



Product Guide

June 2012

## Product Guide

### New Zealand



energy saving



warmth



quietness



fire protection



sustainability



**EARTHWOOL**  
*the feel good insulation*

# THE WORLD'S BEEN AND GONE.






# BUT THERE'S ANOTHER WORLD CLASS PLAYER HERE TO STAY.



The rest of the world has left, but we're here for good to bring New Zealand a softer, more environmentally friendly insulation. Made with ECOSE® Technology, EarthWool® is proud to offer Kiwis a friendlier, more sustainable choice in home insulation. To learn more about EarthWool®, please visit [www.knaufinsulation.co.nz](http://www.knaufinsulation.co.nz)

**EARTHWOOL**  
the feel good insulation

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# 1. Introducing Knauf Insulation

## Our global expertise is focused on meeting New Zealand's unique requirements

Knauf Insulation is part of the Knauf Group of Companies, a family owned global building material business.

As one of the world's leading insulation manufacturers, we are active in more than 50 countries and have over 30 manufacturing sites producing glasswool, rock mineral wool, extruded polystyrene (XPS), expanded polystyrene (EPS), extruded polyethylene (XPE) and reflective foil insulation. With over 5,000 employees, we are specialists in insulation manufacturing, research and development; providing advanced energy efficiency solutions for buildings around the world.

The Knauf Insulation business in New Zealand supplies a wide range of glasswool and reflective foil insulation products, along with design services for any building project. As a point of difference to some manufacturers in New Zealand, Knauf Insulation focus on supplying products to resellers and installers, rather than competing in the supply and install markets.

With state of the art proprietary technology, we produce insulation of the very highest quality and aim to provide customer service to continually enhance industry standards.

Recognising that New Zealand has unique climatic conditions and therefore specific insulation requirements, Knauf Insulation provides a range of products to suit local construction methods and proven solutions to provide comfort and energy efficiency in buildings. Long term, equal value partnerships with our customers are an important part of our approach. With continual advancements in regulations for energy efficiency, acoustic performance, fire resistance and sustainable building materials, we are constantly enhancing our product range.

### New Zealand

With international experience in high performance energy efficiency solutions for buildings, a range of innovative products and a focus on insulation, Knauf Insulation is transforming New Zealand's insulation industry.



## UK

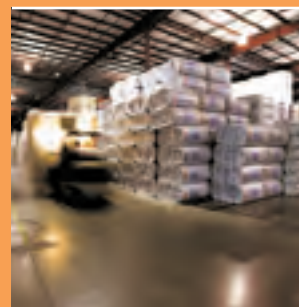
Knauf Insulation is the largest insulation manufacturer in the UK with four world-class factories producing glasswool, rock mineral wool and extruded polystyrene.

## USA

Knauf Insulation is the leading manufacturer of quality insulation in North America providing glasswool from three modern factories.

## Europe and Russia

With over 20 factories across Europe and Russia, Knauf Insulation produces glasswool, rock mineral wool and also polystyrene products to suit the specific regulations of over 30 countries.





### ECOSE® Technology

The development of patented ECOSE® Technology enables Knauf Insulation to offer glasswool with superior environmental credentials, which are also in full compliance with formaldehyde-free specifications. Products made with ECOSE® Technology are more sustainable and reduce binder embodied energy up to 70%.



### Compression Packaging

A major benefit of EarthWool® with ECOSE® Technology is its ability to compress and 'bounce back' when unpacked. Knauf Insulation has high ratio 'compression packaging' technology which reduces transport and handling costs for distributors and installers.



### 'Super Soft' Handling

Glasswool is the world's most popular insulation product. The Knauf Insulation development team is dedicated to making the product even better. The 'super soft' feel of Knauf Insulation's new generation EarthWool® with ECOSE® Technology has resulted in an extraordinarily soft and easy to install product.



### Blowing Wool

Knauf Insulation has led the development of blowing wool for upgrading the energy efficiency of existing masonry cavity walls and also for walls in new timber frame houses. Used extensively in the USA and Europe, this product will revolutionise the installation of insulation in New Zealand.



### Recycled Glass Bottles

Glasswool from Knauf Insulation uses a high proportion of post-consumer recycled glass bottles and is one of the most sustainable types of insulation available. Each pack of glasswool from Knauf Insulation uses up to 80% post-consumer recycled glass bottles.



