

## **PRODUCT DATA SHEET**



# COVALENCE® EasySeal TPSM-PE

## **Product Information**

Tubular sleeve with wide installation window for sealing of pipe joints in pre-insulated pipe system.

**Product description:** EasySeal TPSM-PE is a heat-shrinkable, tubular sleeve for joint sealing of heat-shrinkable and oversized casings in standard conditions. Generally, EasySeal TPSM-PE is used as an additional outside seal against moisture ingress at casing ends.

#### Construction:

- Adhesive: High strength, visco-elastic sealant with low preheat for easy application..
- Backing: Radiation cross-linked, high density polyethylene with PCI (Permanent Change Indicator). Upon proper heating the dimples disappear permanently. Any time after, it is possible to inspect whether the sleeve during installation has been well heated and fully shrunk leaving any cold spots over its entire surface

During shrinking, the adhesive easily melts and flows, filling in the transition between the pipe jacket and the oversized casing. The adhesive ensures a firm bond between the sleeve and the pipe/casing surface. The dimpled backing permanently indicates that the sleeve is completely shrunk.

### Features:

- · High shrink force HDPE backing.
- · Permanent high hoop stress of cross-linked HDPE backing.
- · High mechanical resistance HDPE backing.
- · No special installation equipment required.
- Individual packaging precludes contamination prior to application.
- Permanent Change Indicator.
- Over 25 years in service sealing.

## **Benefits:**

- Creates tight, high performance bond and a strong seal. Secures anchoring of casing and pipe jacket.
- Easily survives temperature cycling, soil stresses, pipe movements & chemical attack. Extremely resistant!
- Easy installation: just 'slide over & shrink'.
- Stays clean and uncomplicated. Less work.
- Ensures correct application heat and allows easy post-heat inspection. Reliable inspectability at any time.
- · Effective long term sealing.

| Product selection guide             |                                     |
|-------------------------------------|-------------------------------------|
| Max operating temperature           | 50°C (60°C under expansion cushion) |
| Compatible joint system             | Heat-shrinkable casing              |
| Recommended preheat temperature     | 60°C                                |
| Recommended pipe preparation        | Cleaning & Abrading                 |
| Soil stress resistance              | Moderate                            |
| Pressure testing after installation | Optional                            |
| Product recommended for             | Service lines                       |
| Performance                         | > 100 cycles acc. EN 489*           |

| Product properties     |                       |                        |
|------------------------|-----------------------|------------------------|
|                        |                       |                        |
| Backing                |                       |                        |
| Property               | Test method           | Typical value          |
| Tensile strength at    | ASTM D-638            | 22.8 MPa               |
| break                  |                       |                        |
| Elongation at break    | ASTM D-638            | 600%                   |
| Hardness, Shore D      | ASTM D-2240           | 57                     |
| Shrink force           | ASTM D-638,           | 0.276 MPa              |
|                        | 150°C                 |                        |
| Thermal ageing         | ASTM D-3045, 150°C    | 21 days                |
| followed by elongation | ASTM D-638,           | > 450%                 |
|                        | 23°C                  |                        |
| Moisture absorption    | ASTM D-570            | 0.04%                  |
| Adhesive               |                       |                        |
| Property               | Test method           | Typical value          |
| Softening Point        | ASTM E-28             | 135°C                  |
| Lap shear              | EN 12068              | 0.09 N/mm <sup>2</sup> |
| Installed sleeve       |                       |                        |
| Property               | Test method           | Typical value          |
| Peel to PE             | EN 12068, 10mm/min    | 1.1 N/mm               |
|                        | DIN 30672, 100 mm/min | 40 N/cm                |
| Soil stress resistance | EN 489 – 100 cycles*  | Pass                   |
| External pressure test | EN 489                | Pass                   |
| after soil stress      | 23°C, 30 kPa, 24 hrs  |                        |
| + 00/                  |                       |                        |

<sup>\* 8%</sup> sand humidity

Note: The typical values in this data sheet are based on lab prepared samples. Values shown are not to be interpreted as product specifications.

| Product thickness            |         |
|------------------------------|---------|
| Backing as supplied          | 0.65 mm |
| Backing fully free recovered | 1.00 mm |
| Mastic sealant as supplied   | 0.88 mm |

