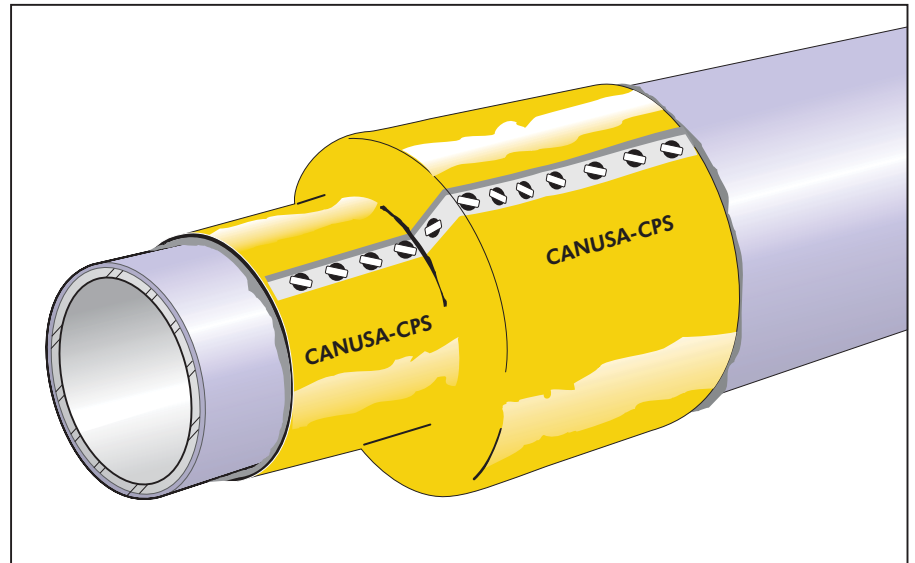


## Casing Snap-Fit Sleeves (CSF/CSK)

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 Casing Snap-Fit Sleeves (CSF/CSK) are high expansion heat-shrinkable wrap-around sleeves specifically designed to provide a waterproof seal on pipeline casings operating at constant temperatures of up to 60°C (140°F). As part of an underground system they electrically isolate pipelines from metallic casings. As well, the CSF/CSK products can be used to prevent the corrosion of above ground flanges and mechanical couplers. The sleeve consists of an irradiation, crosslinked, heat-shrinkable polyolefin backing, coated with an aggressive adhesive that effectively bonds to commonly used pipeline coatings including polyethylene, epoxy, tapes and coal tar enamel. Materials used in these products provide high electrical resistivity, resistance to corrosive environments, low water absorption and low moisture permeability. This combination ensures a permanent seal that is resistant to pipe deflection, vibration, soil stress, corrosive gases, and thermodynamic effects resulting from the expansion and contraction of carrier and casing pipes, flanges and mechanical couplers.



### Features & Benefits

#### Rapid and Reliable Installation

The Canusa CSF/CSK sleeve has a one-piece construction that allows rapid and reliable field installation. The unique snap-fit closure system allows for an accurate installation every time. The CSK kit contains a roll of filament tape and a polypropylene support skirting to provide smooth transition between the casing and the carrier pipe, eliminating the need to apply a filler mastic which is time consuming in the field.

#### Long Term Sealing

Once installed, the Canusa CSF/CSK has excellent structural integrity. The system provides superior mechanical protection to the joint by maintaining a hoop-stress around the adhesive and creating a tough permanent bond. The CSF/CSK adhesive remains flexible after installation and provides an excellent seal against vibration, deflection and temperature cycling while protecting from moisture, corrosion and bacterial damage.

### Applications



Oil & Gas



Water Pipelines



Step-Down Joints

### Configurations



Wrapid Sleeve™



2-Layer



Yellow Backing



Black Backing



High Shrink



Snap Fit

### Pipe Sizes



90/40 - 1250/510

### Temperature Range



up to 60°C (140°F)

The product selection chart shown here is intended as a guide for standard products. Consult your Canusa representative for specific projects or unique applications.

