



# Building Insulation Blanket (BIB)

GreenStuf® BIB is 100% polyester thermal insulation blanket. GreenStuf® BIB is a non-irritant thermally efficient insulation material designed for insulating commercial and industrial roofs. GreenStuf® BIB is supplied as lofted green-tinted insulation blanket for commercial roofing applications.

## Applications

GreenStuf® BIB is designed for the thermal and acoustic insulation of commercial and industrial buildings and will assist in meeting the requirements of NZBC H1 Energy Efficiency. To ensure Building Code compliance Autex Insulation recommends that Architects and building designers consult the relevant NZ Standards before specifying thermal and acoustic insulation products:

NZBC H1/AS1 Energy Efficiency, 2.0 Building Thermal Envelope  
 NZS 4243 Energy Efficiency – Large Buildings

## Technical

**NZBC Compliance:** GreenStuf® thermal insulation when installed in accordance with the manufacturer's instructions will satisfy the 50 year durability clause NZBC B2.3.1 (a). GreenStuf® meets the relevant clauses of NZBC E3 Internal Moisture, F2 Hazardous Building Materials, and will contribute to meeting H1 Energy Efficiency.

**Acoustic Performance:** GreenStuf® insulation will assist in reducing airborne sound (including rain drum) by absorbing reverberant noise. Actual performance will vary depending on design, materials and installation. For further information on acoustic design please contact your Autex Representative.

**Durability:** GreenStuf® has a 50 Year Durability Warranty.

**Moisture:** GreenStuf® is not affected by moisture. Exposure to an atmosphere of 50°C at 90% relative humidity for four days showed moisture absorption by weight of less than 0.03%.



**Non-Flammable:** GreenStuf® is classified non-flammable.

**Fire ratings:**

ISO 9705: 1993

Classification: Group 1-S

Smoke Production Rate: <5.0m<sup>2</sup>/s

As required by NZBC C/VM2

*Issued 11th March 2013, BRANZ (FAR 4045)*

AS1530.3

Ignitability Index (0-20) 0

Heat Evolved Index (0-10) 0

Spread of Flame Index (0-10) 0

Smoke Developed Index (0-10) 3

*APL Report 98055*

IEC 60695-11-5 (Downlight Fire Test Standard)

GreenStuf® has been tested and certified non-flammable and complies with the fire hazard requirements of IEC 60695-11-5.

PRODUCT (R Value)		NOMINAL THICKNESS (mm)	PACK SIZE	m <sup>2</sup> /PACK
R1.0 BIB		45mm	1200mm x 16.67Lm x 1 Roll	20.0m <sup>2</sup>
R1.5 BIB		100mm	1200mm x 10.83Lm x 1 Roll	13.0m <sup>2</sup>
R1.8 BIB		100mm	1200mm x 10.83Lm x 1 Roll	13.0m <sup>2</sup>
R2.2 BIB		150mm	1200mm x 10.42Lm x 1 Roll	12.5m <sup>2</sup>
R2.6 BIB		140mm	1200mm x 7.50Lm x 1 Roll	9.0m <sup>2</sup>
R3.2 BIB		190mm	1200mm x 7.50Lm x 1 Roll	9.0m <sup>2</sup>
R3.4 BIB		200mm	1200mm x 6.67Lm x 1 Roll	8.0m <sup>2</sup>

**Foil Facings:** GreenStuf® BIB is supplied as standard without a foil face as the product in standard installations is fully self-supporting and does not require the additional stability of a foil. Where a vapour barrier or foil is required please discuss your requirements with your Autex Representative.

**Hazardous Building Materials:** GreenStuf® is non-hazardous.

**VOC Emission Safe:**

VOC concentration: 0.01 mg/m<sup>3</sup> (7 days).

GECA/GreenGuard Limit: 0.25 mg/m<sup>3</sup> (7 days).

Cetec Pty Ltd (Report:RCV080408)

**Non-Corrosive:** GreenStuf® polyester is pH7.8 (pH7 is neutral).

**Non-Toxic, Non-Allergenic, Non-Irritant:** There are no known hazards with the use or handling of GreenStuf® polyester.

**Vermin:** GreenStuf® is naturally resistant to insect and vermin attack.

**MSDS:** Material Safety Data Sheets (MSDS) are available on request from your Autex Representative or by visiting our website: [www.autex.co.nz](http://www.autex.co.nz)

**Specification & Substitution:** Autex specification documents are available through Masterspec® or can be downloaded from our website ([www.autex.co.nz](http://www.autex.co.nz)). Substitution of any products in NZBC compliant systems should not be accepted and we recommend this be made clear in all specification and tender documents.

**Take Back Programme:** Autex will gladly recycle used, uncontaminated GreenStuf® insulation to help keep it out of landfill. For more information on recycling GreenStuf® contact Autex on freephone 0800 428 839.

