

COVALENCE[®] DualSeal RJS-E

Product Information

Tested & Certified in accordance to EN489:2009!

Description

DualSeal RJS-E is a high-performance wrap-around PE-X sleeve with special fixation & sealing system (Hotmelt & Sealant adhesive concept) for sealing of all-kind joint casings in pre-insulated pipe systems.

Construction

- **Adhesives**
 - I. **Fixation system:** High shear-strength, thermoplastic copolymer.
 - II. **Sealing system:** Pure, visco-elastic sealant of perfect long-term stability.
- **PE-X-Backing**
Radiation cross-linked, high density polyethylene (HD-PE) with thermosensitive embossed profile („PCI” – **Permanent Change Indicator**).

Functioning

- **Thermoplastic Hotmelt Adhesive** at the sleeve edges as force-locked and high shear-strong anchoring against tangential & axial soil movement – next to secondary sealing.
- **Visco-elastic Sealant** in the sleeve centre as premium and reliable main moisture seal. Excellent surface wetting and fill behaviour, especially at joint casing/jacket pipe transition.
- **PE-X-Backing of modified HDPE** as optimum ring contraction pressure around casing and jacket pipe, for increased diffusion tightness and reinforced resistance against relevant stresses at handling and in service.
- **Adhesive-free Strip („Anti-slip zone”)** * for immediate anchoring to the casing at shrinking start. Keeps the sleeve in place ensuring speedy installation without slippage.
* Sleeve widths 155, 230 and 300 mm
- **Dimpled Embossing (PCI)** over the entire sleeve backing. Upon proper heating, the dimples permanently disappear visibly and tangibly, indicating appropriate adhesive activation and rendering inspectable any time during or after installation.

Features

- Radiation cross-linked HDPE backing
 - mechanically and chemically extremely resistant
 - higher shrink force
 - permanent higher hoop stress
 - increased resistance to diffusion
 - very low water permeable
 - Permanent Change Indicator (dimpled backing).
- High performance visco-elastic sealant.
- Specially designed hotmelt against displacement.
- Anti-slip zone.
- Applicable for test hole, casing and pipe repair.
- Extremely resistant to any job site and in-service relevant stresses.
- Over 30 years in service sealing.

Benefits

- Field-proven, installation-friendly and tolerant to field conditions!
- Resists highest mechanical, chemical and soil stresses (**EN489:2009 certified**).
- Permanent safe sealing against water and moisture at earth laying.
- Provides strong, permanent bond and keeps sleeve firmly in place.
- Ensures correct application heat and allows easy post-heat inspection. Reliable inspectability at any time. (**PCI**)
- Allows for axial movements and outer casing expansion stresses.
- High shear-strong anchoring of the sleeve with jacket pipe and casing.
- Full sealing system on its own without the need for casing innerseals.
- Continuous, step-free and reliable installability.
- Extremely versatile applicability (also for special applications and stresses).
- Effective sealing with long-run experience.

Product selection guide	DualSeal RJS-E
Max operating temperature	50°C (60°C under expansion cushion)
Compatible joint systems	PE & PEX shrink casing, Oversized casing, Metal casing, PUR half shells.
Min. preheat temperature	65°C (149°F)
Recommended pipe preparation	Cleaning & Abrading
Soil shear stress	Excellent
Product recommended for	Transportation, distribution and service lines
Performance	According to EN 489:2009. FFI tested & certified. “Without” and “With” casing innerseal.

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	
Shrink force	ASTM D-638, 150°C	0.276 MPa	
Thermal ageing followed by elongation	ASTM D-3045, 150°C, 21 days	>450%	
Weathering (UV) resistance followed by elongation	ASTM D-2565, 30 days	>450%	
Water absorption	ASTM D-570	0.04%	
Adhesive			
Property	Test method	Typical value	
		Visco-elastic	Copolymer
Softening point	ASTM E-28	92°C	94°C
Shear strength	EN12068 @ 23°C @ 50°C	0.08 N/mm ²	2.6 N/mm ² 0.75 N/mm ²
Sleeve system			
Property	Test method	Typical value	
		Visco-elastic	Copolymer
Peel strength (to PE)	EN 12068 @10 mm (0.4")/min ISO 21809-3 @ 50mm/min	0.9 N/mm	7 N/mm
Soil stress resistance	Acc. EN 489:2009 Max 0.5% sand humidity 100 cycles		Pass
followed by Water tightness test	Acc. EN 489:2009 23°C, 0.3 bar, 24 hr		Pass

Note: The typical values in this data sheet are based on lab prepared samples. A one-by-one adoption in product specifications is therefore not recommended.

Product thickness (in mm)	/A	/B	/C
Backing			
- as supplied	0.55	0.75	0.90
- fully free recovered	0.75	1.00	1.20
Visco-elastic sealant (as supplied)	1.10	1.50	1.50
Copolymer adhesive (as supplied)	0.70	0.80	0.80

Order information		
DualSeal RJS-E type products are available		
– as UNI-sleeve (pre-cut with pre-attached closure patch)		
– on Roll (closure patches to be ordered separately)		
Uni-sleeve		
Example	RJS-E-155-DIA140/A(S2-C60)	
	Designation	Standard ordering options
155	Sleeve width (mm)	155, 230 (/A and /B) 300 (/C) 640, 770, 900 (/B or /C)
DIA140	Casing pipe diameter	∅ 90 - ∅ 1200 mm
/A	Thickness construction	/A, /B, /C
S2-C60	Packaging quantity	S2: Packing by pairs C60: Case quantity (2x30p.)
Roll (closure patch to be ordered separately)		
Example	RJS-E-155X40M/A-RL(C2)	
	Designation	Standard ordering options
155	Roll width (mm)	155, 230 (/A and /B) 300 (/C) 640, 770, 900 (/B or /C)
40	Roll length	40 m (/A) 30 m (/B and /C), 20 m (770/C, 900/B&/C)
/A	Thickness construction	/A, /B, /C
C2	Packaging quantity	C2: 2 rolls/case (155 & 230) Without notation: 1 roll/case
Closure patches (to be ordered separately)		
Example	WPCP-IV-100X153 (S50)	
	Designation	Standard ordering options
100	Patch width (mm)	100, 150, 200
153	Patch length (mm)	153, 228, 298, 638, 768,898
S50	Packaging quantity	50 pc per bag

General information	
Product dimension	Sleeve cut lengths and appropriate closure patch widths depend on the pipe size, see latest application table AT-RJS-E.
Installation guide	For proper product installation, see latest installation instruction.
Handling	Handle with care. Keep boxes upright.
Storage	To ensure maximum performance, store Covalence products in a dry, ventilated area. Keep products sealed in original boxes and avoid exposure to direct sunlight, rain, snow, dust or other adverse environmental elements. Avoid prolonged storage temperatures above 40°C or below -20°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 DualSeal RJS-E sealing sleeve system should be carried out by certified personnel.



www.sealforlife.com

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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