

GIB NOISE CONTROL SYSTEM

BACKGROUND

GIB Noise Control Systems Supplement (Issue Date September 2017):

"Based on testing carried out by Winstone Wallboards in April 2017, subject to the conditions below, the noise attenuation ratings specified in 'GIB Noise Control® Systems, 2017' will be retained when polyester fibre infill with the minimum properties listed in the table (below) are substituted for either R1.2 (50mm), R1.8 (75mm) or R2.2 (90mm) Pink® Batts® glass wool insulation of the same or greater thickness (refer to the thickness of the Pink® Batts® specified in the applicable GIB Noise Control® System).

In most cases GIB Noise Control® Systems also provide Fire Resistance Ratings (FRRs). Subject to the conditions below, substituting 100% polyester fibre infill with the minimum properties listed in the table above for either R1.2 (50mm), R1.8 (75mm) or R2.2 (90mm) Pink® Batts® glass wool of the same or greater thickness will retain the published FRRs for these systems."

Product	Material	Measured Density Kg/m3	Air Flow Resistivity rays/m
Polyester Infill	100% Polyester	14.7	1900

WHY SUBSTITUTE WITH MAMMOTH

- The Mammoth® insulation products listed below meet the GIB Noise Control System requirements.
 - Mammoth airtight wall sections have been tested and found to outperform the construction (system) R-value.
 - Mammoth insulation is manufactured by a carboNZero certified organisation (InZone Industries Ltd).
 - Mammoth insulation is Red List Free - International Living Future Institute.
- Mammoth is safe and easy to work with. No precautions are required and for handling the product. It will not cause irritation when touched and is odourless.

EQUIVALENT PRODUCTS

SYSTEM SPECIFIED INSULATION INFILL	MAMMOTH ALTERNATIVE	NOMINAL THICKNESS(MM)	(KG/M3)	AIRFLOW RESISTIVITY RAYLS/M	TEST REPORT
Pink® Batts® R1.2 (50mm)	Mammoth Acoustic 735	50	16	2170	Rp 00320180791
Pink® Batts® R1.8 (75mm)	Mammoth Acoustic 1150	75	16	2010	Rp 00420180791
Pink® Batts® R2.2 (90mm)	Mammoth R1.9 90mm	90	18	2200	Rp 00520180791

TECHNICAL DETAILS

Technical Attributes	Standard	Test Result
New Zealand Building Code		
✓ Durability	Clause B2.3.1 a) 15 years Clause B2.3.1 b) 50 years	BRANZ Appraisal No 797 (2014) ¹
✓ Internal Moisture	Clause E3.3.1	BRANZ Appraisal No 797 (2014) ¹
✓ Hazardous Building Materials	Clause F2.3.1	BRANZ Appraisal No 797 (2014) ¹
✓ Energy Efficiency	Clause H1.3.1(a) Clause H1.3.2 E	BRANZ Appraisal No 797 (2014) 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	n/a	Polyester fibres are non-respirable
✓ Fire Test	AS 1530 Part 3:	
	Ignitability	0 (Scale 0:20)
	Spread of Flame	0 (Scale 0:10)
	Heat Evolved	0 (Scale 0:10)
	Smoke Developed	3 (Scale 0:10)
	AS/NZS60695.2.11	Passed - Glow wire Flammability test
	AS/NZS60695.11.5	Passed - Test flames (Needle-flame test)
✓ VOC Emission Safe ³	Total VOC ≤ 0.5mg/m ³	< 0.005mg/m ³ - level below detection ⁴
	Formaldehyde ≤ 0.06mg/m ³	< 0.009mg/m ³ - level below detection
✓ Glue Free		Free from all glues
Other		
✓ Non Corrosive	AS/NZS4859.1	Materials composed entirely of polyester are regarded as non-corrosive and are exempt from testing. Alkalinity of pH 7.8
✓ Vermin Resistant		Not a food source for vermin (and not treated)

¹ Meet or contribute to these provisions when designed, used, installed and maintained in accordance with BRANZ Appraisal 797 (2014)

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

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

SPECIFICATION & INSTALLATION

Installation

Mammoth Acoustic Insulation must be installed according to the manufacturer's guidelines and in accordance with NZ Standards NZS4246 (Energy Efficiency - Installing Insulation in Residential Buildings). Installation Instructions for Mammoth products can be found at www.mammoth.co.nz/downloads
For further information please contact Mammoth on 0800 MAMMOTH

50 Year Warranty

Mammoth Insulation has a 50 year warranty. Our product warranty covers that - so long as the insulation is installed correctly and remains adequately protected - Mammoth insulation will perform for 50 years. The warranty applies only to 100% polyester insulation products manufactured by InZone Industries Ltd and not to other composite products manufactured by InZone Industries Ltd. Terms & conditions apply. Read the full warranty at www.mammoth.co.nz/downloads

Appraisal

Mammoth Wall Insulation Sections have been tested by BRANZ and are covered by BRANZ Appraisal 797(2020).



GIB

Noise Control Systems Supplement

Issue Date September 2017

GIB Noise Control[®] design notes

SUPPLEMENT

ISSUE DATE

Polyester Sound Control Infill

Sept 2017

Environmental Noise

March 2006



Polyester Sound Control Infill

Issue Date September 2017

It is acceptable to replace the specified Pink[®] Batts[®] glass wool infill in GIB Noise Control[®] Systems with polyester fibre infill of the same or greater thickness (if not compressed) provided the polyester manufacturer can prove it meets the minimum properties shown in the table below.

Product	Material	Measured Density Kg/m ³	Air Flow Resistivity rays/m
Polyester Infill	100% Polyester	14.7	1900

Based on testing carried out by Winstone Wallboards in April 2017, subject to the conditions below, the noise attenuation ratings specified in 'GIB Noise Control[®] Systems, 2017' will be retained when polyester fibre infill with the minimum properties listed in the table above are substituted for either R1.2 (50mm), R1.8 (75mm) or R2.2 (90mm) Pink[®] Batts[®] glass wool insulation of the same or greater thickness (refer to the thickness of the Pink[®] Batts[®] specified in the applicable GIB Noise Control[®] System).

In most cases GIB Noise Control[®] Systems also provide Fire Resistance Ratings (FRRs). Subject to the conditions below, substituting 100% polyester fibre infill with the minimum properties listed in the table above for either R1.2 (50mm), R1.8 (75mm) or R2.2 (90mm) Pink[®] Batts[®] glass wool of the same or greater thickness will retain the published FRRs for these systems.

To maintain the specified STC and IIC ratings, it is allowable to use the same thickness of polyester fibre infill as the originally specified Pink[®] Batts[®] glass wool infill. A greater thickness of polyester fibre infill may be

used, provided it is not compressed when installed into the framing cavity.

The performance of any other infill product type must be independently verified.

Conditions

- Except to the extent expressly stated in this Testing Statement, where any substitution of cavity infill takes place, independent verification must be obtained to confirm that the noise control performance of the system will be maintained. Polyester fibre infill, and other insulation products', properties and characteristics may vary by product type and manufacturer.
- It remains the responsibility of the specifier, supplier and user to ensure compliance with the performance and requirements in this document, all other requirements and conditions of 'GIB Noise Control[®] Systems, 2017', all applicable manufacturer's requirements, all required quality and durability standards, and all Building Code requirements.



- The testing referred to in this Testing Statement related solely to noise attenuation and fire ratings, and no assurance or representation is made in relation to any other property or performance characteristic of any infill except as expressly stated in this document, and subject in all cases to product-specific information issued by the manufacturer.