

HIGH PERFORMANCE
**POLYESTER
INSULATION**

RESIDENTIAL

COMMERCIAL

THERMAL

ACOUSTIC



RESIDENTIAL & COMMERCIAL INSULATION

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WHY MAMMOTH INSULATION?

Reasons to use Mammoth Modern Insulation

■ SUSTAINABLE - RECYCLED PLASTIC BOTTLES

Mammoth® polyester insulation is manufactured from recycled plastic bottles and containers, with 65-94% of the raw fibre material sourced from that plastic.

■ 100% RECYCLABLE

Everything from offcuts and packaging is recyclable and can be returned, recycled and reused as part of our TakeBack & ReUse recycling Programme.

■ NZ MADE - ZERO WASTE

NZ owned and operated, Mammoth insulation is made using a zero-waste manufacturing process.

■ NON-IRRITANT, NON-ITCH, SAFE TO USE

Mammoth won't irritate your skin when you touch it - in fact it is made from the same material that you find in many pillows and duvets so no precautions are required for handling the product. Mammoth is respiratory safe.

■ NON-TOXIC, NO CHEMICALS, ODOURLESS

Mammoth polyester fibres are heat-bonded together - no glues or binders are added which can break down over time. No formaldehyde or pesticides are added.

■ EASY TO HANDLE

Blankets can easily be torn by hand across the width of the product and our segments can simply be cut with an insulation hand saw.

■ NON CORROSIVE

Will not affect electrical wiring underfloor. No conduit is needed on wiring unlike some other insulation products.

■ FRICTION FITTED - DOESN'T SLUMP

Our unique Mammoth friction fit segments offer an unrivaled professional finish. Our self supporting insulation provides a smooth friction fit without gaps, creases or folds. Our dimensionally true friction fit segments simply squeeze between floor joists, rafters and wall framing with no need for staples or strapping.

■ VARIOUS SIZES

Mammoth insulation is available in varying widths and lengths to suit most applications. See mammoth.co.nz for more details.

■ MOISTURE & VERMIN RESISTANT

Mammoth insulation will continue to perform once dried out, and is moisture, mould, mildew and vermin resistant.

■ ENERGY EFFICIENT, RETAINS LOFT

Mammoth polyester insulation helps create a more energy efficient building, costing less to heat and cool. Mammoth insulation will not slump over time.

■ INSTALLER NETWORK

Mammoth insulation has a network of qualified installers nationwide. See mammoth.co.nz for more details.

■ HIGH QUALITY PERFORMANCE

Due to the manufacturing and design process, the installed Mammoth product typically offers higher installed performance (construction R-values) over traditional insulation, achieved with Mammoth's unrivaled friction fit products.

*90 year warranty applies only to 100% polyester products manufactured by InZone and not composite products which incorporate InZone polyester products.

■ A QUIETER SPACE

Our superior acoustic insulation will also help to reduce noise transfer, along with our exposed acoustic panel products which can be used to improve the reverberation time, creating a quieter, indoor environment.

■ 90 YEAR WARRANTY

Mammoth Insulation will last for 90 years if installed correctly and adequately protected - giving you confidence in your home or building's ongoing energy efficiency, health and comfort.

■ FIRE SAFE

Mammoth has been independently tested and passed the NZ Building Code fire tests.

■ BRANZ APPRAISED

Most of Mammoth's thermal insulation and acoustic products are BRANZ tested and appraised.

■ ECO CHOICE AOTEAROA

Most of our Mammoth insulation products are Eco Choice Aotearoa certified.

■ HIGH PERFORMER BUILDING

Mammoth are members of High Performer Building who provide quality products for new constructions.

■ NZ GREEN BUILDING COUNCIL

Mammoth supplies points for Greenstar and Homestar rating tools towards greener building practices.



FROM WASTE TO WARMTH

Mammoth's thermal and acoustic insulation takes fibre made from recycled PET plastic bottles, which would otherwise be waste, and manufacture the fibre from these bottles into insulation that creates warmer, healthier homes and buildings.

Mammoth 100% polyester insulation uses up to 15,600 recycled PET plastic bottles per 100 sqm*.

* The calculations are based on 500ml (16.2g) PET bottles.

MAMMOTH® PRODUCT RANGE

Ceiling and Wall Insulation

CEILING & 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
			7.57	R 5.8	370	870 x 8620	2	15*
			8	R 6.4	400	870 x 8620	2	15*
			8	R 6.6	420	870 x 8620	2	15*
Double Layer - R 2.9 x 2								
Double Layer - R 3.2 x 2								
Double Layer - R 3.3 x 2								
Double Layer - R 3.6 x 2								
Double Layer - R 4.0 x 2								
Double Layer - R 4.1 x 2								
* 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.								

