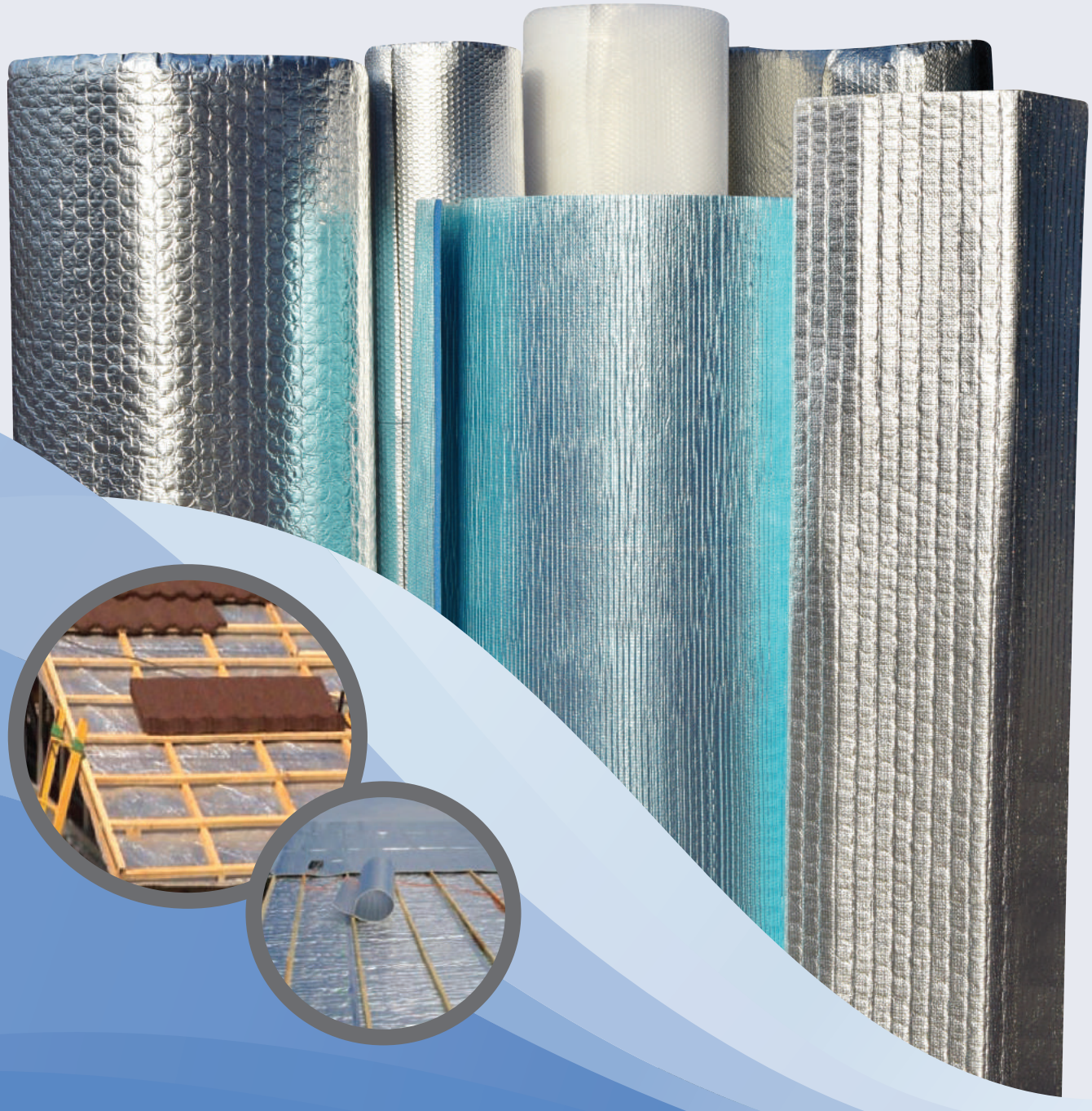
AEROFOAM®

REFLECTIVE INSULATION



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REFLECTIVE INSULATION

Introduction

Aerofoam reflective insulation products are an efficient and healthy alternative to traditional fibrous bulk insulation products. Easy to install and fibre free, this products provides superior thermal performance and improved energy efficiency in homes, commercial and industrial buildings. It reduces up to 97% of the sun's radiant heat, minimizes the risk of condensation and acts as an effective water and vapour barrier when installed correctly.