**Our track record is driven by innovation**





## COMMITMENT TO SUSTAINABILITY

### Our Mission:

To provide products and services that conserve energy in buildings and preserve natural resources for a sustainable future.

### Our Vision:

We will be a leader in providing sustainable solutions for energy efficiency, productivity and comfort in the environments in which people live and work.

For us, sustainability means being able to meet the most important human needs of today without compromising our ability to meet the needs of tomorrow.

We view sustainability as a journey rather than a destination and are constantly researching innovations to enhance energy efficiency and reduce our impact on the environment.

Leading edge manufacturing is at the forefront of all the Knauf Insulation production locations. Our factories are equipped with the most advanced manufacturing and testing facilities in the world, supported by an ongoing research and development program.

The result is a track record for products with leading quality and consistency, exceptional thermal and acoustic performance, superior sustainability credentials, and reduced transportation and installation costs for our customers.



EarthWool® is naturally brown – containing no added phenol, formaldehyde, acrylics or artificial colours. It is in full compliance with formaldehyde-free specifications.



EarthWool® has a consistent surface, less dust than other types of glasswool and is easy to cut.



Knauf Insulation manufactures a full range of EarthWool® products in various thicknesses, R-values and densities.



## EarthWool®: think of it as green... only browner.

Glasswool is the most widely used insulation product throughout the world – and for many good reasons. It is non-combustible, has high thermal performance, superb sound absorption and is outstanding value for money. It's a challenge to make something this good even better – but we've done it!

Knauf Insulation's new EarthWool® doesn't look or feel like any glasswool insulation you've ever experienced. That's because the natural brown colour represents a level of sustainability and handling never before achieved. We didn't choose brown, it just came naturally.





EarthWool® products are in compliance with AS/NZS 4859.1: 2002 and New Zealand Building Code requirements: B2 – Durability, E3 – External Moisture, F2 – Hazardous Building Materials, and H1 – Energy Efficiency, as appraised by BRANZ. The EarthWool® range is an ACCEPTABLE SOLUTION in terms of the New Zealand Building Code.

EarthWool® products also satisfy the most stringent requirements for bio-solubility.



Registered product in the Warm Up New Zealand: Heat Smart programme through selected Service Providers.



The unique appearance and ‘super soft’ feel of EarthWool® comes from ECOSE® Technology, a revolutionary, new sustainable binder born from five years of intensive research. Made from rapidly renewable bio-based materials rather than oil-based chemicals commonly used in other insulation products, ECOSE® Technology reduces binder embodied energy by up to 70%. Improving the already exceptional environmental credentials of traditional glasswool insulation, EarthWool® is made using recycled glass bottles and is also compression packed to reduce transport emissions and stockist storage costs. EarthWool® does not contain added formaldehyde, artificial colours or bleach and is as good as traditional glasswool insulation – only better... naturally!



**"All of my installers prefer EarthWool®.** We have guys in the field who refuse to use anything else because it's softer and easier to install. Personally, EarthWool® is what I'd rather use on every project."

Rob Grant  
Managing Director  
Mark Group Australia



**"As an insulation distributor, we rate Knauf as one of the finest suppliers we have.** They provide a quality product, a good inventory and they make the distributor feel like a true partner. Whether it's the service aspect of the business or packaging the product or the glasswool itself, every year it seems to get better. And of all the manufacturers I've dealt with, the Knauf Insulation people, by far, exhibit the highest level of integrity, character and loyalty. They're just really great people. We learned a lesson from Knauf Insulation – if you treat everybody like your best customer, you're going to retain your customers for life."

U.K. Distributor

## Our customers value the Knauf Insulation partnership

Builders, installers, distributors and architects around the world stand by our products. They are top quality and highly sustainable – made of recycled glass and rapidly renewable ingredients. And the handling characteristics of our products have become legendary. Our products are easy to work with, quick to recover, contain low dust and are effortless to cut – all productivity features installers really appreciate. Builders and architects know they're getting the product performance they require while their customers are getting the comfort and energy savings they deserve.





## Glasswool



EarthWool® wall and ceiling insulation



EarthWool® ceiling rolls



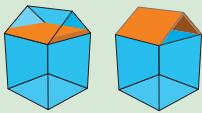
EarthWool® foil faced rolls

At Knauf Insulation, we have a simple philosophy – we are committed to serving our customers better than anyone else can. We achieve this through our commitment to quality, innovation and environmental responsibility. We are recognised for the strength of our marketing support and loyalty by customers around the world.



