

COVALENCE® HTLP80/1.4-1.3-RE

Product Information

Product description: Covalence® HTLP80 system is a wrap-around heat-shrinkable sleeve which replicates the structure and the performance of factory applied three-layer PE coatings.

Construction: Three-layer system:

- *First layer:* Liquid epoxy, solvent-free two-component.
- *Second layer:* High shear strength copolymer adhesive.
- *Third layer:* Radiation cross-linked, high density polyethylene with permanent Change Indicator (PCI).

During installation, the epoxy is applied to the prepared pipe surface and the heat-shrinkable sleeve is immediately wrapped around the joint over the wet epoxy. Heat is then applied to the sleeve which shrinks to form a tight fit around the joint. While curing, the epoxy forms strong mechanical and chemical bonds to the pipe surface & to the copolymer adhesive layer. The cross-linked outer layer forms a tough barrier against mechanical damage and moisture transmission.

Features:

- Reduced edges: 75 mm at each sleeve edge, in correspondence with 3LPE overlap, the total as supplied thickness is reduced for ease of application
- Fully resistant to shear forces induced by soil and thermal movements.
- Sleeve applied over wet epoxy, allowing fast installation and formation of strong mechanical & chemical bonds.
- Superior cathodic disbondment and hot water immersion resistance.
- Fully reconstructs the coating of three-layer coated pipes.
- Dimpled backing provides a “permanent change” indicator for application of heat.

Benefits:

- The HTLP is tough & lasts as long as a 3-layer, factory applied coating.
- Allows fast application combined with high performance.
- Reduced edges minimize application mistakes and ensure high adhesion to line coating with perfect joint sealing.
- Offers the optimum barrier protection against corrosion.
- HTLP systems allow three layer coated pipelines to have a virtually monolithic coating system.
- Dimpled backing allows easy post-heat inspection and offers a reliable inspectability at any time.

Product selection guide

Max operating temperature	85°C
Compatible line coatings	PE, FBE, Coal Tar, DFBE
Min. preheat temperature	70°C (158 °F)
Recommended pipe preparation	SA 2½
Soil stress restrictions	None
Performance	EN 12068: C60UV EN 12068: C80UV ISO21809-3

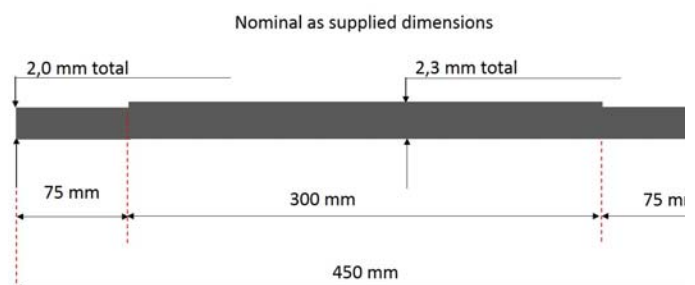
Product properties

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
Density	ASTM D-792	0.97 Kg/dm ³
Shrink force @ 150 °C	ASTM D-638	40 Psi
Dielectric Strength	ASTM D-149	900V/mil (35 KV/mm)
Moisture absorption	ASTM D-570	0,04%
Adhesive		
Property	Test method	Typical value
Softening point	ASTM E-28	120°C
Lap Shear	ASTM D-1002 2”7min @ 80 °C (176 F)	65 Psi
	EN 12068 @ 80 °C	0,18 N/mm ²
Installed sleeve		
Property	Test method	Typical value
Peel to steel	ASTM D-1000 EN 12068	40 lbs(in.width) 5.1 N/mm
Cathodic disbondment	ASTM G-42 @ 80 °C, 30 days	17 mm radius
	EN 12068 @ 80 °C, 30 days	12 mm radius
Hot water immersion	ASTM D-870 @ 80°C, 120 days	No delamination, no blisters or water ingress
Soil stress creep resistance	TP-206 @ 80°C	0.003 in (0.067mm)
Low Temperature flexibility	ASTM D-2671-C	- 25 °C
Impact resistance	ASTM G-14 EN 12068 Class C	76 in-lbs > 15 J
Penetration Resistance	ASTM G-17 @ 80°C	No holidays @ 10,000 volts
Indentation resistance	EN 12068 Class C @ 80 °C	Residual thickness > 0.6 mm

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

Nominal as supplied thickness

centre of the sleeve 300 mm wide	2.3 mm
Reduced edges – 75 mm at each side of the sleeve – 3LPE overlap	2,0 mm



Ordering information

Covalence® HTLP80 products are available

- As a roll (closure patches to be ordered separately)

Select sleeve width that will overlap onto the mill-applied coating by 50 mm (2 inches) minimum on each side of the weld joint. Take a 10% shrinkage during installation of sleeve into account when calculating minimum sleeve width.

Roll form (closure patch to be ordered separately)

HTLP80-17X100/1.4-1.3-RE-RL

	Designation	Standard ordering options
17	Nominal Sleeve width in inches As supplied	17" (17,75" or 450 mm)
100	Roll length (FT)	100 ft (30 meters)
1.4-1.3	Product thickness	
RE	Reduced edges	

WPCP-IV-8X17 Separate Closure patch

	Designation	Standard ordering options
8	Patch width (in)	4 in (100 mm) 6 in (150 mm) 8 in (200 mm)
17	Patch length (in)	17" (17,75" or 450 mm)

General information

Product dimension Sleeve cut lengths and appropriate closure patch widths depend on the pipe size and product construction, see latest application table AT-GIRTHWELD.

Installation guide For proper product installation, see latest installation guidelines.

Recommended primer HTLP type products are installed with epoxy primer. HTLP80 is installed with S1301-M or S1401 (-M).

Epoxy primers are ordered separately. For more ordering information on epoxy primers see latest PDS-S1301-M and PDS-S1401 (-M).

As field application of primers may vary, consult a Seal For Life representative or Authorized Distributor for rate of coverage guidance.

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

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.



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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 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. Seal For Life Industries is a registered marks of the Berry Global Group, Inc. or its affiliates.

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