

Wrapid Sleeve™

One-piece protective sleeve with pre-attached closure

Canusa-CPS is a leading manufacturer of specialty pipeline coatings which, for over 30 years, have been used for sealing and corrosion protection of pipeline joints and other substrates. Canusa high performance products are manufactured to the highest quality standards and are available in a number of configurations to accommodate your specific project applications.

Product Description

The Canusa Wrapid Sleeve™ is a one-piece wraparound sleeve designed for corrosion protection of buried and exposed steel pipelines. Wrapid Sleeve™ consists of a crosslinked polyolefin backing, coated with a protective heat sensitive adhesive which effectively bonds to steel substrates and common pipeline coatings including polyethylene and fusion bonded epoxy.

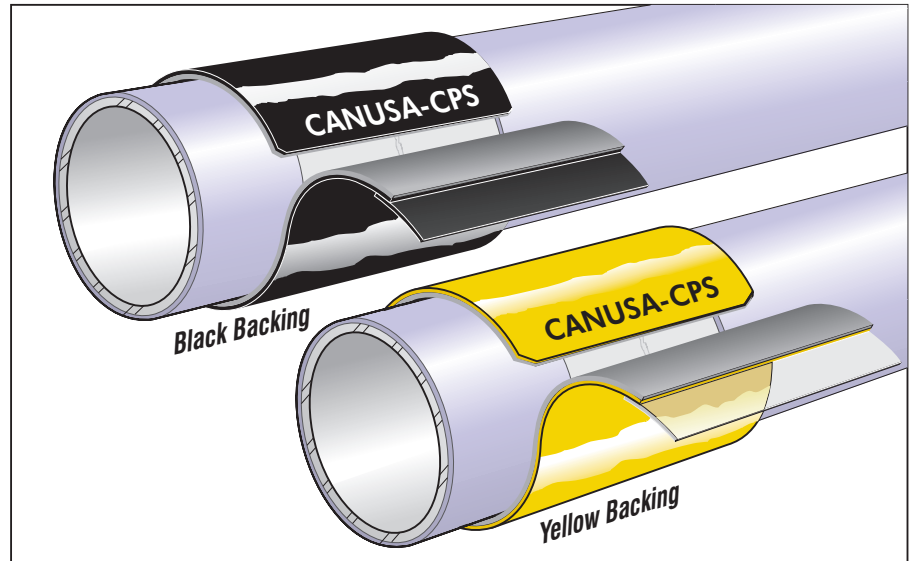
Features & Benefits

Rapid & Reliable Installation

Wrapid Sleeve™ has a patented one-piece construction that incorporates a pre-attached closure strip as part of the sleeve. Because the closure has been factory applied, quick and reliable field installation is easy to accomplish. Wrapid Sleeve™ is also available with a broad range of adhesives to accommodate various operating temperatures and soil stress conditions. To further optimize installation, Wrapid Sleeve™ products are available with a yellow polyethylene backing that incorporates a thermochromic indicator. These sleeves can be supplied with either a yellow or a patented opaque Windoweld™ closure.

Long-Term Corrosion Protection

Wrapid Sleeve™ provides excellent resistance to cathodic disbondment resulting in effective long term corrosion









protection. The high performance crosslinked backing, in combination with a broad range of adhesives, can be engineered for regular or high stress environments. 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 construction, less time is required handling, positioning and installing separate closures. With the application of heat, this feature allows for fast, simple and complete installation of the sleeve. No additional costly primers are required. This minimizes installation time and labour costs while promoting high production rates. Wrapid Sleeve™ is also available in a high shrink ratio for high profile joint protection. Consult the High Shrink data sheet for additional information.

Applications

-  Oil & Gas
-  Offshore Pipelines
-  Polypropylene
-  Water Pipelines
-  Pre-Insulated Pipes
-  Girth-Weld Joints

Configurations

-  Wrapid Sleeve™
-  2-Layer
-  Standard Shrink

Pipe Sizes

-  55 - 1520 (2" - 60")

Temperature Range

-  Up to 80°C (176°F)