			Density (kg/m3)	R-Value	PACK SIZES			
					Nominal thickness (mm)	Dimensions (mm)	Pieces per pack	Area per pack (m2)
WALLS			16.67	R 1.9	90	360 x 760	9	2.46
			16.67	R 1.9	90	560 x 760	6	2.55
			60	R 2.0	70	360 x 760	12	3.28
			60	R 2.0	70	560 x 760	8	3.4
			22.22	R 2.0	90	360 x 760	9	2.46
			22.22	R 2.0	90	560 x 760	6	2.55
			26.67	R 2.2	90	360 x 760	9	2.46
			26.67	R 2.2	90	560 x 760	6	2.55
			40	R 2.5	90	360 x 760	9	2.46
			40	R 2.5	90	560 x 760	6	2.55
			15	R 2.8	140	360 x 760	18	4.92
			15	R 2.8	140	560 x 760	12	5.1
			20.7	R 3.2	140	360 x 760	18	4.92
			20.7	R 3.2	140	560 x 760	12	5.1
			25.71	R 3.6	140	360 x 760	18	4.92
			25.71	R 3.6	140	560 x 760	12	5.1
			21.67	R 2.2	90	360 x 9870	2	7.11
			21.67	R 2.2	90	560 x 10800	1	6.05
Wall Blanket			10.71	R 2.6	140	380 x 8550	4	13
			10.71	R 2.6	140	580 x 7470	3	13
Masonry Wall - Blanket			16.67	R 1.0	45	580 x 12930	2	15
Masonry Wall - Section			47.1	R 1.0	35	540 x 1200	10	6.48
			42.22	R 1.3	45	360 x 2400	9	7.78
			42.22	R 1.3	45	560 x 2400	6	8.06

MAMMOTH® PRODUCT RANGE

Underfloor Insulation

			Density (kg/m ³)	R-Value	PACK SIZES			
					Nominal thickness (mm)	Dimensions (mm)	Pieces per pack	Area per pack (m ²)
Underfloor Section	☒	☒	16.67	R 1.9	90	370 x 1140	16	6.75
	☒	☒	16.67	R 1.9	90	425 x 1140	16	7.75
	☒	☒	16.67	R 1.9	90	475 x 1140	14	7.58
	☒	☒	16.67	R 1.9	90	580 x 1140	12	7.93
	☒	☒	15	R 2.8	140	370 x 1140	10	4.21
	☒	☒	15	R 2.8	140	425 x 1140	10	4.84
	☒	☒	15	R 2.8	140	475 x 1140	10	5.41
	☒	☒	15	R 2.8	140	580 x 1140	8	5.28
	☒	☒	20.7	R 3.2	140	370 x 1140	10	4.21
	☒	☒	20.7	R 3.2	140	425 x 1140	10	4.84
	☒	☒	35.7	R 3.4	140	370 x 1140	10	4.21
	☒	☒	35.7	R 3.4	140	425 x 1140	10	4.84
	☒	☒	35.7	R 3.4	140	475 x 1140	10	5.41
	☒	☒	35.7	R 3.4	140	580 x 1140	8	5.28
	☒		16.67	R 3.8	180	370 x 1140	16	6.75*
	☒		16.67	R 3.8	180	425 x 1140	16	7.75*
	☒		16.67	R 3.8	180	475 x 1140	14	7.58*
	☒		16.67	R 3.8	180	580 x 1140	12	7.93*
For any system - single or double layered - the joist depth must be greater than the insulation thickness.								
* For Double Layering - Double the quantity of product is required. For instance, a 100m ² area requires 200m ² of product to achieve a double layer.								
Underfloor Blanket	☒	☒	7.5	R 1.5	100	450 x 11110	4	20
	☒	☒	7.5	R 1.5	100	510 x 9804	4	20
	☒	☒	7.5	R 1.5	100	600 x 11110	3	20
	☒	☒	7.5	R 1.5	100	650 x 10258	3	20
	☒	☒	7.83	R 1.8	115	450 x 11110	4	20
	☒	☒	7.83	R 1.8	115	510 x 9804	3	20
	☒	☒	7.83	R 1.8	115	600 x 11110	3	20
	☒	☒	7.83	R 1.8	115	650 x 10258	3	20
	☒	☒	10	R 2.0	115	450 x 11110	4	20
	☒	☒	10	R 2.0	115	510 x 9804	4	20
	☒	☒	10	R 2.0	115	600 x 11110	3	20
	☒	☒	10	R 2.0	115	650 x 10255	3	20
Carpark Panel	Colour	NRC	Density (kg/m ³)	R-Value	Nominal thickness (mm)	Dimensions (mm)	Pieces per pack	Area per pack (m ²)
	Mottled Grey	0.85	28.57	R 1.7	70	1200 x 2400	4	11.52
	Mottled Grey		32	R 2.5	100	1200 x 2400	3	8.64

UNDERFLOOR

MAMMOTH® PRODUCT RANGE

Acoustic Insulation

			Density (kg/m ³)	GSM	PACK SIZES			
					Nominal thickness (mm)	Dimensions (mm)	Pieces per pack	Area per pack (m ²)
Acoustic Wall Section - Mammoth 1000			12.5	1000	80	560 x 760	7	2.98
Acoustic Wall Section R1.9	✓	✓	16.67	1500	90	360 x 760	9	2.46
	✓	✓	16.67	1500	90	560 x 760	6	2.55
Acoustic Wall Section R2.0	✓	✓	22.22	2000	90	360 x 760	9	2.46
	✓	✓	22.22	2000	90	560 x 760	6	2.55
Acoustic Wall Section R2.2	✓	✓	26.67	2400	90	360 x 760	9	2.46
	✓	✓	26.67	2400	90	560 x 760	6	2.55
Acoustic Wall Section R2.5	✓	✓	40	3600	90	360 x 760	9	2.46
	✓	✓	40	3600	90	560 x 760	6	2.55
Acoustic Wall Section R2.8	✓	✓	15	2100	140	360 x 760	18	4.92
	✓	✓	15	2100	140	560 x 760	12	5.1
Acoustic Wall Section R3.2	✓	✓	20.7	2900	140	360 x 760	18	4.92
	✓	✓	20.7	2900	140	560 x 760	12	5.1
Acoustic Wall Section R3.6	✓	✓	25.71	3600	140	360 x 760	18	4.92
	✓	✓	25.71	3600	140	560 x 760	12	5.1

