



## Sound Solution

GreenStuf® SOUND SOLUTION® is a 100% polyester acoustic insulation material designed for timber framed residential and light commercial applications. GreenStuf® SOUND SOLUTION® is supplied in segments and rolls pre-cut to fit standard timber framed walls and mid-floor joist spacings.

### Applications

GreenStuf® SOUND SOLUTION® can be used in timber framed walls and mid-floor cavities for reducing airborne sound transfer. SOUND SOLUTION® reduces resonating noise in the construction cavity thereby reducing the sound energy transferred from one side to the other. Further improvements can be achieved by using acoustically rated plasterboard, multiple layers of plasterboard, or by isolating the plasterboard from the stud.

The New Zealand Building Code (NZBC) sets out minimum performance ratings for inter-tenancy walls and floor-ceiling construction. The performance of a construction system relies on the design, materials and installation. Acoustic design for NZBC compliance requires specialist design considerations. For information and assistance please contact your Autex Representative.

### Technical

**NZBC Compliance:** GreenStuf® 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 may contribute to meeting H1 Energy Efficiency, and G6 Acoustic Design requirements.

**Acoustic Performance:** The Sound Transmission Class (STC) is the industry accepted means of determining a material or assembly's ability to resist airborne sound transfer. A higher STC rating blocks more noise from transmitting through a construction system.

GreenStuf® SOUND SOLUTION® will assist in reducing the resonating noise inside the construction cavity. Typical improvement in sound transmission loss through walls with the use of SOUND SOLUTION® is an increase of 6-7 STC points, effectively reducing loud voices to a slight murmur.

Typical improvement in sound transmission loss through a common residential mid-floor construction with the use of SOUND SOLUTION® is an increase of 5-7 STC points.



**Thermal Performance:** GreenStuf® SOUND SOLUTION® insulation has been laboratory tested to ASTM C518-04 for thermal performance as follows:

Material Thermal Resistance: 1.8m<sup>2</sup> K/W @ 15°C

Product R-Value: R1.8 @ 90mm

All products are guaranteed by Autex to meet stated thermal performance values.

**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%.

**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 (pH 7 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)

PRODUCT	NOMINAL THICKNESS (mm)	PACK SIZE	m <sup>2</sup> /PACK
SOUND SOLUTION® PADS	90mm	580mm x 1160mm x 17 pads	11.4m <sup>2</sup>
SOUND SOLUTION® (430) ROLL	90mm	430mm x 11.63m x 5 rolls	25.0m <sup>2</sup>
SOUND SOLUTION® (580) ROLL	90mm	580mm x 10.78m x 4 rolls	25.0m <sup>2</sup>

**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.

*Certificates available from our website.*

**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 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.

**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.

**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.

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.

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ISO 9001 AND ISO 14001 CERTIFIED