# 2.1 EarthWool® Ceiling Insulation (for thermal applications)

Knauf Insulation EarthWool® is a new generation of ‘super soft’ and highly sustainable glasswool available in either segments or rolls. EarthWool® is thermally efficient and cost effective in saving energy and providing increased comfort in ceilings. EarthWool® also reduces unwanted noise from outside the home.



## 2.1.1 Ceiling Rolls

Rolls are the fastest and most efficient product for insulating ceilings, supplied 1200mm wide as long unbroken pieces for continuous application with minimal thermal breaks. Rolls should be installed as blanket across joists in accordance with Zone and New Zealand building code requirements.

### DEFINITIONS



**Roll**  
A roll is a single pack of blanket. Rolls are sometimes bound together in MasterBags.



**MasterBag**  
A MasterBag is a package of multiple rolls (or segments).



**SupaKube (rolls)**  
A SupaKube is a ‘cube’ of approximately 1200mm x 1200mm x 2400mm of one roll product type stacked in MasterBags.

Ceiling rolls	R-Value	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag	MasterBags per SupaKube
	1.8	70	1200	13,500	1	16.2	4	5
	2.9	115	1200	8500	1	10.2	4	5
	3.2	135	1200	8000	1	9.6	4	5
	3.6	145	1200	7000	1	8.4	4	5



Registered product in the EECA Warm Up New Zealand: Heat Smart Program through selected service providers.



## Data Sheet – rolls

### Description

Knauf Insulation EarthWool® rolls are made from highly resilient, inorganic glass fibres bonded by ECOSE® Technology, a revolutionary new binder based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals. ECOSE® Technology reduces Knauf Insulation binder embodied energy and contains no phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

### Application

Knauf Insulation EarthWool® rolls provide a cost-effective thermal and acoustic barrier for energy-efficient construction. The rolls' consistent quality, low dust, and clean-cutting resilient fibres make fabrication easy and installation fast. EarthWool® can be used in timber and metal frame applications in residential structures. These applications include thermal and acoustic treatments to walls, ceilings and floors.

Knauf Insulation offers EarthWool® in a wide range of sizes and R-values. EarthWool® rolls are specifically designed for simple and fast installation in ceilings and attics. Rolls are highly resilient, recovering quickly to full thickness, and also greatly reduce the transmission of noise in the home.

### Features and Benefits

#### Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission in the home when properly installed in walls, ceiling and floor systems.

#### Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials feel good, cut easily and install fast.
- Low dust for easier handling and increased productivity.

#### Convenient Packaging, Easier Handling

- Knauf Insulation EarthWool® insulation rolls are packaged in strong plastic that offers excellent protection from abuse, dust and moisture.
- EarthWool® packages feature easy to follow installation instructions.
- Master bag roll units (containing multiple rolls) ensure reduced handling costs with improved compression – more square metres per pack, more square metres per truck load, fewer trips to the job site and less warehouse space for storage.
- EarthWool® is designed to expand to the specified thickness for months after sale, however, performance may be reduced if it is stored too long in its compressed package.

#### Superior Service and Support

- Knauf Insulation is focused on providing first class customer service, producing high quality products and 'in full on time deliveries'.
- Knauf Insulation recognises the need to establish, develop and support a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.

### Specification Compliance

- AS/NZS 4859.1: 2002 Materials used in the Thermal Insulation of Buildings and comply with the New Zealand Building Code requirements: B2 – Durability, E3 – External Moisture, F2 – Hazardous Building Materials, and H1 – Energy Efficiency, as appraised by BRANZ.

EarthWool® range is an ACCEPTABLE SOLUTION in terms of the New Zealand Building Code.

### Thermal Conductivity

- ASTM C 518

### Thermal Resistance

- ASTM C 653

### Bio-solubility

Glasswool insulation fibres have been tested in laboratory studies according to EC protocols ECB/TM27 REV. 7, 1998 and shown to be bio-soluble. NK 8340 fibres comply with the short term biopersistence test and fulfil the requirements of New Zealand and international authorities on bio-solubility.

### Technical Data

#### Water Vapour Absorption (ASTM C 1104)

- Less than 5% by weight.

#### Corrosion Resistance (ASTM C 665)

- No greater than sterile cotton.

#### Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

#### Fire Resistance (ASTM E 136)

- Non-combustible.



# 2.1.2 Ceiling Segment Insulation

Segments are the traditional insulation product for ceilings in new homes, supplied in pre-cut rectangles at either 430mm or 580mm widths to suit the most common ceiling joist centres. EarthWool® is recommended for installation from either below ceiling joists (i.e. within the room) or from above ceiling joists (i.e. within the ceiling space).

## DEFINITIONS

### Pack

A pack is a single package of insulation segments. Packs are sometimes bound together in a MasterBag.



### MasterBag

A MasterBag is a package of multiple packs.



### SupaKube

A SupaKube is a 'cube' 1200mm x 1200mm x 2400mm of one product type stacked horizontally in multiple MasterBags.



Ceiling Segment Insulation	R-Value	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag	MasterBags per SupaKube
	2.7	125	430	1160	24	12.0	5	5
	3.2	150	430	1160	20	10.0	5	5
	3.6	175	430	1160	21	10.5	5	5
	4.1	195	430	1160	18	9.0	5	5
	5.2	210	430	1160	11	5.5	5	5
	6.3	275	430	1160	11	5.5	5	5



Registered product in the EECA Warm Up New Zealand: Heat Smart Program through selected service providers.





# Data Sheet

## Description

Knauf Insulation EarthWool® ceiling insulation is made from highly resilient, inorganic glass fibres bonded by ECOSE® Technology, a revolutionary new binder based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals. ECOSE® Technology reduces Knauf Insulation binder embodied energy and contains no phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

## Application

Knauf Insulation EarthWool® provides a cost-effective thermal and acoustic barrier for energy-efficient construction. The insulation's consistent quality, low dust, and clean-cutting resilient fibres make fabrication easy and installation fast. EarthWool® can be used in timber and metal frame applications in residential structures. These applications include thermal and acoustic treatments to walls, ceilings and floors.

Knauf Insulation offers EarthWool® in a wide range of sizes and R-values. EarthWool® insulation can be used for cavity walls, floors, ceilings, attics, basements and crawlspaces. It is highly resilient, recovering quickly to full thickness. It also greatly reduces the transmission of noise in the home.

## Features and Benefits

### Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission in the home when properly installed in walls, ceiling and floor systems.

### Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials feel good, cut easily and install fast.
- Low dust for easier handling and increased productivity.

### Convenient Packaging, Easier Handling

- Knauf Insulation EarthWool® insulation is packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- EarthWool® packages feature easy to follow installation instructions.
- Master bag units (containing multiple packs) ensure reduced handling costs with improved compression – more square metres per bag, more square metres per truck load, fewer trips to the job site and less warehouse space for storage.
- EarthWool® is designed to expand to the specified thickness for months after sale, however, performance may be reduced if it is stored too long in its compressed package.

## Superior Service and Support

- Knauf Insulation is focused on providing first class customer service, producing high quality products and 'in full on time deliveries'.
- Knauf Insulation recognises the need to establish, develop and support a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.

## Specification Compliance

- AS/NZS 4859.1: 2002 Materials used in the Thermal Insulation of Buildings and comply with the New Zealand Building Code requirements: B2 – Durability, E3 – External Moisture, F2 – Hazardous Building Materials, and H1 – Energy Efficiency, as appraised by BRANZ.

EarthWool® range is an ACCEPTABLE SOLUTION in terms of the New Zealand Building Code.

## Thermal Conductivity

- ASTM C 518

## Thermal Resistance

- ASTM C 653

## Bio-solubility

Glasswool insulation fibres have been tested in laboratory studies according to EC protocols ECB/TM27 REV. 7, 1998 and shown to be bio-soluble. KNS3 fibres comply with the short term biopersistence test and fulfil the requirements of New Zealand and international authorities on bio-solubility.

## Technical Data

### Water Vapour Absorption (ASTM C 1104)

- Less than 5% by weight.

### Corrosion Resistance (ASTM C 665)

- No greater than sterile cotton.

### Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

### Fire Resistance (ASTM E 136)

- Non-combustible.



## 2.2 EarthWool® Internal and External Wall Insulation (for thermal and acoustic applications)

Knauf Insulation EarthWool® is a new generation of 'super soft' and highly sustainable glasswool. It is thermally efficient and cost effective in saving energy and providing increased comfort in buildings. EarthWool® also reduces unwanted noise from outside the home and limits sound transmission from room to room.



