

AUTEX



Residential Insulation Guide



Autex Insulation

About Autex

Autex Industries Limited was established in Auckland in 1967 and proudly remains a privately-owned New Zealand company. Ongoing investment in technology and innovation has allowed Autex to grow its product range and to exceed the needs of the most discerning customers around the world.

Our quality polyester products are manufactured in Auckland, Sydney, Melbourne, Perth and Brisbane (Australia) and exported to over 24 countries around the world.

“We are at the forefront of developing insulation products in response to a demand for a user- friendly alternative to the common fibre-glass insulation.”

Autex developed its ‘friendly-fibre’ products using polyester. Today they are being used in hospitals, schools, universities, offices, factories, apartments and homes all over New Zealand and Australia.

Autex’s GreenStuf® thermal insulation and QuietStuf® acoustic insulation products are the preferred choice for New Zealanders. Our ongoing testing and research ensures quality and consistency across the total range. GreenStuf® is proudly manufactured in New Zealand to exacting specifications under strict ISO 9001 quality control systems and has been fully appraised by BRANZ to meet all requirements of the New Zealand Building Code.

“We are so confident in the quality manufacture and performance of our products that we offer a 50 year durability warranty.”

The Autex Range Of Products

Our products are made of Polyester, one of the most commonly-used fibres in the world. Renowned for its safety, durability and performance, it is used extensively in our clothing, bedding and fabrics. More recently, polyester has been used in the development of high-tech outdoor thermal clothing such as Polarfleece® because of its superior thermal resistance, breathe ability and incredible durability. These same benefits are found in the Autex Insulation range of products.

All our products are manufactured using only 100 percent polyester fibre. Polyester can be recycled and our GreenStuf® and QuietStuf® products contain 45 - 85 percent previously recycled polyester fibre.

The process of manufacturing Autex insulation is very clean and energy efficient. All off-cuts and manufacturing waste are recycled back into the production process further minimising our impact on the environment. Polyester fibre can be recycled indefinitely.

As consumers, it is our responsibility to recycle and re-use. Autex takes its responsibilities for resource use seriously. We are using more and more already recycled polyester fibres (polyester that has already had a previous life as PET plastic).

When you specify Autex GreenStuf® and QuietStuf® polyester insulation you’re choosing to make a difference.



The Friendly Fibre

Good For You And Our Environment

We believe that it is important to be aware of the health issues linked to poor indoor air quality, particularly in new buildings, so we test all of our insulation products to international standards to provide independent assurance that our products are safe. Autex GreenStuf® and QuietStuf® have been classed as low VOC which means there are no risks to you during or anytime following installation. Some other insulation products commonly available in New Zealand are made with bonding agents which contain cancer causing chemicals, in particular formaldehyde.

“We don't use chemical binders or retardants because we just don't think it's worth the risk.”

The thermal bonding process used on our products means the insulation material is self-supporting in walls and ceilings and won't break down over time. With no nasty chemicals in our products, and polyester fibres that are not of a respirable size (you can't breathe them into your lungs), there are no special precautions for safely handling and installing GreenStuf® and QuietStuf® and they won't irritate the skin, throat or lungs. That means no on-going health risk. GreenStuf® and QuietStuf® products are naturally resistant to vermin, insect and biological attack – again, no chemicals required.



Initiated and endorsed by the New Zealand Government, Environmental Choice New Zealand (ECNZ) recognises genuine moves made by manufacturers to reduce the environmental impacts of their products. It provides a credible and independent guide for consumers who want to purchase products that are better for our environment. Autex Insulation proudly carries the ECNZ tick on appraised GreenStuf® products. For more information visit: www.enviro-choice.org.nz



GreenStuf® and QuietStuf® exceed all of the New Zealand Building Code (NZBC) Early Fire Hazard requirements.

Early Fire Hazard Test Results

GreenStuf® is a self-extinguishing product and meets all NZ Building Code requirements as tested under 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

Tested 15 April 1998, APL Report 98055

GreenStuf® has been fully and independently appraised by BRANZ to meet all requirements of the New Zealand Building Code, so you can specify and use GreenStuf® with confidence.



Feeling Home Sick?

Recent studies in New Zealand have found a definite link between insulation and health. The Wellington School of Medicine and Health Sciences study showed:

- ▶ A Significant drop in energy use when the houses were insulated. Once the houses were insulated they were drier and warmer.
- ▶ People in insulated houses reported their houses were 'significantly warmer'.
- ▶ There was a significant improvement in the self-reported health of those living in the insulated houses compared to those whose houses were not insulated.
- ▶ Adults and children in insulated houses reported visiting their GP less.
- ▶ Adults and children in insulated houses reported that they were admitted to hospital less often for respiratory conditions.
- ▶ Adults and children in insulated homes were significantly less likely to report sick days.
- ▶ People living in insulated houses reported less visible mould inside their homes.

Insulate Your Pocket Against Future Energy Cost Rises

In the last decade electricity costs have increased significantly. You can reduce the effect of future rises by choosing better insulation in your home today. A fully-insulated house needs about half the heating of an uninsulated house. In fact, paying a bit more for insulation now will save you money well into the future, as increased savings each year will eventually pay for the insulation that will continue saving you money, year after year after year.

Remember - the best time for choosing your insulation is when you're building. Once your home is built, it could be very difficult and expensive to re-insulate later.



Create a warm, dry & healthy home...



How Insulation Works

Insulation works by reducing heat flow. The measure of an insulation product's performance is expressed by R-Value. The higher the R-Value, the better the insulation performs in reducing heat flow, keeping your home warmer in winter and cooler in summer. A well insulated and well designed home will provide comfort year-round.

“Everyone benefits from well insulated and energy efficient homes because they are warmer, drier and more comfortable, reduce energy consumption and associated costs, and improve people's health.”

New Insulation Requirements for Homes

Houses must meet minimum energy-efficiency requirements under the New Zealand Building Code. Under new, tightened insulation requirements, introduced by the Government in 2008, new homes will need about 30 percent less energy for home heating compared to homes insulated under the old minimum standard.

