



## ASL (AUTEX SOFFIT AND SLAB LINER)

GreenStuf® ASL has been engineered as a thermal and acoustic lining for masonry soffit type applications.

### APPLICATIONS

GreenStuf ASL is designed to be installed to the underside of masonry and metal pan floors and ceilings to improve thermal performance and energy efficiency of the building. GreenStuf ASL will help lower noise levels by controlling reverberation times in enclosed spaces and reducing noise spill to external areas.

To ensure building code compliance, architects and building designers are advised to consult an engineer, or the relevant Australian Standards, before specifying thermal and acoustic insulation products. For information and assistance, please contact your local Autex account manager.

### TECHNICAL

**Building Regulations:** GreenStuf ASL will assist in meeting the following provisions of the NCC:

#### NCC Volume One - BCA Class 2-9 Buildings

**Section J** - Energy Efficiency: Performance requirement JP1

**Section F** - Health and Amenity: Sound Transmission and Insulation. Performance requirement FP 5.1 and FP 5.4

#### NCC Volume Two - BCA Class 1 and Class 10 Buildings

**Part 2.6** - Energy Efficiency: Performance requirement P 2.6.1

**Part 3.8.6** - Health and Amenity, Sound Insulation: Performance requirements P 2.4.6.

**Thermal Performance:** GreenStuf ASL declared thermal performance ratings have been laboratory tested to the requirements of ASTM C518 using the procedures of ASTM C653, including modifications specified in AS/NZS 4859.1

**Fire Regulations:** GreenStuf insulation may not be suitable for all applications, as stipulated in the NCC. Please consult a fire engineer when specifying GreenStuf insulation or contact your local Autex account manager for further information.

**Nominal Thickness:** The products nominal thickness is the off-line manufactured thickness. Packaging, storage, and handling may affect the “out of the pack” thickness. This is not considered a manufacturing fault. If thickness is critical to a particular installation please discuss your requirements with your Autex account manager.

#### Fire Ratings:

AS ISO 9705: 2003

Australian Group Number: Group 1

SMOGR<sub>RC</sub>: less than 100m<sup>2</sup>/s<sup>2</sup>



Declare.



Compliant to AS5637.1 and tested using test method AS ISO 9705 as required by BCA specification C1.10

Report No: FAR4045 non-faced  
(Assessment applicable to GreenStuf products with surface density up to 4800g/m<sup>2</sup>)

Report No: FI 5550 e-foil faced  
(Test conducted on E-Foil faced GreenStuf polyester)

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

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

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

**Non-Corrosive:** GreenStuf polyester is considered non-corrosive based on AS/NZS4859.1 Standard for insulation.

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

**Durability:** GreenStuf has a 50 year durability warranty. When installed in accordance with the manufacturer's instructions, GreenStuf insulation will satisfy the 50 year durability criteria for minimum design life as set out in the ABCB guidance document Durability in Buildings including Plumbing Installations 2015 (section 3.4).

**E-Foil Facing:** GreenStuf ASL is supplied un-faced as standard. GreenStuf ASL can be factory laminated with a fire compliant E-Foil Facing on request. Please discuss your specific needs with your Autex account manager.

PRODUCT	NOMINAL THICKNESS (mm)	NRC	R-VALUE (m <sup>2</sup> /Kw)	SHEET SIZE
R1.2 ASL	50mm	0.85	R1.2	1200mm X 2400mm
R1.5 ASL	50mm	0.90	R1.5	1200mm X 2400mm
R2.0 ASL	75mm	0.95	R2.0	1200mm X 2400mm
R2.5 ASL	90mm	1.00	R2.5	1200mm X 2400mm
R3.0 ASL	140mm	1.05	R3.0	1200mm X 2400mm

**Sizes:** GreenStuf ASL is made to order. Sheet size typically: 1200mm x 2400mm (+/- 10mm). Special sizes on application, subject to minimum order quantities.

**Acoustic Performance:** GreenStuf ASL will assist in reducing reverberant noise in enclosed spaces such as carparks and basements, or where it is left directly exposed in ceiling applications. GreenStuf ASL acoustic performance testing has been carried out in a laboratory environment in accordance with ISO 354. On-site results could vary depending on the system design, product handling, and quality of installation.