		GSM	Density (kg/m ³)	R-Value	Nominal thickness (mm)	Dimensions (mm)	Pieces per pack	Area per pack (m ²)
Acoustic Blanket 580	✓	580	9.87	R 1.0	60	600 x 25000	2	30
Acoustic Blanket 735 (MAB3)	✓	735	14.7		50	600 x 11110	3	20
Acoustic Blanket 750 (MAB4)	✓	750	12.5	R 1.1	60	600 x 11110	3	20
Acoustic Blanket 900	✓	900	10	R 1.6	90	580 x 11495	2	13.33
Acoustic Blanket 900	✓	900	10	R 1.6	90	600 x 11110	3	20
Acoustic Blanket 1000		1000	11.11		90	600 x 11110	3	20
Acoustic Blanket 1100	✓	1100	12.22	R 1.8	90	600 x 11110	3	20
Acoustic Blanket 1150 (MAB6)	✓	1150	15.33	R 1.7	75	600 x 11110	3	20
Acoustic Blanket 1325		1325	14.7		90	560 x 10710	3	18
Acoustic Blanket 1680 *(MAB7)		1680	14		120	600 x 7388	3	13.3

* New product line pending ISO9705 testing for fire performance
Mammoth Acoustic is available in different densities depending on the acoustic application and performance required.

	Colour	GSM	Density (kg/m ³)	Nominal thickness (mm)	Dimensions (mm)	Pieces per pack	Area per pack (m ²)
Bafflestack Blanket	White	1000	10	100	600 x 11110	3	20

	Density - Thickness (mm)	NRC	MOQ (m ²)	R-Value	AirLay / Card	Dimensions (mm)	Pieces per pack	Area per pack (m ²)
Acoustic Panel Absorber - White	35 - 25	0.7	500		Card	1200 x 2400	12	34.56
	35 - 50	0.9	No MOQ		Card	1200 x 2400	6	17.28
	35 - 75	0.95	500		AirLay	1200 x 2400	4	11.52
	20 - 100	1.05	500		AirLay	1200 x 2400	3	8.64
	40 - 100	1.05	500		AirLay	1200 x 2400	3	8.64
White with Black Face	35 - 25	0.7	No MOQ	R 0.7	Card	1200 x 2400	12	34.56
	35 - 50	0.9	No MOQ	R 1.4	Card	1200 x 2400	6	17.28
	35 - 75	0.95	250	R 2.0	AirLay	1200 x 2400	4	11.52
	20 - 100	1.05	250		AirLay	1200 x 2400	3	8.64
	40 - 100	1.05	250		AirLay	1200 x 2400	3	8.64
Black with Black Face	35 - 25	0.7	250		AirLay	1200 x 2400	12	34.56
	35 - 50	0.9	No MOQ		AirLay	1200 x 2400	6	17.28
	35 - 75	0.95	250		AirLay	1200 x 2400	4	11.52
	20 - 100	1.05	500		AirLay	1200 x 2400	3	8.64
	40 - 100	1.05	500		AirLay	1200 x 2400	3	8.64
Grey	35 - 25	0.7	250		Card	1200 x 2400	12	34.56
	35 - 50	0.9	250		Card	1200 x 2400	6	17.28
	35 - 75	0.95	250		AirLay	1200 x 2400	4	11.52
	20 - 100	1.05	250		AirLay	1200 x 2400	3	8.64

There is a colour difference in the grey panel depending on if from card (more uniform grey) or airLay (grey/black/white mottled). Contact us for samples.

	Density - Thickness (mm)	NRC	GSM	R-Value	AirLay / Card	Dimensions (mm)	Pieces per pack	Area per pack (m ²)
Duct Liner - White : White w Black Face	35 - 13		455		Card	1200 x 2400	24	69.12
	35 - 25	0.7	875	R 0.7	Card & AirLay	1530 x 2400	12	44.08
	35 - 50	0.9	1750	R 1.4	Card & AirLay	1530 x 2400	6	22.03
	46 - 50		2300	R 1.5	Card	1530 x 2400	3	11.01
	35 - 75	1.05	2625	R 2.0	AirLay	1200 x 2400	4	11.52
	20 - 100	0.95	2000		AirLay	1200 x 2400	3	8.64
	40 - 100	1.05	4000		AirLay	1200 x 2400	3	8.64

Custom widths available on request - minimum order quantities apply.

ROOF & CEILING INSULATION

In Truss Roofs and Roofs with Ceiling Voids

We all know heat rises and it's estimated that 30-35% of heat loss from an uninsulated house is through the ceiling. So the roof cavity is the best place to start adding insulation in the building, helping keep the warmth in in winter but also cooler in summer.

TRUSS ROOF BUILD UPS

Our range of Mammoth insulation for truss roofs offered are in the table (right). Typical truss roof build-ups will be a double layer of product, however a single layer will work in some scenarios depending on if for a new build, alteration, retrofit, glazing percentage, or whether consent is required.

