

# Premier Butyl™ R23 Outerwrap

Cold applied anti-corrosion and mechanical protection tape

## Composition

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

## Uses

Premier Butyl™ R23 Outerwrap can be used as anti-corrosion and mechanical protection around buried or immersed pipelines as well as welded seams. The Premier 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. Premier Butyl™ R23 Outerwrap is part of the Premier Butyl™ Tape System and is designed to be used in conjunction with Premier Butyl™ P16HT Primer and Premier Butyl™ S43 Innerwrap and Premier Butyl™ Mastic.

## Availability

Premier Butyl™ R23 Outerwrap is supplied in 15 m and 30 m rolls with widths ranging between 30 mm and 100 mm.

## Storage Conditions

Store in a cool and dry place in original packaging.

## Waste Material

Please do not discard waste material, including packaging, in the surrounding environment. Please follow all relevant legislation for disposal.

## Typical properties

<b>Premier Butyl™ R23 Outerwrap</b>		
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
Ageing resistance		
Change in elongation at break after 100d, 70°C	- 5%	DIN EN 12068
Change in tape strength after 100d, 70°C	- 5%	ISO 21809-3
Change in peel str. Tape/tape after 100d, 70°C	<2%	

# Premier Butyl™ R23 Outerwrap

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

Note: Premier 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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Page 2 of 2  
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