We support the use of better insulation levels in homes, and here is what we recommend;

Area 1

Application	NZBC Minimum	"Better"	"Best Practice" Recommended
Ceilings	R 2.9	GreenStuf® R1.8 + R1.8 Double-Layer	GreenStuf® R2.2 + R2.2 Double-Layer
External Walls	R 1.9	GreenStuf® R2.2 Wall	GreenStuf® R2.5 Wall
Under-floors	Foil Barrier	GreenStuf® R1.5 Underfloor	GreenStuf® R1.8 Underfloor
Internal Walls	Nil	QuietStuf® Sound Solution	QuietStuf® Sound Solution
Between Floors	Nil	QuietStuf® Sound Solution	QuietStuf® Sound Solution

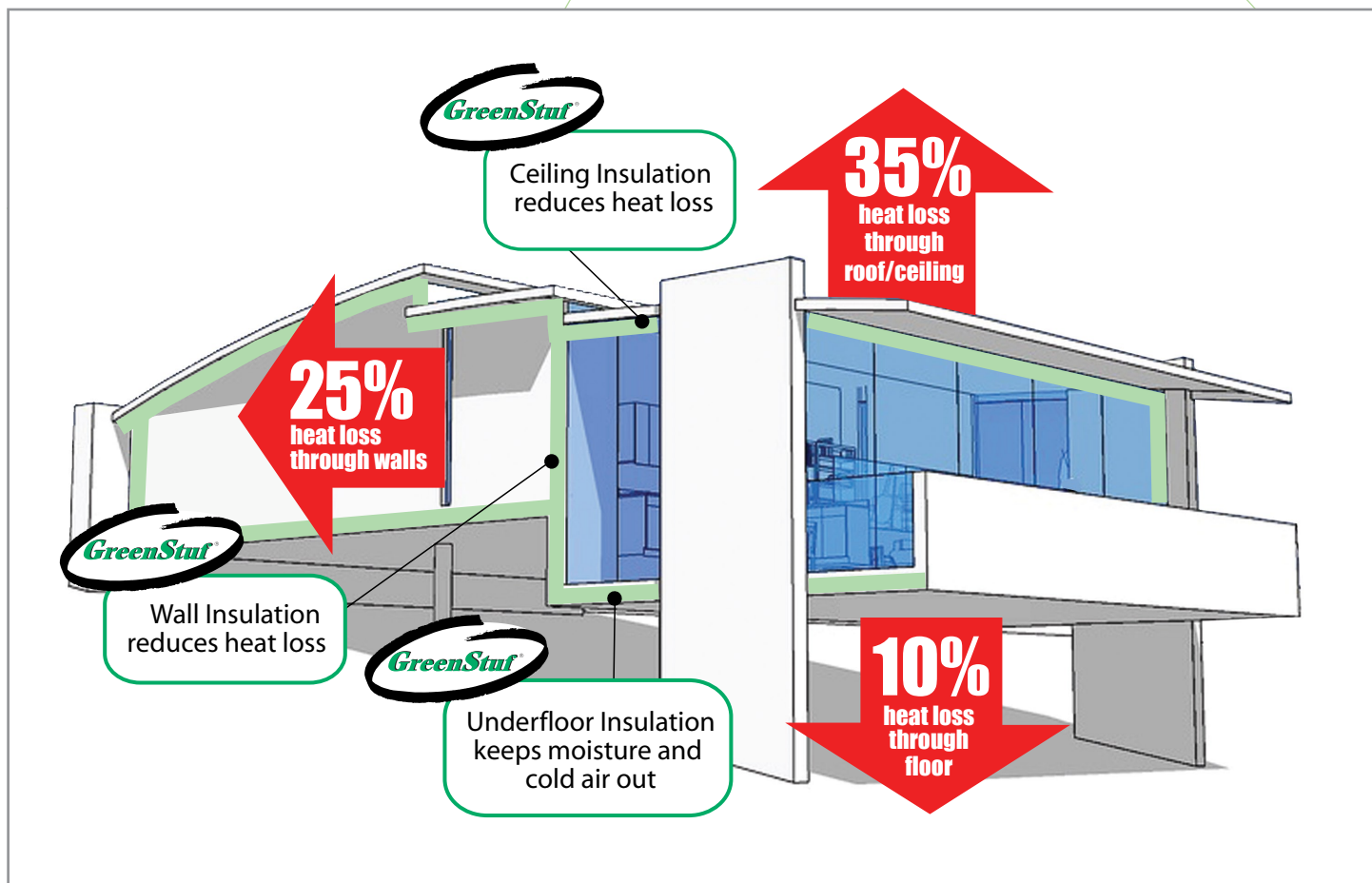
Area 2

Application	NZBC Minimum	"Better"	"Best Practice" Recommended
Ceilings	R 3.3	GreenStuf® R2.2 + R1.8 Double-Layer	GreenStuf® R3.2 + R2.2 Double-Layer
External Walls	R 2.0	GreenStuf® R 2.2 Wall	GreenStuf® R2.5 Wall
Under-floors	Foil Barrier	GreenStuf® R1.5 Underfloor	GreenStuf® R1.8 Underfloor
Internal Walls	Nil	QuietStuf® Sound Solution	QuietStuf® Sound Solution
Between Floors	Nil	QuietStuf® Sound Solution	QuietStuf® Sound Solution

Area 1

Area 2

For more information on Total System Performance please refer to "Insulating Standard Construction Systems" later in this Guide.



Insulating the Roof

Well planned and correctly installed GreenStuf® ceiling insulation will make your home energy efficient for life.

Consider carefully your lighting design and avoid down-lights that are not thermally protected, as insulation cannot be fitted up to or over the fittings. This can significantly reduce your energy efficiency and add cost to your home heating bills for the life of your home.

Choosing light fittings that can be partially or fully covered by insulation will allow you to install a double-layer GreenStuf® blanket to reduce thermal bridging and maximise your energy efficiency.

Double layer Ceiling Insulation: Using better performing insulation is better for us all, but don't be fooled by high product R-Values as these may not deliver to expectations.