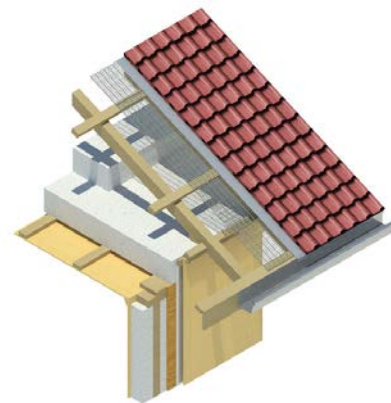
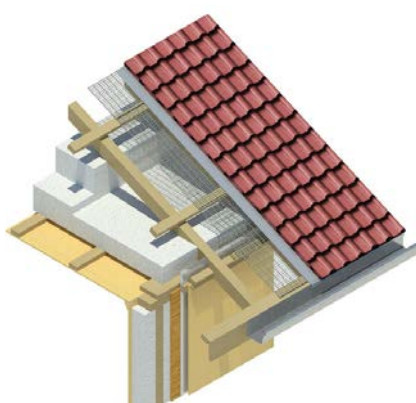
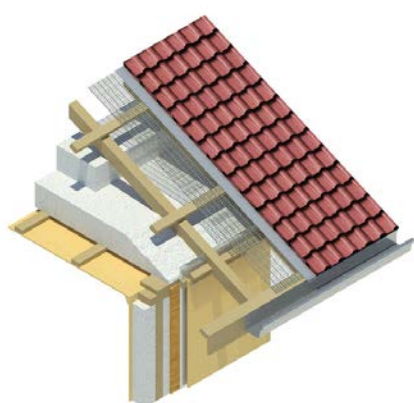
The benefit of the Mammoth double layer ceiling system is you can fit the first layer between the truss bottom chord/timber joist with the second layer being typically installed from above. This means the installer perfectly installs the product while looking down at it to make sure all the truss bottom chords/timber joists have been covered to eliminate thermal bridging. Many single layer spill over products are being installed from the bottom with no checks from installers nor auditors that the framing has been covered on the top side.

A double layer of Mammoth R3.6 blanket typically offers approx. R7.2-R7.3 as a construction R-value. Different combinations of insulation based on thickness, restrictions and desired construction R-value will determine what combination of product is selected. Typically, a double layer with the insulation at the roof edge feathered down to fit, this works well. These build ups are not limited to the specific combinations represented.

Build-ups for truss roofs are not limited to the products shown, as other Mammoth insulation such as wall or skillion sections (also called pads or segments) can be used in certain truss scenarios. For instance at the roof edge for low clearance areas where a staggered build-up of product is preferred, rather than a blanket feathered down. For example: R3.6 140mm skillion segments may be used at a roof edge if required.

For queries around H1 compliance, calculations and construction R-values, email info@mammoth.co.nz or call 0800 MAMMOTH.

	R-Value	Nominal thickness (mm)
Ceiling Blanket	R 1.8	115
	R 2.9	185
	R 3.2	200
	R 3.3	210
	R 3.6	225
	R 4.0	240
	R 4.1	210
Mammoth products can be double layered eg R 4.1 x 2 = R 8.2	R 8.2	420
Ceiling Batten Blanket	R 1.0	45
Ceiling Batten Section	R 1.0	35
Ceiling Batten Section	R 1.3	45



ROOF & CEILING INSULATION

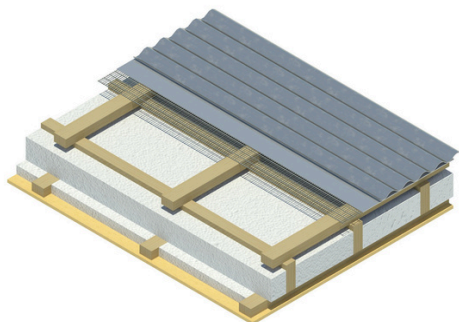
In Skillion Roofs

CEILING BATTEN INSULATION

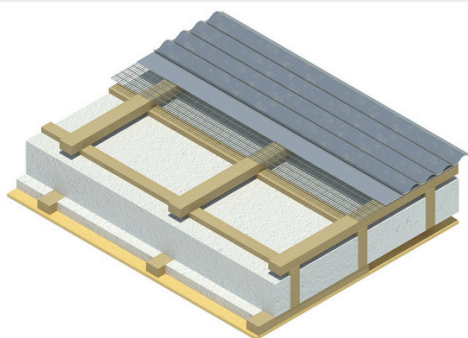
Mammoth offer a range of insulation build ups for skillion (also known as rafter) roofs. Build-ups depend on many factors such as desired construction R-value, new build or retrofit not requiring consent or H1 compliance, or space constraints.

Specific insulation build-up such as ply on top of rafters, rafters with purlins, rafters with vented batten then purlins and other varying factors, will dictate what product is used. It is best to contact Mammoth for technical advice on the best solution. Some examples below:

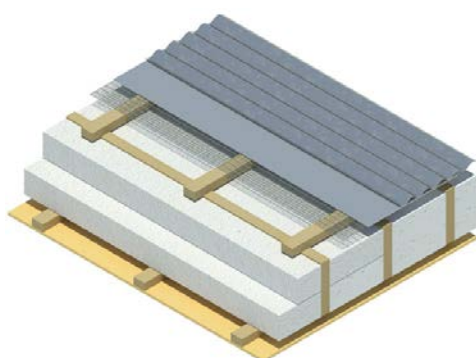
140mm Rafters - Mammoth R2.9 115mm + R1.3 45mm batten insulation or R1.0 35mm batten insulation.



190mm Rafters - Mammoth R3.6 165mm + R1.3 45mm batten insulation or R1.0 35mm batten insulation.



