Linerless Tetral Tape

Technical Data Sheet (TDS)

Product description

Linerless Tetral Tape is a closed cell crosslinked polyethylene (PE) foam laminated with plastic film and acrylic adhesive. The material (PE) has numerous applications due to its stable and firm nature. It is highly resilient and tough for its weight.

Linerless Tetral tape is widely used in the roofing industry as sealant and purlin tape. It is typically applied to ensure a watertight seal, prevent corrosion, control moisture, and reduce noise caused by movement in roofing sheets.

These tapes are also commonly used in:

- Acoustic foam tape for steel structure partition
- Windows, doors, cabinets
- Automotive parts
- Foam joints for slabs

Material Properties:

Material: Closed cell physically crosslinked Polyethylene (PE) foam
Density: 30+-3 kg/m3
Tensile Strength: ≥/0.20 Mpa
Elongation at Break ≥110%
Water Absorption: 0.40%
Operating temperature range: -50°C to +90°C
Colours: Black

Fire performance:

Melting point: 300°C
Flash point: 340° C
Autoignition temperature: 450-500°C
Fire rating: UL94 HBF

Product Features

- ✓ It comes in 8.8m-15m rolls, with widths ranging from 25-75mm and thickness of 3-5mm.
- ✓ Linerless adhesive on the back for secure connection
- ✓ Gap seal and weather sealant
- ✓ Reduces noise and potential abrasion with sheets moving
- ✓ Moisture, dust and draught seal

Product Application

Sealant Foam Tape is typically applied to specific areas in roofing installations to ensure a watertight seal, reduce noise and prevent abrasion. Here's areas you can apply the tape:

1. **On Purlins**
   - applied between purlins and roofing sheets—metal or polycarbonate—to prevent direct contact, reducing noise, wear, and potential abrasion for both materials
2. **Seams and Joints**:
   - Apply the tape along the seams where two roofing panels meet. This includes overlaps between metal, polycarbonate, or fibreglass sheets.
3. **Ridge Caps**:
   - Place the tape under ridge caps to seal the joint between the cap and the roofing panels, preventing water ingress.
4. **End Laps**:
   - Use the tape at end laps, where one panel overlaps another, to create a tight seal and prevent moisture from penetrating through the overlap.
5. **Around Roof Penetrations**:
   - Apply the tape around roof penetrations, such as chimneys, vents, and skylights, to seal the gaps between these elements and the roofing material.
6. **Eave and Gutter Areas**:
   - Place the tape where roofing panels meet eaves or gutters to seal the junction and prevent water from seeping underneath the roof.

94 Mowbray Street, Waltham, Christchurch
Ph: (03) 379-2400 Email: sales@tetral.co.nz

Linerless Purlin tape is a protective foam tape that is applied between metal & polycarbonate roofing sheets, on structural purlins and between safety mesh. It serves as a crucial component in a roofing system to enhance performance and durability.

Where to apply Purlin Tape:

- **Direct Contact Points:** Apply along the purlins or battens where metal or polycarbonate roofing panels will rest.
- **Under Fasteners:** Positioned to cushion the areas around screws or bolts, reducing wear and tear.
- **Under Safety Mesh**: to reduce material interactions and potential damage caused by expansion movement or walking traffic.
- **Across Roof Spans:** Use continuously along the length of purlins to maintain consistent protection

Purlin tape is a cost-effective and essential product for optimising metal roofing installations, ensuring longevity, and preventing damage from environmental factors or material interactions.

Relevant Building Code Clauses

B2.2 durability- Polyethylene foam is long lasting and meets the standards in B2.
C/AS4 - In Accordance with 4.17.6.e Tetral Tape is an exception to surface finish requirements as it's a seal and does not require a fire rating to meet building standards.
E2. External Moisture. E2.3.1 & E2.3.2 Tetral Tape has a been tested for low water absorption 0.40% which prevents the penetration of water to cause undue dampness and damage to the building.

Product Information

Detail	Notes	Test method
Material	Closed Cell Physically crosslinked Polyethylene (PE) foam laminated with plastic film and acrylic adhesive	
Density	30 ±3 kg/m3	GB/ T6364-1995
Thermal conductivity	≤0.0327 w/m*k	GB/ T10297
Tensile Strength	≥/0.20 Mpa	GB/ T6344
Moisture resistance factor	1.2×10^{3}	GB/ T17794
Coefficient	≤2.4×10^{-10} g/(M*S*Pa)	GB/ T17794
Elongation at Break	≥110%	GB/ T6344
Water absorption ratio in a vacum	0.40%	GB/ T1034-86
Compressed Set (23±2°C, 22H)	10%	GB/ T6669
Peel Strength	≥9n/ 25mm	ASTM D3330
Shear Strength	≥15 hours	ASTM D3654
Service temperature range	-50°C to +90°C	GB/T 17794

Product code	Name	Colour	Thickness	Tolerance	Width	Length
E5FT15B	LINERLESS SEALANT TAPE 15M ROLL BLACK	Black	3mm	±0.3	25mm	15m
E5FT50	LINERLESS PURLIN TAPE 50MM 8.8M ROLL	Black	5mm	±0.5	50mm	8.8m
E5FT75	LINERLESS PURLIN TAPE 75MM 9M ROLL	Black	5mm	±0.5	75mm	20m

94 Mowbray Street, Waltham, Christchurch
Ph: (03) 379-2400 Email: sales@tetral.co.nz

Fire performance:

Detail	Notes
Softening range	110-130°C
Thermal degradation temperature	200-250°C
Melting point	300°C
Flash point	≥340°C
Autoignition temperature	450-500°C
Flame speed	≤40mm/ min
Horizontal Burning distance	<125mm
Fire rating	UL94 HBF

For more information on Tetral products please visit our website at www.tetral.co.nz

94 Mowbray Street, Waltham, Christchurch
Ph: (03) 379-2400 Email: sales@tetral.co.nz