### 2.2.1 External Wall Thermal Insulation

Wall Insulation	R-Value	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag	MasterBags per SupaKube
	2.2	90	580	1160	29	19.5	4	4
	2.4	90	580	1160	20	13.4	4	4
	2.6	90	580	1160	14	9.4	4	4
	2.6	90	430	1160	14	7.0	5	5
	2.8	90	580	1160	10	6.7	4	4
	3.2	140	580	1160	22	14.8	4	4

EarthWool® provides an excellent acoustic solution for residential and commercial buildings. This product reduces unwanted noise from outside and limits sound transmission from room to room or office to office. It provides a cost effective barrier, including treatments to walls, ceilings and floor assemblies. Installation of EarthWool® products is very easy, due to the superior quality, low dust and friendly feel.



### 2.2.2 Sound Absorbing Insulation for Walls – 11 kg/m<sup>3</sup>

Note: Please check in advance to confirm product availability and delivery lead times.

Sound Absorbing Insulation		Thickness (mm)	Density (kg/m <sup>3</sup> )	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag	MasterBags per SupaKube
Timber Frame	50	11		430	2700	20	23.2	5	5
				580	2700	20	31.3	4	4
	75	11		430	2700	14	16.2	5	5
				580	2700	14	21.9	4	4
Metal Frame	50	11		450	2700	20	24.3	5	5
				600	2700	20	32.4	4	4
	75	11		450	2700	14	17.0	5	5
				600	2700	14	22.7	4	4

### 2.2.3 Heavy Duty Sound Absorbing Insulation for Walls – 14kg/m<sup>3</sup>

Sound Absorbing Insulation		Thickness (mm)	Density (kg/m <sup>3</sup> )	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag	MasterBags per SupaKube
Timber Frame	50	14		430	1160	38	18.95	5	5
				580	1160	38	25.57	4	4
	75	14		430	1160	24	11.97	5	5
				580	1160	24	16.15	4	4
Metal Frame	50	14		450	1160	38	19.84	5	5
				600	1160	38	26.45	4	4
	75	14		450	1160	24	12.53	5	5
				600	1160	24	16.70	4	4

# Data Sheet

## Description

Knauf Insulation EarthWool® is made from highly resilient, inorganic glass fibres bonded by ECOSE® Technology, a revolutionary new binder based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals. ECOSE® Technology reduces Knauf Insulation binder embodied energy and contains no phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

## Application

Knauf Insulation EarthWool® provides a cost-effective thermal and acoustic barrier for energy-efficient construction. The insulation's consistent quality, low dust, and clean-cutting resilient fibres make fabrication easy and installation fast. EarthWool® can be used in timber and metal frame applications in residential structures. These applications include thermal and acoustic treatments to walls, ceilings and floors.

Knauf Insulation offers EarthWool® in a wide range of sizes and R-values. EarthWool® insulation can be used for cavity walls, floors, ceilings, attics, basements and crawlspaces. It is highly resilient, recovering quickly to full thickness. It also greatly reduces the transmission of noise in the home.

## Specification Compliance

- AS/NZS 4859.1: 2002 Materials used in the Thermal Insulation of Buildings and comply with the New Zealand Building Code requirements: B2 – Durability, E3 – External Moisture, F2 – Hazardous Building Materials, and H1 – Energy Efficiency, as appraised by BRANZ.

EarthWool® range is an ACCEPTABLE SOLUTION in terms of the New Zealand Building Code.

## Thermal Conductivity

- ASTM C 518

## Thermal Resistance

- ASTM C 653

## Bio-solubility

Glasswool insulation fibres have been tested in laboratory studies according to EC protocols ECB/TM27 REV. 7, 1998 and shown to be bio-soluble. KNS3 fibres comply with the short term biopersistence test and fulfil the requirements of New Zealand and international authorities on bio-solubility.

## Features and Benefits

### Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission in the home when properly installed in walls, ceiling and floor systems.

### Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials feel good, cut easily and install fast.
- Low dust for easier handling and increased productivity.

### Convenient Packaging, Easier Handling

- Knauf Insulation's EarthWool® is packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- EarthWool® packages feature easy to follow installation instructions.
- Master bag units (containing multiple packs) ensure reduced handling costs with improved compression – more square metres per bag, more square metres per truck load, fewer trips to the job site and less warehouse space for storage.
- EarthWool® is designed to expand to the specified thickness for months after sale, however, performance may be reduced if it is stored too long in its compressed package.

