

# **COVALENCE® TPS**

## **Product Information**

One-piece heat-shrinkable sleeve for corrosion protection of girth weld joints on various types of piping systems.

Product description: Covalence® TPS are heat-shrinkable, tubular sleeves which prevent corrosion of welded pipe joints in distribution lines for sizes up to 4.500"/DN100. For larger sizes, the use of the Covalence® wraparound sleeve, WPC, is recommended. This mechanically strong and flexible sleeve is compatible with all standard pipeline coatings and outer jackets.

Construction: Two-layer system

- First layer: Butyl based low preheat adhesive
- Second layer. Thick-walled, radiation-cross-linked, high density polyethylene.

The installation is carried out directly on the cleaned and dried (preheated) 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 for application of heat.
- Excellent aging performance.
- Superior cathodic disbondment and hot water immersion resistance.
- No primer required.
- Low preheat sensitivity & proven functionality.
- No special equipment or skills required (standard gas torch).

#### **Benefits**:

- Ensures correct application of heat & allows easy post-heat inspection. Reliable inspectability at any time.
- No shelf life issues.
- Ensures a strong bond and a tight seal. Provides high peel and shear values after installation.
- Makes installation fast and easy. Keeps installation costs low.

# Product selection guide

Max operating temperature65°C (149°F).Compatible line coatingsPE, PP,FBE, Tape, Coal TarMin. preheat temperature60°C (140°F)
Min prohost tomporature 60°C (140°E)
Recommended pipe preparation Clean, dry and flee of grease
Soil stress restrictions Moderate
Performance EN 12068, Class B30

0.64 mm (0.025 in)
1.00 mm (0.039in)
0.76 mm (0.030 in)

Product properties	;	
Backing		
Property	Test method	Typical value
Tensile strength at break	ASTM D638	3300 psi 22.8 MPa
	ASTM D638	600%
Elongation at break		
Hardness, Shore D	ASTM D2240	57
Shrink force	ASTM D638 150°C (302°F)	40 psi
Water absorption	ISO 62	0.04%
Adhesive		
Property	Test method	Typical value
Softening point	ASTM E28	134°C (273°F)
Shear strength	ASTM D1002	50 psi
_	EN 12068 @ 10 mm (0.4")/min	> 0.1 N/mm <sup>2</sup>
Installed sleeve		
Property	Test method	Typical value
Peel strength	ASTM D1000	50 lb/in
Ŭ	EN 12068 @ 10 mm (0.4")/min	1.1 N/mm
Cathodic disbondment	ASTM G42 @65°C(149°F), 30 days	7 mm radius
Hot water	ASTM D870	No delamination, no
immersion	@ 65°C (149°F), 120 days	blisters or water ingress
Low temperature flexibility	ASTM D2671, procedure C	-14°C (6.8°F)
Impact resistance	ASTM G14	50 in-lb
Penetration resistance	ASTM G17	No holiday with 10 kV detector

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® TPS type products are available

As ready-to-size tubular sleeves

Drawing sleeve width, pipe diameter.

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

Example	TPS-4500X18	
	Designation	Standard ordering options
4500	Outside pipe diameter (mils)	2.375" (DN50), 3.500" (DN80), 4.500" (DN100)
18	Sleeve width (in)	18 (460 mm)
		* nominal width

\* For pipe sizes exceeding DN100, the use of wraparound WPC sleeves is recommended.

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 <b>info@sealforlife.com</b>
Certified staff	Application of the described coating system shall be carried out by certified personnel.



Seal For Life Industries - Stopaq B.V. Seal For Life Industries BV Stadskanaal, the Netherlands Westerlo, Belgium Tel: +31 599 696 170

Seal For Life Industries US LLC Seal For Life Industries Mexico San Diego, USA Tel. +1 858 633 9785 Tel: +32 14 722 500

Tijuana, Mexico US Tel: +1 858 633 9785 MX Tel: +52 664 647 4300

Further information is available on our website www.sealforlife.com, or by sending an inquiry to info@sealforlife.com

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DISCLAIMER: Seal For Life Industries 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 Seal For Life Industries' written instructions. Because many installation factors are beyond the control of Seal For Life Industries, the user shall determine the suitability of the products for the intended uses and assume all risks and liabilities in connection herewith. Seal for Life's liability is stated in its General Terms and Conditions of Sale. Seal For Life Industries makes no other warranty either express or implied. All information contained in this document is to be used as a guide and is subject to change without notice. This technical data sheet superseds all previous data sheets on this product.

Seal For Life India Private Ltd.

Baroda, India

Tel: +91 2667 264 721