THERMAL INSULATION
ALUCUSHION® FR

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Alucushion® / Bubblefoil® FR (Fire retardant grade) White (Code 2906)

Alucushion® / Bubblefoil® FR (Fire retardant grade) Double-sided (Code 1983)

Alucushion® / Bubblefoil® Domestic (Code 4040)

Alucushion® / Bubblefoil® FR (Fire Retardant Grade) Black (Code 5050)

Alucushion® / Bubblefoil® FR (Fire retardant grade) is manufactured by a continuous lamination process of low density polyethylene and metallized foil with sealed bubbles of air between the two outer laminates. The thousands of individually celled air bubbles created during the manufacturing process, form a column of immobilised dry air, effectively countering heat loss through convection and conduction. Add to this the low emissivity and high reflectivity of the metalized foil surface, and It's advantages as a heat transfer barrier become obvious. Alucushion® / Bubblefoil® FR (fire retardant grade) is the cost effective solution for most roof insulation applications.

The Benefits

* Strong, light and flexible with excellent tear resistance
* Heat stabilized for durability and effective in a temperature range from - 20 degrees celsius to +80 degrees celsius
* Non-toxic, inert and vermin proof
* Waterproof - no membrane necessary under roof tiles or sheeting
* Aesthetically pleasing finish with good light reflectance
* Acknowledged by the trade as the easiest thermal insulation on the market to install.

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Alucushion® FR is tested and evaluated according to SABS 1381 (Materials for Thermal Insulation of Buildings) Part 4: Reflective Foil laminates, rolls, sheets and sections.

Thermal Values

Alucushion® / Bubblefoil®FR White (Code 2906) - 0.83 m^2 k/w
Alucushion® / Bubblefoil®FR Double-sided (Code 1983) - 1.14 m^2 k/w
Alucushion® / Bubblefoil® Domestic (Code 4040) – 0.96 m^2K/w
Above thermal resistance (R-values) are as tested including air gaps.
Test reports available upon request.

Fire Performance

Alucushlon® / Bubblefoil® FR (fire retardant grade) has been tested and found not to cause fire to spread when used as an over-purlin type roof insulation material. The product contains a highly advanced fire retardant and is tested to the SANS 428 standard (Fire testing of building insulation materials, components and elements used for roofs) as part of SANS 10400 Part T of the National Building Regulations.

Fire Rating

Alucushion® / Bubblefoil® FR White Code 2906 - B/B 1/2/H only (SP & USP)
Alucushion® / Bubblefoll® FR D-sided Code 1983 - B/B1/2/H only (SP & USP)
Alucushion® / Bubblefoil® Domestic (Code 4040) – B1)
Fire test reports available upon request.

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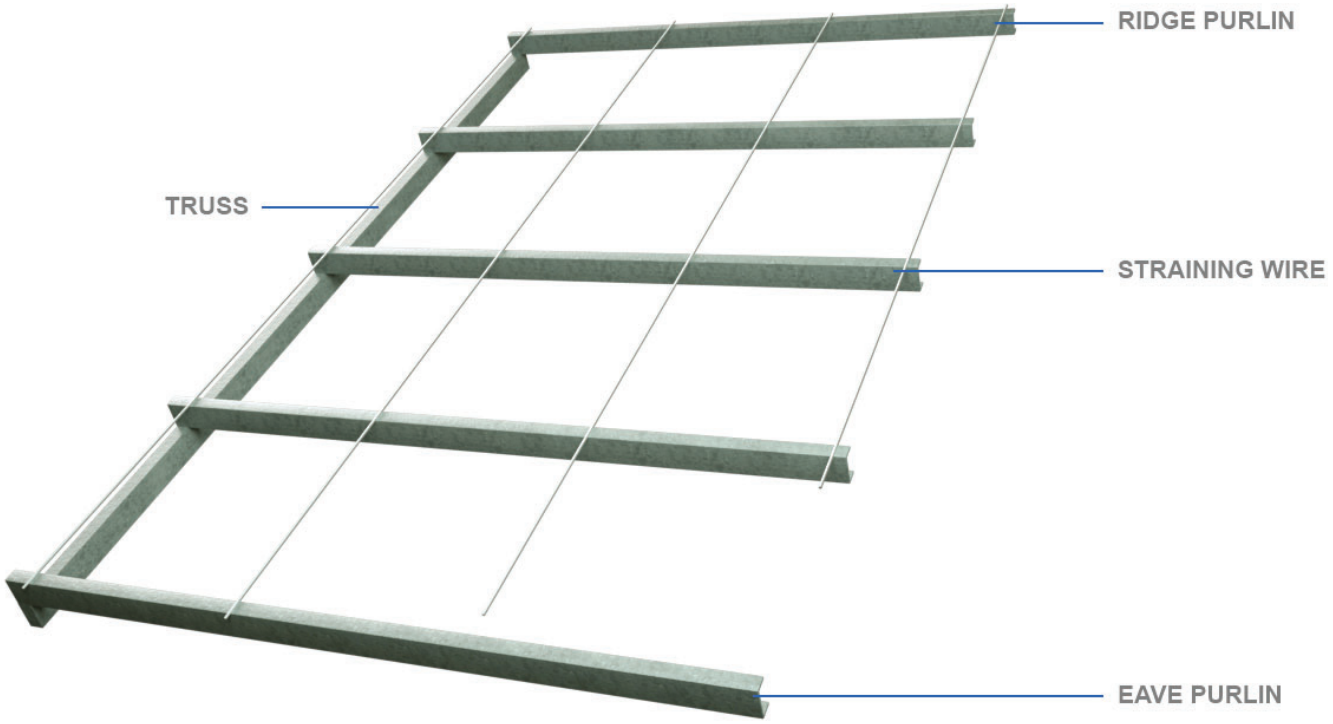
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Installation Instructions