Reflectivity:

Aerofoam reflective insulation reflects up to 97% of radiant heat to ensure you are kept cool in summer and warm in winter.

Features:

- Better insulation tendency
- Anti-radiation
- Easily maintain
- Low conduction and convection

Specifications:

Standard roll size:
Reflective bubble insulation:- 1.0 & 1.2 meters
Reflective foam insulation:- 1.35 meters
Note:- Customized sizes can be made upon request.

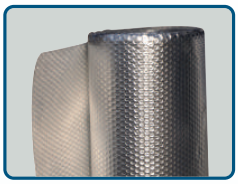
Applications:

- In Agriculture
- Behind Woodstoves
- As a Survival Blankets
- Trucks
- Buildings
- Behind Refrigeration
- As Pharmaceutical
- As Padded Foot
- In Beverage Coolers
- As Cargo Liners
- Coils
- Packaging
- As a window covering
- In Commercial
- For Concrete-Curing
- As Duct Wrap
- Buildings
- Blankets
- On Overhead Doors
- In Warehouses
- Construction
- In Confinement
- Under Sleeping Bags
- Under Tents
- In Post Frame
- Structures
- Behind Freezers
- Under Mattresses
- In Workshops
- In Industrial Warmers

REFLECTIVE INSULATION

Products details:

