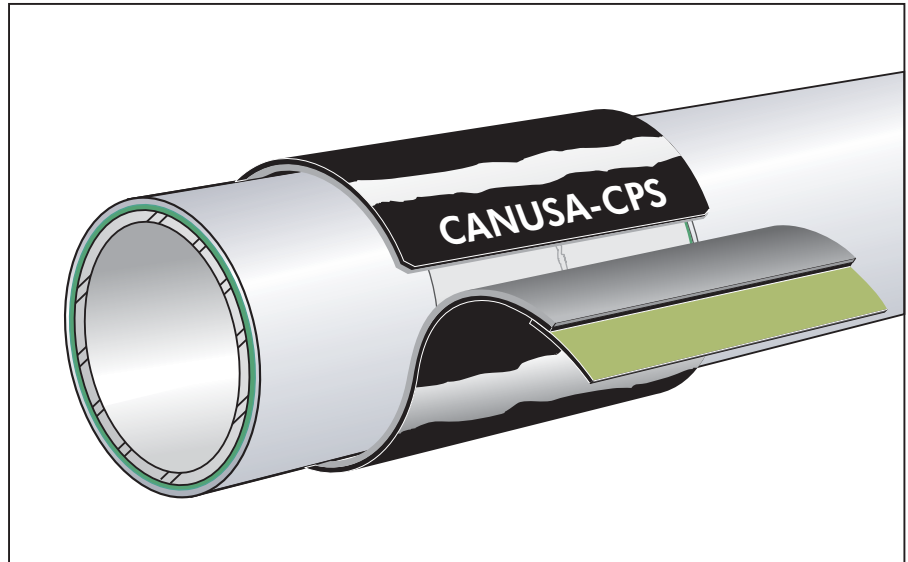
The GTS-PP-65 has been designed with a revolutionary hybrid material construction, consisting of the impressive mechanical attributes of PP based materials for the outer backing layer with the proven mastic adhesives technology that has been used on subsea pipelines for decades.

This combination of materials results in industry leading cycle times and superior mechanical resistance properties. The low preheat and St 3 surface preparation requirements allow for a consistent and easy installation procedure.

Features & Benefits

Unique Adhesive Technology

The inherent properties and composition of the adhesive layer allow for a consistent and high-strength bond to the mainline coating layer with low preheat temperatures. The user-friendly aspect of the material allows for consistent results in adverse conditions commonly encountered in subsea pipeline construction environments.



Mechanical Resistance

The PP backing layer of the GTS-PP-65 is fabricated using the equivalent raw materials as used for extrusion of PP mainline coatings. As a result, the mechanical properties achieved using this system are directly comparable to those achieved by 3LPP mainline coatings, including excellent resistance to impact, indentation, abrasion and for hardness.

These properties combine for excellent resistance to offshore roller box loads, post installation impacts from rock dumping or fishing trawl resistance.

Where potentially directly exposed to offshore roller box loads, the rapid hardening features of the GTS-PP-65 (via water quenching) are of high importance for excellent resistance to damage during the offshore lay process, with only minimal time requirements for quenching.

Rapid & Reliable Installation

The GTS-PP-65 is designed specifically for use in offshore environments, where a reliable installation procedure achieved in the most aggressive cycle time is critical. The following features contribute to this key benefit:

- Low preheat temperature
- St 3 surface preparation
- One-piece pre-fabricated design
- Rapid recovery PP backing layer (designed for excellent heat resistance to allow for up to 4 torch operators for installation on large diameters)

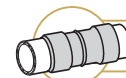
Applications



Oil & Gas



Offshore Pipelines



Girth-Weld Joints



Polypropylene



S-Lay, J-Lay, Reel Lay

Configurations



Wrapid Sleeve™



2-Layer PP Backing & Mastic Adhesive

Temperature Range



up to 65°C (149°F)

Product Selection Guide

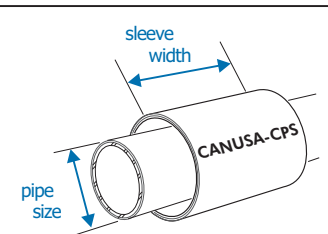
Sleeve Operating Characteristics	Celsius	Fahrenheit	GTS-PP-65
	100°	212°	
	90°	194°	
	80°	176°	
	70°	158°	
60°	140°		
50°	122°		
Offshore Pipeline Operating Temperature	65 °C (°F)		65 (149)
Minimum Installation Temperature	75 °C (°F)		75 (167)
Resistance to Impact			excellent
Resistance to Circumferential Forces			excellent
Resistance to Pipe Laying Shear Forces			excellent
Resistance to Axial Pipe Movement			excellent
Rapid Quenching Ability			excellent
Main Line Coating Compatibility			PE, PP, FBE, AE & CTE

Typical Product Properties

Adhesive	Test Standard	Unit	GTS-PP-65
Softening Point	ASTM E28	°C (°F)	102 (216)
Lap Shear	EN 12068	N/cm ² (psi)	40 (58)
Density	ASTM D792	g/cm ³	0.93
Tensile Strength @ 23°C (73°F)	ASTM D638	MPa	28
Elongation at Break @ 23°C (73°F)	ASTM D638	%	425
Hardness	ASTM D2240	Shore D	65
Water Absorption @ 23°C (73°F)	ASTM D570	%	< 0.2
Volume Resistivity	ASTM D257	ohm.cm	2 x 10 ¹⁷
Low Temperature Brittleness @ -40°C (-40°F)	ASTM D746	--	pass
Di-electric Breakdown Voltage	ASTM D149	kV/mm	> 25
Impact	EN 12068	J	>20
Indentation	EN 12068	class C	pass
Peel	ASTM D1000	N/cm (pli)	80 (46)
Peel	EN 12068	N/cm (pli)	65 (37)
Cathodic Disbondment	ASTM G8	mm rad	<5
Water Absorption	ASTM D570	%	0.05
Low Temp. Flexibility	ASTM D2671	°C (°F)	-14 (7)
Hot Water Immersion @ 60°C	GBE/CW6	pass/fail	pass - no disbondment
Indentation @ 60°C	EN 12068	pass/fail	pass
Bending Resistance	GBE/CW6	pass/fail	pass

How To Order:

Dimensions & Ordering Info	GTS-PP-65 915-450 BK/L		Standard Ordering Options - GTS-PP-65	
	Thickness	Colour	L Thickness	S Thickness
	Sleeve Width		L, S	
	Pipe Size		BK - Black	
	Adhesive (min. thickness as supplied)		450, 600 mm (18", 24")	
	Backing (min. thickness as supplied)		115 - 1220 mm (4" - 48")	
	Product Name		1.4 mm (0.055")	1.5 mm (0.060")
		0.9 mm (0.035")	1.1 mm (0.045")	
		GTS-PP-65		



Min. Sleeve Width =
Bare Steel Dimension + 50 mm (2")
on each side of the pipe joint.

* Non-standard sleeve widths are available from 250mm up to 900mm



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