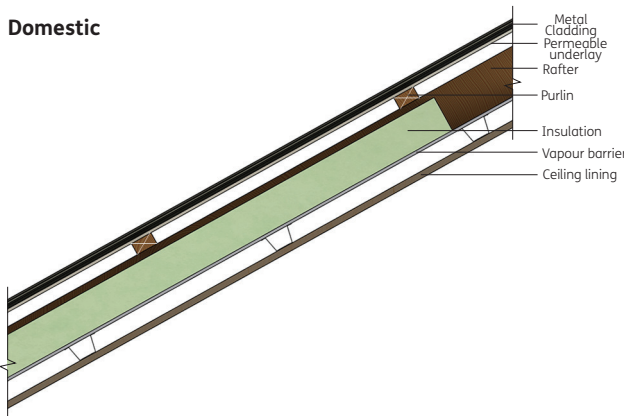
**ISO Standards:** Autex is committed to Quality and Environmental best practice through our ISO 9001 & ISO 14001 certified Quality and Environmental Management Systems.

**Installation:** Autex Insulation recommends that all thermal and acoustic insulation be installed in accordance with the manufacturer's instructions (included on each GreenStuf® pack) and design detail. Insulation can be laid either between or under the purlins, or between the ceiling joists, but an air-gap of 25mm (minimum) must be provided under the underlay. This is a NZBC requirement under E3 Internal Moisture. Insulation installed touching the underlay will cause condensation and over time may cause corrosion of the underside of the cladding. If insulation is placed above the rafter and takes up the full purlin depth, air movement is inhibited. To provide sufficient ventilation, it is necessary to use a counter-batten to provide an air-gap between the insulation and underlay. The use of counter-battens requires a sufficient number of fixings to transmit the up-lift wind loads through the roof structure, and allow extra penetration depth of the cladding fixings to meet the appropriate withdrawal resistance values.

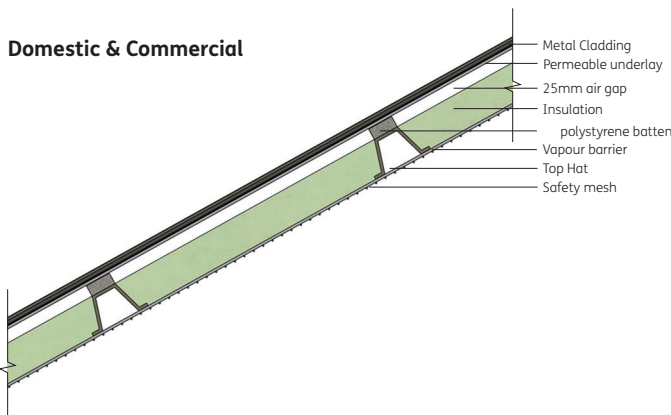
**Environmental:** All GreenStuf® insulation products are manufactured using the same materials and under the same conditions, processes and controls as the Environmental Choice New Zealand certified range as published at the date of this document. All GreenStuf® products are manufactured from 100% polyester fibre and contain a minimum of 45% already recycled fibre (from PET plastic) and are manufactured under Autex's zero waste policy.

GreenStuf® products are Green Star NZ & Homestar compatible, and GreenStuf® products have been independently assessed and verified compliant with Living Building Challenge projects. For more information please contact your Autex Account Manager or visit our website

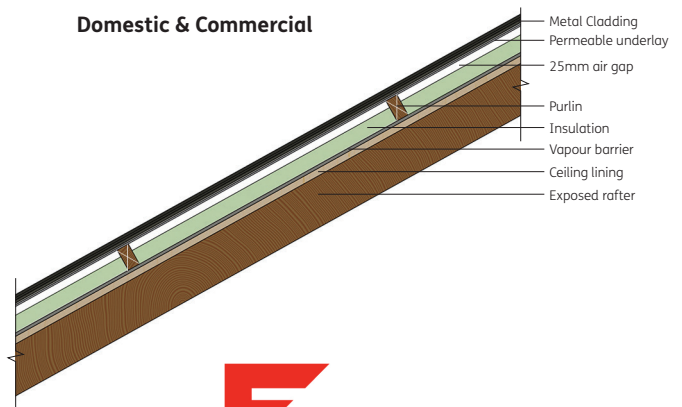
**Domestic**



**Domestic & Commercial**



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GreenStuf® is manufactured in New Zealand by Autex Insulation, a division of Autex Industries Limited. Autex retains the right to change products and specifications without prior notice. If a specification is critical to end use situation please discuss your requirements with your Autex Representative.

GreenStuf® is a registered trademark of Autex Industries.

GS\_NZ\_DS\_BIB-DataSheet\_Oct13\_v1



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**AUTEX**



**Insulation**

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ISO 9001 AND ISO 14001 CERTIFIED