





## **Carpark Panel Insulation**

## **APPLICATION**

Mammoth™ Carpark Panel airlay insulation is made from 100% lofted thermally bonded polyester fibres. The panels are designed to improve thermal performance of carpark ceilings for residential and commercial buildings which will enhance wellbeing and comfort for the occupants. Mammoth™ Carpark Panels contour around un-even textures which are common place in concrete form work. This helps the insulation achieve a seamless fit that supports higher thermal performance across the system by preventing air movement between the insulation panel and the substrate.

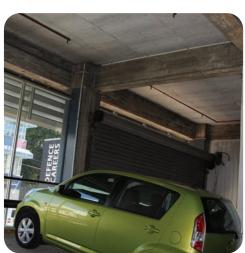
Mammoth™ Carpark Panel complies with provisions of the Building Code of Australia (BCA): AS/NZS 4859.1 for thermal performance and AS ISO 9705 for for the material Group Number.

Mammoth™ Carpark panel airlay insulation is made using a unique manufacturing process whereby the fibres are completely randomized rather than layered. This provides for differing structural properties and greater flexibility which helps achieve high thermal performance when the product is affixed to concrete.



- Mammoth™ airlay products seamless installation supports higher thermal performance across the system - providing higher construction R-values.
- Mammoth<sup>™</sup> products are Red List Free International Living Future Institute.
- Mammoth<sup>™</sup> takes the fibres from recycled plastic bottles (PET), that would otherwise be waste, and manufacture polyester insulation.
- No precautions are required for handling Mammoth™ Carpark Panels. It will not cause irritation when touched and it gives off no fumes or odours.
- Mammoth<sup>™</sup> products are chemical free, with no formaldehyde or insecticides.
- Mammoth™ products are safe and easy to work with manufactured in sections for ease of install.
- Mammoth™ Carpark Panel assists in absorbing noise to create a guieter environment.
- Mammoth™ Carpark Panel can be used in commerical and residential construction.





PRODUCT RANGE			PACK SIZE	S		
MAMMOTH™ Carpark Panel	PRODUCT R-VALUE	NRC	NOMINAL THICKNESS (mm)	DIMENSIONS (mm)	PIECES PER PACK	TOTAL AREA (m²)
Grey	1.7	0.9	70	2400x1200	4	11.52
White	1.7	0.9	70	2400x1200	4	11.52
Black	1.7	0.9	70	2400x1200	4	11.52

Carpark Panel 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. Colour variations between batches may be apparent.

## **TECHNICAL DETAILS**

Technical Attributes		Standard	Test Result			
Bui	lding Code of Australia					
<b>√</b>	Thermal performance	ASTM C518	R1.7			
Pro	oduct Safety					
<b>J</b>	Non Toxic	OSH Health and Safety Guidelines <sup>2</sup>	Deliverter products 'pan toyie' and 'pan imitant'			
<b>J</b>	Non Irritant	OSH Health and Safety Guidelines <sup>2</sup>	- Polyester products 'non-toxic' and 'non-irritant'			
<b>J</b>	Respiratory Safe	n/a	Polyester fibres are non-respirable			
J	Fire Performance NCC BCA Specification C1.10 Clause 3 and Speficiation A2.4 Clause 4	AS ISO 9705 - 2003 and ISO 9705 - 1999	Group Number: 1 SMOGRA <sub>RC</sub> not more than 100m²/s² x 1000			
<b>J</b>	VOC Emission Safe <sup>3</sup>	Total VOC ≤ 0.5mg/m³ Formaldehyde ≤ 0.06mg/m³ Total VOC Specific emission rate (mg/m²/hr)	< 0.005mg/m³ - level below detection < 0.009mg/m³ - level below detection < 0.03mg/m²/hr*			
<b>J</b>	Glue Free	n/a	Free from all glues			
Oth	ner					
<b>J</b>	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			
<b>J</b>	Vermin Resistant	n/a	Not a food source for vermin (and not treated)			
<b>√</b>	Acoustic Performance (NRC)	ISO 354	0.9			

<sup>1</sup> 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.

Mammoth Carpark Panel is compliant with the Building Code of Australia C1.1 (AS ISO 9705) and the New Zealand Building Code  $C/VM^2$  (ISO 9705) as a surface lining material.

## MAMMOTH™ - MODERN INSULATION

- Helps create a more comfortable and healthy living space.
- Mammoth™ polyester products are Red List Free International Living Future Institute.
- 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.







<sup>2</sup> Occupational Safety and Health Service. Health and Safety Guidelines for the Selection and Safe Handling of Synthetic Mineral Fibres. Department of Labour, 1994, p18.

<sup>3</sup> Mammoth™ has been tested under ASTM D5116 to the limits set for insulation by CETEC PTY Ltd

<sup>4</sup> All individual VOCs were less than their threshold limit values. Carcinogens and reproductive toxins were not identified as part of the VOCs

<sup>\*</sup>This product can be classed as low VOC emitting. The material emissions are less than the recognised threshold of 0.5mg/m²/hr. Another product with a similar nominal weight, thickness and fibre composition was tested.