In order to achieve higher total performance we recommend a double - layer installation for ratings over R3.4.

Double - Layer insulation will reduce the potential for thermal bridging (heat-loss through timber).

Double - layer installation allows one blanket layer to be installed between the joists and the other layed at a right angle over the top.

Insulating Exterior Walls

Insulating your walls with GreenStuf® will help maintain a more even temperature in your home all year round, and will also help reduce your home heating costs. GreenStuf® wall insulation will not slump or settle over time and will help protect your home from noise and unsightly mould developing on the inside of your walls.

When Planning your build or renovation consider timber framing options that will allow more insulation and reduce thermal bridging (heat-loss through timber).

Example: Using 140mm timber framing will allow you to use R2.6 GreenStuf® wall and may allow the framing spaces to be increased. This will maximise energy efficiency by reducing heat-loss and your home heating costs.

Insulating Exposed Joist Floors

GreenStuf® Underfloor products have been specifically designed for insulating new or existing exposed joist floors.

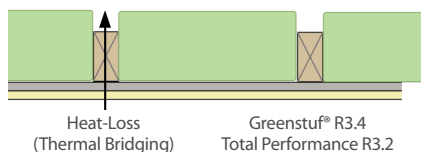
GreenStuf® Underfloor will significantly reduce heat loss and drafts caused by joins in the floor.

GreenStuf® Underfloor is not affected by moisture, mould or mildew and is naturally resistant to insect and vermin attack.

GreenStuf® Underfloor is simply stapled into place between floor joists where it will never breakdown, sag, or reduce its performance over time. (50+ year durability standard).

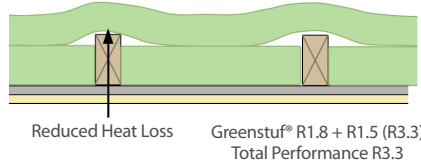
Single Layer Installation

Pitched Timber Framed Roof Construction



Double Layer Installation

Pitched Timber Framed Roof Construction



Insulating Standard Construction Systems

Wall Construction: Strapped & lined Concrete/Block

Block Size & Strapping

GreenStuf® Insulation R-Value

	0.5	1.0	1.3	2.0	2.2	2.5
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45mm Strapping

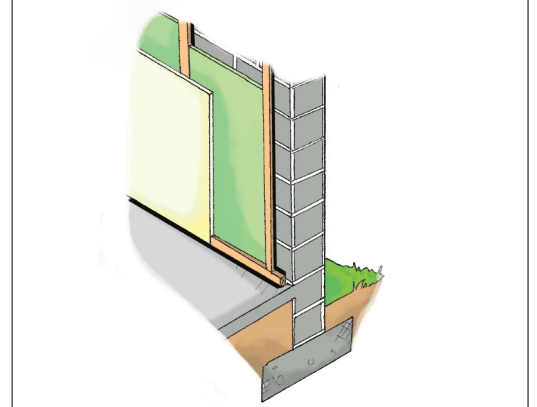
Total Construction R-Value

250 Series with 45mm strapping at 600mm Centres	0.8	1.2	1.3	n/a	n/a	n/a
200 Series with 45mm strapping at 600mm Centres	0.8	1.1	1.2	n/a	n/a	n/a
150 Series with 45mm strapping at 600mm Centres	0.7	1.1	1.2	n/a	n/a	n/a

90mm Strapping

Total Construction R-Value

200 Series with 90mm studs at 600mm Centres and Dwargs at 1200mm	n/a	n/a	n/a	1.9	2.1	2.2
150 Series with 90mm studs at 600mm Centres and Dwargs at 1200mm	n/a	n/a	n/a	1.9	2.0	2.1



Wall Construction: Timber-Framed cavity Cladding: Masonry Veneer

Framing Timber Spacings

GreenStuf® Insulation R-Value

	2.0	2.2	2.5	2.6
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90mm Timber Framing

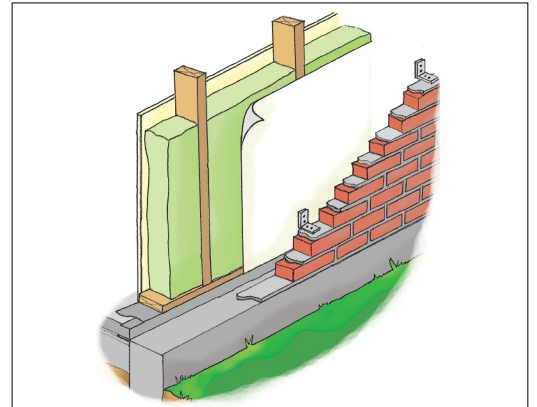
Total Construction R-Value

Studs at 600mm and Dwargs at 800mm	1.8	1.9	2.0	n/a
Studs at 600mm and Dwargs at 600mm	1.8	1.9	2.0	n/a
Studs at 400mm and Dwargs at 800mm	1.7	1.8	1.9	n/a
Studs at 400mm and Dwargs at 600mm	1.7	1.8	1.9	n/a

140mm Timber Framing

Total Construction R-Value

Studs at 600mm and Dwargs at 800mm	2.0	2.2	2.3	2.4
Studs at 600mm and Dwargs at 600mm	2.0	2.1	2.3	2.4
Studs at 400mm and Dwargs at 800mm	2.0	2.1	2.2	2.3
Studs at 400mm and Dwargs at 600mm	2.0	2.1	2.2	2.3



Wall Construction: Timber-Framed cavity Cladding: Sheet Cladding

Framing Timber Spacings

GreenStuf® Insulation R-Value

	2.0	2.2	2.5	2.6
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90mm Timber Framing