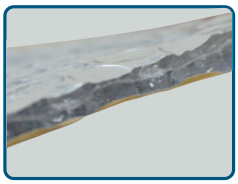
1. AEROREFLECT Bubble Insulation



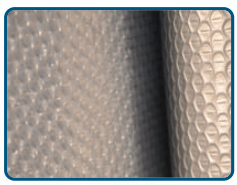
AEROREFLECT Standard

AEROREFLECT Standard+

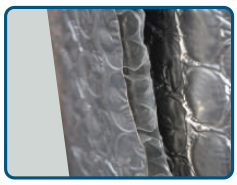
AEROREFLECT Twin



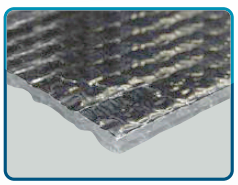
AEROREFLECT Twin+



AEROREFLECT Standard XL

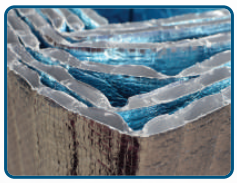


AEROREFLECT Standard XL+



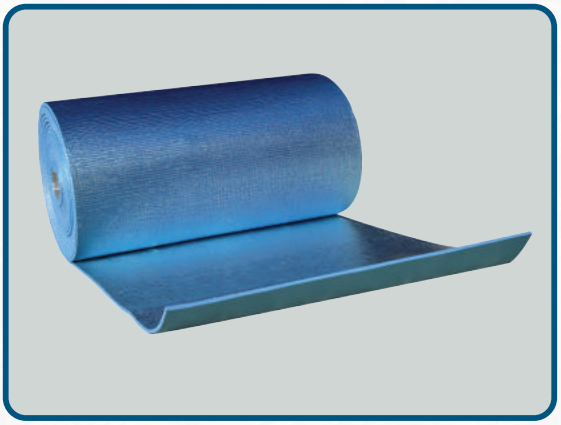
AEROREFLECT Twin XL

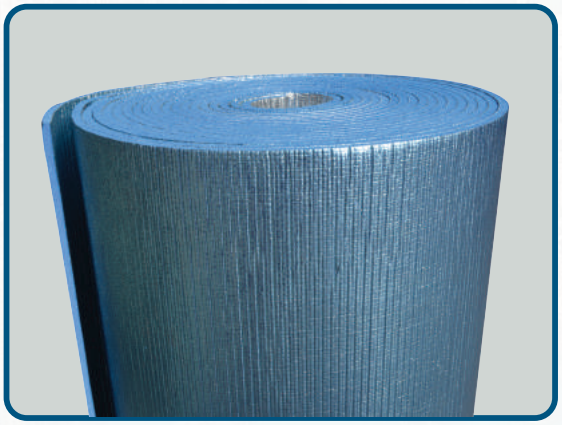
AEROREFLECT Twin XL+



AEROREFLECT Standard XL AG+

2. AEROREFLECT Foam Insulation

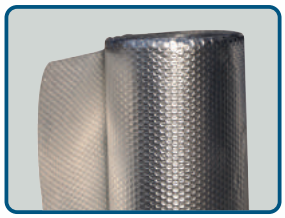


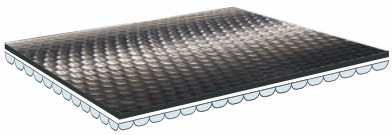


AEROREFLECT INSULATION-BUBBLE

AEROREFLECT Standard

Product Construction: One layer of air bubble film laminated with reflective aluminium foil on one side.



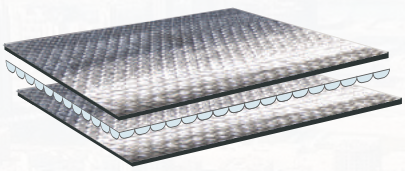


Size availability:

Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	10X4	4	-50 °C to +110 °C

AEROREFLECT Standard+

Product Construction: One layer of air bubble film laminated with reflective aluminium foil on both sides.



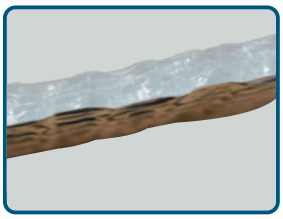
Size availability:

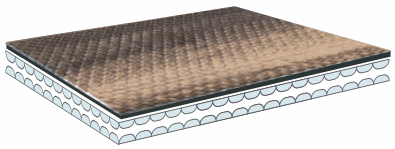
Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	10X4	4	-50 °C to +110 °C

AEROREFLECT INSULATION-BUBBLE

AEROREFLECT Twin

Product Construction: Two layers of air bubble film laminated with reflective aluminium foil on one side.



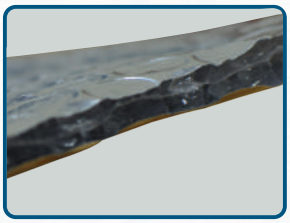


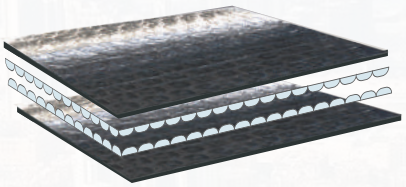
Size availability:

Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	10X4	8	-50 °C to +110 °C

AEROREFLECT Twin+

Product Construction: Two layers of air bubble film laminated with reflective aluminium foil on both sides.





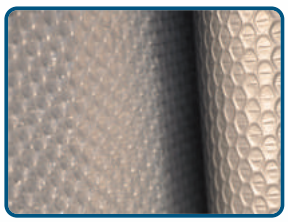
Size availability:

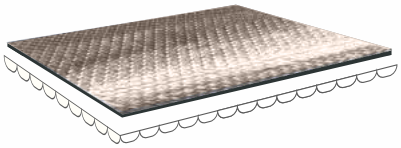
Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	10X4	8	-50 °C to +110 °C

AEROREFLECT INSULATION-BUBBLE

AEROREFLECT Standard XL

Product Construction: One layer of big air bubble film laminated with reflective aluminium foil on one side.