## Superior Service and Support

- Knauf Insulation is focused on providing first class customer service, producing high quality products and 'in full on time deliveries'.
- Knauf Insulation recognises the need to establish, develop and support a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.

## Technical Data

### Water Vapour Absorption (ASTM C 1104)

- Less than 5% by weight.

### Corrosion Resistance (ASTM C 665)

- No greater than sterile cotton.

### Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

### Fire Resistance (ASTM E 136)

- Non-combustible.





## 2.3 EarthWool® Roof Blanket – unfaced (for thermal applications)

Knauf Insulation EarthWool® Blankets are an ideal solution for thermal and acoustic insulation of both residential and commercial roofs. Condensation control can be achieved when the product is faced with a foil of the appropriate duty classification.



### Price Sheet – Blanket (unfaced)

Blanket Plain	Product Code	R-Value	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag	MasterBags per SupaKube
	L131237	1.3	55	1200	37000	1	44.4	3	3
	L141229	1.5	60	1200	28000	1	33.5	3	3
	L181226	1.8	75	1200	26000	1	31.2	3	3
	L231222	2.3	100	1200	22000	1	26.4	3	3

## 2.4 EarthWool® Roof Blanket – foil faced (for thermal applications)

Knauf Insulation EarthWool® Blankets are an ideal solution for thermal and acoustic insulation of both residential and commercial roofs. EarthWool® foil faced roof blankets come with the added benefit of condensation control by being faced with a heavy duty foil.



### Price Sheet – Blanket (foil faced)

Space Blanket	R-Value	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag
	1.3	55	1200	15000	1	18	9

# Data Sheet

## Description

Knauf Insulation EarthWool® Blankets are for thermal and acoustical applications. They are made from highly resilient, inorganic glass fibres bonded by ECOSE® Technology, a revolutionary new binder based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals. ECOSE® Technology reduces Knauf Insulation binder embodied energy and contains no phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

## Application

Knauf Insulation EarthWool® Blankets provide a cost-effective thermal and acoustic barrier for energy-efficient construction. Their consistent quality, low dust, and clean-cutting resilient fibres make fabrication easy and installation fast.

Knauf Insulation EarthWool® Blankets can be used in new and retrofit applications in residential and commercial structures, as well as in off or on-site manufactured housing. These applications include thermal and acoustic treatments to metal and roof tile applications.

## Features and Benefits

### Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission when properly installed in roof systems.
- Foil-faced roofing rolls provide condensation control.

### Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials feel good, cut easily and install fast.
- Low dust for easier handling and increased productivity.

### Convenient Packaging, Easier Handling

- Knauf Insulation EarthWool® Roof Blanket is packaged in a strong poly bag that offers excellent protection from abuse, dust and moisture.
- Our packages feature easy to follow installation instructions.
- EarthWool® is designed to expand to the specified thickness for months after sale, however, performance may be reduced if it is stored too long in its compressed package.

## Superior Service and Support

- Knauf Insulation is focused on providing first class customer service, producing high quality products and 'in full on time deliveries'.
- Knauf Insulation recognises the need to establish, develop and support a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.

## Specification Compliance

- AS/NZS 4859.1: 2002 Materials used in the Thermal Insulation of Buildings and comply with the New Zealand Building Code requirements: B2 – Durability, E3 – External Moisture, F2 – Hazardous Building Materials, and H1 – Energy Efficiency, as appraised by BRANZ.

EarthWool® range is an ACCEPTABLE SOLUTION in terms of the New Zealand Building Code.

## Thermal Conductivity

- ASTM C 518

## Thermal Resistance

- ASTM C 653

## Bio-solubility

Glasswool insulation fibres have been tested in laboratory studies according to EC protocols ECB/TM27 REV. 7, 1998 and shown to be bio-soluble. KNS3 fibres comply with the short term biopersistence test and fulfil the requirements of New Zealand and international authorities on bio-solubility.

## Technical Data

### Water Vapour Absorption (ASTM C 1104)

- Less than 5% by weight.

