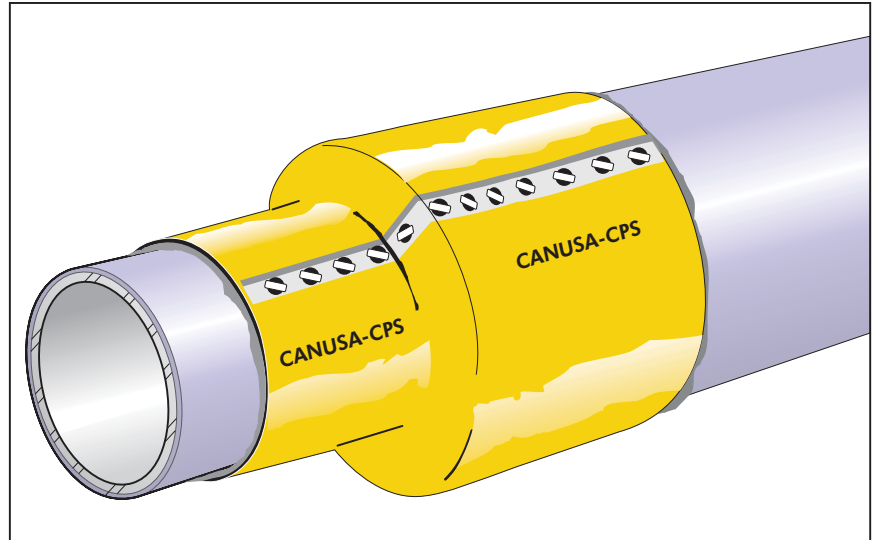


Casing Snap-Fit Sleeves (CSF/CSK)

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 and Backing Properties | 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 |
| Sleeve Properties | Dielectric Strength | ASTM D149 | Kv/mm | 20 min. | 27 |
| | Volume Resistivity | ASTM D257 | ohm-cm | >10 ¹⁴ min. | >10 ¹⁷ |
| | 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) |
| Sleeve Dimensions | | | CSF / CSK | CSF II / CSK II | |
| | 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.

