

## Underfloor

The total R-Value of the building system depends on the building materials, design and installation and may be less than, greater than or equal to the R-Value of this product. GreenStuf® polyester insulation products have an indefinite life and carry a 50 Year Product Durability Warranty.

The initial performance of this product may be reduced if it is stored for too long in its compressed packaging. Should this product be found to be compressed at installation, it will recover to its nominal thickness and R-Value within 72 Hours following installation. GreenStuf® will not settle or reduce its performance over time and if installed in accordance with these manufacturer's instructions, it will meet and exceed the 50 year durability clause of the NZBC (B2.3.1(a)).

### Safety Instructions

GreenStuf® polyester insulation is safe to handle and install without protective clothing, however due to the conditions under some homes we recommend long sleeved loose clothing, face mask, goggles and adequate lighting when fitting under floor insulation. Always have a comprehensive first aid kit on site. Beware of sharp objects such as broken glass and protruding nails etc. Check drainage pipes for leaks and have them repaired before starting the installation. Beware of other hazards such as animals and vermin.

#### **WARNING: Electrical hazard**

Before you begin fitting GreenStuf® Underfloor insulation you should locate and identify all wires and cabling to reduce the risk of electric shock. Where possible, insulation should be installed above electrical wiring leaving all cables and wiring clearly visible.

- Beware of damaged, exposed or hanging cables and wires.
- Contact a registered electrician to complete necessary repairs prior to starting the installation.
- Treat all wires as live. Wherever possible isolate power to this area before commencing work.
- Do not staple within 50mm of any wiring.
- Avoid covering and/or hiding electrical wires and cables

**CAUTION:** Electric cables and equipment partially or completely surrounded with any bulk thermal insulation may overheat and fail. This applies to wiring installed prior to 1989. Please follow these installation instructions.

### Installation Tools

We recommend you have:

- Sharp wide-blade knife and/or sharp scissors
- Appropriate lighting
- Tape measure
- Safety glasses, face mask and appropriate clothing
- Staple gun with 12-14mm staples
- Basic tool kit (hammer, pliers, screw-drivers, and hack-saw)

### Product Selection

GreenStuf® Underfloor is designed for use in residential and commercial exposed joist floors. GreenStuf® Underfloor is available in a range of widths and performance options and can be installed in new and existing buildings with enclosed, semi-enclosed and open sub-floor spaces. Choose the product width to best suit the framing size. Joist widths can vary so be sure to measure more than just one. You may need several widths of GreenStuf® Underfloor to complete the job and minimise waste.

#### **GreenStuf® Underfloor widths available:**

- GreenStuf® Underfloor @ 450mm wide — ideal for joist spaces up to 430mm
- GreenStuf® Underfloor @ 500mm wide — ideal for joist spaces between 430mm and 480mm
- GreenStuf® Underfloor @ 600mm wide — ideal for joist spaces above 470mm and up to 580mm



## Install Instructions

We recommend all thermal and acoustic insulation is installed in accordance with NZS 4246:2016 Energy Efficiency – Installing Insulation in Residential Buildings. Copies of this Standard are available from Standards New Zealand.

**Start:** GreenStuf® Underfloor is designed to be installed between timber floor joists. Begin installing in the furthest corner of the floor. Fit the roll between the floor joists and adjust so the side edges are equal.

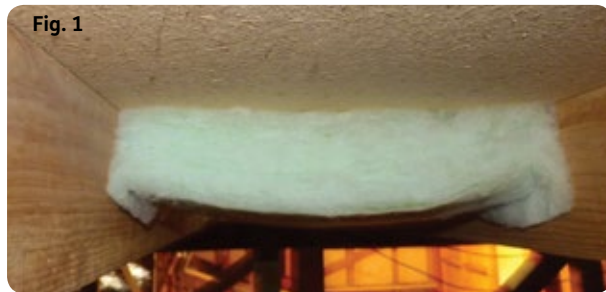
**Touching the floor:** GreenStuf® Underfloor should be installed touching the underside of the floor, but not compressed. GreenStuf® Underfloor is designed to be wider than the joist cavity, excess material should be folded down on each side and stapled at approximately 50-80mm from the top of the joist. See Fig. 1.

Staple spacing along the length of the roll:

600mm @ 150mm intervals

500mm @ 200mm intervals

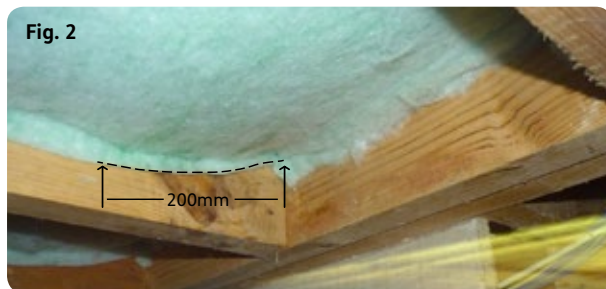
450mm @ 300mm intervals



**Tight with no air gaps:** GreenStuf® Underfloor should be pulled tight between the joists to ensure there is no air-gap or air movement between the insulation material and the floor.

**Do not staple to floor or compress:** Do not compress the insulation and do not staple directly to the floor as this will reduce the insulation performance. GreenStuf® Underfloor should be installed without visible folds and compression lines (other than the stapled folded edge) as this will also affect the installed performance.

**Ends:** GreenStuf® Underfloor should be sealed off at the end of each joist run to reduce the opportunity for air movement above the insulation. This can be achieved by tapering the position of the staples up to the floor at each end. See Fig. 2. Staple every 50-100mm for the first 200mm of each joist run.



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 Account Manager.

GreenStuf® is a registered trademark of Autex Industries.

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**Bottom plate to bottom plate:** Insulate all areas of the floor from exterior wall to exterior wall leaving no gaps.

Insulation should extend to the centre of the bottom plate wherever possible. Off-cuts can be used to fill small spaces where full width product is not suitable.

**Joins:** When joining the end of one roll to the start of another, simply butt join them together ensuring no gaps and staple in place through the fold-down to the side of the floor joists. Double staple to start then staple every 50-100mm for the first 200mm each side of a join.

**Clearances:** Leave a clear 100mm gap around waste pipes that penetrate through the floor to allow for future service. See Fig.3



**Cutting:** Cutting to size – always cut GreenStuf® slightly oversized to ensure a tight friction fit. GreenStuf® rolls can easily be torn across the width by hand. GreenStuf® Underfloor should not require edge trimming however if you require to cut down the length of the roll this can easily be done using sharp scissors or by compressing the insulation under a timber off-cut and then cutting through with a sharp wide blade disposable knife.

**Exposed and high wind:** Where wind wash is a concern we suggest selecting the highest R-Value GreenStuf® UNDERFLOOR suitable for the building to maintain maximum thermal performance of the floor system.

For more information or advice please contact your local Autex Account Manager on 0800 428 839.

**Staples:** We recommend the use of 12-14mm staples. In coastal areas we recommend you use stainless steel staples to eliminate corrosion, as per the NZBC requirements.

**Underfloor Install Guide:** An underfloor blanket installation video is available online at [www.greenstuf.co.nz](http://www.greenstuf.co.nz)

**This pack complies with AS/NZS 4859.1 at the nominal weight recorded on the bale label.**

AUTEX



Insulation

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