For service, advice, and copies of the full acoustic test reports, please contact your Autex account manager.

PRODUCT	THICKNESS (mm)	TEST REPORT NUMBER*	SOUND ABSORPTION: FREQUENCY (Hz)						
			125	250	500	1000	2000	4000	NRC
R1.2 ASL	50mm	T1816-6	0.35	0.60	0.85	0.95	0.90	0.95	<b>0.85</b>
R1.5 ASL	50mm	T1816-7	0.30	0.65	0.90	0.95	0.95	1.00	<b>0.90</b>
R2.0 ASL	75mm	T1816-4	0.40	0.85	1.00	1.00	0.95	1.00	<b>0.95</b>
R2.5 ASL	90mm	T1816-3	0.50	0.90	1.00	1.00	0.95	1.00	<b>1.00</b>
R3.0 ASL	140mm	T1816-1	0.85	1.00	1.00	1.00	1.00	1.00	<b>1.05</b>

Practical sound absorption coefficients calculated according to ISO 11654. The NRC rating is determined as the arithmetic average of the absorption coefficients measured by one-third octave bands centred on 250 Hz, 500 Hz, 1000 Hz, and 2000 Hz, and rounded to the nearest 0.05. \*Test report numbers as conducted by the University of Auckland.

**Product Format:** GreenStuf ASL is supplied as standard 1200mm x 2400mm (+/- 10mm) sheets in a grey colour blend. GreenStuf ASL is available as standard in the following colours; Flint (Light Grey), and Charcoal (Dark Grey). Refer to our website to view colours, or contact your Autex account manager for samples.

GreenStuf ASL is non-woven, and some colour blending variation is typical batch to batch and throughout each production lot. This is an inherent feature of the product and is not considered a manufacturing fault.

**Vermin:** GreenStuf is naturally resistant to insect and vermin attack and does not contain chemical deterrents. Birds and vermin will live and nest in all bulk-fibre insulation materials if allowed access. In high-risk areas, Autex recommends ensuring the building perimeter is vermin proofed.

#### VOC Emission:

GreenStuf has been tested for chemical emissions in accordance with ASTM D5116 and is considered as a low VOC product.

VOC concentration: 0.01 mg/m<sup>3</sup> (7 days). GECA/  
GreenGuard Limit: 0.25 mg/m<sup>3</sup> (7 days)

**Installation:** Autex recommends that all thermal and acoustic insulation be installed in accordance with the manufacturer's instructions and AS 3999:2015 Bulk thermal insulation - Installation. GreenStuf ASL is generally fixed with insulation type fasteners. Fixings should be set out at no more than 600mm centres and a maximum of 200mm in from the edge of each panel. Refer to the GreenStuf ASL installation instructions for further information.

**MSDS:** Material Safety Data Sheets (MSDS) are available on request from your Autex account manager.

#### Specification & Substitution:

Documents can be downloaded from our website [www.greenstuf.com.au](http://www.greenstuf.com.au)

Substitution of any specified products should not be accepted, and we recommend this be made clear in all specification and tender documents.

**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 products are manufactured using 100% polyester fibre and contain a minimum of 50% previously recycled fibre (from PET plastic). GreenStuf products are manufactured under Autex'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 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 Autex account manager, or visit our website [www.greenstuf.com.au](http://www.greenstuf.com.au)

**Take Back Programme:** GreenStuf is recyclable. Autex will gladly recycle used, uncontaminated GreenStuf insulation to help keep it out of landfills.

For more information on recycling GreenStuf contact Autex on Freephone 1800 678 160.

**Maximum Service Temperature:** GreenStuf ASL can be used in environments with maximum normal operating temperatures as follows:

GreenStuf ASL (un-faced) up to 160°C

GreenStuf ASL (E-Foil Faced) up to 90°C

**Service:** For further information about the full range of GreenStuf thermal and acoustic insulation, or other Autex products, please contact your local Autex account manager or visit our website.

GreenStuf is manufactured in Australia by Autex Australia Pty Ltd. Autex retains the right to change products and specifications without prior notice. If a specification is critical to the end use application, please discuss your requirements with your Autex account manager.

GreenStuf® is a registered trademark of Autex Industries.

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