

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 & Butyl 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 butyl 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
Mastic sealant (as supplied)	1.10	1.50	1.50
Copolymer adhesive (as supplied)	0.70	0.80	0.80

Order information			General information	
<p>DualSeal RJS-E type products are available</p> <ul style="list-style-type: none"> – as UNI-sleeve (pre-cut with pre-attached closure patch) – on Roll (closure patches to be ordered separately) 			<p>Product dimension Sleeve cut lengths and appropriate closure patch widths depend on the pipe size, see latest application table AT-RJS-E.</p>	
<p>Uni-sleeve</p>			<p>Installation guide For proper product installation, see latest installation instruction.</p>	
<p>Example RJS-E-155-DIA140/A(S2-C60)</p>			<p>Handling Handle with care. Keep boxes upright.</p>	
	Designation	Standard ordering options	<p>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.</p>	
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.)		
<p>Roll (closure patch to be ordered separately)</p>			<p>Information</p>	
<p>Example RJS-E-155X40M/A-RL(C2)</p>			<p>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</p>	
	Designation	Standard ordering options	<p>Certified staff Application of the described DualSeal RJS-E sealing sleeve system should be carried out by certified personnel.</p>	
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		
<p>Closure patches (to be ordered separately)</p>				
<p>Example WPCP-IV-100X153 (S50)</p>				
	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		



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