



## Thermal Pads

GreenStuf® THERMAL PADS are 100% polyester thermal insulation segments pre-cut to fit common timber framed walls, ceilings and mid-floor joist spacings.

### Applications

GreenStuf® THERMAL PADS are designed for the thermal insulation of timber framed buildings in accordance with NZBC H1 Energy Efficiency requirements. GreenStuf® THERMAL PADS can be used in ceilings, internal and external walls and mid-floor cavities. To ensure Building Code compliance Autex Insulation recommends that Architects and building designers consult the relevant NZ Standards before specifying thermal insulation products:

- NZBC H1/AS1 Energy Efficiency, 2.0 Building Thermal Envelope
- NZBC G6/VM1 Airborne and Impact Sound
- NZS 4218: Energy Efficiency - Small Building Envelope
- NZS 4243: Energy Efficiency - Large Buildings - Thermal Envelope
- NZS 4246: Energy Efficiency - Installing Insulation in Residential 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 sound reduction by reducing the resonating noise inside the construction cavity. Typical improvement in sound transmission loss through walls with the use of GreenStuf® R2.0 Wall insulation is an increase of 5-6 STC points.

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

**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%.



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

**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 requirements of IEC 60695-11-5.

PRODUCT			NOMINAL THICKNESS (mm)	PACK SIZE	m <sup>2</sup> /PACK
R2.0 Wall		✓	90mm	560mm x 1160mm x 18 pads per bale	11.69m <sup>2</sup>
R2.0 Wall		✓	90mm	360mm x 1160mm x 20 pads per bale	8.35m <sup>2</sup>
R2.2 Wall		✓	90mm	560mm x 1160mm x 18 pads per bale	11.69m <sup>2</sup>
R2.2 Wall		✓	90mm	360mm x 1160mm x 18 pads per bale	7.52m <sup>2</sup>
R2.5 Wall	✓	✓	90mm	560mm x 1160mm x 10 pads per bale	6.50m <sup>2</sup>
R2.5 Wall	✓	✓	90mm	360mm x 1160mm x 12 pads per bale	5.01m <sup>2</sup>
R2.9 Ceiling		✓	175mm	430mm x 1160mm x 13 pads per bale	6.82m <sup>2</sup>
R3.2 Ceiling		✓	180mm	430mm x 1160mm x 13 pads per bale	6.82m <sup>2</sup>
R3.4 Ceiling	✓	✓	190mm	430mm x 1160mm x 10 pads per bale	5.25m <sup>2</sup>

**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<sup>®</sup> 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<sup>®</sup> polyester.

**Vermin:** GreenStuf<sup>®</sup> is naturally resistant to insect and vermin attack.

**Installation:** Autex Insulation recommends that all thermal and acoustic insulation be installed in accordance with the manufacturer's instructions (included on each GreenStuf<sup>®</sup> PADS pack) and NZS 4246 Energy Efficiency - Installing Insulation in Residential Buildings.

With a drained cavity wall construction and stud spacings greater than 450mm, NZBC E2/AS1, 9.1.8.5 Wall Framing behind Cavities, requires stud straps to prevent insulation bulging into the cavity. Straps must be run at 300mm centres over the wall underlay.

**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<sup>®</sup> 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:** GreenStuf<sup>®</sup> is recyclable. Autex will gladly recycle used, uncontaminated GreenStuf<sup>®</sup> insulation to help keep it out of landfill. For more information on recycling GreenStuf<sup>®</sup> 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.

**Environmental:** All GreenStuf<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> products are Green Star NZ & Homestar compatible, and GreenStuf<sup>®</sup> 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.

GreenStuf<sup>®</sup> 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<sup>®</sup> is a registered trademark of Autex Industries.

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ISO 9001 AND ISO 14001 CERTIFIED