



Heat-shrinkable tubular pipe sleeve for corrosion protection and sealing of mechanical couplers & fittings on pipelines.

Product description

CPSM, XCSM fittings & mechanical coupler coating and sealing.

Construction: Two-layer system:

First layer: Visco-elastic mastic sealant.

Second layer: Thick-walled, radiation cross-linked, high density polyethylene.

CPSM, XCSM are thick-wall, high expansion heat-shrinkable tubular sleeves remarkable for their high shrink ratio allowing awkward, irregular shapes to be coated easily. This makes them specifically useful for corrosion prevention and sealing of screw- or other mechanical couplers in distribution networks.

CPSM, XCSM are typically used for small diameters and high percentage transitions. CPSM, XCSM can also be used on small diameter bends, like riser bends.

The installation is carried out directly on the cleaned and dried (pre-heated) coupler & pipe surface without any primer being required. CPSM/XCSM is positioned on the pipes prior to coupling them together and, after installation of the coupler, slid centrally over the joint to be protected. When heated, the CPSM/XCSM sleeve shrinks and the sealant melts, encapsulating mechanical couplings and straight pipes with a strong impervious seal. While the sleeve conforms to the shape of the coupling or pipe, the melted sealant is forced into all surface irregularities providing a permanent environmental seal.

Product features/benefits

- No primer required**
 No drying time and easy application.
- Low preheat sensitivity & proven functionality**
 Allows easy application combined with high functional performance.
- Highly resistant**
 Trustful as CPSM/XCSM resists bending, impact, abrasion, penetration, corrosive gases or fluids, disbonding and long-term storage. Remains user-friendly (even at low temperatures).
- Copes with difficult shapes**
 Makes installation & protection a child's play. Saves time and money.
- Specially formulated sealants**
 Ensures a strong bond & impervious seal.
- Self-healing effect**
 Saves extra intervention steps (Sealing adhesive automatically flows and seals off minor mechanical damages).
- Copes with relatively high transitions (high shrink ratio)**
 Minimizes inventory, thus economical.
- No special equipment or skills required**
 Makes installation fast and easy. Keeps installation costs low.

Product selection guide

	CPSM/87	CPSM-C30	XCSM/87
Max operating temperature	30°C (86°F)	30°C (86°F)	30°C (86°F)
Compatible line coatings	PE, FBE, Tape, Coal tar, Asphalt, Plastics	PE, FBE, Tape, Coal tar, Asphalt, Plastics	PE, FBE, Tape, Coal tar, Asphalt, Plastics
Min preheat temperature	60°C (140°F)	60°C (140°F)	60°C (140°F)
Recommended pipe preparation	Clean, dry and free of grease	Clean, dry and free of grease	Clean, dry and free of grease
Soil stress restrictions	None	None	None
Performance	EN 12068 class B30	EN 12068 class C30	EN 12068 class B30

Product thickness

	CPSM/87	CPSM-C30	XCSM/87
Backing (as supplied) *	0.028 - 0.047 in. (0.7 - 1.2 mm)	0.028 - 0.047 in. (0.7 - 1.2 mm)	0.028 - 0.047 in. (0.7 - 1.2 mm)
Backing (fully free recovered) *	0.091 in. (2.30 mm)	0.091 in. (2.30 mm)	0.13 in. (3.30 mm)
Adhesive (as supplied)	0.028 in. (0.7 mm)	0.028 - 0.035 in. (0.7 - 0.9 mm)	0.028 in. (0.7 mm)

* Backing thickness is function of the diameter

Product properties: CPSM /87- CPSM C30 - XCSM

Property	Test method	CPSM/87	CPSM-C30 Typical Value	XCSM/87
Backing				
Tensile strength	ISO R527	20 MPa	20 MPa	20MPa
Elongation	ISO R527	580%	580%	580%
Hardness, Shore D	ASTM D-2240	55	55	55
Shrink force	ASTM D-638	40 psi	40 psi	40 psi
	150°C (302°F)			

Property	Test method	CPSM/87	CPSM-C30	XCSM/87
		Typical Value		
Adhesive				
Softening point	ASTM E-28	94°C (201°F)	92°C (198°F)	94°C (201°F)
Shear strength	EN 12068 @ 10 mm (0.4")/min.	0.18 N/mm ²	0.08 N/mm ²	0.18 N/mm ²
Sleeve				
Peel to Steel	EN 12068 @ 10 mm (0.4")/min.	0.5 N/mm	0.9 N/mm	0.5 N/mm
Cathodic disbondment	EN 12068, 30 days	10 mm radius	9 mm radius	10 mm radius
Impact resistance	EN 12068	> 8 Nm	> 15 Nm	> 8 Nm
Penetration resistance	EN 12068 class B30 (1 N/mm ²) class C30 (10 N/mm ²)	> 0.6 mm *	> 0.6 mm *	> 0.6 mm *

* Remaining coating thickness

Ordering information

CPSM/XCSM type products are available:

- as ready-to-size tubular sleeves

Example: CPSM-90/36-1500/87 CPSM-C30-90/36-1000 XCSM-130/41-500/87

		Standard Ordering options		
		CPSM/87	CPSM-C30	XCSM
C30	Performance classification		C30	
90/36	Recovery ratio in mm	25/8 (1/0.32")	25/8 (1/0.32")	30/8 (1.18/0.32")
130/41	(supplied diameter/recovered diameter)	35/12 (1.38/0.47") 50/16 (2/0.63") 70/26 (2.76/1.02") 90/36 (3.54/1.42") 120/54 (4.72/2.13") 164/80 (6.46/3.15") 195/102 (7.67/4.02")	37/12 (1.46/0.47") 50/18 (2/0.71") 70/26 (2.76/1.02") 90/36 (3.54/1.42") 120/54 (4.72/2.13") 164/80 (6.46/3.15") 195/102 (7.67/4.02")	44/12 (1.73/0.47") 55/18 (2.17/0.71") 85/22 (3.35/0.87") 115/30 (4.53/1.18") 130/41 (5.12/1.61") 160/55 (6.30/2.17") 178/60 (7.01/2.36")
1500	Sleeve width in mm *	350 mm (14")	350 mm (14")	300 mm (12")
1000		500 mm (19.75")	500 mm (19.75")	500 mm (19.75")
500		1000 mm (39.5") 1500 mm (59")	1000 mm (39.5")	1000 mm (39.5") 1500 mm (59")

* Take a 10% shrinkage during installation of sleeve width into account when calculating the minimum sleeve width.

For proper product installation, see latest installation instruction.

Tyco Adhesives warrants that the product conforms to its chemical and physical description and is appropriate for the use stated on the technical data sheet when used in compliance with Tyco Adhesives' 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. Tyco Adhesives' liability is stated in the standard terms and conditions of sale. Tyco Adhesives makes no other warranty either expressed or implied. All information contained in this technical data sheet is to be used as a guide and is subject to change without notice. This technical data sheet supersedes all previous data sheets on this product.

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