





# **Thermal Break Insulation**

## **APPLICATION**

Mammoth<sup>™</sup> Thermal Break is a lightweight, flexible, 100% polyester semi-rigid board that provides thermal separation between steel framed construction and external cladding. In addition to preventing condensation on steel frame elements, Mammoth<sup>™</sup> Thermal Break significantly contributes to the overall thermal performance of walls.

Mammoth™ Thermal Break airlay insulation is made using a unique manufacturing process whereby the fibres are completely randomized rather than layered. This provides for product flexibility and durability which facilitates a fast and efficient installation removing the risk of weather damage. This seamless fit is the ultimate way to insulate - it supports higher thermal performance across the wall by retaining its nominal thickness, ensuring no gaps, tucks or creases.

Mammoth™ Thermal Break can be on site or factory installed.



- Mammoth<sup>™</sup> Thermal Break is quick and easy to install, lightweight and easily cut.
- Flexible and durable Mammoth™ Thermal Break is able to withstand strong winds.
- Mammoth<sup>™</sup> Thermal Break is not affected by water. Should it get wet, once weather conditions improve, it will dry and thermal performance will be restored
- Available faced and un-faced. Faced with superior weather resistance for on-site installation and un-faced for factory assembly.
- Complies with relevant provisions of the New Zealand Building Code for Thermal Performance AS/NZS 4859.1.
- Mammoth™ products are free from chemical binders, such as formaldehyde or insecticides.
- Assists in absorbing noise to create a quieter environment.
- Mammoth<sup>™</sup> Thermal Break is made in New Zealand.
- Mammoth<sup>™</sup> polyester products are backed by a 50 year Manufacturers Warranty.







PRODUCT RANGE				PACK SIZES		
MAMMOTH™ Thermal break	COLOUR	PRODUCT R-VALUE	NRC	NOMINAL THICKNESS (mm)	DIMENSIONS (mm)	
Un-faced sheets	Grey fleck	0.38	0.5	13	2420 x 1800	MOQ* applies
Faced sheets	White face with Grey fleck	0.38	0.5	13	2420 x 1800	MOQ* applies

<sup>\*</sup>Other sheet sizes are available upon request, subject to MOQ (minimum order quantities).

Thermal break is designed for thermal application and not recommended for visual applications as the surface may show creases, wrinkles or slight colour variations due to the manufacturing process.

## **TECHNICAL DETAILS**

Technical Attributes	Standard	Test Result	
New Zealand Building Code			
√ Thermal performance	ASTM C518	R0.38	
✓ Internal Moisture	E3/AS1	Complies with E3/AS1	
Product Safety			
✓ Non Toxic	H Health and Safety Guidelines <sup>2</sup>		
✓ Non Irritant	OSH Health and Safety Guidelines <sup>2</sup>	<ul> <li>Polyester products 'non-toxic' and 'non-irritan</li> </ul>	
√ Respiratory Safe	n/a	Polyester fibres are non-respirable	
√ VOC Emission Safe <sup>3</sup>	Total VOC ≤ 0.5mg/m <sup>3</sup> Formaldehyde ≤ 0.06mg/m <sup>3</sup> Total VOC Specific emission rate (mg/m²/hr)	< 0.005mg/m³ - level below detection <sup>4</sup> < 0.009mg/m³ - level below detection < 0.03mg/m²/hr	
√ Glue Free	n/a	Free from all glues	
Other			
√ Non Corrosive	AS/NZS 4859.1	Materials composed entirely of polyester are regarded as non-corrosive and are exempt from testing. Polyester has alkalinity of PH7.8	
✓ Vermin Resistant	n/a	Not a food source for vermin (and not treated)	
√ Acoustic Performance (NRC)	ISO 354	0.5	

- 1 Designed, used, installed and maintained in accordance with the statements and conditions of BRANZ Appraisal 797 (2012) & 802 (2014) available from www.mammoth.co.nz.
- 2 Occupational Safety and Health Service. Health and Safety Guidelines for the Selection and Safe Handling of Synthetic Mineral Fibres. Department of Labour, 1994, p18.
- 3 Another Mammoth™ product with a similar nominal weight and fibre composition was tested to ASTM D5116 and classed as low VOC emitting.
- 4 All individual VOCs were less than their threshold limit values. Carcinogens and reproductive toxins were not identified as part of the VOCs

### SPECIFICATION AND INSTALLATION

For further Mammoth™ specifications, please contact Mammoth™ on 0800 MAMMOTH.

Mammoth™ Thermal break airlay insulation must be installed in accordance with the manufacturer's guidelines.

For step by step installation guidelines see **mammoth.co.nz** or call Mammoth™.

## A SUSTAINABLE CHOICE

- All Mammoth products are Red List Free Living Future Building Institute.
- Manufactured within a carboNZero certified organisation.
- Mammoth™ products contain recycled polyester fibres. The recycled fibre used by Mammoth™ comes from recycled plastic bottles.
- Recycling plastic protects the environment by keeping the carbon content locked up in the polyester fibre and reducing landfill waste.
- Mammoth<sup>™</sup> products are made in a near zero waste production process and are fully recyclable.

For more information go to **mammoth.co.nz** or contact a Mammoth<sup>™</sup> representative







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