

MIS-65 / MIS-100

Wraparound Sleeve for Offshore Heated Infill Systems

For more than 35 years, 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.

Product Description

Corrosion Protection of Girth-Welds under heated infill systems on offshore service environments

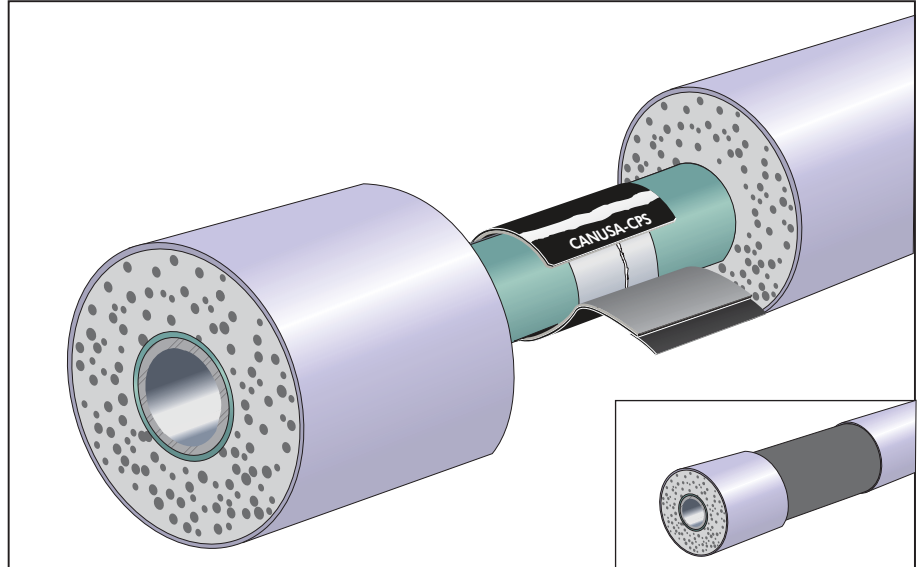
MIS-65 and MIS-100 heat-shrinkable sleeves provide superior corrosion protection and effective long-term adhesion to pipelines operating offshore at temperatures up to 100°C (212°F). MIS-65 and MIS-100 sleeves are specifically engineered for use in combination with hot marine mastic pour, polyurethane foam or other infill systems. MIS-65 and MIS-100 sleeves are resistant to the severe conditions of hot mastic pour operations and maintain their full set of anti-corrosion properties. MIS-65 and MIS-100 are fully compatible with a wide range of pipeline coatings, including PP, FBE, PE, Coal Tar and Tape.

Features & Benefits

Flexible & Time Efficient Installation

MIS-65 and MIS-100 sleeves have a patented one-piece construction that incorporates a pre-attached closure seal. This contributes to a rapid and consistent field installation procedure. Without any requirements for the wrapping of multiple layers, the field installation is fast, efficient and in-line with timing requirements of offshore laybarge operations. The crosslinked high-density polyethylene (HDPE) backing is designed to provide a rapid and consistent shrink response when installed with propane torch equipment. MIS-65 and MIS-100 sleeves can be conveniently wrapped and installed in low ambient temperatures due to its excellent low temperature flexibility attributes.

CANUSA-CPS is registered to **ISO 9001:2008**.



Unique Adhesive Technology

Canusa's unique (open time) adhesive technology allows for lower installation preheat temperatures, superior adhesion to a wide range of mainline pipe coatings and consistent performance in rugged offshore environments. The adhesive has been formulated to provide long-term adhesion and excellent cathodic disbondment resistance properties.

Hot Mastic & Foam Infill Compatibility

MIS-65 and MIS-100 sleeves can be used with hot mastic pour, polyurethane foam or other infill systems to provide effective long-term corrosion protection. MIS-65 and MIS-100 sleeves are resistant to hot mastic pour systems and meet the requirements of the Drum Skin Test for high temperature effects.

Maximize Cost Savings

Precious time is saved in several areas when using MIS-65 and MIS-100 sleeves on laybarge operations in combination with infill systems; lower preheat temperature equates to lower installation times, single wrap configuration eliminates the requirements for multiple wrapping, and the pre-attached closure seal means less time is used handling, positioning and installing the joint protection materials. The overall system minimizes installation time and labour costs while promoting high production rates.

