

COVALENCE® TPSEM-C30

Product Information

Product description: Covalence® TPSEM is a heat-shrinkable, tubular sleeve which prevents corrosion of welded pipe joints in distribution lines. This mechanically strong and flexible sleeve is compatible with most standard pipeline coatings and outer jackets.

Construction: Two-layer system

- *First layer:* Visco-elastic mastic sealant.
- *Second layer:* Radiation-cross-linked, high density polyethylene.

The installation is carried out directly on the cleaned and dried (pre-heated) pipe surface without primer. Heat is applied to the sleeve, which shrinks to form a tight fit around the joint. While shrinking, the visco-elastic sealant homogeneously flows to cover the complete surface and fills in all surface irregularities.

Features:

- Dimpled backing provides a "Permanent Change Indicator" (PCI) for application of heat.
- No primer required.
- No special equipment or skills required.
- Low preheat sensitivity.
- Mechanically strong & resists abrasion, impact and penetration.
- Sealing adhesive automatically flows and repairs minor mechanical damages.

Benefits:

- Ensures correct application of heat & allows easy post-heat inspection. Reliable inspectability at any time.
- Makes installation fast and easy. Keeps installation costs low.
- Allows easy application combined with high functional performance.
- Reliable and tough. Remains user-friendly (even at low temperatures).
- "Self-healing effect".

Product selection

| | |
|-------------------------------------|--------------------------------------|
| Max operating temperature | 65°C (149°F) |
| Compatible line coatings | PE, PP, FBE, Tape, Coal tar, Asphalt |
| Min. preheat temperature | 60°C (140°F) |
| Recommended pipe preparation | Clean, dry and free of grease |
| Soil stress restrictions | None |
| Performance | EN12068 class C30 |

Product thickness

| | |
|-------------------------------------|--------|
| Backing as supplied | 0.9 mm |
| Backing fully free recovered | 1.4 mm |
| Adhesive as supplied | 0.9 mm |

Product properties

Backing

| Property | Test method | Typical value |
|----------------------------------|-------------|---------------|
| Tensile strength at break | EN 12068 | 24 MPa |
| Elongation at break | EN 12068 | 600% |
| Hardness, Shore D | ASTM D2240 | 58 |

Adhesive

| Property | Test method | Typical value |
|------------------------|-------------|--|
| Softening Point | ASTM E28 | 134°C (273°F) |
| Lap shear | EN 12068 | 0.07 N/mm ² 0.01 N/mm ² at 65°C (149°F) |

Installed sleeve

| Property | Test method | Typical value |
|-------------------------------|---|---------------|
| Peel strength | EN 12068 @ 10 mm /min | 1.1 N/mm |
| Cathodic disbondment | En 12068, 30 days | 4 mm radius |
| Impact resistance | EN 12068 | > 15 J |
| Indentation resistance | EN 12068 Class C (10 N/mm ²) | > 0.6 mm* |

* Remaining coating thickness.

Note: The typical values in this data sheet are based on lab prepared samples.

Values shown are not to be interpreted as product specifications.

General order information

Covalence® TPSEM-C30 products are available
 – As ready-to-size tubular sleeves
 Take a 10% shrinkage during installation of sleeve width into account when calculating the minimum sleeve width.

Example TPSEM-C30-450-DN100

| | Designation | Standard ordering options |
|--------------|----------------------------|---|
| DN100 | Outside pipe diameter (DN) | DN80 (3.500") DN100 (4.500") DN150 (6.625") DN200 (8.625") Other sizes available on request, consult your Covalence representative. |
| 450 | Sleeve width | 450 mm (17.75") (DN50-DN200), 600 mm (23.50") (DN100-DN200) * nominal width |

For pipe sizes exceeding DN200, the use of wraparound WPC sleeves is recommended.

Handling and Storage

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|-----------------|---|
| Handling | Handle with care. Keep boxes upright. |
| Storage | Store indoor, clean and dry, away from direct sunlight in a cool place below +50°C. Unlimited shelf life. |

Information

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|------------------------|--|
| Documentation | Extensive information is available on our website. Application instructions and other documentation can be obtained by contacting our head office, from our local distributor or by sending an email to info@sealforlife.com |
| Certified staff | Application of the described coating system should be carried out by certified personnel. |