

# Heat-Shrink Tubular Sleeve TPSM

## Product Information

Tubular sleeve with wide installation window for sealing of pipe joints in pre-insulated pipe system and corrosion protection in gas/water networks

**Product description:** Covalence TPSM is a heat-shrinkable, tubular sleeve for joint sealing of heat-shrinkable and oversized casings in standard conditions. Generally, TPSM 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
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	EN 12068 Class B30

## Product properties

Backing		
Property	Test method	Typical value
Tensile strength at break	ASTM D-638	22.8 MPa
Elongation at break	ASTM D-638	600%
Hardness, Shore D	ASTM D-2240	57
Shrink force	ASTM D-638, 150°C	0.276 MPa
Thermal ageing followed by elongation	ASTM D-3045, 150°C ASTM D-638, 23°C	21 days > 450%
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 DIN 30672, 100 mm/min	1.1 N/mm 40 N/cm
Soil stress resistance	EN 489 – 100 cycles*	Pass
External pressure test after soil stress	EN 489 23°C, 30 kPa, 24 hrs	Pass

\* 8% 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	TPSM-210/135-450	
	Designation	Standard ordering options
210/135	Recovery ratio (mm)	See application table
450	Sleeve width (mm)	450

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