Wrapid Sleeve™

Product Selection Guide

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

Sleeve Operating Characteristics	Celsius Fahrenheit		Mastic Adhesives						Hot Melt Adhesives	
			KLK KTG	KLC KTC	KLS KTS	KLO KTO	KLON KTON	KLNN KTNN	KLA	KLAS
Pipeline Operating Temperature	110°	230°								
	90°	194°								
	70°	158°								
	50°	122°								
	30°	86°								
Minimum Installation Temperature		°C (°F)	50 (122)	60 (140)	65 (150)	75 (167)	75 (167)	90 (195)	60 (140)	90 (195)
Resistance to Circumferential Forces			fair	fair	good	good	good	good	v. good	excl
Resistance to Soil Stress			fair	fair	good	good	good	good	v. good	excl
Resistance to Axial Pipe Movement			fair	fair	good	good	good	good	v. good	excl
Main Line Coating Compatibility			← PE, PP, FBE, PU, Coal tar, Bitumen, →						PE, PP, FBE	

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

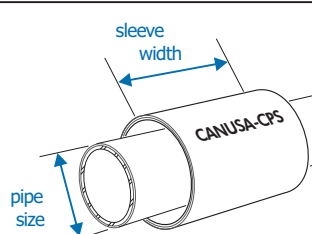
Typical Product Properties

Adhesive	Test Standard Unit										
Softening Point	ASTM E28	°C (°F)	100 (212)	90 (194)	77 (171)	102 (216)	102 (216)	124 (255)	72 (162)	90 (194)	
Lap Shear	DIN 30 672 M	N/cm ² (psi)	8 (12)	30 (44)	40 (58)	40 (58)	40 (58)	52 (75)	60 (87)	117 (170)	
Backing	Specific Gravity	ASTM D792	.93	.93	.93	.93	.95	.95	.93	.93	
	Tensile Strength	ASTM D638	MPa (psi)	20 (2900)	20 (2900)	20 (2900)	24 (3480)	24 (3480)	24 (3480)	20 (2900)	24 (3480)
	Elongation	ASTM D638	%	600	600	600	700	700	700	600	700
	Hardness	ASTM D2240	Shore D	46	46	46	48	52	52	46	48
	Abrasion Resistance	ASTM D1044	mg	45	45	45	35	30	30	45	35
	Volume Resistivity	ASTM D257	ohm-cm	10 ¹⁷	10 ¹⁷	10 ¹⁷	10 ¹⁷	10 ¹⁸	10 ¹⁸	10 ¹⁷	10 ¹⁷
	Dielectric Voltage Brkdown	ASTM D149	kV/mm	27	20	20	27	20	20	20	27
Sleeve	Impact *	DIN 30 672	class C	--	pass	pass	pass	pass	pass	pass	pass
	Indentation *	DIN 30 672	class C	--	pass	pass	pass	pass	pass	pass	pass
	Peel	ASTM D1000	N/cm (pli)	15 (9)	55 (31)	79 (45)	80 (46)	80 (46)	115 (66)	50 (29)	120 (70)
	Peel	DIN 30 672	N/cm (pli)	8 (5)	50 (29)	70 (40)	65 (37)	65 (37)	90 (51)	35 (20)	86 (50)**
	Cathodic Disbondment	ASTM G8	mm rad	6	6	8	8	8	10	13	11
	Water Absorption	ASTM D570	%	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Low Temp. Flexibility	ASTM D2671C	°C (°F)	-40 (-40)	5 (23)	-20 (-4)	-14 (7)	-14 (7)	-15 (5)	-32 (-26)	-28 (-18)
	DIN Approval *	DIN 30 672	class	--	--	--	C30	C30	--	C50	C50
	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) →			← 3.3 (131) →	

** 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	
			Heavy Duty Thickness (L)	Regular Thickness (T)
	²Colour		BK-Black, YE-Yellow, WW-Clear Closure	
	Sleeve Width		300mm, 450mm, 600mm, 900mm (12", 18", 24", 36")	
	Pipe Size		55 - 1520mm (2" - 60")	55 - 500mm (2" - 20")
	Adhesive (thickness as supplied)		1.7 mm (65 mils) ¹	1.25 mm (50 mils) ¹
	Backing (thickness as supplied)		L - 0.9 mm (36 mils)	T - 0.6 mm (25 mils)
	Configuration		K - Wrapid Sleeve	



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

¹ NN has an adhesive thickness of 1.1mm (45 mils)

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

² KLON, KTON, KTNN & KLNN are available in black only.



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Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the installation guide when used in compliance with Canusa's written instructions. Since many installation factors are beyond our control, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection therewith. Canusa's liability is stated in the standard terms and conditions of sale. Canusa makes no other warranty either expressed or implied. All information contained in this installation guide is to be used as a guide and is subject to change without notice. This installation guide supersedes all previous installation guides on this product. E&OE