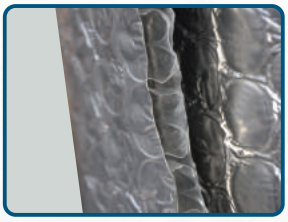


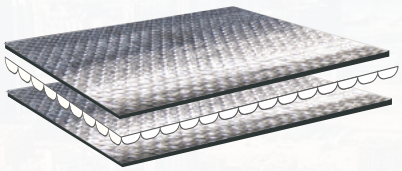
Size availability:

Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	30X10	10	-50 °C to +110 °C

AEROREFLECT Standard XL+

Product Construction: One layer of big air bubble film laminated with reflective aluminium foil on both sides.





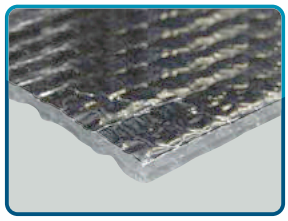
Size availability:

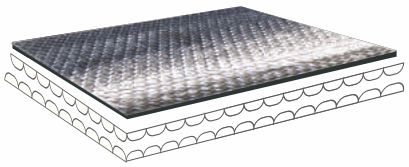
Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	30X10	10	-50 °C to +110 °C

AEROREFLECT INSULATION-BUBBLE

AEROREFLECT Twin XL

Product Construction: Two layers of big air bubble film laminated with reflective aluminium foil on one side.



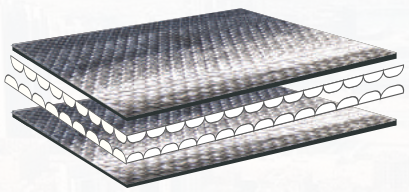


Size availability:

Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	30X10	20	50 °C to +110 °C

AEROREFLECT Twin XL+

Product Construction: Two layers of big air bubble film laminated with reflective aluminium foil on both sides.



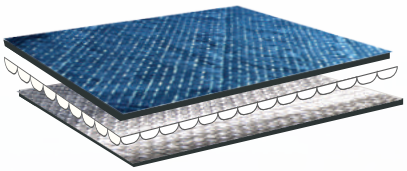
Size availability:

Roll size (W X L) in meter	Bubble size, mm	Nominal thickness, mm	Temperature range
1.2X40	30X10	20	-50 °C to +110 °C

AEROREFLECT INSULATION-BUBBLE

AEROREFLECT Standard XL AG+

Product Construction: It consists one layer of big air bubble film encapsulated between heavy duty reflective reinforced aluminium foil laminates. An anti-glare coating is applied to oneside of product for safe installation.



Size availability:

Roll size (W X L)	Bubble size, mm	Nominal thickness, mm	Temperature range	Reflection Ratio	Emissivity
1.2X40	30X10	10	-50 °C to +110 °C	97%	0.03

Note: Customizable variants with standard, Twin Bubble Core can be made.

AEROREFLECT INSULATION-FOAM

Product Description:

AeroReflect Foam Insulation is a closed cell, cross-linked foam core between extra heavy duty reflective reinforced aluminium foil laminates. Foam core is a high quality foam product suitable for use in a roof, wall and floor applications. It reduces up to 97% of the sun's radiant heat, minimizes the risk of condensation and acts as an effective water and vapour barrier when installed correctly.

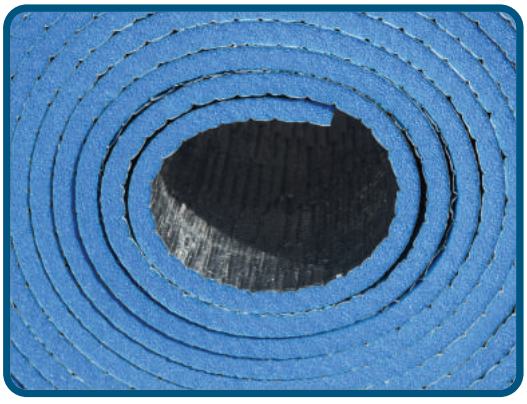
Foam core multipurpose incorporates a 150 mm overlap along one side edge to maximize coverage, minimize wastage and allow for sealed edge protection to improve aesthetics in exposed applications. An anti-glare coating is applied to one side of the product to reduce the level of glare experienced during installation.

