

COVALENCE[®] HTLP-PP-DEP

Product Information

A 3-layer polypropylene-field-joint coating system for polypropylene coated pipes.

Product description: Covalence[®] HTLP-PP-DEP system is a wraparound, polypropylene based heat-shrinkable sleeve and is designed for corrosion prevention and sealing for polypropylene coated pipelines, operating at temperatures up to 120°C. HTLP-PP is especially suited for higher stress conditions caused both by elevated temperatures and by soils with severe contraction between wet-dry cycles.

HTLP-PP-DEP is normally used for girth weld protection of steel pipes coated with polypropylene.

Construction: Three-layer system

- *First layer:* Two component liquid epoxy.
- *Second layer:* High shear strength polypropylene adhesive layer.
- *Third layer:* Thick cross-linked polypropylene backing layer.

Features:

- Available as a one-piece wraparound unit.
- High shear resistance.
- High operating temperature rating.
- Keeps backing elasticity at elevated temperatures.

Benefits:

- Saves money by keeping application costs low.
- Provides high functional performance and safety.
- Top performance in demanding conditions.
- Has enhanced resistance to cracking at elevated temperatures.

Product selection guide

Max design temperature	140°C .
Compatible line coatings	Polypropylene, FBE
Min. preheat temperature	175°
Recommended pipe preparation	Sa 2½
Soil stress restrictions	None
Performance	Shell DEP 31.40.30.37

Product properties

Backing

Property	Test method	Typical value
Tensile strength at break	ASTM D-638	28 MPa
Elongation at break	ASTM D-638	450%
Volume Resistivity	ASTM D257	> 2E+16
Hardness, Shore D	ASTM D-2240	> 60
Dielectric strength	ASTM D-149	32 KV/mm

Adhesive

Property	Test method	Typical value
Lap shear strength	ISO 21809-3 @ 10 mm/min @ 23°C	> 9.0 N/mm ²
	@ 110°C	> 1.5 N/mm ²
	@ 120°C	> 1.0 N/mm ²

Installed sleeve

Property	Test method	Typical value*
Peel	ISO 21809-3 @ 23°C	> 20 N/mm
	@ 120°C	> 7 N/mm
Cathodic disbondment	ISO 21809-3 @ 23°C, 28 days	< 3 mm
	ISO 21809-3 @ 95°C, 28 days	< 10 mm
Impact resistance	ISO 21809-3	> 15 J
Indentation resistance	ISO 21809-3, 10 N/mm ²	
	Remaining coating thickness @ 120°C	> 0.6 mm
Hot water immersion followed by peel to primed steel and plant coating	ISO 21809-3 28 days @ 95°C	
	@ 23°C, 10 mm/min	> 10 N/mm

* Construction /2.8

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	/2.8	/3.2*	/3.5*
Backing as supplied	1.3 mm (0.050 in.)	1.3 mm (0.050 in.)	1.3 mm (0.050 in.)
Adhesive as supplied	1.5 mm (0.060 in.)	1.9 mm (0.076 in.)	2.2 mm (0.088 in.)

* Special thickness. Minimum order quantities apply.

Order information

Covalence® HTLP-PP-DEP products are available as a total system.

- The system includes the sleeve: a uni-sleeve with chamfered edges, cut corners and with pre-attached closure patch*.
- Installation accessories must be ordered separately.

Select sleeve width that will overlap on to the polypropylene line by 50 mm (2 inches) on each side of the weld joint. Take a 5% shrinkage of sleeve width during installation when calculating the minimum sleeve width.

* HTLP-PP is not sold in roll form, only pre-cut uni-sleeves.

Epoxy

S1401-DEP Epoxy: two component epoxy onto bare steel. See datasheet of S1401-DEP for more information.

Installation accessories

- **EQ-CLAMP-COIL:** induction coil for specific pipe diameter and sleeve width. Contact your Seal For Life representative for more information.
- **EQ-GENERATOR-IHG-120-WITH-CABLE:** generator for induction coil. Contact your Seal For Life representative for more information.
- **EQ-HEAT-SHIELD-150X3X25M:** to protect the PP line coating while preheating the steel area.
- **EQ-T0-KIT-BN60-1.5MM:** torch with specific nozzle opening.
- **EQ-NOZZLE-BN40:** for pipe sizes from 3" to 10"
- **EQ-SPACER-SET:** set of spacers to lift up the sleeve during initial installation steps

Contact your Seal For Life representative for more information.

Cut piece / Uni-sleeve

Example HTLP-PP-DEP-10750X17/2.8

	Designation	Standard ordering options
10750	Outside pipe diameter (in)	3.500 (DN80 – 48.000 (DN1200))
17	Sleeve width (in)	17.75 – 19.75 (450 – 500 mm) **
S1.3-1.6	Product thickness	/2.8 /3.2

** Nominal width. Other widths available on request.

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, contact your Seal For Life representative. HTLP-PP products are installed with an induction coil.

Recommended primer HTLP-PP type products are installed with S1401-DEP-epoxy primer. Epoxy primers are ordered separately. For more ordering information on epoxy primers see latest product data sheet for S1401-DEP.

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. 5 Years shelf life.

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 email to info@sealforlife.com

Certified staff Application of the described coating system shall be carried out by certified personnel.



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