290/300mm Rafters - Mammoth R7.2 280mm (R3.6 140mm x double layer).



CEILING BATTEN INSULATION

Ceiling Batten Insulation is designed to reduce thermal bridging in skillion and truss roofs by insulating the batten space.

Mammoth friction fit sections to ceiling battens are typically used with 35 or 45mm timber battens. If rondo is used, this must be hung so a 45mm blanket can be laid over the top.

	R-Value	Nominal thickness (mm)
Skillion Sections	R 2.9	115
Skillion Sections	R 3.2	165
Skillion Sections	R 3.6	140
Skillion Sections	R 3.6	165
Ceiling Blanket	R 4.1	210
Skillion Sections	R 5.0	215
Skillion Section Double Layer - R3.6 x 2	R 7.2	280
Ceiling Batten Blanket	R 1.0	45
Ceiling Batten Section	R 1.0	35
Ceiling Batten Section	R 1.3	45

ROOF & CEILING INSULATION

In **Suspended Ceilings** and **Purlin Roofs**

SUSPENDED CEILINGS

Mammoth insulation blanket products are suitable for suspended ceiling applications in commercial buildings and residential environments.

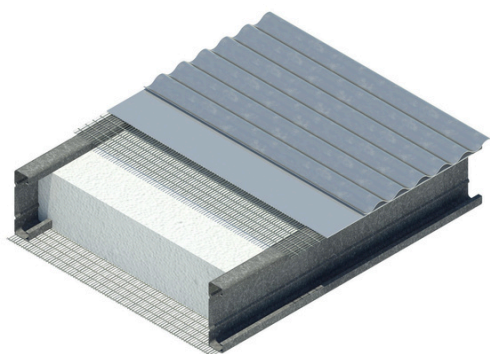
Mammoth insulation installed to a suspended ceiling is cost effective and quick to install. The Mammoth polyester blanket can be rolled out on the suspended ceiling, a grid, and rondo. Assuming the desired construction R-value can be met, Mammoth can also be installed between steel purlins which are typically laid on mesh.

In some cases, commercial clients may wish to go for a semi visual finish such as an exposed ceiling in their building. A respectable (semi-visual) finish can be achieved with the Mammoth section products, such as skillion sections, carpark liner or panel absorber. Custom runs can be done changing size, colour or finish.

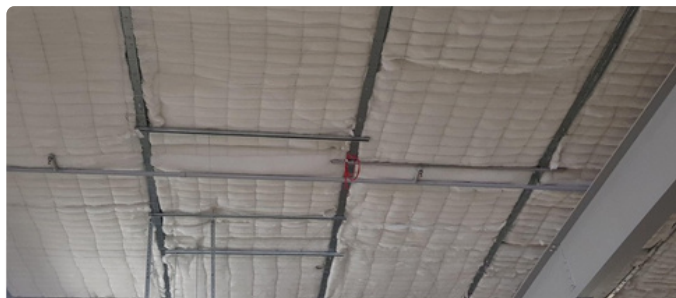
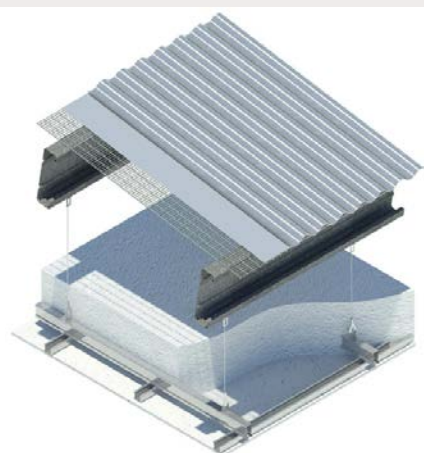
Visual finishes are great for those looking for an exposed high ceiling look and do not wish to use a suspended ceiling. Thermal performance along with acoustic values can be achieved. The exposed Mammoth product will reduce the reverberation time in the space as well as add thermal performance.

For advice on visual installs or custom runs, please contact us at mammoth.co.nz or 0800 MAMMOTH. There are a number of variables to consider.

Installation of blanket to purlins



Installation of blanket on suspended ceiling



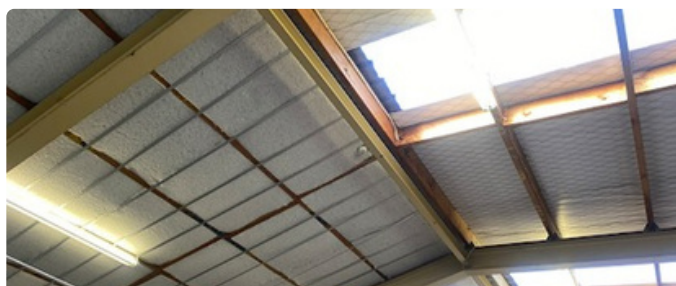
PURLIN ROOFS

Mammoth blanket insulation can be laid between steel purlins.



VISUAL FINISH

Mammoth friction fit section, custom run, in white in steel purlins.



SKILLION

Mammoth skillion sections are designed to promote high thermal performance in modern skillion roof or flat roof designs.

ROOF & CEILING INSULATION

Acoustic Performance in Ceilings

ACOUSTIC BLANKETS

Mammoth's polyester acoustic insulation creates quieter environments in commercial & retail buildings, individual and multi-dwelling homes as well as improving the thermal energy efficiency of the space.

Mammoth acoustic blanket and section products are available in a range of thicknesses and densities depending on the acoustic requirement and where the product is installed (timber, steel stud etc).