Industrial Application - Step 1



Fix PVC coated straining wire from the top apex purlin, over intermediate purlins to the bottom eave purlin at 383 mm centers. First straining wire to be fixed 50 mm away from gable end. Evenly tension all wire ensuring that cut ends face downwards.

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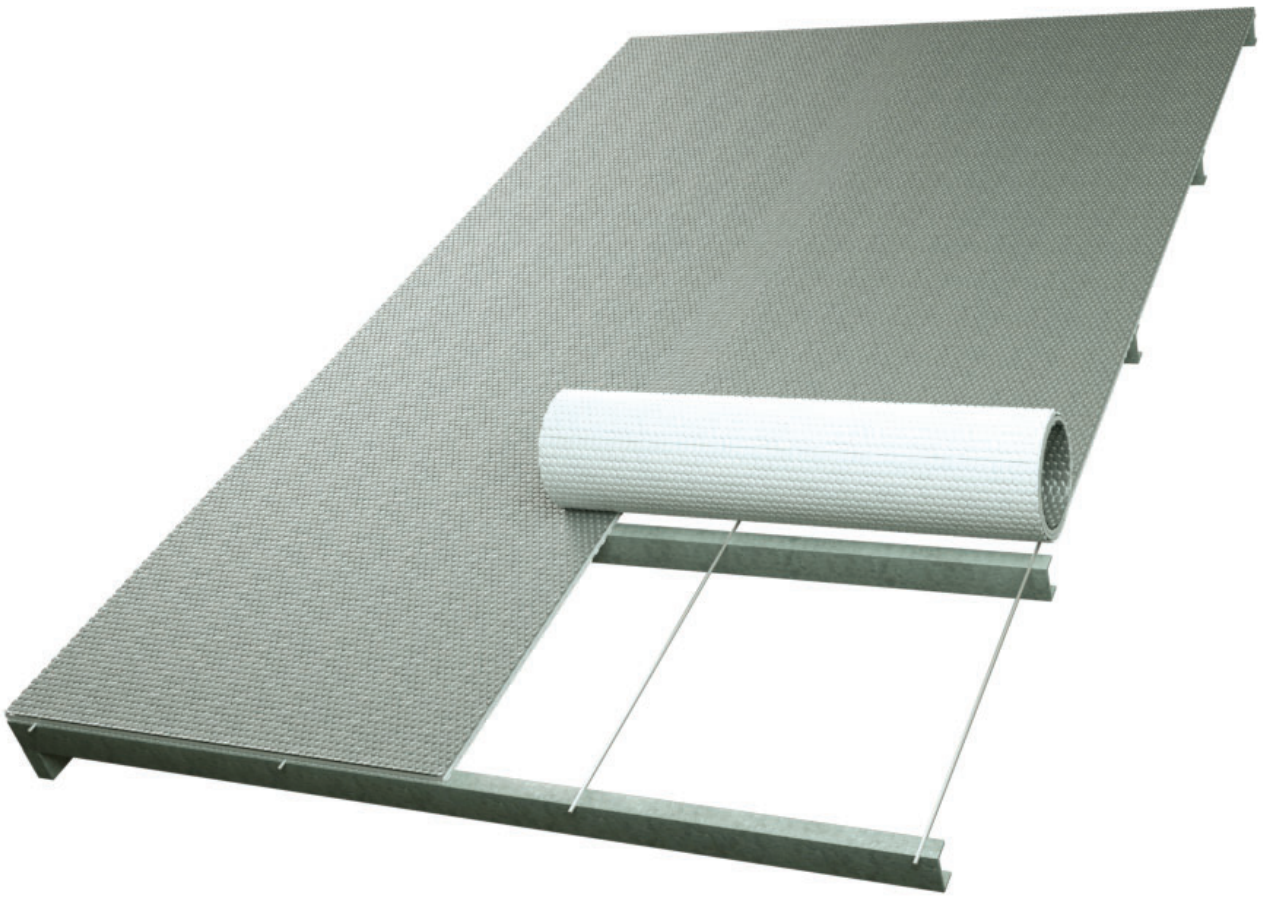
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Installation Instructions