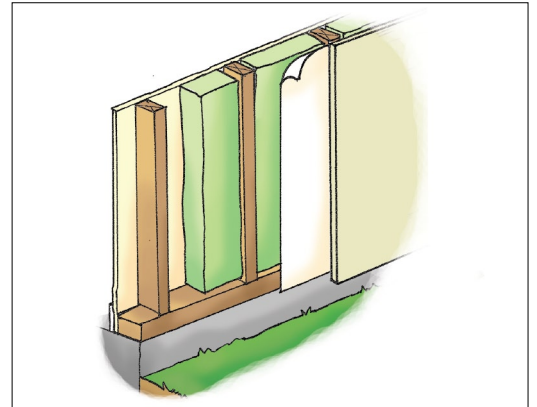
Total Construction R-Value

Studs at 600mm and Dwargs at 800mm	1.8	1.9	2.0	n/a
Studs at 600mm and Dwargs at 600mm	1.7	1.8	1.9	n/a
Studs at 400mm and Dwargs at 800mm	1.7	1.8	1.9	n/a
Studs at 400mm and Dwargs at 600mm	1.6	1.7	1.8	n/a

140mm Timber Framing

Total Construction R-Value

Studs at 600mm and Dwargs at 800mm	2.0	2.1	2.2	2.4
Studs at 600mm and Dwargs at 600mm	1.9	2.1	2.2	2.3
Studs at 400mm and Dwargs at 800mm	1.9	2.0	2.2	2.3
Studs at 400mm and Dwargs at 600mm	1.9	2.0	2.1	2.2



Wall Construction: Timber-Framed cavity Cladding: Bevel-Backed Weatherboard

Framing Timber Spacings

GreenStuf® Insulation R-Value

	2.0	2.2	2.5	2.6
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90mm Timber Framing

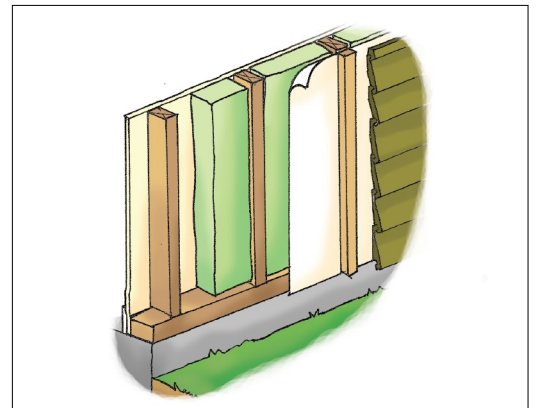
Total Construction R-Value

Studs at 600mm and Dwargs at 800mm	1.9	2.1	2.2	n/a
Studs at 600mm and Dwargs at 600mm	1.9	2.0	2.1	n/a
Studs at 400mm and Dwargs at 800mm	1.9	2.0	2.0	n/a
Studs at 400mm and Dwargs at 600mm	1.8	1.9	2.0	n/a

140mm Timber Framing

Total Construction R-Value

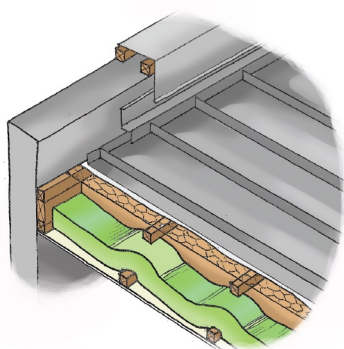
Studs at 600mm and Dwargs at 800mm	2.1	2.3	2.4	2.5
Studs at 600mm and Dwargs at 600mm	2.1	2.2	2.4	2.5
Studs at 400mm and Dwargs at 800mm	2.1	2.2	2.3	2.5
Studs at 400mm and Dwargs at 600mm	2.1	2.2	2.3	2.4



Total Construction R-Values are based on information from BRANZ House Insulation Guide – Third Edition, and are provided as a reference guide for selecting and using Autex GreenStuf®. To ensure NZBC compliance we recommend Architects and building designers are familiar with the relevant documents and NZ Standards before specifying thermal insulation products;

NZBC H1/AS1 Energy Efficiency, 2.0 Building Thermal Envelope
 NZS 4218 Energy Efficiency – Small Building Envelope
 NZS 4246 Energy Efficiency – Installing Insulation in Residential Buildings

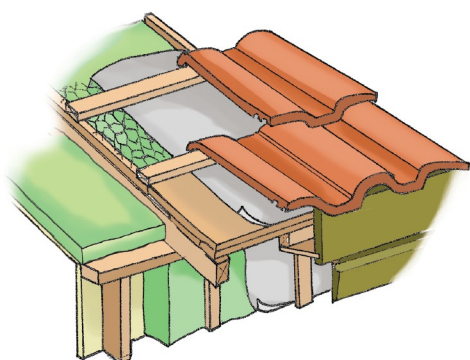
For more information and assistance in meeting NZBC Energy Efficiency requirements please contact your Autex Representative or Autex Customer Services on 0800 428 839.



Roof Construction: Low slope timber-framed with 190mm rafters and battens Cladding: Profiled metal

Framing Timber Spacings	GreenStuf® Insulation R-Value			
	2.9	3.2	3.4*	3.5*
Total Construction R-Value				
Rafters at 1200mm Centres	3.0	3.2	3.5	3.6
Rafters at 900 Centres	3.0	3.2	3.5	3.6
Rafters at 600 Centers	2.9	3.1	3.4	3.5

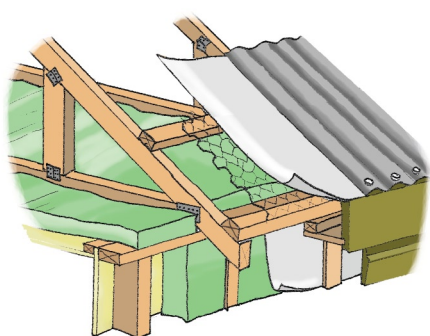
* Additional battening may be required when using these products to allow for the insulation material thickness and the required 25mm space between insulation and underside of the roof underlay. R3.5 material rating is achieved by a double-layer of GreenStuf® R1.8.