Residential buildings, typically apartments, may use acoustic blanket insulation on the suspended ceiling between levels to reduce disruption from noise. Mammoth can also be fitted to midfloors (which may be viewed as ceiling product) which is addressed under Underfloor Insulation on page 11.

For commercial buildings, Mammoth blanket products are suitable for installation on suspended ceilings and ceiling grids.

Mammoth products are approved in some GIB systems. Find out more at mammoth.co.nz or check the GIB information for using polyester in acoustic & firewalls.

BAFFLESTACK

Mammoth Bafflestack insulation is designed to be stacked and compressed within the plenum space above partition walls, to the roof or floor above. This reduces sound transfer between rooms, without the need for construction of walls within the plenum space.

Bafflestack improves the CAC above the walls. For info on compression, layers, and expected CAC, see the Bafflestack Installation Instructions on mammoth.co.nz

PANEL ABSORBER

Mammoth Panel Absorber is designed to be used as an acoustic panel typically found on ceilings, behind perforated linings, installed between purlins and more. The panel absorber is a cost effective way to improve the reverberation time in a space.

Panel Absorber has a Group 1S fire rating under the ISO 9705 Fire test and is suitable to be exposed. The product is also commonly used in HVAC ducting and for insulating garage doors.

Acoustic Panel Absorber	Density/Thickness (mm)	Dimensions (mm)
White	25, 50, 75, 100	1200 x 2400
White with Black Face	25, 50, 75, 100	1200 x 2400
Black with Black Face	25, 50, 75, 100	1200 x 2400
Grey	25, 50, 75, 100	1200 x 2400

Please see mammoth.co.nz for a full list of Acoustic Panel Absorber products and sizes.



ACOUSTIC BLANKET

Ideal for commercial buildings, office fit-outs, apartments, residential environments.



BAFFLESTACK

To improve privacy and noise control between rooms.



PANEL ABSORBER

A high-performance acoustic panel to control noise reverberation.

Acoustic Blanket	Density (kg/m ³)	Nominal thickness
580	9.67	60
735	14.7	50
750	12.5	60
800	16	50
900	10	90
1000	11.11	90
1100	12.22	90
1150	15.33	75
1325	14.7	90
1680	14	120
Bafflestack 1000	10	100

WALL INSULATION

Maximise the Thermal and Acoustic Envelope

WALL SECTIONS

Designed to work in conjunction with the building systems of existing and new buildings, Mammoth wall sections are semi-rigid polyester insulation that are friction fitted into the wall cavity.

Creating a seamless, smooth fit without tucks, creases or gaps, Mammoth wall sections provide both thermal and acoustic benefits for homes and buildings.

Mammoth thermal sections can be used for acoustic as they not only offer an R-value but also offer acoustic performance. Mammoth R1.9 90mm is a good all round choice for inter-tenancy walls. For advice on product selection, contact Mammoth.

MASONRY WALLS

Mammoth masonry wall insulation products are designed for small cavities, such as 45mm timber strapping to fit between timber battens.

WALL BLANKETS

Mammoth offer some thermal wall blanket products, however most wall blankets used are typically found on commercial jobs with steel studs, such as inter-tenancy walls.

The acoustic blankets are suitable for timber, but work particularly well with steel studs as they are cut to suit 600mm studs. This is great for commercial fit-outs as one drape of an acoustic blanket can be used in a steel stud bay.

Mammoth products are approved in many GIB systems. Find out more at mammoth.co.nz or check the GIB information for using polyester in acoustic & firewalls.

Wall Sections	Density (kg/m ³)	R-Value	Nominal thickness (mm)
Acoustic & Thermal	16.67	R 1.9	90
Acoustic & Thermal	60	R 2.0	70
Acoustic & Thermal	22.22	R 2.0	90
Acoustic & Thermal	26.67	R 2.2	90
Acoustic & Thermal	40	R 2.5	90
Acoustic & Thermal	15	R 2.8	140
Acoustic & Thermal	20.70	R 3.2	140
Acoustic & Thermal	25.71	R 3.6	140



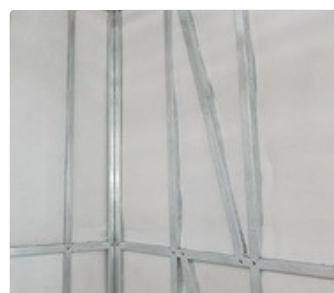
WALL SECTIONS

A high performance, semi-rigid polyester insulation that is self-supporting between studs without gaps, creases or folds.



MASONRY WALL

Thermal wall insulation for strapped and lined masonry walls.



WALL BLANKET

A polyester blanket designed to be draped between steel studs and be fitted to timber framing.

Masonry Wall	Density (kg/m ³)	R-Value	Nominal thickness (mm)
Blanket	16.67	R 1.0	45
Section	47.1	R 1.0	35
Section	42.22	R 1.3	45

Acoustic Blanket	Density (kg/m ³)	R-Value	Nominal thickness (mm)
Acoustic 580, 735, 750, 800, 900, 1000, 1100, 1150, 1325, 1680	9.67 - 16	R 1.0 - R 1.8	50 - 120
Thermal	21.67	R 2.2	90
Thermal	10.71	R 2.6	140

Please see mammoth.co.nz for a full list of Mammoth Wall Blanket products.