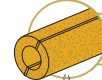
Applications



Offshore Pipelines



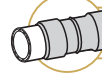
Oil & Gas



Infill Systems



Reel, J & S Lay



Girth-Weld Joints

Configurations



Wrapid Sleeve™



2-Layer



Standard Shrink

Pipe Sizes



55 - 1220 (2" - 48")

Temperature Range





up to 100°C (212°F)

MIS-65 / MIS-100

Wraparound Sleeve for Offshore Heated Infill Systems

Product Selection Guide

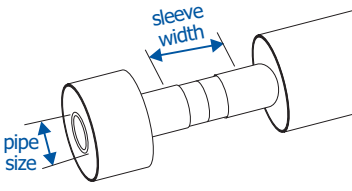
| Sleeve Operating Characteristics | Celsius | Fahrenheit | MIS-65 | MIS-100 |
|--|---|------------|-------------------------|--------------------------------|
| | Choose your sleeve based on Operating Temperature and Characteristics listed below. | 105° | 221° | |
| | 90° | 194° | | |
| | 75° | 167° | | |
| | 60° | 140° | | |
| | 45° | 113° | | |
| | 30° | 86° | | |
|  Pipeline Operating Temperature | Minimum Installation Temperature | | 65°C (150°F) | 90°C (194°F) |
| | Maximum Operating Temperature | | 65°C (149°F) | 100°C (212°F) |
| | Resistance to Hot Infill Pour | | excellent | excellent |
| | Compatibility to Hot Marine Mastic | | excellent | excellent |
| | Compatibility to Polyurethane Foam | | excellent | excellent |
|  Pre-heat Temperature | Main Line Coating Compatibility | | Bit, Tape, CTE, FBE, PE | PE, PP, FBE, CTE, AE, BE, Tape |
| | Recommended Surface Preparation | | St 3 (min) SA 2½(rec) | St 3 (min) SA 2½(rec) |

Typical Product Properties

| | Test Standard | Unit | MIS-65 | MIS-100 |
|----------------------|---------------------------------|------------------------------------|---------------------------------|--------------------------|
| Adhesive | Softening point | ASTM E28 | 102 (216) | 124 (255) |
| | Lap shear @ 23°C | DIN 30 672 | 40 (58) | 52 (75) |
| Backing | Tensile strength | ASTM D638 | 24 (3480) | 24 (3480) |
| | Elongation | ASTM D638 | 600 | 600 |
| | Heat Aging - Elongation @ Break | ASTM D638 | 450 | 450 |
| | Heat Shock - 4hrs @ 250°C | ASTM D2671 | pass | pass |
| | Hardness | ASTM D2240 | Shore D 57 | 57 |
| | Abrasion resistance | ASTM D1044 | mg 6 | 6 |
| | Volume Resistivity | ASTM D257 | ohm-cm | 10 ¹⁸ |
| Sleeve | Dielectric Strength | ASTM D149 | kV/mm 35 | 35 |
| | Impact | DIN 30 672 | -- | > 8 J |
| | Indentation Resistance | DIN 30 672 | -- | no holiday @ 10kV |
| | Peel Strength to Steel, PE, PP | ASTM D1000 | N/cm (pli) 80 (46) | 115 (66) |
| | Peel Strength @ 23°C | DIN 30672 | N/cm (pli) 65 (37) | 90 (51) |
| | Cathodic Disbondment @ 23°C | ASTM G8 | mm rad < 7 | < 7 |
| | Cathodic Disbondment @ 65°C | ASTM G42, 48hrs | mm rad < 7 | < 7 |
| | Hot Water Immersion | ASTM D870 | Visual pass | pass |
| | Water Absorption | ASTM D570 | % 0.05 | 0.05 |
| | Low Temp. Flexibility | ASTM D2671-C | °C (°F) -14 (7) | -15 (5) |
| Resistance to Infill | Drum Skin Test | D024 A P50-F SD004 | Visual no melt or sag | no melt or sag |
| | Fully Recovered Thickness | | mm (mils) 1.8 (73) | 1.8 (73) |
| | Visual Inspection | pipe 24", mold 26", mastic @ 200°C | Visual pass, no holidays @ 10kV | pass, no holidays @ 10kV |
| | Change in Peel Strength | ASTM D1000 | % < 10% | < 10% |
| | Change in Tensile Strength | ASTM D638 | % < 15% | < 15% |
| | Change in Elongation | ASTM D638 | % < 15% | < 15% |

How To Order:

| Dimensions & Ordering Info | MIS-65 315-450 BK | Standard MIS-65 and MIS-100 Options | | |
|----------------------------|---------------------------------------|--|-------------------------|--|
| | Colour ▶ | BK - Black | | |
| | Sleeve Width ▶ | 300, 450, 600, 700mm (12, 18, 24, 28") | | |
| | Pipe Size ▶ | 55 - 1220mm (2 - 48") | | |
| | Maximum Operating Temperature ▶ | MIS-65 - 65°C (149°F) | MIS-100 - 100°C (212°F) | |
| | Adhesive (thickness as supplied) ▶ | 0.88mm (35 mils) | | |
| | Backing (thickness as supplied) ▶ | 0.63mm (25mils) | | |
| | Backing (thickness fully recovered) ▶ | 0.80mm (32mils) | | |
| Application ▶ | Heated Infill Systems | | | |



Min. Sleeve Width =
Bare Steel Dimension + 50 mm (2")
on each side of the pipe joint.

The above represent standard ordering options. Consult your Canusa representative for any unique project requirements or CanusaWrap™ configuration.



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