Roof Construction: Skillion roof with 190mm rafters and battens Cladding: Profiled metal, or concrete/clay tiles

Framing Timber Spacings	GreenStuf® Insulation R-Value			
	2.9	3.2	3.4*	3.5*
Total Construction R-Value				
Rafters at 1200mm Centres	3.1	3.4	3.5	3.6
Rafters at 900 Centres	3.1	3.3	3.4	3.6
Rafters at 600 Centers	3.0	3.2	3.4	3.5

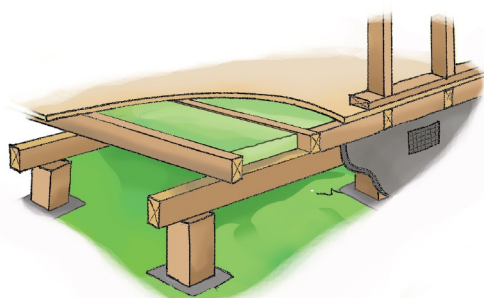
* Additional battening may be required when using these products to allow for the insulation material thickness and the required 25mm space between insulation and underside of the roof underlay. R3.5 material rating is achieved by a double-layer of GreenStuf® R1.8.



Roof Construction: Pitched timber-framed roof with 90-140mm ceiling joist or chord. Cladding: Profiled metal, or concrete/clay tiles

Framing Timber Spacings	GreenStuf® Insulation R-Value				Double Layer Installation			
	2.9	3.2	3.4		3.5	3.8	4.2	5.2
Total Construction R-Value								
Joist/Chord at 1200mm Centres	2.9	3.1	3.3	3.5	3.7	4.0	4.7	
Joist/Chord at 900 Centres	2.8	3.0	3.2	3.4	3.6	3.8	4.5	
Joist/Chord at 600 Centers	2.7	2.9	3.0	3.3	3.3	3.5	4.2	

* R3.5 material rating is achieved by a double-layer of Greenstuf® R1.8 Roll Form
 R3.8 material rating is achieved by a double-layer of Greenstuf® R2.2 + R1.8 Roll Form
 R4.2 material rating is achieved by a double-layer of Greenstuf® R2.2 Roll Form
 R5.2 material rating is achieved by a double-layer of Greenstuf® R3.2 + R2.2 Roll Form



Floor Construction: Suspended timber floor (without lining) and enclosed sub-floor with continuous perimeter wall

Framing Timber Size	GreenStuf® Insulation R-Value	
	1.5	1.8
Total Construction R-Value		
290mm Joists at 600mm centres	2.0	2.3
290mm Joists at 400mm centres	2.0	2.3
190mm Joists at 600mm centres	1.9	2.2
190mm Joists at 400mm centres	1.9	2.2
150mm Joists at 600mm centres	1.8	2.1
150mm Joists at 400mm centres	1.8	2.1

Insulating existing homes



Insulating Existing Homes

Homes built before 1980 are unlikely to have any insulation. Insulation can be retrofitted into the ceilings and under floors of most older homes. When insulating an older home you should take into account that the external walls are unlikely ever to be insulated. You should use higher-performing insulation in your ceiling and under floor to compensate and we recommend you follow our "best practice" recommendations on page 3.

Insulating an existing home is a good DIY project that can provide a positive return. Installing GreenStuf® in your ceiling and under floor, and wrapping your hot water cylinder with an EcoWrap is very easy and doesn't require any specialist skills or tools. Simple to read and follow installation instructions come with each pack.

“ You have the choice to secure peace of mind in knowing that what you use today will be safe for you, your family and our environment – forever. Choose Autex Greenstuf®. ”

“ Insulation is the most effective way to improve the energy efficiency of a home. So it just makes sense to insulate your home well, and it makes better sense to use a safe, durable and friendly insulation. ”





Check your Existing Insulation

If you own an older home check the condition and coverage of your insulation. 75-100mm of insulation is enough to meet the old insulation standards, but you're still losing heat and it will be costing you money. Installing a GreenStuf® ceiling blanket over the top will further reduce heat-loss and increase your energy-efficiency and comfort.

BRANZ research has shown that retrofitting ceiling insulation into an un-insulated home in Wellington (150m²) would pay itself back in four years, and after 20 years would provide a net-benefit of over \$3,000

'Supplied & Installed' or 'Do it yourself'

Retro-fitting GreenStuf® ceiling and underfloor insulation is a great DIY project. It's easy and can save you the cost of a tradesman.

If you're planning to work up in your roof space, choose a cooler day as the heat build-up in the roof can be extreme. Installing GreenStuf® insulation in your ceiling as a DIY project will take about a ½ day to complete. Retrofitting GreenStuf® Underfloor will take about a day to complete for the average home depending on access and working conditions.

Alternatively you can arrange for a tradesman to professionally install your insulation. We are happy to recommend company's in your local area – simply call Autex Customer Services on 0800 428 839.

Do it once, Do it right

Effective insulation relies on full coverage and no gaps. Even small gaps will significantly affect the performance of the installed insulation. Don't compress insulation, as this will also affect the performance, and make sure your insulation is installed correctly following the instructions on the Pack. We also recommend you staple a Product Label near access points in your ceiling and underfloor so future home-owners know what has been installed and when.

ECO WRAP®

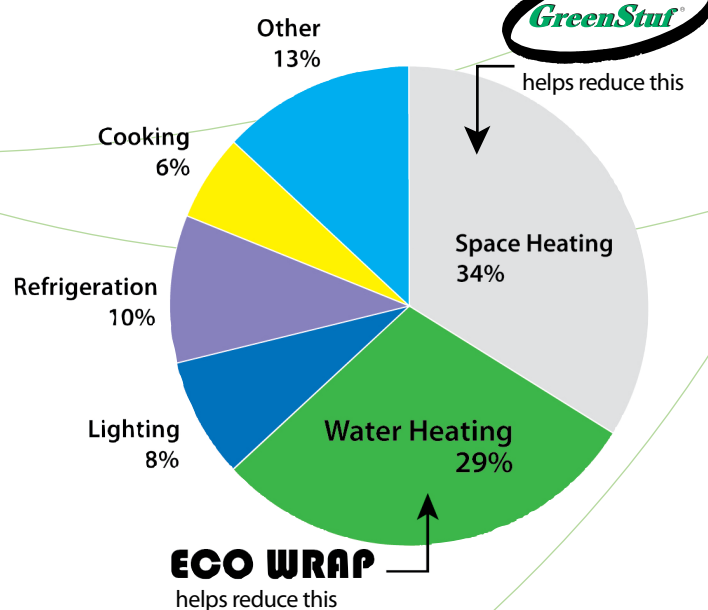
If your hot water cylinder is warm to touch, it's losing energy and costing you money!

