

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.

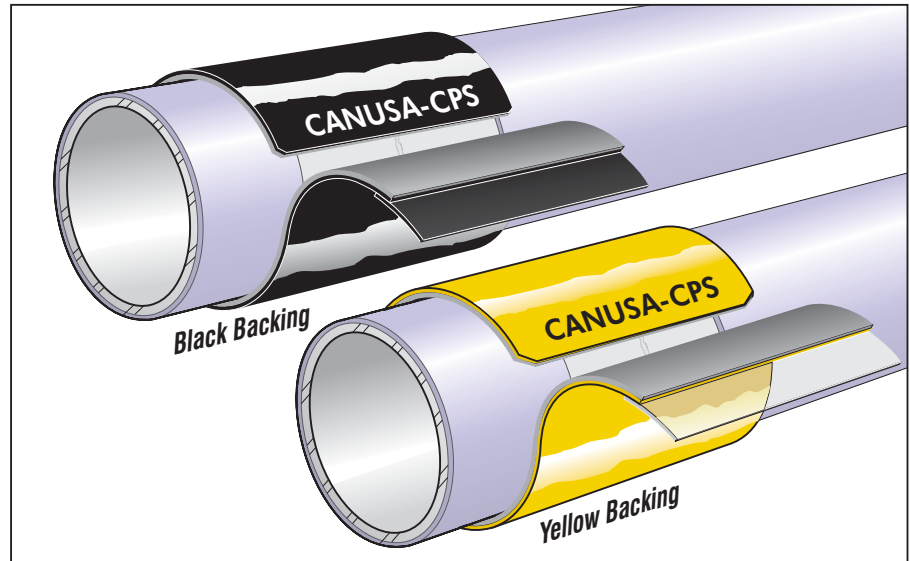
Features & Benefits

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 | | | |

Typical Product Properties

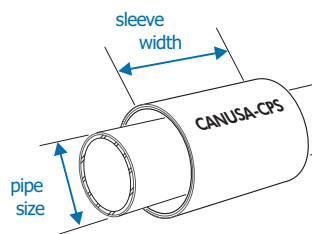
* For higher temperature requirements refer to Canusa GTS product line.
** KTON/KLON is marketed in Canada as K-60 UV

| Adhesive | Test Standard | Unit | KLK KTG | KLC KTC | KLS KTS | KLO KTO | KLON** KTON** | KLNN KTNN | KLA | KLAS |
|------------------------------------|---------------|-------------------------|-------------------------|------------------|------------------|------------------|-------------------------|------------------|-------------------------|------------------|
| 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) |
| 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 |
| 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 | 7 | 7 | 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 | Standard Ordering Options | |
|----------------------------------|--|--------------------------------|
| | Heavy Duty Thickness (L) | Regular Thickness (T) |
| KLO 230-450 BK | BK-Black, YE-Yellow, WW-Clear Closure | |
| Colour | 300mm, 450mm, 600mm, 900mm (12", 18", 24", 36") | |
| Sleeve Width | 55 - 1520mm (2" - 60") | 55 - 500mm (2" - 20") |
| Pipe Size | 1.7 mm (65 mils) ¹ | 1.25 mm (50 mils) ¹ |
| Adhesive (thickness as supplied) | L - 0.9 mm (36 mils) | T - 0.6 mm (25 mils) |
| Backing (thickness as supplied) | K - Wrapid Sleeve | |
| Configuration | | |



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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