# **Product order information**

EasySeal TPSM-PE type products are available

As ready-to-size tubular sleeve

| Example   | cample TPSM-210/135-150PE160/180(C60) |                               |  |
|-----------|---------------------------------------|-------------------------------|--|
|           | Designation                           | Standard ordering options     |  |
| 210/135   | Recovery ratio (mm)                   | See application table on next |  |
|           |                                       | page                          |  |
| 150       | Sleeve width (mm)                     | 150, 225, (450)**             |  |
| PE160/180 | Outside diameter(s) of                | See application table on next |  |
|           | insulated pipe(s)                     | page                          |  |
| C60       | Packaging quantity                    | C60: 60 pc per case           |  |

<sup>.\*\*</sup> no inside-out packaging, only adhesive liner, made to order only



| Application Table                                   |  |                                |                              |  |   |
|---|--|--------------------------------|------------------------------|--|---|
| Max. Casing<br>diameter before<br>shrinkage<br>(mm) | Insulated pipe<br>outside diameter<br>(mm) | TPSM-PE Product Size           | Product width<br>XXX<br>(mm) | Min. Supplied<br>diameter<br>TPSM-PE<br>(mm) | Max. Recovered<br>diameter<br>TPSM-PE<br>(mm) |
| 80  | 65   | TPSM-85/60-XXXPE65 (C150)      | 150                          | 85   | 60  |
| 90  | 65 – 75                                    | TPSM-95/65-XXXPE65/75(C125)    | 150                          | 95   | 65  |
| 105   | 90   | TPSM-115/80-XXXPE90(C90)       | 150 or 225                   | 115  | 80  |
| 125   | 90 – 110                                   | TPSM-130/90-XXXPE90/110(C90)   | 150 or 225                   | 130  | 90  |
| 145   | 110 – 125                                  | TPSM-155/100-XXXPE110/125(C90) | 150 or 225                   | 155  | 100   |
| 160   | 125 – 140                                  | TPSM-170/110-XXXPE125/140(C90) | 150 or 225                   | 170  | 110   |
| 180   | 140 – 160                                  | TPSM-190/125-XXXPE140/160(C90) | 150 or 225                   | 190  | 125   |
| 200   | 160 – 180                                  | TPSM-210/135-XXXPE160/180(C60) | 150 or 225                   | 210  | 135   |
| 220   | 180 – 200                                  | TPSM-225/145-XXXPE180/200(C60) | 150 or 225                   | 225  | 145   |
| 245   | 200 – 225                                  | TPSM-260/165-XXXPE200/225(C60) | 150 or 225                   | 260  | 165   |
| 265   | 225 – 250                                  | TPSM-290/185-XXXPE225/250(C40) | 150 or 225                   | 290  | 185   |
| 300   | 250 – 280                                  | TPSM-330/210-XXXPE250/280(C44) | 150 or 225                   | 330  | 210   |
| 335   | 280 -315                                   | TPSM-370/235-XXXPE280/315(C44) | 150 or 225                   | 370  | 235   |
| 370   | 315 -355                                   | TPSM-395/250-XXXPE315/355(C30) | 150 or 225                   | 395  | 250   |
| 420   | 355 – 400                                  | TPSM-450/285-XXXPE355/400(C30) | 225                          | 450  | 285   |
| 470   | 400 – 450                                  | TPSM-505/315-XXXPE400/450(C20) | 225                          | 505  | 315   |
| 525   | 450 – 500                                  | TPSM-555/350-XXXPE450/500(C20) | 225                          | 555  | 350   |
| 585   | 600 - 560                                  | TPSM-625/385-XXXPE500/560(C14) | 225                          | 625  | 385   |
| 650   | 560 -630 -710                              | TPSM-775/480-XXXPE560/710(C10) | 225                          | 775  | 480   |
| 735   | 560 -630 -710                              | TPSM-775/480-XXXPE560/710(C10) | 225                          | 775  | 480   |
| 825   | 710 – 800                                  | TPSM-865/525-XXXPE710/800(C10) | 225                          | 865  | 525   |

| General information |   |  |
|---------------------|---|--|
| Installation        | For proper product installation, see latest installation  |  |
| guide               | instruction.  |  |
| Handling            | Handle with care. Keep boxes upright.   |  |
| Storage             | To ensure maximum performance, store Covalence  |  |
|                     | products in a dry, ventilated area. Keep products sealed in original boxes and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage temperatures above 40°C or below -10°C. Unlimited shelf life. |  |

| Information     |   |
|-----------------|---|
| Documentation   | Extensive information is available on our web-site. 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.   |



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