GreenStuf® ECO Wrap adds heat-loss protection and increases the efficiency of your electric hot water cylinder.

GreenStuf® ECO Wrap uses 100 percent polyester insulation inside a foil wrap, so it's completely safe, supporting safer indoor air quality and an energy-efficient home.

The simple DIY kit includes everything to fully cover most common hot water cylinders. Any left over Wrap can be used to insulate your hot water pipes for even better protection against the cold.

Where your household electricity bill goes...



Creating a dry, healthier, energy efficient home is no longer a luxury its a necessity

Peace & Quiet in your home

The Importance of Acoustic Insulation

Designing for noise control is essential in today's environment where houses are built closer together and are susceptible to more environmental noise than ever before. Busy roads, airports, commercial and industrial noise, and home theatre systems can impact on the home's comfort for you and your family.

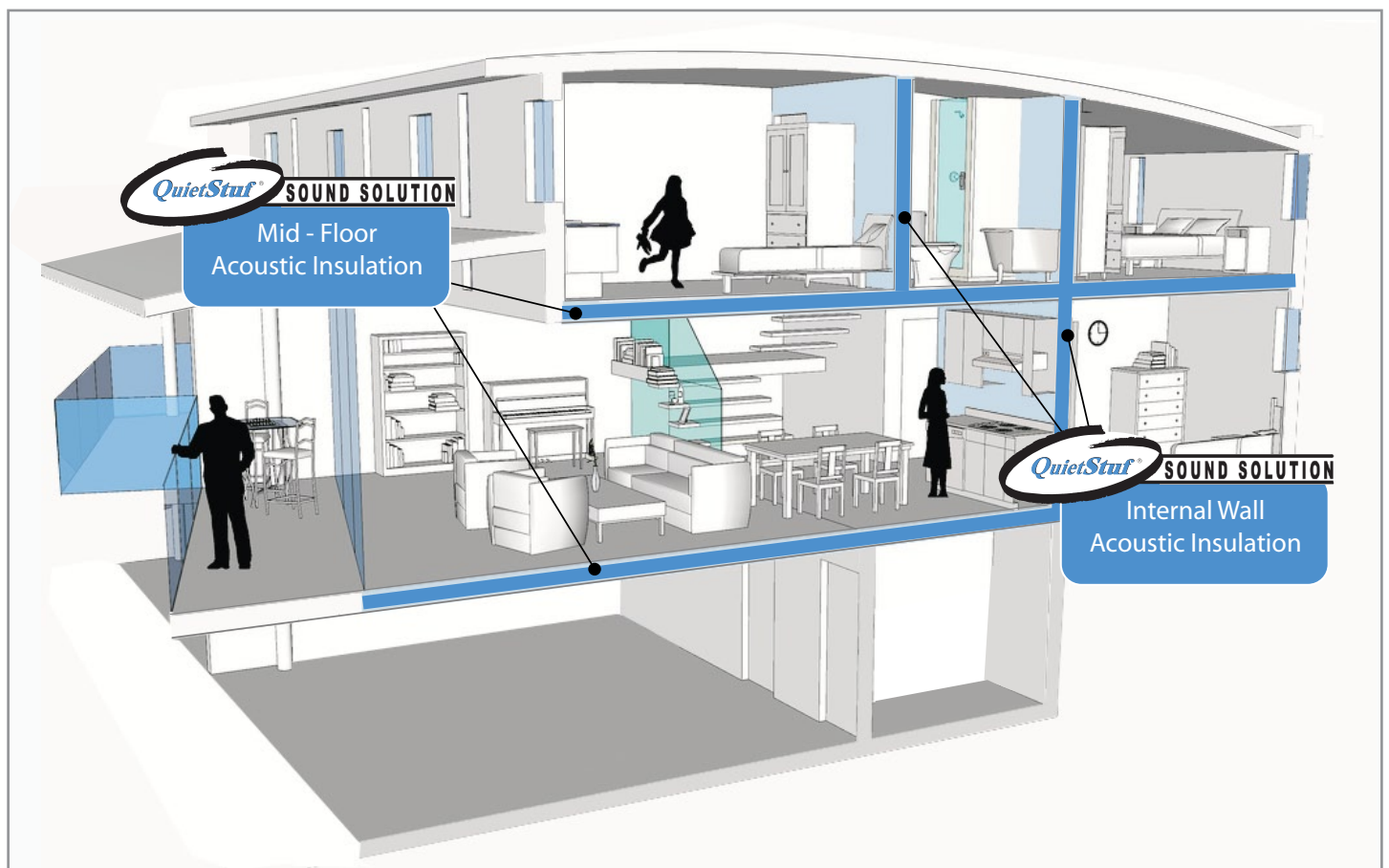
“Be sure to consider and design for noise when building or renovating your home.”

Designing For Noise Control

Once your home has been built it is very difficult and costly to address noise problems. Simple things like identifying the types of noise problems each room may create or face will allow you to make sensible design decisions before it's too late. When considering the design and layout there are a few simple things you can do to make sure your new home will meet the demands of a modern life.

Simple Steps for Controlling Noise in your Home

- (1) Identify rooms that need extra sound insulation to keep noise out (i.e. bedrooms, and office/study.)
- (2) Identify rooms that need extra sound insulation to keep noise in (i.e. home theatre rooms, en-suite and bathrooms, laundry, internal garage and rumpus rooms.)
- (3) Try to separate living areas from sleeping areas. Use hallways to help isolate home theatre rooms from living and sleeping areas.
- (4) Make sure all joints in walls and ceilings are as airtight as possible. Plasterboard joints in walls and ceilings should be sealed with acoustic sealant as the plasterboard is being installed. Make sure power-points are not set back-to-back between rooms, and that recessed down lights are minimised downstairs - sound will easily travel through all these acoustic weak points.
- (5) Stick to your choices and don't let anyone talk you into cheap alternatives. Chose proven products and sensible design, and remember a few dollars saved at construction could result in poor performance for a lifetime.