# Casing Snap-Fit Sleeve (CFS/CSK)

## Product Selection Guide

Available Sizes and Dimensions	Pipe DN Sizes	CSF/CSK Product	Supplied O.D. (mm)	Recovered O.D. (mm)
	300, 150	320/130-860-YW	320	130
	350, 175	370/150-860-YW	370	150
	425, 200	450/180-860-YW	450	180
	475, 225	500/200-860-YW	500	200
	525, 250	550/220-860-YW	550	220
	575, 250	600/240-860-YW	600	240
	625, 275	650/260-860-YW	650	260
	825, 350	850/340-860-YW	850	340
	925, 400	950/385-860-YW	950	385
	1050, 450	1100/445-860-YW	1100	445
	1200, 525	1250/510-860-YW	1250	510

\* Other sizes can be ordered for non-standard applications. Please consult Canusa Product Management.

Standard sleeve width is 860 mm (34") Sleeves can also be made 525 mm (21") wide

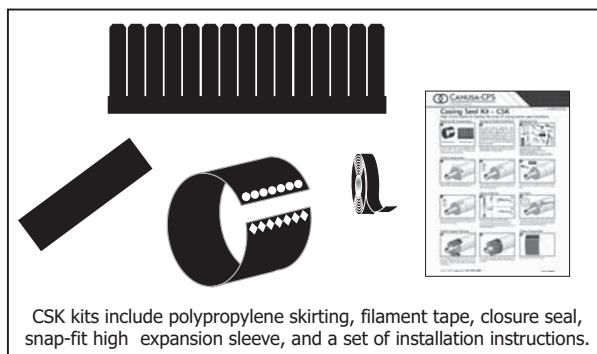
## Typical Product Properties

Property	Test Method	Unit	Requirements	Typical Value
Adhesive Softening Point	ASTM E28	°C (°F)	85 (185) min.	90 (194)
Adhesive Lap Shear	ASTM D1002	kPa (psi)	83 (12)	90 (13)
Backing Tensile Strength	ASTM D638	Mpa (psi)	18 (2610) min.	20 (2900)
Backing Elongation	ASTM D638	%	500 min.	550
Backing Abrasion Resistance	ASTM D1044	mg	50 max.	45
Backing Hardness	ASTM D2240	Shore D	40 min.	44
Dielectric Strength	ASTM D149	Kv/mm	20 min.	27
Volume Resistivity	ASTM D257	ohm-cm	>10 <sup>14</sup> min.	>10 <sup>17</sup>
Water Absorption	ASTM D570	%	0.10 max.	0.05
Peel Strength	ASTM D1000	N/cm (pli)	25 (15) min.	70 (40)
Low Temperature Flexibility	ASTM D2671-C	°C (°F)	-14 (7) max.	-20°C (-5° F)
			<b>CSF / CSK</b>	<b>CSF II / CSK II</b>
Average Recovery			60%	65%
Adhesive (as supplied thickness)			1.1 mm (43 mils)	1.1 mm (43 mils)
Backing (as supplied thickness)			0.9 mm (36 mils)	0.8 mm (33 mils)
Sleeve (as supplied thickness)			2.0mm (80 mils)	1.9mm (76 mils)
Sleeve (fully recovered thickness)			3.2mm (126 mils)	3.2mm (126 mils)

## How to Order:

Dimensions & Ordering Info	CSK-320/130-860-YW	CSF/CSK
Colour ▶		YE-yellow BK-black
Sleeve Width ▶		860 mm
Supplied/Recovered ▶		320/130 mm
Adhesive (thickness as supplied) ▶		1.1 mm
Backing (thickness as supplied) ▶		2.0 mm
Configuration ▶		CSK

The above represents standard ordering options. CSK Kits are available with sleeve widths of 860 mm (34") and 500 mm (20"). Consult your Canusa representative for any unique project requirements.



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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