

# KLON & KLNN

## High performance 2 layer sleeve systems

The KLON and KLNN sleeves are one piece wraparound sleeve designed for corrosion protection of both offshore and onshore steel pipelines. These sleeves are designed using a High Density polyolefin backing for improved mechanical protection and either a thermoplastic hybrid or a high shear mastic adhesive for easy installation and high corrosion protection.

### Rapid & Reliable Installation

- Engineered for the specific needs of quick applications, the KLON and KLNN sleeves are designed to be suitable for installation onto a minimum St 3 surface preparation level.
- Allow for decreased cycle time and increased product rates with excellent product application consistency

### Unique Adhesive Technology

- Allows for lower installation pre-heat temperatures and superior bonding to many mainline coatings used on both onshore and offshore pipelines
- Engineered to be water quenched to increase productivity rates

### Long Term Corrosion Protection

- Provides a protective coating with the structural integrity of a seamless tube, providing excellent resistance to Cathodic Disbondment and excellent durability against abrasion and chemical attack.

### Saves time and Money

- Supplied as a one piece system for easy and faster application to increase field joint production rates
- Lower Pre-heat means less time heating and a faster installation



### Applications



Offshore Pipelines



Onshore Pipelines



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Sleeve Operating Characteristics		KLON	KLNN
Pipeline Operating Temp. (Offshore)		Up to 80°C (176°F)*	Up to 100°C (212°F)*
Pipeline Operating Temp. (Onshore)		Up to 65°C (150°F)*	Up to 80°C (176°F)*
Minimum Installation Temp.		75°C (167°F)	90°C (195°F)
Main Line Coating Compatibility		PE, PP, FBE, PU, AE, CTE	PE, PP, FBE, AE, CTE
Adhesive Properties	Test Method	KLON	KLNN
Softening Point	ASTM E28	102°C	124°C
Lap Shear @ 23°C	ISO 21809-3	7 N/cm <sup>2</sup>	30 N/cm <sup>2</sup>
Backing Properties			
Tensile Strength	ASTM D638	22 MPa	22 MPa
Elongation	ASTM D638	600%	600%
Hardness	ASTM D2240	55 Shore D	55 Shore D
Volume Resistivity	ASTM D257	10 <sup>17</sup> ohm-cm	10 <sup>17</sup> ohm-cm
Sleeve Properties			
Adhesion Strength @ 23°C	ISO 21809-3	7 N/cm	50 N/cm
Impact Resistance	ISO 21809-3	15 J	15 J
Indentation Resistance	ISO 21809-3	0.65 mm (Pass)	0.65 mm (Pass)
Cathodic Disbondment @ 23°C, 28 days	ISO 21809-3	< 8 mm	< 10 mm
Thickness	T	L	S
Backing (Nominal Thickness as supplied)	0.6 mm (0.025")	0.9 mm (0.035")	1.1 mm (0.045")
Adhesive (Nominal Thickness as supplied)	1.1 mm (0.045")	1.4 mm (0.055")	1.5 mm (0.060")

\* Actual temperature rating is dependant on specific project requirements and conditions. Please consult your local Canusa representative.

Since 1967, 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.

The product information shown here is intended as a guide for standard products.

Consult your Canusa representative for specific projects or unique applications.



### Canusa-CPS A division of ShawCor Ltd.

#### Head Office

25 Bethridge Rd.  
Toronto, ON M9W 1M7 Canada  
Tel: +1 416 743 7111  
Fax: +1 416 743 5927

#### Canada

Suite 3200, 450 - 1st Street S.W.  
Calgary, AB T2P 5H1 Canada  
Tel: +1 403 218 8207  
Fax: +1 403 264 3649

#### Americas

2408 Timberloch Place, Building C-8  
The Woodlands, TX 77380 USA  
Tel: +1 281 367 8866  
Fax: +1 281 367 4304

#### Europe, Middle East, Africa & Russia

Unit 3, Sterling Park,  
Gatwick Road, Crawley, West Sussex  
RH10 9QT United Kingdom  
Tel: +44 1293 541254  
Fax: +44 1293 541777

#### Asia-Pacific

101 Thomson Road,  
#11-03 United Square  
307591 Singapore  
Tel: +65 6749 8918  
Fax: +65 6749 8919

### Canusa-CPS is registered to ISO 9001:2008

Canusa warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the product data sheet 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 data sheet is to be used as a guide and is subject to change without notice. This data sheet supersedes all previous data sheets on this product. E&OE

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