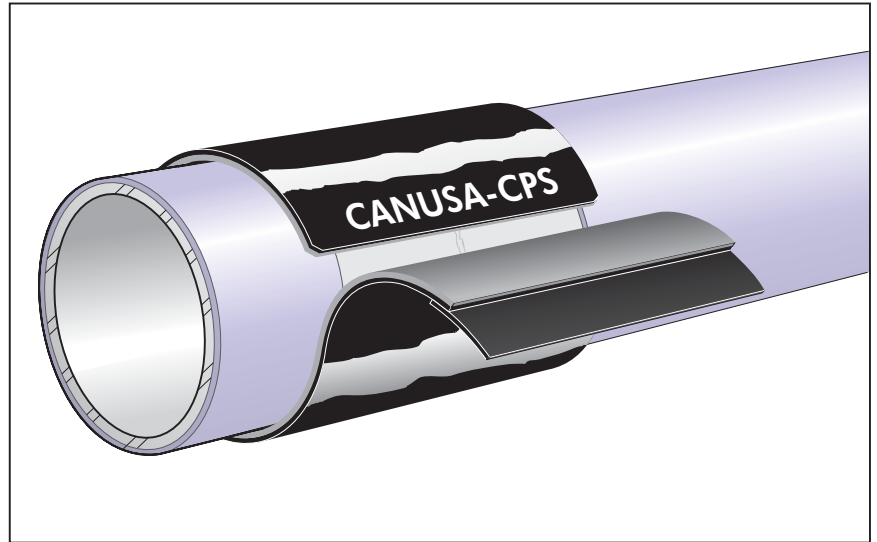


Offshore Wrapid Sleeve™ KLON & KLNN

One-piece protective sleeve with pre-attached closure

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 Canusa Wrapid Sleeve™ KLON and KLNN are one piece wraparound sleeves designed for corrosion protection of offshore steel pipelines. Wrapid Sleeve™ consists of a cross-linked polyolefin backing, coated with a protective heat-activated adhesive which effectively bonds to steel substrates and common pipeline coatings, including polyethylene and fusion bonded epoxy.

Features & Benefits

Rapid & Reliable Installation

Wrapid Sleeve™ offshore products have been engineered for the specific needs of offshore construction. Adhesives suitable for minimum St3 surface preparation, HDPE backing for rapid recovery, a patented pre-attached closure and the ability to water quench the sleeve all lead toward quick installation time prior to the sleeve reaching the first stinger rollers.




Long Term Corrosion Protection


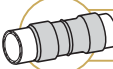
Wrapid Sleeve™ provides excellent resistance to cathodic disbondment resulting in effective long term corrosion protection. The high performance HDPE cross-linked backing, in combination with application specific adhesives, are engineered for offshore performance. Once installed, Wrapid Sleeve™ provides the structural integrity of a seamless tube, and provides the substrate with durable protection against abrasion and chemical attack.

Saves Time & Money




With Wrapid Sleeve's™ unique one-piece construction, HDPE backing and field-friendly adhesives, less time is required for surface preparation, handling, positioning, heat-shrinking and cooling of the sleeve. These features allow for simple and complete installation of the sleeve with low cycle times thus promoting high offshore production rates.

Applications

-  Oil & Gas
-  Offshore Pipelines
-  Polypropylene

-  Pipe-in-Pipe
-  Girth-Weld Joints

Configurations

-  Wrapid Sleeve™
-  2-Layer
-  Standard Shrink

Pipe Sizes

-  55 - 1520 (2" - 60")

Temperature Range

-  Up to 100°C (212°F)

Product Selection Guide

Choose your sleeve based on Operating Temperature and Characteristics listed below.

Sleeve Operating Characteristics	Celsius	Fahrenheit	KLON	KLNN
	Offshore Pipeline Operating Temperature	100°	212°	
Minimum Installation Temperature	90°	194°		
Resistance to Circumferential Forces	80°	176°	80 (176)	100 (212)
Resistance to Axial Pipe Movement	70°	158°	75 (167)	90 (195)
Main Line Coating Compatibility	60°	140°	good	good
			PE, PP, FBE, PU, Coal Tar, Bitumen	PE, PP, FBE, CTE, AE, BE, Tape

* For higher temperature requirements refer to Canusa GTS product line.

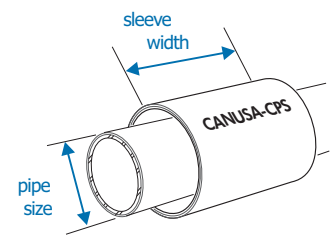
Typical Product Properties

Adhesive	Test Standard	Unit	KLON	KLNN
Softening Point	ASTM E28	°C (°F)	102 (216)	124 (255)
Lap Shear	DIN 30 672 M	N/cm ² (psi)	40 (58)	52 (75)
Backing				
Specific Gravity	ASTM D792		.95	.95
Tensile Strength	ASTM D638	MPa (psi)	24 (3480)	24 (3480)
Elongation	ASTM D638	%	700	700
Hardness	ASTM D2240	Shore D	52	52
Abrasion Resistance	ASTM D1044	mg	30	30
Volume Resistivity	ASTM D257	ohm-cm	10 ¹⁸	10 ¹⁸
Dielectric Voltage Brkdw.	ASTM D149	kV/mm	20	20
Sleeve				
Impact *	DIN 30 672	class C	pass	pass
Indentation *	DIN 30 672	class C	pass	pass
Peel	ASTM D1000	N/cm (pli)	80 (46)	115 (66)
Peel	DIN 30 672	N/cm (pli)	65 (37)	90 (51)
Cathodic Disbondment	ASTM G8	mm rad	7	7
Water Absorption	ASTM D570	%	0.05	0.05
Low Temp. Flexibility	ASTM D2671C	°C (°F)	-14 (7)	-15 (5)
DIN Approval *	DIN 30 672	class	C30	--
Fully Recovered T Sleeve Thickness		mm (mils)	2.5 (99)	2.3 (90)
Fully Recovered L Sleeve Thickness		mm (mils)	3.3 (131)	2.8 (111)

** backing elongation during peeling due to superior bond strength * Denotes L sleeve thickness

How To Order:

Dimensions & Ordering Info	KLO 230-450 BK	Standard Ordering Options	
		KLON	KLNN
Colour	BK-Black		
Sleeve Width	300mm, 450mm, 600mm, 900mm (12", 18", 24", 36")		
Pipe Size	55 - 1520mm (2" - 60")		
Adhesive (thickness as supplied)	1.7 mm (65 mils)	1.1 mm (45 mils) ¹	
Backing (thickness as supplied)	0.9 mm (36 mils)	1 mm (36 mils)	
Configuration	K - Wrapid Sleeve		



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

The above represents standard ordering options. Consult your Canusa representative for any unique project requirements.

² WT0N, WL0N, WTNN, WLNN are available in black only.



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