### Corrosion Resistance (ASTM C 665)

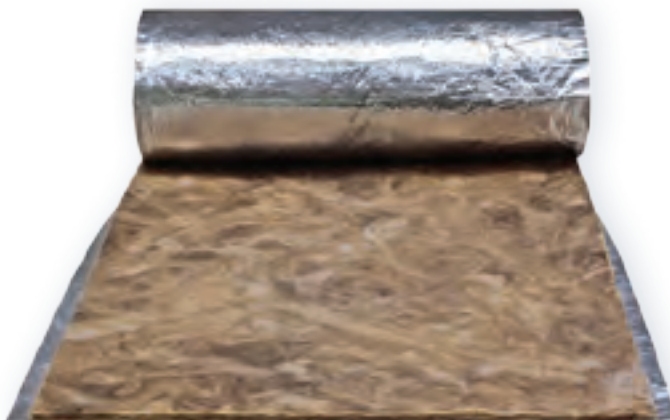
- No greater than sterile cotton.

### Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

### Fire Resistance (ASTM E 136)

- Non-combustible.



## 2.5 EarthWool® Underfloor Insulation (for thermal applications)

Knauf Insulation EarthWool® Underfloor is a new generation of 'super soft' and highly sustainable glasswool underfloor insulation for New Zealand. EarthWool® is thermally efficient and cost effective in saving energy and providing increased comfort to your floor. EarthWool® also reduces unwanted noise from outside the home.



### 2.5.1 Underfloor Insulation – glasswool

Glasswool	R-Value	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	m <sup>2</sup> /Pack	Packs per MasterBag	MasterBags per SupaKube
	1.8	70	480	1160	32	17.8	4	5
	1.8	70	610	1160	32	22.6	4	4
	2.2	75	480	1160	17	9.4	4	5
	2.2	75	610	1160	17	10.4	4	4



Registered product in the EECA Warm Up New Zealand:  
Heat Smart Program through selected service providers.





# Data Sheet

## Description

Knauf Insulation's EarthWool® underfloor insulation is made from highly resilient, inorganic glass fibres bonded by ECOSE® Technology, a revolutionary new binder based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals. ECOSE® Technology reduces Knauf Insulation binder embodied energy and contains no phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

## Application

EarthWool® underfloor insulation provides a cost-effective thermal and acoustical barrier for energy-efficient construction. The insulation's consistent quality, low dust, and clean-cutting resilient wool makes installation fast. EarthWool® underfloor insulation can be used in timber and metal frame applications in residential structures. These applications include thermal and acoustical treatments to floors. Knauf Insulation offers EarthWool® underfloor insulation in a range of sizes.

## Features and Benefits

### Proven Performance

- Preferred by professional installers concerned with quality, appearance and productivity.
- Excellent acoustical properties reduce sound transmission in the home when properly installed in wooden frame floor systems.

### Durability

- EarthWool® underfloor insulation is odourless, rot proof, non-hygroscopic, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria.

### Superior Handling

- Highly resilient insulation recovers quickly to full thickness for a snug fit and superior finished aesthetics.
- Consistent quality materials feel good, cut easily and install fast.
- Low dust for easier handling and increased productivity.

### Convenient Packaging, Easier Handling

- EarthWool® underfloor insulation is packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- EarthWool® underfloor insulation packages feature easy to follow installation instructions.
- MasterBag units (containing multiple packs) ensure reduced handling costs with improved compression – more square metres per bag, more square metres per truck load, fewer trips to the job site and less warehouse space for storage.

### Superior Service and Support

- Knauf Insulation is totally focused on providing first class customer service, producing high quality product and 'on time in full' deliveries.
- Knauf Insulation recognises the need to establish, develop and support a professional network of distributors and re-sellers in order to service a growing insulation market.
- Knauf Insulation is committed to providing a comprehensive range of relevant sales and marketing literature and web-based technical information to support specifiers and customers.

## Specification Compliance

AS/NZS 4859.1: 2002 Materials used in the Thermal Insulation of Buildings and comply with the New Zealand Building Code requirements: B2 – Durability, E3 – External Moisture, F2 – Hazardous Building Materials, and H1 – Energy Efficiency, as appraised by BRANZ.

EarthWool® range is an ACCEPTABLE SOLUTION in terms of the New Zealand Building Code. This product is designed for use in timber framed floors in new and existing domestic and commercial buildings with a closed perimeter.

