

COVALENCE® PPRP

Product Information

Repair system for damaged mill-applied 3LPP coating or peel strips of HTLP-PP sleeves.

Product description: Covalence® PPRP is a heat-applied patch which, in combination with PP adhesives filler, offers an economically effective and high quality repair system for factory 3LPP 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 induction coil preheating and 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. PPRP, 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, 3LPP mill-applied coatings.
- Available roll form.

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	3LPP, 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 or R150
Soil stress restrictions	None

Application table

Max. damaged area for using PPRP is 50 cm².
 For larger damaged areas, the use of heat-shrinkable sleeves is recommended (refer to Seal For Life girth weld sleeves).

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)	5.30 N/mm ² 0.35 N/mm ²

Installed sleeve

Property	Test method	Typical value
Peel to 3LPP	DIN 30672 (100 mm/min)	30 N/cm

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

Backing	0.76 mm (0.030 in)
Adhesive	0.76 mm (0.030 in)

Product order information

Covalence® PPRP type products are available:

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

	Standard ordering options
PPRP-450X10000	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 PP-RP
S1401 or R150	Epoxy primer (optional), see datasheet S1401 or R150

General order information

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.