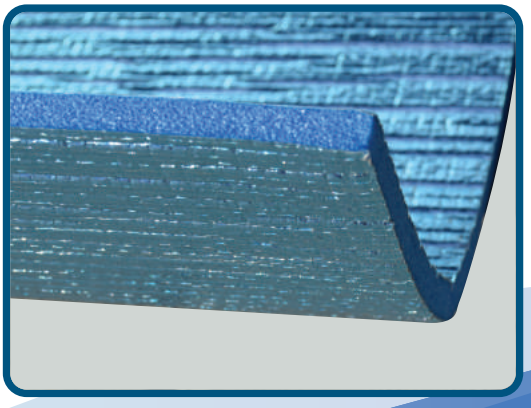
Product Construction:

AeroReflect Foam Insulation is made with aluminium foil laminated with reflectivity of 95% and emissivity of 0.05 to one side and 97% reflectivity and emissivity of 0.03 to the other, which complies with ASTM Standard E 408 . Core are made of 8, 7, 6.5 & 4 mm of chemically cross-linked, closed-cell XLPE foam.

AEROFOAM uses Advanced Laminating Technology for the polymer adhesive remains tacky for an indefinite period and provides superior resistance to heat, fire and delamination.

- Highly effective in dampening noise.
- Fibre-free and non allergenic.
- Water resistant, fire resistant.
- Corrosion resistant





AEROREFLECT INSULATION-FOAM

Technical Specification:

Test name	Standard	Values/Assessment
Flammability index	AS 1530.2:1993	Zero
Fire test	AS 1530.3:1999	Ignitability index : Zero Spread of flame index: Zero Heat evolved index: Zero Smoke developed index: one
Material thermal resistance	ASTM C518	R0.22
Emissivity	ASTM E408	E0.03 shiny, E0.05 for anti-glare
Duty	AS/NZS 4200.1:1994	extra heavy
water vapor transmission	AS/NZS 4200.1:1994	Medium
Resistance to dry delamination	AS/NZS 4201.1	Pass
Resistance to wet delamination	AS/NZS 4201.2	Pass
Pliable building membranes and underlays-shrinkage	AS/NZS 4201.3:1994	0.20%
surface water absorbency	AS/NZS 4201.4:1994	un classified
Resistance to water penetration	AS/NZS 4201.4:1994	High
California bearing ratio(CBR)	AS 3706.4:2012	1.1 kN
Resistance to surface corrosion	AS/NZS 4859.1:2002	Pass

R values for typical applications:

AeroReflect Foam Insulation are met by maintaining the material R-value of R0.2. When it is incorporated into typical construction systems, the following thermal performance can be achieved:

Construction Type	R-Value	
	Winter	Summer
Metal Roof unventilated	R 1.4	R 3.7
Metal Roof ventilated	R 1.3	R 2.8
Metal Roof unventilated	R 1.5	R 2.4
Tile Roof unventilated	R 1.5	R 2.4
Commercial Office Roof	R 1.4	R 4.6
Warehouse Shed Roof	R 1.5	R 3.2
Warehouse Shed Roof	R 1.0	R 2.0
Steel Stud Framed Wall	R 1.3	R 1.1

Installation and environmental conditions play the major role in product contribution towards the total system R-value.

AEROREFLECT INSULATION-FOAM

Physical Specifications:

Nominal thickness	Width	Overlap/flap	Length	Area per roll
mm	mm	Mm	m	m2
8	1350	150	22.25	30
7	1350	150	22.25	30
6.5	1350	150	22.25	30
4	1500	-	20 / 6.67	30 / 10

Notes: Aerofoam reflective insulation products must be kept dry and out of contact with alkaline products.

Compliance:

All the requirements of the National Construction Code and Building Code of Australia for insulation and pliable building membranes are met by AeroReflect Foam Insulation since it complies with AS/NZS 4859.1:2002/Amdt 1:2006 and AS/NZS 4200.1:1994.