UNDERFLOOR INSULATION

Thermal and Acoustic Benefits

UNDERFLOOR SECTIONS AND BLANKETS

Mammoth offer a range of underfloor friction fit sections and blankets providing thermal performance. Made from 100% polyester fibres, Mammoth insulation does not deteriorate, is moisture resistant and won't affect electrical wiring (does not need a conduit like some insulation products).

Mammoth underfloor sections are a semi rigid friction fit so they have some "give" in them conforming to any deviations in timber, meaning no gaps, creases, folds or areas where performance is reduced.

The friction fit sections can be fitted from above before the floor is laid.

The friction fit sections are also suitable for areas with an exposed perimeter as they are far less likely to be affected by any air movement under the building (known as wind wash).

Mammoth blankets are in a soft, roll-form thermal insulation for underfloors and midfloors. Blanket insulation is only recommended for under floors where there is a fully enclosed perimeter to protect it from windwash.

Blanket products such as our acoustic blankets can be laid on the ceiling and/or stapled between midfloor joists. See page 9 for the Acoustic Blanket table.

CARPARK PANELS

Mammoth carpark panels are typically used in commercial suspended floors. The panels are mechanically fixed or glue fixed to the underside of the slab. This provides thermal performance along with offering acoustic NRC value which is good for reducing sounds bouncing around such as in a carpark space. The Mammoth carpark panel can also be used in some residential suspended slab scenarios.

Underfloor Sections	Density (kg/m ³)	R-Value	Nominal thickness (mm)
	16.67	R 1.9	90
	15	R 2.8	140
	20.7	R 3.2	140
	35.7	R 3.4	140
Double Layer - R1.9 x 2	16.67	R 3.8	180



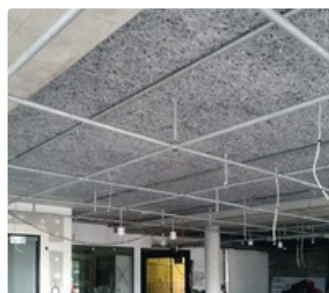
SECTIONS

Medium density self-supporting insulation sections that don't need staples or straps. Sections can be double layered to meet the Building Code.



BLANKETS

A cost-effective thermal and acoustic option for mid floors and suspended wooden floors.



CARPARK PANELS

Designed to improve the thermal performance of concrete carpark ceilings where there are residential and commercial buildings above.

Underfloor Blanket	Density (kg/m ³)	R-Value	Nominal thickness (mm)
	7.5	R 1.5	100
	7.83	R 1.8	115
	10	R 2.0	115

Carpark Panel	Density (kg/m ³)	R-Value	Nominal thickness (mm)
	28.57	R 1.7	70
	32	R 2.5	100

H1 THERMAL CALCULATIONS

Meeting the **NZ Building Code**

OUR FREE H1 CALCULATION SERVICE

Mammoth offers a free H1 thermal calculation service using both the modelling and calculation methods, making compliance straightforward and stress-free. Simply send us your plans and we'll take care of the rest. Our team will measure up, assess insulation build-ups, and evaluate site-specific limitations to determine what's practical and realistic for your project.

We provide a comprehensive assessment that considers cost impact, logic of installation, and installed performance to deliver the optimal solution for your build. Where necessary, we identify sensible compromises and can suggest effective combinations of insulation products to ensure your project meets H1 requirements while maintaining value for money.

The modelling method allows us to assess overall building performance by analysing orientation, shading, solar gains, and heat loss - giving a far more accurate understanding of how the building will perform in real-world conditions. The calculation method is also a useful tool for new builds (generally with lower glazing percentages) along with alterations.

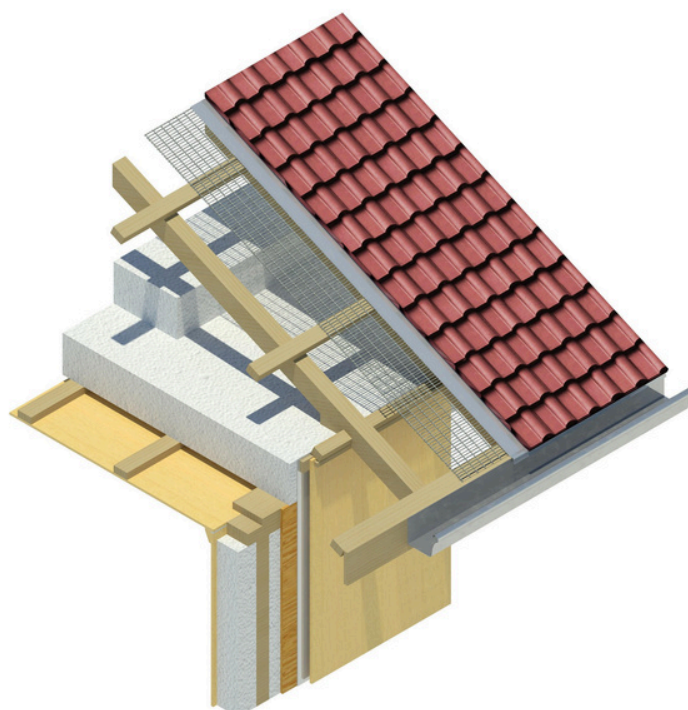
We'll measure up and calculate what is required, considering build-ups, limitations and what's realistic to work with on your site. We will provide the optimal solution for you, taking into account cost, logic of install, installed performance and where compromises can be made. In preparing your plans we can also suggest combinations of insulation products that deliver on your H1 requirements.

