



# **AEROREFLECT**

REFLECTIVE ROOF THERMAL INSULATION



## Product Description:

AeroReflect is a closed cell, cross-linked polyolefin foam core between reflective reinforced aluminum foil laminates. Foam core is a high-quality product suitable for use in roof, wall and floor applications. It reduces up to 95% of the sun's radiant heat, minimizes the risk of condensation and acts as effective water and vapor barrier when installed correctly.

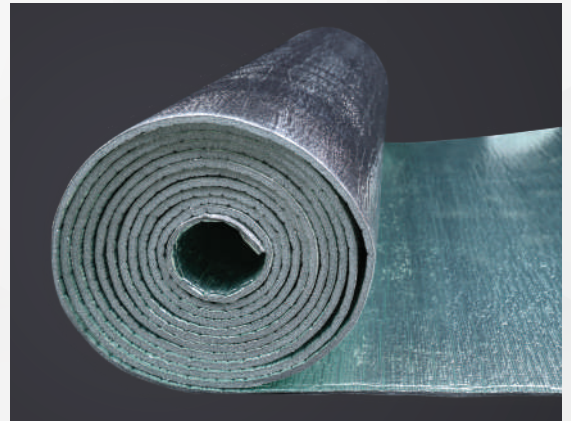
Foam core multipurpose incorporates a 150 mm overlap along one side edge to maximize coverage, minimize wastage and allow for sealed edge protection to improve aesthetics in exposed applications. An anti-glare coating can be applied upon request to one side of the product to reduce the level of glare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



## Product Construction:

AeroReflect thermal insulation is laminated with aluminum foil. Reflectivity of foil is 95% and emissivity of 0.05 to one side and 94% reflectivity and emissivity of 0.06 to the other, which complies with ASTM Standard E 408. The core is made of 4.5, 7.5 and 8.5 mm thick cross-linked, closed cell polyolefin foam.

FlexiCell® uses Advanced Laminating Technology so the polymer provides superior resistance to heat, humidity and delamination for indefinite period.



## Technical Specification:

Property	Test Method	Result	Specification	Classification
Flammability index	AS/NZ 1530.2	0	≤5	Low
Early Fire Hazard Indices Ignitability Index Spread of Flame Heat Evolved Index Smoke Developed Index	AS/NZS 1530.3	0 0 0 1		
Infrared reflectance  Near normal emittance	ASTM E 408, Method A	Anti-glare side - 0.94% Reflective side - 0.95% Anti-glare side - 0.06% Reflective side - 0.05%	IR reflective IR semi-reflective	Category RS
Duty			As per 4200.1:2017 Table 1	Light
Tensile strength	AS 1301.448s	Machine direction - 8.7 kN/m Lateral direction - 8.8 kN/m	As per 4200.1:2017 Table 1	Light Heavy
Tearing resistance	AS/NZ 4200.1	Machine direction - 495 N Lateral direction - 391 N	As per 4200.1:2017 Table 1	Extra heavy
Burst strength	AS 3706.4 (CBR)	1.1 kN		N/A
Bursting force	AS 2001.2.19	541 N		N/A
Water vapor transmission	ASTM E 96	0.01009 µg/N.s	Compliance to AS/NZS 4200.1, clause 5.3.4. vapour barrier	Vapour barrier Class 2
Water control	AS/NZ 4201.4	Pass	Compliance to AS/NZS 4200.1, clause 5.3.5. water barrier	Water barrier
Surface water absorbency	AS/NZ 4201.6	<100 g/m <sup>2</sup>	Compliance to AS/NZS 4200.1, clause A5. absorbency	Low
Dry delamination	AS/NZ 4201.1	Pass	Compliance to AS/NZS 4200.1, clause 5.2.1.1.	Complies
Wet delamination	AS/NZ 4201.2	Pass	Compliance to AS/NZS 4200.1, clause 5.2.1.2.	Complies
Shrinkage	AS/NZ 4201.3	<0.5%	Compliance to AS/NZS 4200.1, clause 5.2.2.	Complies
Resistance to surface corrosion	AS/NZ 4859.1	Pass		
Electrical conductivity			Compliance to AS/NZS 4200.1 clause 5.3.1.	Electrically conductive

## Available Sizes:

Product Name	Nominal thickness (mm)	Width (mm)	Overlap/flap (mm)	Length (m)	Area per roll (m <sup>2</sup> )
AeroReflect 8	8.5	1350	150	22.25	30
AeroReflect 7	7.5	1350	150	22.25	30
AeroReflect 4	4.5	1350	150	22.25	30

## Specification Notes:

When specifying, state the following:

The reflective insulation to be installed shall be AeroReflect thermal insulation double-sided reflective, fiber-free, comprised of cross-linked, closed cell polyolefin foam with or without an anti-glare foil facing on one side and plain foil facing on the other side, thermal resistance R0.2 and 150 mm overlap piece included.

Emittance - anti-glare side: 0.06

Emittance - foil side: 0.05

Flammability index: Low (<5)

Duty: Light

Corrosion resistance: Passed

Water barrier classification: High

Note: Specification compliance for AeroReflect 8.

## Declared R-Values

AeroReflect 8 0.24

AeroReflect 7 0.21

AeroReflect 4 0.15

**R-values for Typical Applications:** Installation and environmental conditions play a major role in product contribution towards the total system R-value. When AeroReflect is incorporated into a typical construction system, following thermal performance can be achieved:

Application	System	Condition	AeroReflect 8		AeroReflect 7		AeroReflect 4	
			Winter	Summer	Winter	Summer	Winter	Summer
Roofing	Metal roof un-ventilated	Suspended ceiling at 300mm	1.3	3.5	1.2	3.4	1.1	3.3
	Metal roof ventilated	Flat ceiling	1.3	2.7	1.2	2.6	1.1	2.5
	Metal roof un-ventilated	Flat ceiling	1.4	2.5	1.3	2.4	1.2	2.3
	Tile roof ventilated	Flat ceiling	1.4	2.4	1.3	2.3	1.2	2.2
	Commercial office roof	Suspended ceiling at 1000mm	1.3	4.4	1.2	4.3	1.1	4.2
	Warehouse shed roof	Suspended ceiling at 100mm	1.4	3.0	1.3	2.9	1.2	2.8
	Warehouse shed roof	No ceiling	1.0	1.9	0.9	1.8	0.9	1.7
Wall	Steel stud framed wall	Metal cladding	1.2	1.1	1.1	1.0	1.0	0.9
	Double brick wall	Cavity	2.1	2.0	2.1	1.9	2.0	1.9

## Storage:

This product should be stored upright and covered in a clean, dry place in the original packaging.

## Compliance:

All the requirements of the National Construction Code and Building Code of Australia for insulation and pliable building membranes are met by AeroReflect thermal insulation since it complies with AS/NZS 4859.1 and AS/NZS 4200.1.

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