Covalence®
Heat Shrinkable Technology
SEALFORLIFE

PRODUCT DATA SHEET

COVALENCE® PERP-PP

Product Information

Repair system for damaged mill-applied PP coating or peel strips of HTLP-PP sleeves.

Product description: Covalence® PERP-PP is a heat-applied patch which, in combination with PP adhesives filler, offers an economically effective and high quality repair system for factory PP pipe coatings damaged mechanically during transportation, storage and laying of pipes.

- *Sleeves:* are recommended for large damaged areas (see selection table below).
- *Filler tape:* is used to fill the holiday, thus restoring the mill-applied coating thickness of the pipe.
- *Epoxy primer:* is additionally used when a 3-layer coating is required.

Construction: Two-layer or three-layer system:

- *First (optional) layer*: Liquid epoxy, solvent-free two-component.
- *Second layer*: Copolymer adhesive.
- *Third layer*: Radiation cross-linked, polypropylene (unexpanded).

Installation is done with standard gas torches. To repair a damaged area, installers round out, roughen, clean and preheat the area and apply the epoxy and the filler tape to fill out the holiday. PERP-PP, cut to size, is positioned onto the treated area and heated. During heating, the adhesive softens and flows to form a tight bond with the substrate. The bond strength builds up during cool-down and is fully retained after job completion.

Features:

- Adaptable repair system.
- Resistant to high shear forces.
- Excellent adhesion to commercial, PP mill-applied coatings.
- Available roll form.
- No special equipment required.

Benefits:

- Long lasting and high performance.
- Provides a virtually monolithic coating repair of high quality.
- Saves time with fast and convenient installation. Keeps inventory, logistics and installations costs low.

Product selection guide

Max operating temperature	120°C (248°F).
Compatible line coatings	PP, HTLP-PP
Min. preheat temperature -PP line coating	90-100°C (194-212°F)
Recommended pipe preparation	Sa 2½ for Steel – Sanding disk or abrasive paper for PP linecoating
Filler tape	S1137 filler
Epoxy primer	S1401
Soil stress restrictions	None

Application table

Max. damaged area for using PERP is 25 cm^2.
For larger damaged areas, the use of heat-shrinkable sleeves is recommended (refer to Seal For Life girth weld sleeves)

Distributor Local/Representante:
MSP
MatService Petróleo
Único representante
para el territorio Boliviano

Product properties

Backing

Property	*Test method*	*Typical value*
Tensile strength at break	ASTM D638	4641 psi 32 MPa
Elongation at break	ASTM D638	610%
Hardness, Shore D	ASTM D2240	56
Dielectric strength	ASTM D149	28 kV/mm
Water absorption	ASTM D570 @ 95°C (203°F), 24 hr	0.17%
Elongation at break after heat ageing	ASTM D638 @ 150°C (302°F), 4 weeks	490%
Weathering followed by elongation at break	ASTM D2565, P638	350%

Adhesive

Property	*Test method*	*Typical value*
Melting point	ASTM D3418	154°C (309°F)
Shear strength	ISO 21809-3 @ 23°C (73°F) @ 120°C (230°F)	 5.3 N/mm^2 0.35 N/mm^2

Installed sleeve

Property	*Test method*	*Typical value*
Peel to PP	DIN 30672 (100 mm/min)	30 N/cm

Product thickness

Backing as supplied	0.76 mm (0.030”)
Backing fully free recovered	0.76 mm (0.030”)
Adhesive as supplied	0.76 mm (0.030”)

General order information

Covalence® PERP-PP type products are available:

– As a roll additional components such as filler adhesive and optional epoxy needs to be ordered separately

	Standard ordering options
PERP-PP-425X1000	Rolls of 10 m (32.5 ft) length, 450 mm (17.75”) width
S1137-50X3X3000	Filling adhesive
	***Note:** 3 rolls of filler per roll of PERP-PP*
S1401	Epoxy primer (optional), see datasheet S1401

General order information (continued)

Installation guide	For proper product installation, see latest installation instruction.
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 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 **info@sealforlife.com**
Certified staff	Application of the described coating system shall be carried out by certified personnel.

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