Industrial Application - Step 2



Lay Alucushion® / Bubblefoil® FR over the straining wires ensuring that it is squared off. Fix to apex purlin using double-sided tape. Evenly tension material and fix to eave purlin again using double-side tape.

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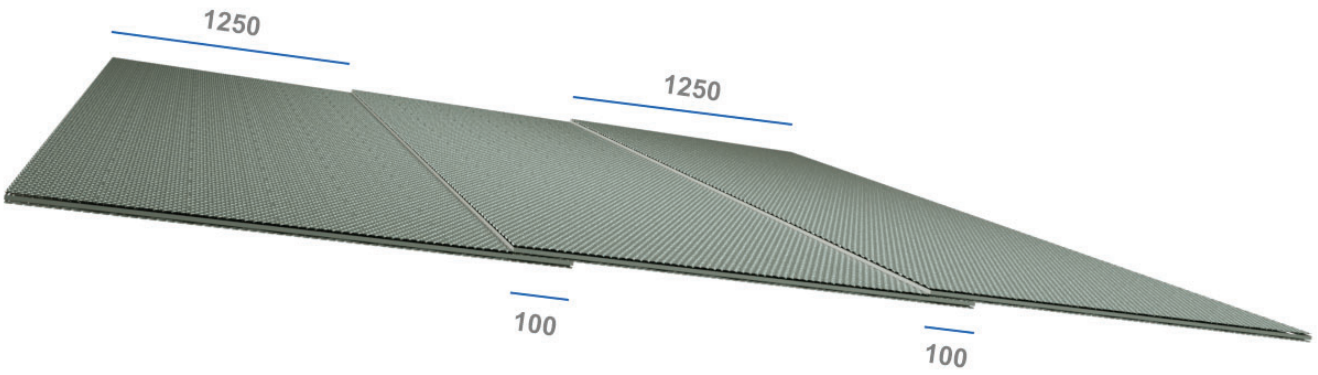
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Installation Instructions

Industrial Application - Step 3



All subsequent layers of Alucushion® FR to be fixed as above with a 100 mm overlap over the previous sheet.

Straining wires must be positioned at the center of the overlaps i.e. not more than 50 mm from the sheet edges.

Lay roof sheeting as soon as possible after the fixing of Alucushion® FR.

