

COVALENCE[®] DIRAX

Product Information

Product description: The DIRAX system is a wrap-around heat-shrinkable sleeve reinforced with fiberglass. DIRAX is designed to protect girth welds against corrosion and is the optimum joint protection for PE and FBE coated pipes used in directional drilling applications. The reinforcement gives the backing greater wear resistance.

Construction: Three-layer system

- *First layer:* Liquid epoxy, solvent-free two-component.
- *Second layer:* High shear strength copolymer adhesive.
- *Third layer:* Thick, fiberglass reinforced, radiation cross-linked polyethylene.
- *Additional component:* Wear Cone as extra protection against pull-through forces, of the same construction as the main sleeve.

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 radiation cross-linked outer layer forms a tough barrier against mechanical damage and moisture transmission. A wear cone is then applied over the leading edge of the sleeve.

Note: DIRAX is not suitable for "Push Through" applications.

Features:

- Highly resistant to shear and peel forces induced by soil and thermal movements.
- DIRAX offers abrasion and wear resistance at pull-through comparable to mill coatings.
- Wear cone protects leading edge of sleeve against pull-through forces.
- Sleeve applied over wet epoxy---there are no curing or waiting times /formation of strong mechanical & chemical bonds.
- Superior cathodic disbondment and hot water immersion resistance.
- Pre-attached closure patch.
- Low preheat requirements.

Benefits:

- The DIRAX is tough!
- Provides a monolithic coating system.
- Provides additional strength and security---increases reliability.
- Allows fast application---saves time! Ensures high performance!
- Offers the optimum barrier protection against corrosion.
- Allows fast and easy application.
- Makes installation faster and saves time.

Product selection guide

Max operating temperature	60C (140°F).
Compatible line coatings	PE, FBE
Min. preheat temperature	70°C (158°F)
Recommended pipe preparation	Sa 2½
Soil stress restrictions	None
Performance	EN 12068 Class C60 UV

Product thickness

	mm	in
Backing as supplied	1.85	0.073
Backing fully free recovered	2.30	0.091
Adhesive as supplied	1.20	0.047
Wear cone (incl.adhesive) as supplied	3.05	0.120

Product properties Covalence[®] DIRAX

Backing

Property	Test method	Typical value
Bursting strength	DIN 30672	2350 N

Adhesive

Property	Test method	Typical value
Softening Point	ASTM E-28	94°C (201°F)
Lap shear	ASTM D-1002	528 psi
Lap shear	EN 12068 @10mm/min.	0.40 N/mm ² @ 60°C (140°F)

Installed sleeve

Property	Test method	Typical value
Peel to Steel	ASTM D-1000 EN 12068 @10mm/min.	104 pli 11 N/mm

Specific coating resistance	DIN 30672, 100 days immersion	6x10 ⁸ Ωm ²
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Impact resistance	ASTM G-14 EN 12068, class C	170 in.lb Pass 15 J
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Indentation resistance	ASTM G-17 EN 12068, class C	Pass 3.1 mm* @ 60°C (140°F)
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Cathodic disbondment	ASTM G-8, 30 days EN 12068, 30 days	0.170" (4.33 mm) 0 mm radius @ 60°C (140°F)- self healing
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Resistance to UV radiation followed by bursting strength	EN12068	Reduction in bursting strength <25% of the original value
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* Remaining coating thickness

General order information

Covalence® DIRAX type products are available as a kit, containing

- A Uni-sleeve (pre-cut sleeve with pre-attached closure patch)
- A wear cone (also pre-cut with pre-attached closure patch)

Dirax is installed with S1239, S1301-M² or S1401 component epoxy primer which has to be ordered separately.

Example	DIRAX-16000-24/1K	
	Designation	Standard ordering options
16000	Outside pipe diameter (mils)	3.500"-18.000" (DN80-DN1200)
24	Sleeve width (in)	12" (300 mm)*, 17" (430 mm)*, 24" (600 mm)*, 34" (863 mm)*
/1K	Number of primer kits required	1, 2 or 3 200ml epoxy kit according to size (to be ordered separately)
	Wear cone	Width 3" = 3.125" (80 mm) (included)
		* nominal width

General

Installation guide For proper product selection, see latest application table AT-DIRAX.

Handling Handle with care. Keep boxes upright.

Storage Store indoor, clean and dry, away from direct sunlight in a cool place below +45°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.



www.sealforlife.com

DISCLAIMER: Seal For Life Industries warrants that the product(s) represented within conform(s) to its/their chemical and physical description and is appropriate for the use as stated on the respective technical data sheet when used in compliance with Seal For Life Industries written instructions. Since many installation factors are beyond the control of Seal For Life Industries, the user is obligated to determine the suitability of the products for the intended use and assume all risks and liabilities in connection herewith. Seal For Life Industries liability is stated in the standard terms and conditions of sale. Seal For Life Industries makes no other warranty either expressed or implied. All information contained in the respective technical data sheet(s) should be used as a guide and is subject to change without notice. This document supersedes all previous revisions, see revision date.

Local distributor / representative

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