Acoustic Performance “Sound Solutions”

The STC rating of a wall relates to the noise-level reduction of sound from one side to the other. STC ratings are the industry-recognised means of assessing acoustic performance of a construction system. The higher the STC number, the better the acoustic performance. Beware of product claims that do not offer STC system performance ratings as these can be misleading and may not provide the performance you want.

STC Performance Rating of Walls	Perception
STC 25	Normal speech can be heard & understood
STC 30	Loud speech can be heard & understood
STC 35*	Loud speech can be heard but not understood
STC 40	Loud speech is just heard
STC 43**	Loud speech is only occasionally heard
STC 55***	Loud speech is generally not heard
STC 70+	Movie theatre wall performance

* standard residential wall
** standard residential wall with QuietStuf® Sound Solution
*** NZBC minimum performance for inter-tenancy



Some Sound Advice!

Internal Wall Acoustic Insulation

For a typical internal residential wall, based on the minimum construction being one layer of 10mm plasterboard each side of a single 90mm timber stud frame, the addition of QuietStuf® Sound Solution in the cavity will reduce noise through the wall (i.e. loud voices) to a murmur.

QuietStuf® Sound Solution in walls is especially well suited for isolating bathrooms, toilets, bedrooms and living areas.

Mid-Floor Acoustic Insulation

Insulating between floors (i.e. upstairs and downstairs) with QuietStuf® Sound Solution helps reduce unwanted noise from rooms above and below – so what’s going on in the kids bedroom upstairs doesn’t have to be going on in the kitchen or living room downstairs.

Sound Solution will provide you peace and quiet when you want it and where you want it, in a home you’ll love to live in.



Case Studies

What home-owners are saying...



The Customer;

Simon and Hayley, a young Ellerslie couple, recently purchased their renovation special. It wasn't long before they discovered that their new house was freezing!

The Challenges;

"It became evident after the first winter in our house that we had some serious insulation issues....it was freezing!" Simon and Hayley realised they would need to take action and install roof and floor insulation. In search of the right Insulation they went to the annual Auckland Home show. It was there that they spoke to Autex about their Greenstuf® Insulation. **"The staff member was very knowledgeable and helpful which left a lasting positive impression of their company and product".**

The Solution;

With all their questions answered, Simon and Hayley were confident Greenstuf® was the way to go. **"The choice was easy for a number of reasons, Greenstuf® has been made using recycled product - so it's an environmentally sound choice, it's not toxic, it's fire resistant and easy to install."**

Next they undertook the project of installing it themselves and were amazed at how smoothly it went. **"It's easy to install- even we could do it! The insulation can be torn to size by hand and you don't need to wear any special gear, and best of all - no itching!"**

Greenstuf® Insulation was put to the test as Simon and Hayley soon discovered the results.

"Our house is noticeably warmer and less drafty, we can't recommend Greenstuf® enough. It's an innovative and safe product".

Testimonials

A few words from our satisfied clients...

Quotes from more of our happy customers

"Thank you for being part of our house building project. It was a major undertaking and your support was greatly appreciated. We are true converts to the Green and Blue stuff."

- Murray and Jo Lindsay, Classic Hits Radio Station



"Having installed the product myself, its amazingly user friendly"

- Gisler Architects – Tim Gisler (Principal)



"It's a pleasure to work with a product that goes up without any hassle. What's more - it doesn't make me itch. As a result I have purchased and installed it for friends and family".

- Mr Land



"Looking forward to seeing your company become number one soon".

- Montri Jaimeetham, Unitec Interior Design Student.



"Very easy to install being a friendly fibre insulation product. Glad to have the reassurance of an insulation product which is good for myself and my families health"

- MDS (Masonry Design Solutions) – Karin Cunningham



"I am very pleased with your fast and friendly service. Thank you also for negotiating with the contractor on our behalf".

- Kim Mazur, Auckland



"Thanks to you, I now have a garage full of Greenstuf. I'm a very happy customer looking forward to dealing with you guys in the future".

- Ed



FAQ... *"Frequently Asked Questions"*



What is Polyester?

Polyester is a synthetic fibre. It is made from polyethylene terephthalate (PET), the same material used to make plastic drink bottles. Many drink bottles are recycled by being reheated and turned into polyester fibres, which in addition to being an efficient re-use, also helps keep polymers out of landfills. As consumers we must choose to recycle and re-use our plastics, not simply landfill them.

Autex takes its responsibilities for resource use seriously. We are using more and more already recycled polyester fibres (polyester that has already had a previous life as PET plastic). Our GreenStuf® products contain a minimum of 45% already recycled fibre, and some of our QuietStuf® products contain up to 85% already recycled fibre.

Are there any chemicals used in the manufacture?

No, all our polyester insulation materials are made from only 100% polyester fibres. We use heat to bind the fibres to form the structure of our insulation materials. This process is known as 'thermal bonding' of fibres. Polyester fibre is naturally fire, insect and vermin resistant so no chemical retardants are needed or used. We take this fact very seriously.

The use of chemicals is important for us as consumers because unknown exposure can pose serious health risks. Some brands of the more common 'fibre-glass' insulation materials still use formaldehyde based binders in their manufacture. Formaldehyde is a known and classified human carcinogen.

What is an 'R-Value'

The R-Value of an insulation material is the industry-accepted measure of a product's thermal performance. The higher the R-Value, the better the insulation performance. The test method for determining a product R-Value is the same for all bulk-fibre insulation materials (ie. polyester, wool blends and fibre-glass) allowing you to compare products on an 'apples for apples' basis.

R-Value performance is based on a product's ability to reduce heat flow. So a higher R-Rated insulation product will keep your home warmer in winter and cooler in summer.

Is GreenStuf® more expensive than fibreglass?