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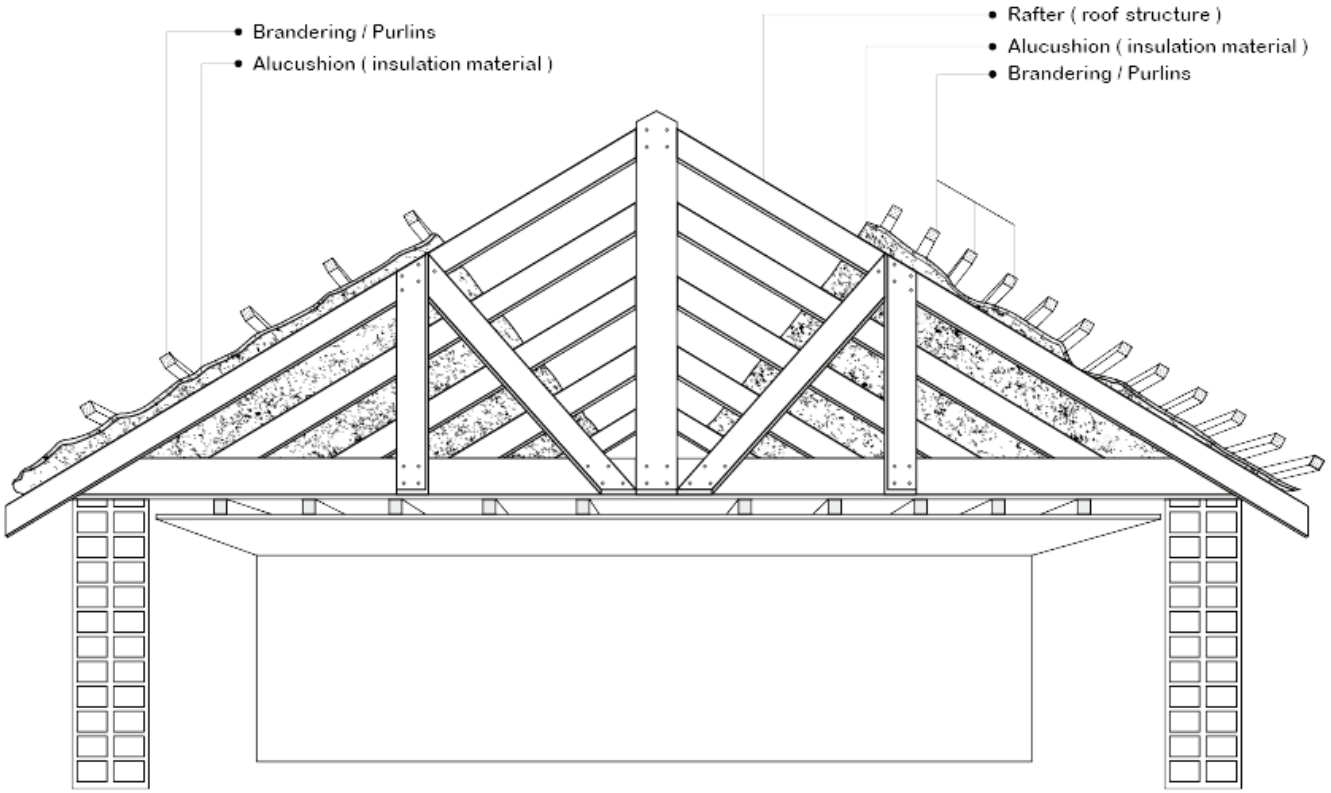
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Installation Instructions

Domestic Application



Domestic Application Steps

Because of Alucushion® / Bubblefoil® FR's tensile strength and ease of handling, there are various application options available depending on the particular roofing material and/ or design, construction method and project requirements (i.e. thermal control, waterproofing, ceiling substitution etc.)
The most common method is that illustrated in the sketch i.e. stapled with industrial staples to top of rafters before fixing of brandering. Material is laid horizontally (between gable ends) commencing at the eaves and ensuring that subsequent sheets overlap the previous sheet.

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With this method the Alucushion® acts as both insulation and a waterproofing membrane.
Where the roofing is in sheet form the industrial method of installation is normally used with or without straining wires.
An alternative method is to staple Alucushion® FR to the bottom of the roof trusses prior to the fixing of the ceiling brandering.

Product Specifications

Material Thickness	**4mm**
Roll width	**1250mm**
Roll length	**40m**
Roll cover	**50m²**
Effective coverage	**46m²**

Specifications for bills of quantities

4mm Alucushion® / Bubblefoil® FR (Fire Retardant)
- white polyethylene coated single sided metallized foil insulation Code 2906 as supplied by Alucushion® Thermal Insulation (Pty) Ltd. laid taut over purlins and fixed concurrent with roof covering; overlapped longitudinally by 100mm; on and including white PVC coated straining wire spaced at 383mm centres: all In strict accordance with the manufacturers specifications.

4mm Alucushion® / Bubblefoil® FR (Fire Retardant) double-sided aluminium foil insulation Code 1983 as supplied by Alucushion® Thermal Insulation (Pty) Ltd. Laid taut over purllns and fixed concurrent with roof covering: overlapped longitudinally by 100mm; on and including galvanised straining wire spaced at 383mm centres: all in strict accordance with the manufacturers specifications.

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