Storage:

This product should be stored upright and under cover in a clean, dry place in the pack provided.

Product Specification:

The insulation to be installed shall be AeroReflect Foam Insulation double sided reflective, fibre-free thermo reflective insulation, comprised of cross-linked, closed-cell core XLPE foam with anti-glare foil facing on one side and and plain foil facing on the other side, thermal resistance R0.2 and 150mm overlap piece included.

Emittance Bright Side: 0.03, Anti-glare Side: 0.05
Vapour Barrier Classification: Medium
Water Barrier Classification: High
Duty: Extra Heavy in accordance with AS/NZS 4200.1:1994
Corrosion resistance: AS/NZS 4859.1:2002 passed.

Health and safety:

AeroReflect Foam Insulation has assessed. As a result of the assessment, this product is classified as non-hazardous. To reduce risk of UV damage when installing this product, wear protective clothing, safety glasses and sunscreen, and work in the shade wherever practical.

REFLECTIVE INSULATION

Installation Guide

GENERAL

Aerofoam Reflective Insulation can be affected by intensive/prolonged direct exposure to the high temperature. The insulation at outdoor structure should be installed without delay. The foam must not come in contact with sparks and flame from blowtorches, welders, cutting tools etc. the material when used in a corrosive environment, the foil surface should face to the enclosed, unvented airside.

ROOF

Aerofoam reflective insulation is to be installed as a continuous membrane over roofs, blue antiglare side facing out and laid loosely over the roof frame.

a) Commercial Roofs

Aerofoam reflective insulation can be installed with ease on metal/concrete commercial roofs. The insulation material can be layed upon the metal frame/strips. In case of concrete ceiling a wooden strip or a c-shape strip with internal tapping should be employed. The insulation rolls is to be placed on the frame/installation area and further unrolled them across the tape. A minimum of 50mm overlap should be maintained for best performance. At performance. At edges of the structure overlap of mm to be used to facilitate drainage. Aerofoam reflective insulation is available with 150 mm overlap.

