Airflo Ventilated Foam

Technical Data Sheet (TDS)

Product description

Airflo Ventilated Foam is a profiled closure designed to fit the gaps beneath metal roofing at the eaves or between the roofing and ridge flashing. The open-cell polyurethane foam allows air to pass through while helping keep birds, insects and wind-blown debris out. A firm, closed-cell polyethylene base with a self-adhesive backing holds the foam in place during installation. When installed at designated air inlets and outlets, Airflo Ventilated Foam forms part of a continuous ventilation path that helps carry moist air out of the roof space.

Product Features

- **Helps keep pests and debris out:** Helps keep birds, insects and wind-blown debris out of the roof space while allowing airflow into the roofing system**.**
- **Promotes roof ventilation:** Allows airflow into the roofing system to help regulate temperature and reduce condensation forming on the underside of the roofing sheets.
- **Manages moisture:** Enables moisture vapour to escape, reducing the risk of mould, timber decay, and corrosion.
- **Strong and stable:** The closed-cell PE base provides durability and structural support during installation.
- **Easy to install:** Lightweight and flexible, making it simple to fit on site.

Product Application

Airflo Ventilated Foam is shaped to match the roofing profile. At the eaves, it sits beneath the roofing sheets. Depending on the roof detail, it can also be installed between the roofing sheets and the flashing.

The open-cell polyurethane layer allows air and water vapour to pass through, supporting roof ventilation while helping keep birds, insects and wind-blown debris out of the roof space. The closed-cell polyethylene (PE) base gives the foam a firm backing, and its adhesive underside helps hold it in place during installation.

Airflo Ventilated Foam is used in residential and commercial metal roofing systems where air flows through the roof assembly and forms part of the condensation control strategy. It allows air to pass through profiled openings while helping keep birds, insects and wind-blown debris out of the roof space.

Typical locations include:

- Roof eaves
- Ridges and apexes
- Apron flashing junctions
- Changes in roof pitch

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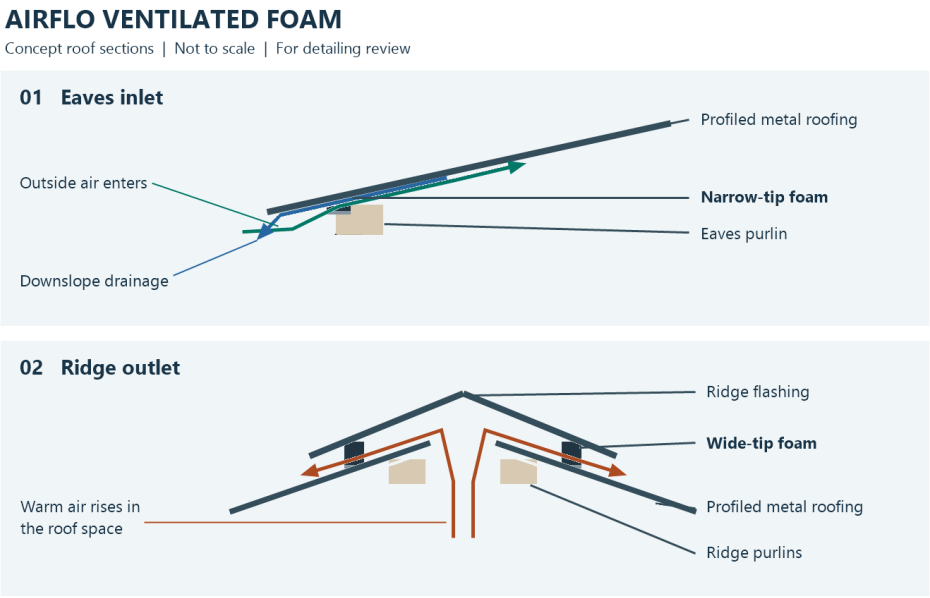

Confirm foam fit, flashing geometry and the continuous airflow and drainage paths for the project roof build-up.

Installation:

1. **Prepare the surface.** Ensure the surface where the adhesive will sit is clean, dry and free from dust and debris.
2. **Measure and cut.** Cut the foam to the required length and check that it aligns with the roofing profile before removing the adhesive backing.
3. **Position the foam.** At the eaves, place it beneath the roofing sheets. Where the roof detail calls for installation beneath a flashing, place it on top of the roofing sheets in line with the flashing**.**
4. **Press into place.** Peel off the release liner and press the adhesive base firmly onto the prepared surface.
5. **Complete the roof detail.** Fit the roofing sheets or flashing over the foam, as applicable, and check that the foam stays aligned with the profile.

Relevant Building Code Clauses

B2.2 durability-The foam types are long lasting and meets the standards in B2.
E2 External Moisture. Airflo Ventilated Foam can be incorporated into eaves and flashing details designed to manage external moisture. Resistance to water penetration depends on the complete roof detail.
E3 Internal Moisture. Where relevant to the design, the foam can support condensation management by allowing air to pass at designated roof ventilation openings.

Product Information

Component	Description
Ventilating layer	Black, profiled open-cell polyurethane (PU) foam
Base	Grey, closed-cell polyethylene (PE) foam with adhesive and release liner

In-house test results

Detail	Notes	Test method
Measured outlet air speed	With Airflo Ventilated Foam fitted, outlet air speed was 76–80% of the speed measured with no barrier at matching inlet speeds of 6–14 m/s.	Tetral Industries comparative air-speed test
Downslope drainage	Water poured down the roof sheet passed through the fitted Airflo Ventilated Foam in the test setup.	Tetral Industries water pour test

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PU foam:

Detail	Notes	Test method
Material	Open cell Polyurethane Foam	
Density	1-3/8 lbs/cu-ft(22±2kg/m3)	JIS K6500
Surface Hardness	80±8	
Wind resistance rate	≤90 PA	
Air Permeability	95%	Lab test
Aperture size	30PPI, ±5 PPI	Lab test
IFD	110 @40%, 180@65%	GBT/3854
Tensile Strength	88KPA	GB/T6344-2008
Tearing Strength	≤7.8N/cm	GB/T10808-2006)
Elongation at break	≤145%	ISO 1798
Compression permanent deformation	≤6%	@75%
Resilience	45%	GB/T 6670-2008
Acid & Alkali resistant	5.0~8.0	PH
Antimicrobial	Excellent	Anti mold, Anti fungal
Combustion Performance	HBF, HF-1, HF-2	UL94
Reach regulation	Complies	SVHC 247
PAHs	Complies	AFPS GS 2019:01PAK
RoHS regulations	Complies	2011/65/EU EU2015/863
Operating temperature	-50°C to +110°C	Lab test
The air flow rate unit is cbm/min,.	18 cbm/min	Test

PE foam:

Detail	Notes	Test method
Material	Closed Cell Crosslinked Polyethylene (PE) foam coated with acrylic adhesive with liner	
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

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