

SuperCase™ CSC-XP

Advanced Joint Casing System for Pre-Insulated Pipelines

CSC-XP, the latest generation of Canusa's SuperCase technology, has been engineered based on Canusa's Hybrid-PEX™ technology, which combines the advantages of cross-linked and uncross-linked polyethylene in a single product. The revolutionary design of this product results in the most versatile pre-insulated pipe joint protection system on the market. The patented CSC-XP Casing can be installed with adhesive sealing and /or using electro-fusion welding with Canusa-CPS' automated IntelliFUSE™ system.

HybridPEX™ Technology*

- Cross-linked polyethylene outer layer **maintains hoop stress** on the pipe over the design life and **resists premature recovery** in hot climates
- Uncross-linked polyethylene inner layer of the casing allows for **effective welding (IntelliFUSE™)*** of the material to the mainline PE jacket pipe
- Advanced grade of high density bimodal polyethylene offers **enhanced resistance to abrasion, impact, penetration and cracking**, especially at low temperatures

Proven and Reliable Joint Protection

- CSC-XP system far exceeds the stringent requirements of EN 489 Standard and allows for **100% inspection** through **pressure testing**
- Structural integrity of the CSC-XP Casing system results in **robust and reliable joint protection** with **class leading resistance to soil stress**, moisture ingress and temperature cycling effects

Engineered for Maximum Efficiency

- Innovative CSC-XP design offers **simple and forgiving installation**, thus reducing cycle time and installed cost of the joint
- Combined with Canusa-CPS' IntelliFUSE™*, the system offers **industry leading installation speed** with automated quality control and traceability features

*Patent Pending



Applications



Pre-Insulated Pipes



Foam-In-Place



Pre-Foamed Joints



IntelliFUSE™



CSC-XP Installation Flexibility



1. CSC-XP Application Methods:

- High Shear and Peel Strength Adhesive
- Electro-fusion with metal mesh bands

2. HybridPEX™ Technology

- Maintains hoop stress
- Resists premature recovery in hot climates
- Fast installation times
- Enhanced resistance to abrasion, impact, penetration and crack resistance
- Allows for adhesive and fusion based application method

Other Key Advantages / Options

IntelliFUSE™ System



- Portable, easy to use system
- Automation reduces human error
- Built in quality control
- Fast cycle time

Air Pressure Testable



- Non-destructive, on-site quality control measure
- Verifies correctness of installation
- Allows for 100% inspection

Fast & Reliable Application



- Flexible application methods
- Robust, reliable and repeatable
- Unmatched speed of installation
- Reduced installed cost