## Thermal Conductivity

ASTM C 518 and AS/NZS 4859.1: 2002

## Thermal Resistance

ASTM C 653 and AS/NZS 4859.1: 2002

## Bio-solubility

Glasswool insulation fibres have been tested in laboratory studies according to EC protocols ECB/TM27 REV. 7, 1998 and shown to be bio-soluble. KNS3 fibres comply with the short term biopersistence test and fulfill the requirements of New Zealand and international authorities on biosolubility. EarthWool® products are BRANZ appraised.

## Technical Data

### Water Vapour Absorption (ASTM C 1104)

- Less than 5% by weight.

### Corrosion Resistance (ASTM C 665)

- No greater than sterile cotton.

### Microbial Growth (ASTM C 1338)

- Does not support microbial growth.

### Fire Resistance (ASTM E 136)

- Non-combustible.



# Make Warehousing a breeze with MasterBags

Not only do durable Knauf Insulation MasterBags protect EarthWool® from damage, they are made stronger to stack higher, optimising warehouse space and providing a clean, safe, professional environment. And the translucent poly woven bags make products easy to identify.

The improved compression of MasterBags provides you with more square metres of product per bag, which means more square metres per truckload and fewer trips between the job site and the warehouse. And by maintaining their shape and configuration, MasterBags are easier to move around a job site, whether you're carrying them by hand or using a forklift or clamp truck.

Knauf Insulation premium quality packaging for premium quality products.



**WE DIDN'T CHOOSE BROWN,  
IT JUST CAME NATURALLY.**



Knauf Insulation's EarthWool® products don't look or feel like any insulation you've ever experienced. That's because their natural brown colour sets a new benchmark in sustainability and provides a 'super soft' feel never before achieved.

Made using recycled glass bottles and revolutionary ECOSE® Technology, EarthWool® is creating eco-friendly insulation with no added formaldehyde, artificial colours or acrylics. It is as good as traditional glasswool insulation – only better... naturally! EarthWool® is also compression packed to reduce transport emissions, material handling and warehousing costs.

The world of insulation has changed and Knauf Insulation in New Zealand is adding 'the feel good factor'.

Available from Knauf Insulation approved distributors.



For more information call 0800 KNAUFi or 0800 562 834  
or visit us online at [www.knaufinsulation.co.nz](http://www.knaufinsulation.co.nz)

**KNAUF INSULATION**  
it's time to save energy



- ✓ GREAT THERMAL PERFORMANCE
- ✓ EASY TO INSTALL
- ✓ LESS ITCHY
- ✓ CAN'T CATCH FIRE
- ✓ ABSORBS SOUND
- ✓ ALLERGY SAFE
- ✓ NO ADDED ARTIFICIAL COLOURS OR FORMALDEHYDE

## Can insulation really feel this good?

'Super soft' and environmentally friendly insulation for your home.

[www.knaufinsulation.co.nz](http://www.knaufinsulation.co.nz)



EarthWool® is the world's first insulation to be awarded the EUROFINS Gold Award for improving indoor air quality.



**EARTHWOOL**  
the feel good insulation



# KN'OATH

## THE KNAUF INSULATION OATH TO NEW ZEALAND

### QUALITY

As a world leader in insulation, we guarantee that the 'super soft' feel and sustainability credentials of our new generation of glasswool insulation set a new benchmark for quality in New Zealand. Already, our new EarthWool® represents a major leap forward for insulation in New Zealand.

### INNOVATION

We will continue to introduce innovative insulation solutions that improve energy efficiency in buildings by providing advanced products that have enhanced performance and are also easier to install.

### COMMITMENT

We are committed to sharing our international experience with distributors, installers and households by providing new energy efficiency solutions that comply with increasingly stringent building regulations and align with our Governments' commitment to reduce CO<sub>2</sub> emissions.

**We're here for good and we mean business.**



**WINNER OF THE EUROFINS GOLD AWARD – EarthWool® is the world's first insulation product to receive the coveted Eurofins Indoor Air Comfort Gold standard award. [www.eurofins.com](http://www.eurofins.com)**  
**Learn more at [www.knaufinsulation.co.nz](http://www.knaufinsulation.co.nz)**

### We didn't choose brown, it just came naturally

Knauf Insulation's EarthWool® products don't look or feel like any insulation you have experienced. With no added colour or formaldehyde, EarthWool® sets a new benchmark for quality and sustainability while providing a 'super soft' feel never before achieved.



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**KNAUF INSULATION**  
*it's time to save energy*

