

Ceiling & Roof Insulation Product Data Sheet

Mammoth Modern Insulation - high performance polyester thermal insulation

Mammoth® ceiling or roof insulation is made from long lasting 100% polyester insulation made in NZ. Mammoth ceiling insulation uses up to 9,300 recycled PET plastic bottles per 100sqm-. It is non-irritant, non-toxic and is warranted not to sag over time so to keep homes warmer and more energy efficient for longer. Depending on the roof space, Mammoth has ceiling blankets, skillion sections or ceiling battens to suit.

Key Features:

Alongside Mammoth's sustainability credentials, recyclability, trusted accreditations and 90-year warranty, these key features set our insulation apart:

Mammoth Ceiling Blankets:

- Soft, roll-form 100% polyester insulation blanket for ceilings which can be double layered for a higher R-value.
- Unaffected by moisture, Mammoth will continue to perform once dried out. Mammoth is moisture, mould and mildew resistant.
- Lightweight and easy to handle - can easily be torn to length or cut with shears. Available in varying widths and lengths to suit most applications.

Mammoth Skillion Roof Sections:

- High performance semi-rigid 100% polyester sections with a controlled loft to provided assured air-space to roof lining.
- Self-supporting for a smooth friction fit without creases, folds or tucks
- Easy and safe to install - simply squeezes between joists with no need for staples.
- Provides thermal and acoustic benefits for residential and commercial applications.

Mammoth Ceiling Battens:

- Suitable for skillion or truss roofs.
- Semi-rigid airway polyester sections (for timber framing only) or carded polyester blanket.
- 45mm thick sections to fit between ceiling battens.
- Heat-bonded 100% polyester that won't sag or settle over time.



CEILINGS & ROOFS

			Density (kg/m3)	R-Value	PACK SIZES			
					Nominal thickness (mm)	Dimensions (mm)	Pieces per pack	Area per pack (m2)
Ceiling Blanket			7.83	R 1.8	115	870 x 11495	2	20
			7.57	R 2.9	185	870 x 8620	2	15
			8	R 3.2	200	870 x 8620	2	15
			8	R 3.3	210	870 x 8620	2	15
			8	R 3.6	225	870 x 7470	2	13
			8.33	R 4.0	240	870 x 5750	2	10
			9.79	R 4.1	210	870 x 5750	2	10
Double Layer - R 2.9 x 2			7.57	R 5.8	370	870 x 8620	2	15*
Double Layer - R 3.2 x 2			8	R 6.4	400	870 x 8620	2	15*
Double Layer - R 3.3 x 2			8	R 6.6	420	870 x 8620	2	15*
Double Layer - R 3.6 x 2			8	R 7.2	450	870 x 7470	2	13*
Double Layer - R 4.0 x 2			8.33	R 8.0	480	870 x 5750	2	10*
Double Layer - R 4.1 x 2			9.79	R 8.2	420	870 x 5750	2	10*
* For Double Layering - Double the quantity of product is required. For instance, a 100m2 area requires 200m2 of product to achieve a double layer.								
Skillion Roof Section	Airlay		32.87	R 2.9	115	560 x 1200	3	2.02
	Airlay		32.87	R 2.9	115	860 x 1200	5	5.16
	Friction fit airlay insulation (red)		15.15	R 3.2	165	570 x 1200	5	3.42
	Airlay		15.15	R 3.2	165	870 x 1200	4	4.18
	Airlay		19.39	R 3.6	165	870 x 570	6	2.98
	Card		25.71	R 3.6	140	870 x 570	6	2.98
	Card		17.67	R 5.0	215	870 x 570	8	3.97
	Ceiling Batten	Card	Blanket	16.67	R 1.0	45	580 x 12930	2
Airlay		Section	47.1	R 1.0	35	540 x 1200	10	6.48
Friction fit airlay insulation (red)		Section	42.22	R 1.3~	45	360 x 2400	9	7.78
Airlay		Section	42.22	R 1.3~	45	560 x 2400	6	8.06
~ R1.3 sections are for timber framing only.								

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Technical Attributes	Standard	Test Result
New Zealand Building Code		
✓ Durability	Clause B2.3.1 (a) (b) Clause B2.3.2	Ref: BRANZ Appraisal No 797 ¹
✓ Internal Moisture	Clause E3.3.1	Ref: BRANZ Appraisal No 797 ¹
✓ Hazardous Building Materials	Clause F2.3.1	Ref: BRANZ Appraisal No 797 ¹
✓ Energy Efficiency	Clause H1.3.1(a) Clause H1.3.2 E	Ref: BRANZ Appraisal No 797 ¹
Product Safety		
✓ Non Toxic	OSH Health and Safety Guidelines ²	Polyester products are 'non-toxic'
✓ Non Irritant	OSH Health and Safety Guidelines ²	Polyester products are 'non-irritant'
✓ Respiratory Safe		Polyester fibres are non-respirable
✓ Fire Test ³	AS/NZS60695.2.11	Passed - Glow wire flammability test
	AS/NZS60695.11.5	Passed - Test flames (Needle-flame test)
	ISO9705	Group1S (Skillion - R3.2 sections only)
✓ VOC Emission Safe ⁴	Total VOC ≤ 0.5mg/m ⁴	< 0.005mg/m3 - level below detection ⁵
	Formaldehyde ≤ 0.06mg/m ⁵	< 0.009mg/m3 - level below detection
✓ Glue Free		Free from all glues
Other		
✓ Thermal Performance	AS/NZS4859.1	Only applies to products with declared R-values
✓ Non Corrosive		Materials composed entirely of polyester are regarded as non-corrosive and are exempt from testing. Alkalinity of pH 7.8
✓ Moisture Resistant ⁶	ASTM C1104	Absorption rate of less than 0.2% by weight
✓ Vermin Resistant		Not a food source for vermin (and not treated)
✓ Odourless		Mammoth is odourless and will not absorb odours

(1) Meet or contribute to these provisions when designed, used, installed and maintained in accordance with BRANZ Appraisal 797 or 801.

(2) Occupational Safety and Health Service. Health and Safety Guidelines for the Selection and Safe Handling of Synthetic Mineral Fibres, Dept of Labour, 1994.

(3) Can safely cover IC-rated downlights. If luminaire rating is unknown, minimum clearance of 100mm to any insulation is required.

(4) Mammoth has been tested under ASTM D5116. Based on test results for a product with similar nominal weight.

(5) All individual VOCs were less than their threshold limit values. Carcinogens and reproductive toxins were not identified as part of the VOCs.

(6) If the products should become wet the full thermal performance will be restored once the product is dried completely.

DOWNLOADS including Installation Guidelines and DataSheets are available at mammoth.co.nz



For more technical information, please download our product data sheets, installation instructions and more from www.mammoth.co.nz

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