So contact us at Mammoth Insulation today for our free H1 calculation service - simply contact your Mammoth representative or email us at info@mammoth.co.nz



H1 CALCULATIONS

Ask us today for your free H1 thermal calculation service.



THE MAMMOTH ADVANTAGE

Peace of Mind when building

WHY MAMMOTH SEGMENTS EXCEED EXPECTATIONS

It is understood that friction fit polyester insulation products lend themselves to superior thermal performance. InZone Industries Holdings Ltd has an Airlay insulation manufacturing plant in Auckland producing medium and high density thermal and acoustic insulation.

The Mammoth® wall insulation produced on the Airlay plant is different to traditional carded polyester or fibreglass insulation. The springy nature of Airlay medium density insulation means it squeezes into wall cavities to be self-supporting, uncompressed and gap-minimising. It performs exceptionally well in wall and underfloor systems.

Mammoth's friction fitted, insulation is made using a unique manufacturing process "airlay" whereby the fibres are completely randomised rather than the traditional carded (layered) method. This provides for differing structural properties of the product, enabling it to support itself within a cavity by simply squeezing it in place. It is suitable for floors, walls and ceiling spaces.

MAMMOTH'S AIRLAY INSULATION V CARDED INSULATION



AIRLAY INSULATION

Randomised fibres.



CARDED INSULATION

Traditional layering.

In July 2014, Mammoth's airlay wall insulation was independently tested and outperformed construction (system) R-values in the BRANZ House Insulation Guide. New Zealand's leading building research laboratory was commissioned to undertake comprehensive independent insitu testing. The results are below:

PEACE OF MIND - when performing H1 calculations, specify Mammoth Airlay wall insulation with confidence, knowing that the wall construction R-value will outperform the calculated averages for equivalent systems.

System R-values: **90mm TIMBER FRAMED** - cavity, 14.5% ratio of frame to total area

Insulation R-value	MammothAirlay		R1.8	BRANZ House Insulation Guide			
	R1.9	R2.0		R2.0	R2.2	R2.4	R2.6
Construction R-value							
- Brick Veneer Cladding -	2.25	2.25	1.7	1.9	2.0	2.1	2.2
Weatherboard Cladding -	2.15	2.20	1.9	2.0	2.1	2.2	2.3
Plywood Cladding	1.95	2.05	1.7	1.8	1.9	2.0	2.1

System R-values: **140mm TIMBER FRAMED** - cavity, 14.5% ratio of frame to total area

Insulation R-value	Mammoth Airlay		R2.6	BRANZ House Insulation Guide		
	R2.8			R2.9	R3.2	R3.5
Construction R-value						
Brick Veneer Cladding	3.05		2.4	2.6	2.8	3.0
Weatherboard Cladding	2.85		2.6	2.8	2.9	3.1
Plywood Cladding	2.75		2.4	2.6	2.7	2.9

A SUSTAINABLE CHOICE

Mammoth Environmental Credentials

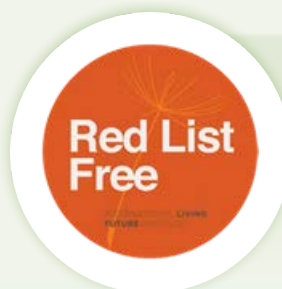
Our business is underpinned by a philosophy of creating better environments which extends to more than just the products we manufacture.

Our commitment to sustainability is incorporated in the way we operate the business, our manufacturing processes and the way we help our customers create warmer, healthier, more energy efficient environments - all while protecting the largest environment of all, our planet.

We feel it is important to consider the environment in all facets of our business and so measuring and monitoring our impact is the only way to understand how we can improve. We practice continuous improvement and adoption of a 'reduce, reuse, recycle' philosophy in our fibre product manufacturing processes for waste minimisation.



Mammoth's TakeBack & Reuse recycling programme reduces waste by taking clean offcuts, end of life product, and packaging back from the market and recycling back into insulation.



All of our Mammoth polyester insulation products are Red List Free which means no formaldehyde or pesticides are added.



Mammoth's thermal and acoustic insulation is made from 100% polyester and uses up to 15,600 recycled plastic bottles per 100 sqm*. Mammoth insulation products contain between 65-94% of recycled content.

* Based on 500ml (16.2g) PET bottles.



Most of our Mammoth insulation products are Eco Choice Aotearoa certified.



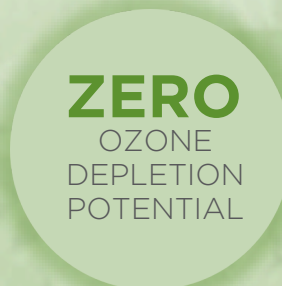
Mammoth's 100% polyester products will perform for 90 years if installed correctly and adequately protected.



Mammoth is a member of the NZ Green Building Council demonstrating commitment to green building practices in NZ.



Mammoth products are made in a zero waste production process - everything from packaging to product is recyclable at the end of its life.



Mammoth 100% polyester insulation products have an ODP of zero which means no ozone depleting substances are present in, or used in the direct manufacture of the product.



To view our entire product range, including our ceiling, wall and underfloor thermal and acoustic products, please visit **mammoth.co.nz**

CONTACT US

- Product Sales
- Waste Minimisation - circular economy
- TakeBack & ReUse recycling programme
- Technical Support
- Architect and Specifier requirements
- New Build requirements
- 90 Year Warranty information

Contact us on **0800 626 668**
or email **info@mammoth.co.nz**
or visit **mammoth.co.nz**