Yes, GreenStuf® is more expensive than fibreglass insulation. You can expect to pay about \$900 more for GreenStuf® based on fully insulating a new single-level home. What you get for your \$900 is a product that will perform for life - GreenStuf® will not deteriorate or breakdown over time, and is backed by a 50 year manufacturers durability warranty. You also get a product that is completely safe for you, your family and our environment – forever.

Choosing to pay a bit more for GreenStuf® will ensure environmental responsibility through our use of already recycled fibre, and the knowledge it can be recycled or reused indefinitely.

We recommend you do your own research on the potential health risks associated with fibre-glass insulation, then you can determine if \$900 is worth paying for the security in knowing you made a good choice for you, your family and our environment.

Can I install insulation myself?

Yes, installing Autex insulation products is easy. There is no itching and scratching that is often associated with fibre-glass products, and there are no special tools or protective clothing required. If you're pretty handy around the home – you should be able to give it a go! Each pack of Autex Insulation product comes with simple instructions and we recommend you follow them.

Is there an installation service for Autex Insulation?

Yes, we can arrange installation through a local supplier. For information and suppliers in your area please call Autex Customer Services on 0800 428 839.



Why should I choose to use GreenStuf® & QuietStuf®?

Quite simply because they are the best!

Our products have been around for over ten years and are now the preferred choice of some of NZ's leading architects and designers. All Autex Insulation products are manufactured under strict ISO9001 quality systems and one of the most comprehensive Quality Assurance programmes in the industry. All products are backed with a 50-year durability warranty, and our GreenStuf® products are independently appraised for performance by BRANZ.

Our products are safe for you and our environment. They do not contain chemical additives and will never pose a future health risk to you or our planet. All Autex Insulation products contain already recycled fibre, and remain fully recyclable forever. GreenStuf® and QuietStuf® are non-irritant, non-toxic and non-allergenic and the fibres are not of a respirable size (i.e. cannot be breathed into your lungs) so they are safe even for asthma sufferers.

The Autex Insulation Range

Product	ECNZ	BRANZ	Nominal Thickness	Bale Size
				
GreenStuf R2.0 Wall PADS		✓	90mm	580mm x 1160mm x 15 pads per Bale (10.09m²)
GreenStuf R2.2 Wall PADS		✓	90mm	580mm x 1160mm x 13 pads per Bale (8.75m²)
GreenStuf R2.5 Wall PADS	✓	✓	90mm	580mm x 1160mm x 8 pads per Bale (5.38m²)
GreenStuf R2.9 Ceiling PADS		✓	175mm	430mm x 1220mm x 8 pads per Bale (4.20m²)
GreenStuf R3.2 Ceiling PADS	✓	✓	180mm	430mm x 1220mm x 8 pads per Bale (4.20m²)
GreenStuf R3.4 Ceiling PADS	✓	✓	190mm	430mm x 1220mm x 6 pads per Bale (3.15m²)
GreenStuf R1.8 Roll Form		✓	100mm	Supplied at nominated width rolls x 25m² per Bale
GreenStuf R2.2 Roll Form		✓	150mm	Supplied at nominated width rolls x 20m² per Bale
GreenStuf R2.4 Roll Form		✓	140mm	Supplied at nominated width rolls x 20m² per Bale
GreenStuf R2.6 Roll Form	✓ (wall)	✓	140mm	Supplied at nominated width rolls x 20m² per Bale
GreenStuf R2.9 Roll Form		✓	185mm	Supplied at nominated width rolls x 17m² per Bale
GreenStuf R3.2 Roll Form	✓	✓	190mm	Supplied at nominated width rolls x 17m² per Bale
GreenStuf R3.4 Roll Form	✓	✓	200mm	Supplied at nominated width rolls x 17m² per Bale
Double-Layer Installation				
GreenStuf R1.8 + R1.8 (R3.5)	✓	✓	190mm	as per GreenStuf® Roll Form Bale Sizes above
GreenStuf R2.2 + R1.8 (R3.8)	✓	✓	240mm	as per GreenStuf® Roll Form Bale Sizes above
GreenStuf R2.2 + R2.2 (R4.2)	✓	✓	285mm	as per GreenStuf® Roll Form Bale Sizes above
GreenStuf R3.2 + R2.2 (R5.2)	✓	✓	325mm	as per GreenStuf® Roll Form Bale Sizes above
Masonry Wall Insulation				
GreenStuf R0.5 Masonry Wall Blanket			20mm	590mm x 25.42m x 2 rolls (30.0m²)
GreenStuf R1.0 Masonry Wall Blanket			45mm	580mm x 12.93m x 4 rolls (30.0m²)
GreenStuf R1.3 Masonry Wall Blanket			45mm	580mm x 2.40m x 6 lengths (8.35m²)
Underfloor Insulation				
GreenStuf R1.5 Underfloor		✓	100mm	580mm x 10.78m x 4 Rolls per Bale (25.0m²)
GreenStuf R1.8 Underfloor		✓	100mm	580mm x 10.78m x 4 Rolls per Bale (25.0m²)
Acoustic Insulation				
Quietstuf Sound Solution PADS			90mm	580mm x 1160mm x 17 pads per Bale (11.44m²)
Quietstuf Sound Solution Roll Form 430			90mm	430mm x 11.63m x 5 Rolls per Bale (25.0m²)
Quietstuf Sound Solution Roll Form 580			90mm	580mm x 10.78m x 4 Rolls per Bale (25.0m²)

More specific product information is available on our individual Product Data Sheets. These are available on our website (www.autex.co.nz) or by calling Autex Customer Services on 0800 428 839.

Autex Insulation is a division of Autex Industries Ltd, an ISO 9001 certified company. Autex retains the right to change products and specifications without prior notice. If a specification is critical to an end- use situation, please discuss your requirements with your Autex Representative.

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Disclaimer

The information contained in this guide is of a general nature only. Users should rely on their own professional judgment and skill in determining appropriateness of product choices and design for NZBC compliant systems. Autex Industries Ltd does not accept any responsibility or liability arising directly or indirectly from the use of this guide or the information contained within.

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Residential Insulation Guide

AUTEX



Insulation

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