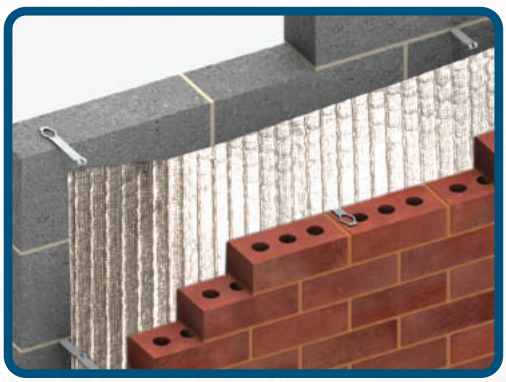
REFLECTIVE INSULATION

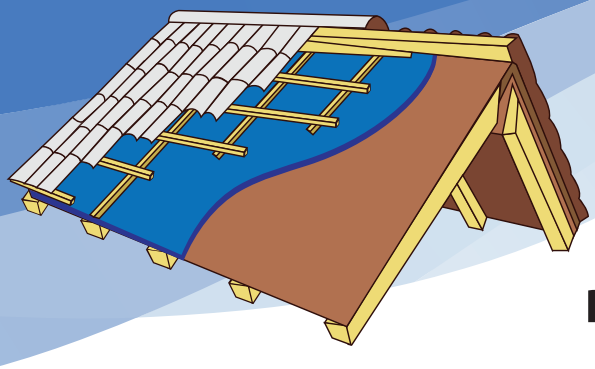
b) Residential Roofs

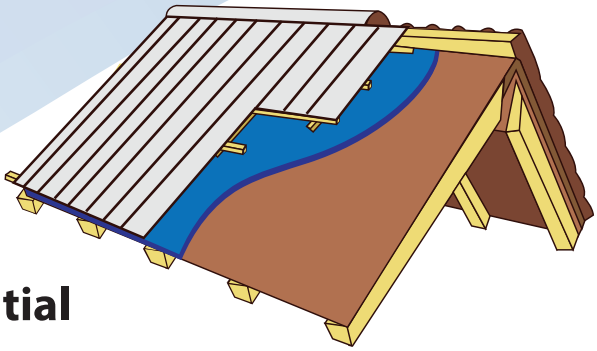
To ensure good coverage, roll out the Aerofoam reflective insulation starting from the top ridge, rolling down to the gutter, over the roof battens. For maximum performance, ensure you have a 50mm overlap into the gutter and that a nominal 40mm sag between your battens is achieved. If required staple or tape the reflective insulation to your battens to hold it in place until the roof sheeting is fixed. At edges of the structure overlap of mm to be used to facilitate drainage.

EXTERNAL WALLS

Roll out insulation horizontally on the outside of studs of the framing. Install insulation from the bottom of the stud or framing. Roll out the next roll of the insulation allowing 150mm overlap (residential) building) or 50mm overlap (commercial building). Where overlap is less than 50mm or 150mm use 72mm wide reinforced aluminium foil joining tape. Allow a nominal air space of 25 mm either side of the insulation to achieve the required R-value. This is easily achievable by pushing the insulation inward into the studs.



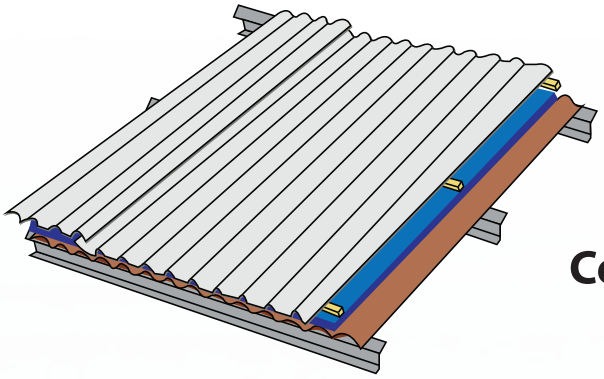


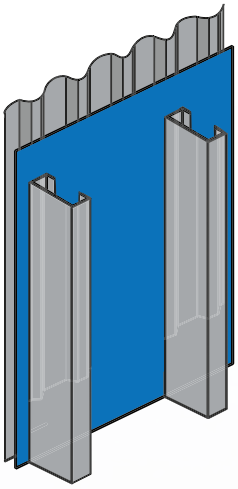


Residential Roofs

TILE ROOF

METAL ROOF

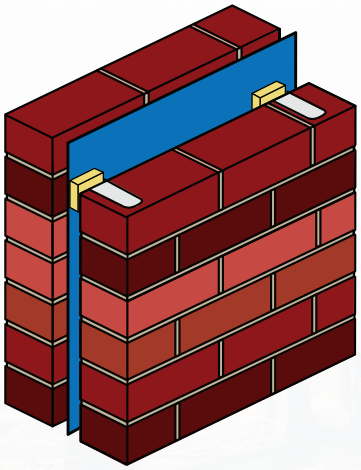


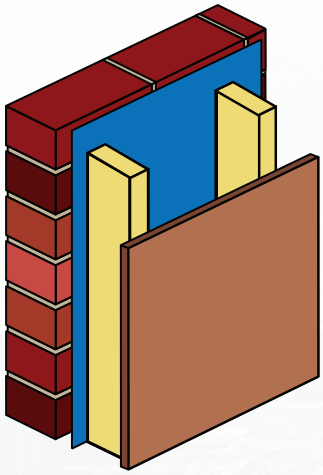


Commercial Roofs

WAREHOUSE SHED

Stud Framed





WALLS

Double Brick

Brick Veneer

UAE/101117-VER 0.1

Manufactured by Hira Industries
P.O. Box 50673, Dubai - UAE
T: +971 4 884 8414

E: enquiry@rhira.com
www.aerofoam.ae
www.rhira.com

CORPORATE MEMBER emiratesGBC

Hira INDUSTRIES

MIDDLE EAST INDIA ASIA AFRICA AUSTRALIA & NEW ZEALAND AMERICAS