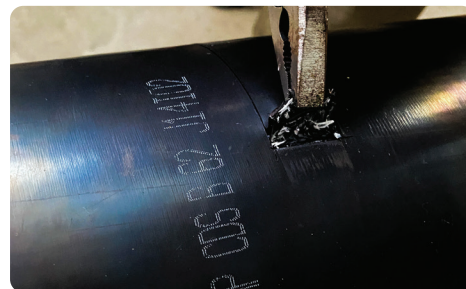




KOWRAP-CDS(Cross Directional Drilling)

Advanced Sleeve for Horizontal Directional Drilling Application

KOWRAP-CDS is a wrap-around heat shrinkable sleeve with reinforced fiberglass. It is specially designed for horizontal directional drilling application from severe abrasion force. Innochem's top-notch adhesive technology allows superior bonding and abrasion resistant performance, and cross-linked backing offers the optimum solid wall against the environmental attack and intrusion from any kind of external sources. It has a wide range of compatibility of PE, PP and FBE coated pipelines that allow application versatility and it is complying with International standards such as DIN EN 12068, ISO 21809-3, etc.



Superior Performance & Durability

- Highly resisted to shear forces against horizontal directional drilling process.
- Provides outstanding battle against cathodic disbondment and moisture absorption resistance
- Withstands tough environments and destructive conditions
- Superior adhesion between epoxy primer and adhesive of the sleeve

Field- Friendly Installation

- No heavy equipment is needed
- Supplied as one seamless piece for easy and faster application

Minimized Cost & Time Saving

- Supplied as bulk rolls or custom-cut to the required pipe size
- Eliminate unnecessary inventory
- Just-in-time pre-cut sleeve option available
- Low preheat condition required

Exceptional Aging Condition & Maintenance

- Easy handling without temperature sensitivity
- Insensitive to storage conditions and shelf life

Application Area



Oil & Gas

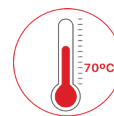


Water



Onshore

Operating Temperature



Up to 70°C

KOWRAP-CDS

Advanced Sleeve for Horizontal Directional Drilling Application

PRODUCT DATA SHEET

Sleeve Operating Characteristics

Pipeline Operating Temp.	Up to 70°C (158°F) [⌘]
Minimum Installation Temp.	70°C (158°F)
Mainline Coating Compatibility	PE, PP, FBE and etc.

Adhesive Properties	Test Method	Typical Values
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Softening Point	ASTM E28	99°C
Lap Shear @ 23°C	EN 12068	> 2.1 N/mm ²

Backing Properties	Test Method	Typical Values
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Tensile Strength	ASTM D638	> 24 MPa
Elongation	ASTM D638	> 350 %
Hardness, Shore D	ASTM D2240	> 52 Shore D
Bursting Strength	DIN 30673	> 2200 N

Sleeve Properties	Test Method	Typical Values
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Peel Strength to Pipe Surface @ 23°C	EN 12068	> 9 N/mm
Peel Strength to Pipe Surface @ 60°C	EN 12068	> 0.23 N/mm
Impact Resistance	EN 12068	> 30 J
Indentation Resistance @ 23°C	EN 12068	Pass
Cathodic Disbondment @ 23°C, 28 days	EN 12068	< 3 mm rad

Thickness	S
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Backing (nominal thickness as supplied)	1.80 mm
Adhesive (nominal thickness as supplied)	1.20 mm

⌘ Actual temperature rating depends on project requirements and conditions.

Epoxy usage can be referenced on the liquid epoxy data sheet.

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ISO 9001:2015
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Innochem warrants that the product conforms to its chemical and physical description and its appropriate for the use stated on the technical data sheet when used in compliance with Innochem written instructions. Since many installation factors are beyond the control of Innochem, the user shall determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Innochem liability is stated in the standard terms and conditions of sale. Innochem makes no other warranty either expressed or implied. All information contained in this technical data sheet is to be used as a guide and is subject to change without notice. This technical data sheet supersedes all previous data sheets on this product.