

INR-110 & K-60 for Insulated Pipes

Corrosion protection and sealing sleeves for pre-insulated pipe joints

Canusa provides high performance, heat shrinkable products designed for the corrosion protection (INR-110) and sealing protection (K-60) of pre-insulated pipe joints.

INR-110 sleeves are specifically engineered for use in combination with polyurethane (PUR) foam or other infill systems. These sleeves are resistant to the conditions associated with the PUR foaming operation and maintain their full set of anti-corrosion properties. INR-110 sleeves are fully compatible with a wide range of pipeline coatings, including PP, FBE, PE, Coal Tar and Tape.

The Canusa Wrapid Sleeve™ Type K-60 is a one piece wraparound sleeve used to seal and provide mechanical protection of exposed foam insulation. It consists of a cross-linked polyolefin backing, coated with a technologically advanced protective adhesive which effectively bonds to polyethylene outer jackets and foam insulation.

Corrosion Protection INR-110 Sleeve

- Operator Friendliness - One-piece, wraparound sleeves with a factory bonded closures and a specially engineered product thickness results in optimum installation time. Single wrap configuration eliminates the requirements for multiple wrappings.
- Crosslinked Polyolefin Backing - Proprietary crosslinking technology provides superior resistance to PUR in-fill while ensuring long-term hoop stress.
- Unique adhesive technology allows for a low surface preparation requirement while ensuring long-term adhesion and excellent cathodic disbondment resistance properties.

Outer Sealing Sleeves - Type K-60

- **Long-Term Protection:** WrapidSleeve® Type K-60 provides excellent resistance to soil stress resulting in an effective longterm seal. Once installed, WrapidSleeve® Type K-60 provides the structural integrity of a seamless tube, and provides the substrate with durable protection against abrasion and chemical attack.

Saves Time & Money

- With WrapidSleeve® Type K-60'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. This minimizes installation time and labour costs while promoting high production rates.
- Wrapid Sleeve® Type K-60 Configuration - One-piece configuration (K) incorporates a pre-attached closure that has been factory applied resulting in quick and reliable field installation.
- Crosslinked Polyolefin Backing - Proprietary crosslinking technology provides superior abrasion resistance and mechanical strength to the backing.
- Assured Performance - Operating temperature specific adhesives ensure aggressive bonding and long-term sealing protection even in high soil stress conditions.
- Job-site Flexibility - CanusaWrap™ (W) bulk rolls are available upon special request for varying pipe diameters.



Applications



Pre-Insulated Pipes



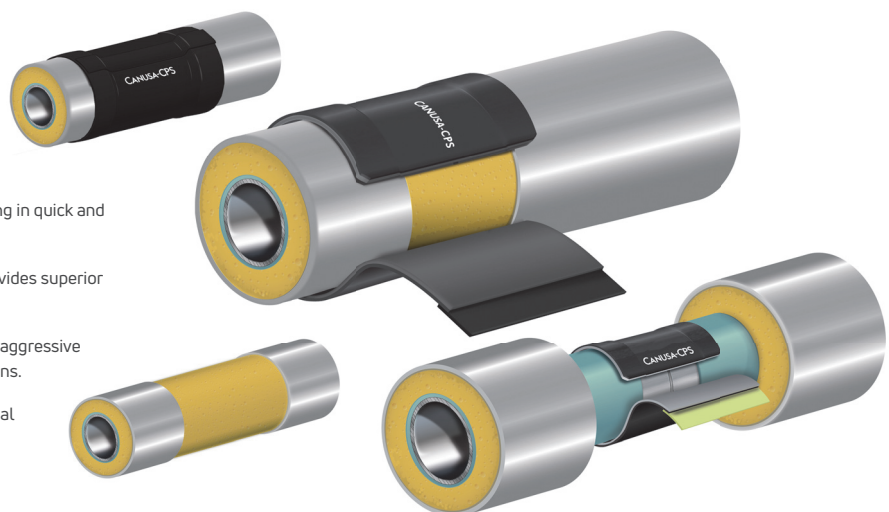
Infill Systems



Girth-Weld Joints



Jacket Continuation



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Sleeve Operating Characteristics	Test Method	INR-110	K-60*
Pipeline Operating Temp.		Up to 110°C (230°F)	Up to 60°C (140°F)
Minimum Installation Temp. ¹		10°C (18°F) above Dew Point	65°C (149°F)
Mainline Coating Compatibility		Bit, Tape, CTE, PE, PP, FBE	Tape, PE, PP
Resistance to Soil Stress / Axial Movement		not applicable	good
Compatibility to Polyurethane Foam (In-fill) ²		excellent	not applicable
Recommended Surface Preparation		St 2	St 2
Adhesive Properties			
Softening Point	ASTM E28	120°C	87°C
Lap Shear Strength	DIN 30 672	6 N/cm ²	35 N/cm ²
Backing Properties			
Tensile Strength	ASTM D638	22 MPa	20 MPa
Elongation	ASTM D638	600%	600%
Hardness	ASTM D2240	52 Shore D	46 Shore D
Specific Gravity	ASTM D792	0.95	0.93
Heat Shock - 4 hrs @ 250°C	ASTM D2671	pass	pass
Abrasion Resistance	ASTM D1044	30 mg	45 mg
Sleeve Properties			
Low Temp. Flexibility	ASTM D2671	-30°C	-20°C
Peel Strength	DIN 30 672	18 N/cm	88 N/cm
Water Absorption	ASTM D570	0.05%	0.05%
Resistance to PUR in-fill	-	pass	N/A
Drum Skin Test	D024 A P50-F SD004	no melt or sag	N/A
Thickness			T
Backing (nominal thickness as supplied)			0.9 mm (0.035")
Adhesive (nominal thickness as supplied)			0.9 mm (0.035")

* K-60 UV should be used for above ground application

¹ these preheat temperatures only apply to insulated pipelines, refer to WrapidSleeve™ Product Data Sheet for girth-weld corrosion protection

² product resists in-fill material (i.e. PURfoam) up to 240°C (464°F)

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 at info@canusacps.com.

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Quality Management
system registered to
ISO 9001

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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