

Denso Butyl R23 Outerwrap

Cold applied anti-corrosion and mechanical protection tape

Composition

Denso Butyl R23 Outerwrap is comprised of a polyethylene film coated with a butyl rubber compound.

Uses

Denso Butyl R23 Outerwrap can be used as anti-corrosion and mechanical protection around buried or immersed pipelines as well as welded seams. The Denso Butyl Tape System meets the requirements for class C according to DIN EN 12068 for temperatures up to 50°C as tested by DVGW.

Application

See *Instructions for use* for additional information. Denso Butyl R23 Outerwrap is part of the Denso Butyl Tape System and is designed to be used in conjunction with Denso Butyl P16HT Primer and

Denso Butyl S43 Innerwrap and Denso Butyl Mastic.

Availability

Denso Butyl R23 Outerwrap is supplied in 30 m rolls with widths ranging between 30 mm and 150 mm.

Additional sizes may be available on request.

Storage conditions

Store in a cool and dry place in original packaging.

Waste material

Please avoid or minimise waste wherever possible. Please do not discard waste material, including packaging, in the surrounding environment. Follow all relevant legislation for disposal.

Typical properties

Denso Butyl R23 Outerwrap		
Thickness		
Adhesive	≥0.3 mm	
Backing	≥0.2 mm	ASTM D1000
Total	≥0.5 mm	
Tape strength	≥10 N/mm ≥50 MPa	DIN EN 12068 ASTM D 1000
Elongation at break	≥750%	DIN EN 12068 ASTM D 1000
Water absorption	≤0.08%	DIN EN ISO 62 ASTM D 540
Shore D Hardness (PE film)	≥51	DIN 5350 ISO 868
Peel strength	23°C 50°C	
Tape to tape @ 100mm/min	≥0.5 N/mm ≥0.2 N/mm	DIN EN 12068
Tape to tape @ 100mm/min	≥0.5 N/mm ≥0.2 N/mm	ASTM D 1000
Tape to tape @ 300mm/min	≥0.8 N/mm ≥0.2 N/mm	ASTM D 1000

Important: Winn & Coales / Denso SA (Pty) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request. Denso SA (Pty) Ltd operate a Quality Management System registered to ISO 9001.

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Denso Butyl Tape System		
Ageing resistance		
<i>Change in elongation at break after 100d, 70°C</i>	- 5%	DIN EN 12068
<i>Change in tape strength after 100d, 70°C</i>	- 5%	ISO 21809-3
<i>Change in peel str. Tape/tape after 100d, 70°C</i>	<2%	
Impact resistance		
	≥15 J	DIN EN 12068
	≥5.7 J/mm	ISO 21809-3
Indentation resistance		
<i>Pressure</i>	23°C 50°C 10 N/mm ² 10 N/mm ²	DIN EN 12068
<i>Residual layer thickness</i>	≥0.9 mm ≥0.6 mm	ISO 21809-3
Specific electric insulation resistance		
	>10 ¹¹ Ωm ²	DIN EN 12068 ISO 21809-3
Dielectric strength		
	≥40 kV/mm	ASTM D149
Cathodic disbondment, 28d		
	23°C 50°C ≤8 mm ≤15 mm	DIN EN 12068 ISO 21809-3
Peel strength		
	23°C 50°C	
<i>Outer tape to inner tape @ 100 mm/min</i>	≥2.0 N/mm ≥0.2 N/mm	DIN EN 12068
<i>On pipe surface @ 10mm/min</i>	≥1.5 N/mm ≥0.2 N/mm	DIN EN 12068
<i>On factory coating @ 10mm/min</i>	≥1.8 N/mm ≥0.2 N/mm	DIN EN 12068
<i>Outer tape to inner tape @ 100 mm/min</i>	≥2.0 N/mm ≥0.2 N/mm	ISO 21809-3
<i>On pipe surface @ 10 mm/min</i>	≥1.8 N/mm ≥0.2 N/mm	ISO 21809-3
<i>On factory coating @ 10 mm/min</i>	≥1.8 N/mm ≥0.2 N/mm	ISO 21809-3
<i>On pipe surface after hot water, 28d @ 50°C</i>	≥1.5 N/mm ≥0.2 N/mm	ISO 21809-3
<i>On factory coating after hot water, 28d @ 50°C</i>	≥2.0 N/mm ≥0.2 N/mm	ISO 21809-3
<i>Outer tape to inner tape @ 300 mm/min</i>	≥2.0 N/mm ≥0.5 N/mm	ASTM D 1000
<i>On pipe surface @ 300 mm/min</i>	≥4.0 N/mm ≥0.5 N/mm	ASTM D 1000
<i>On factory coating @ 300mm/min</i>	≥2.0 N/mm ≥0.5 N/mm	ASTM D 1000
Lap shear strength		
	23°C 50°C	
<i>On steel @ 10 mm/min</i>	≥0.1 N/mm ² ≥0.05 N/mm ²	DIN EN 12068
<i>On factory coating @ 10 mm/min</i>	≥0.1 N/mm ² ≥0.05 N/mm ²	DIN EN 12068
<i>On steel @ 10mm/min</i>	≥0.1 N/mm ² ≥0.05 N/mm ²	ISO 21809-3
<i>On factory coating @ 10 mm/min</i>	≥0.1 N/mm ² ≥0.05 N/mm ²	ISO 21809-3
<i>On factory coating @ 1.3 mm/min</i>	≥0.05 N/mm ² ≥0.05 N/mm ²	ASTM D 1000
Ageing resistance		
<i>Change in peel strength to pipe surface after 100 days, 70°C</i>	≤10%	DIN EN 12068 ISO 21809-3

Note: Denso Butyl Tape System is not suitable for the sealing of leakages in media transporting pipelined but exclusively for the prevention and protection from corrosion.

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