System Components and Sizing Guidelines

| CSC-XP System: Ordering Information and Standard Dimensions | | | | | | | | | | |
|-------------------------------------------------------------|--------------------|-------------------------------|--------------------------------|------------------------------|--------------------------------------------|----------------------------------------|---------------------|--------------------------------|-----------------------------|-------------------------------|
| Pipe Ø (mm) | CSC-XP Casing | | | | | Accessory Materials (Kit) | | | | |
| | Ordering Info | Diameter (Supplied) Ø (mm) | Diameter (Recovered) Ø (mm) | Thickness (Supplied) (mm) | Thickness ¹ (Recovered) (mm) | Length ² (Supplied) (mm) | Ordering Info (Kit) | Adhesive Strips Length (mm) | Metal Strips Length (mm) | Spacers Qty & Size (L, XL) |
| 90 | CSC-XP 90-750 BK | 100 | 80 | 2.5 | 3.4 | 750 | CSC-XP Kit 90 | 2 x 315 | - | - |
| 110 | CSC-XP 110-750 BK | 130 | 99 | 2.5 | 3.4 | 750 | CSC-XP Kit 110 | 2 x 380 | - | - |
| 125 | CSC-XP 125-750 BK | 140 | 110 | 2.5 | 3.4 | 750 | CSC-XP Kit 125 | 2 x 430 | - | - |
| 140 | CSC-XP 140-750 BK | 160 | 121 | 2.5 | 3.4 | 750 | CSC-XP Kit 140 | 2 x 480 | - | - |
| 160 | CSC-XP 160-750 BK | 185 | 140 | 2.5 | 3.4 | 750 | CSC-XP Kit 160 | 2 x 545 | - | - |
| 180 | CSC-XP 180-750 BK | 205 | 155 | 3.5 | 4.5 | 750 | CSC-XP Kit 180 | 2 x 610 | - | - |
| 200 | CSC-XP 200-750 BK | 225 | 170 | 3.5 | 4.5 | 750 | CSC-XP Kit 200 | 2 x 680 | - | - |
| 225 | CSC-XP 225-750 BK | 255 | 193 | 3.5 | 4.5 | 750 | CSC-XP Kit 225 | 2 x 760 | - | - |
| 250 | CSC-XP 250-750 BK | 280 | 215 | 3.5 | 4.5 | 750 | CSC-XP-F Kit 250 | 2 x 845 | 790 | - |
| 280 | CSC-XP 280-750 BK | 315 | 235 | 3.5 | 4.5 | 750 | CSC-XP-F Kit 280 | 2 x 940 | 885 | - |
| 315 | CSC-XP 315-750 BK | 385 | 290 | 3.5 | 4.5 | 750 | CSC-XP-F Kit 315 | 2 x 1060 | 1000 | - |
| 355 | CSC-XP 355-750 BK | 390 | 295 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 355 | 2 x 1185 | 1125 | 4 x L |
| 400 | CSC-XP 400-750 BK | 445 | 330 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 400 | 2 x 1335 | 1265 | 4 x L |
| 450 | CSC-XP 450-750 BK | 495 | 370 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 450 | 2 x 1500 | 1430 | 4 x L |
| 500 | CSC-XP 500-750 BK | 555 | 410 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 500 | 2 x 1665 | 1585 | 4 x L |
| 520 | CSC-XP 520-750 BK | 575 | 425 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 520 | 2 x 1730 | 1650 | 4 x L |
| 560 | CSC-XP 560-750 BK | 615 | 455 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 560 | 2 x 1860 | 1770 | 4 x L |
| 630 | CSC-XP 630-750 BK | 690 | 510 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 630 | 2 x 2090 | 2000 | 4 x L |
| 670 | CSC-XP 670-750 BK | 735 | 540 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 670 | 2 x 2225 | 2125 | 4 x L |
| 710 | CSC-XP 710-750 BK | 775 | 570 | 4.5 | 5.5 | 750 | CSC-XP-F Kit 710 | 2 x 2355 | 2255 | 4 x L |
| 800 | CSC-XP 800-750 BK | 875 | 645 | 5.5 | 6.5 | 750 | - | - | 2540 | 4 x XL |
| 860 | CSC-XP 860-750 BK | 935 | 690 | 5.5 | 6.5 | 750 | - | - | 2730 | 4 x XL |
| 900 | CSC-XP 900-750 BK | 980 | 720 | 5.5 | 6.5 | 750 | - | - | 2860 | 4 x XL |
| 1000 | CSC-XP 1000-750 BK | 1090 | 800 | 5.5 | 6.5 | 750 | - | - | 3175 | 4 x XL |
| 1100 | CSC-XP 1100-750 BK | 1195 | 875 | 5.5 | 6.5 | 750 | - | - | 3480 | 4 x XL |
| 1200 | CSC-XP 1200-750 BK | 1300 | 950 | 5.5 | 6.5 | 750 | - | - | 3800 | 4 x XL |

Special Orders

| XXX | CSC-XP XXX-YYY BK | XXX - PE Size (mm) | YYY - Nominal Casing Length (mm) | YYY - 750 | CSC-XP Kit XXX | CSC-XP-F Kit XXX |
|-----|-------------------|--------------------|----------------------------------|-----------|----------------|------------------|
|-----|-------------------|--------------------|----------------------------------|-----------|----------------|------------------|

¹ Recovered thickness represents thickness after full (free) recovery ²Standard length shown, optional CSC-XP lengths are available.

SuperCase™ CSC-XP


Advanced Joint Casing System for Pre-Insulated Pipelines

| Adhesive Properties | Test Method | Typical Values |
|----------------------------------------------------------|-------------|----------------------------------------------------------------------------|
| Softening Point | ASTM E28 | 100°C |
| Lap Shear | EN 12068 | 300 N/cm ² |
| Casing Properties | | |
| Tensile Strength | ASTM D638 | 30 MPa |
| Elongation | ASTM D638 | 600 |
| Hardness | ASTM 2240 | 60 Shore D |
| Abrasion Resistance | ASTM D1044 | 35 mg |
| System Properties | | |
| Adhesion Strength @ 23°C* | EN 12068 | 140 N/cm |
| Water Absorption | ASTM D570 | < 0.05 % |
| Low Temp. Flexibility | ASTM D2671 | -30°C |
| Heat Aging @ 150°C, 14 days (Tensile Strength) | ISO R57 | 95% |
| Heat Aging @ 150°C, 14 days (Tensile Elongation) | ISO R57 | 95% |
| Soil Box & Pressure Vessel Test** (Adhesive Method) | EN 489 | 300 cycles, 18kN/m ² (1m) sand overfill, 30 kPa @ 30°C for 24 h |
| Soil Box & Pressure Vessel Test*** (IntelliFUSE™ Method) | EN 489 | Pass-Weld Stress Crack Resistance |


EN 489 Sand Box Test – 300 Cycles

Casing completely intact on both sides.

Easily Exceeds EN 489 Requirements



Prior to testing



After testing

IntelliFUSE™

Please contact Canusa representative for more information.

The product information shown here is intended as a guide for standard products.

Consult your Canusa representative for specific projects or unique applications.



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Canusa-CPS is registered to ISO 9001:2008

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

PDS_CSC-XP_rev015

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.