



## SOUND SOLUTION®

GreenStuf® Sound Solution® is a 100% polyester acoustic insulation designed for timber and steel 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.

GreenStuf 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.

To ensure Building Code compliance, architects and building designers are advised to consult an engineer or the relevant NZ standards before specifying acoustic insulation products. For information and assistance please contact your GreenStuf Account Manager.

### TECHNICAL

**NZBC compliance:** When installed in accordance with the manufacturer's instructions, GreenStuf insulation 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.

**Fire regulations:** GreenStuf insulation may not be suitable for all applications, as stipulated in the NZBC. Please consult a fire engineer when specifying GreenStuf insulation or contact your GreenStuf Account Manager for further information.

**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 GreenStuf 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 has been laboratory tested to ASTM C518-10 using the procedures of ASTM C653-97(2002) including the modifications specified in AS/NZS 4859.1:2002.

Material Thermal Resistance: 1.8m<sup>2</sup> K/W @ 15°C  
Product R-Value: R1.8 @ 90mm

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



Declare.



**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 considered non-corrosive based on AS/NZS 4859.1 Standard for insulation.

**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 GreenStuf Account Manager or can be downloaded from our website: [www.greenstuf.co.nz](http://www.greenstuf.co.nz)

**Fire ratings:**

ISO 9705: 1993

Classification: Group 1-S

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

As required by NZBC C/V/M2

*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 02116*

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

GreenStuf has been tested and assessed as complying with IEC 60695-11-5 Needle-flame Test.

*Certificates available on request*

Sound Solution® Classic	Density	Thickness	Width	Form
Sound Solution® Classic 17 x 580mm x 1.16l/m	12.2kg/m <sup>3</sup>	90mm	580mm	Pads
Sound Solution® Classic 5 x 430mm x 11.63l/m	12.2kg/m <sup>3</sup>	90mm	430mm	Roll Form
Sound Solution® Classic 4 x 580mm x 10.78l/m	12.2kg/m <sup>3</sup>	90mm	580mm	Roll Form
Sound Solution® Plus	Density	Thickness	Width	Form
Sound Solution® Plus 50* 600mm x 16.5l/m	14.7kg/m <sup>3</sup>	50mm	600mm	Roll Form
Sound Solution® Plus 60 600mm x 11.1l/m	12.5kg/m <sup>3</sup>	60mm	600mm	Roll Form
Sound Solution® Plus 70 600mm x 11.1l/m	12.9kg/m <sup>3</sup>	70mm	600mm	Roll Form
Sound Solution® Plus 75* 600mm x 11.1l/m	14.7kg/m <sup>3</sup>	75mm	600mm	Roll Form
Sound Solution® Plus 90* 4 x 560mm x 8.04l/m	14.7kg/m <sup>3</sup>	90mm	560mm	Roll Form
Sound Solution® Plus 120 600mm x 11.1l/m	14kg/m <sup>3</sup>	120mm	600mm	Roll Form
Sound Solution® Baffleblock™	Density	Thickness	Width	Form
Sound Solution® Baffleblock™ 10-100	10kg/m <sup>3</sup>	100mm	100mm	Roll Form

\*Approved for use in GIB Noise Control Systems 2017

**Installation:** GreenStuf 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.

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

**Specification & substitution:** GreenStuf specification documents are available through Masterspec or can be downloaded from our website ([www.greenstuf.co.nz](http://www.greenstuf.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 is recyclable. GreenStuf will gladly recycle used, uncontaminated GreenStuf insulation to help keep it out of landfills. For more information on recycling GreenStuf contact us 0800 428 839.

**Packaging recycling:** GreenStuf packaging is recyclable LDPE 4. Please refer to your local recycling centres for drop off and collection services.

**Environmental:** All GreenStuf products are manufactured using 100% polyester fibre and contain a minimum of 50% previously recycled fibre (from PET plastic). GreenStuf products are manufactured under GreenStuf's Zero Waste Programme where all manufacturing waste is recycled back into the production process.

GreenStuf products are Global GreenTag GreenRate Level A certified and can be used to contribute to Green Star and Homestar accreditation.

GreenStuf is also Declare certified to be Red List chemical free and can be used in Living Building Challenge projects. For more information, please contact your GreenStuf Account Manager, or visit our website [www.greenstuf.co.nz](http://www.greenstuf.co.nz)



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