



Product Price List

January 201

Product Price List

A wider range of insulation solutions for New Zealand

























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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 established in 1932.

As one of the world's leading insulation manufacturers, we are active in 35 countries and have over 40 manufacturing sites producing glasswool, rock mineral wool, extruded polystyrene (XPS), expanded polystyrene (EPS) and extruded polyethylene (XPE). With over 5,500 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 has access to a wide range of glasswool, rock mineral wool and XPS insulation products, along with design services for any building project. 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 and rock mineral wool with superior environmental credentials, which are also in full compliance with formaldehyde-free specifications. Products made using ECOSE Technology are more sustainable and reduce binder embodied energy up to 70%.



Compression Packaging

A major benefit of Earthwool® glasswool insulation is its ability to compress and 'bounce back' when unpacked. Knauf Insulation has high ratio 'compression packaging' technology for glasswool, 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 glasswool insulation with ECOSE Technology has resulted in a super-soft and easy to install product.



Blow-In Glasswool

Knauf Insulation has led the development of blow-in glasswool 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 15 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.

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



Earthwool glasswool insulation is less dusty than other types of glasswool and is easy to cut.



Knauf Insulation manufactures a full range of Earthwool glasswool insulation products in various thicknesses, R-Values and densities.

Earthwool glasswool insulation: 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!

Earthwool glasswool insulation 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 for glasswool never before achieved. We didn't choose brown, it just came naturally.



Lab-tested, Mother Nature approved.

Earthwool® glasswool insulation products are BRANZ Appraised to AS/NZS 4859.1 and in full compliance with the Building Code of New Zealand.

Earthwool glasswool insulation products also satisfy the most stringent requirements for bio-solubility.











The unique appearance and 'super soft' feel of Earthwool glasswool insulation comes from ECOSE® Technology, a revolutionary, new sustainable binder born from five years of intensive research. Based on rapidly renewable materials instead of petro-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 glasswool insulation is made using recycled glass bottles and is also compression packed to reduce transport emissions and stockist storage costs. Earthwool glasswool insulation does not contain added formaldehyde, artificial colours or bleach and is as good as traditional glasswool insulation – only better... naturally!



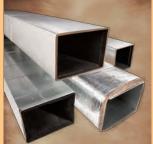
Our customers value the Knauf Insulation partnership

Builders, installers, distributors and architects around the world stand by our products. They are top quality and highly sustainable – made using recycled glass and rapidly renewable materials. 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.





Earthwool® glasswool insulation



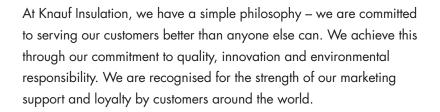
HVAC and OEM



Blow-in alasswool



ClimaFoam® XPS insulation





DriTherm® slab



Our Commitment to Sustainability

Our Guiding Principles:

As a family-owned company, we're proud of the Knauf Insulation name and what it represents. Customers worldwide have put their trust in the quality, consistency and performance of our products and our business values. So, everyone who does business with us recognises the importance that, in our quest to become more sustainable, there are certain principles that we will not compromise:

- The quality, consistency, and performance characteristics for which our products are known.
- Our ability to apply technological advances across all product lines.
- The safe and efficient manufacture of our products.
- Our commitment to sustainability from plant operations.
- Our commitment to cost-effectively produce our products.

Driven by our mission, Earthwool® glasswool insulation is produced with ECOSE® Technology.

ECOSE Technology is a revolutionary, more sustainable binder technology born from five years of intensive research and development.

ECOSE Technology features rapidly renewable bio-based materials instead of petro-based chemicals such as phenol, formaldehyde and acrylics commonly used in traditional glasswool products.

By reducing the embodied energy in our binder by up to 70% compared to traditional glasswool, ECOSE Technology reduces both the expected Global Warming Potential and total embodied energy of Knauf Insulation glasswool by approximately 4%.







Our new Engineering and Development office building uses 30% less energy than a conventional office while accommodating 50 offices and housing a 126-seat classroom and training centre.



Regenerative Thermal Oxidisers installed at our factories have reduced the amount of energy it takes to cure our products and reduced ${\rm CO_2}$ emissions from the curing ovens by up to 90%.



All Knauf Insulation glasswool products are made from renewable and abundant resources, such as recycled glass and sand.

Manufacturing improvements

- In our operations, we look for ways to advance our glass formulations to increase the use of post-consumer recycled glass bottles in all our products.
- To reclaim and reuse vented heat and to control emissions, we have invested millions of dollars in regenerative thermal oxidisers and the best available technology for pollution control.
- By converting our products to ECOSE® Technology, we have eliminated chemicals like phenol and formaldehyde from the manufacturing process, eliminating their plant emissions. This has the added benefit of providing a safer workplace environment both in production and for installers.

A sustainable impact and legacy

All our products are made from renewable and abundant resources, such as recycled glass and sand. And we're proud to be putting glass bottles back to work rather than into landfills. Our products are made with up to 80% post-consumer recycled glass bottles—about 26 million bottles each month, all collected at curbside. Our Earthwool glasswool insulation products have an inherent impact on energy consumption as they save hundreds of times more energy in use than is required to manufacture them.

Through the development of revolutionary solutions like ECOSE Technology, we continually focus our efforts on providing solutions that reduce energy consumption and save resources to positively affect the lives of people today and tomorrow.

2.1 Earthwool® glasswool insulation: Ceiling (for thermal applications)

The Earthwool glasswool: Ceiling batt range is a new generation of softer, safer and more environmentally friendly glasswool insulation. Advanced compression packaging reduces handling time and the risk of damage in transit and on-site. It is thermally efficient and cost effective in saving energy and providing increased comfort in buildings.





2.1.1 Ceiling

Earthwool glasswool insulation: Ceiling

Batts are the traditional insulation product for ceilings, supplied in pre-cut rectangles at 430mm widths to suit the most common ceiling joist centres. Earthwool glasswool: Ceiling batts are 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

MasterBag

A MasterBag is a package of multiple Packs (4 for 580mm batts and 5 for 430mm batts.)



Supakube

A Supakube is a 'cube' approximately 1200mm x 1200mm x 2400mm of one product type stacked in either multiple MasterBags or Packs (depending on the product).



	Material Code	R-Value (m² K/W)	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	Area per pack (m²)	Packs per MasterBag	MasterBags per Supakube	\$/m² (Excl GST)
	583498	2.9	130	430	1160	24	12	5	5	6.14
2	471052	3.2	150	430	1160	20	9.98	5	5	6.77
Ceiling	471072	3.6	175	430	1160	21	10.47	5	5	7.24
	471073	4.1	195	430	1160	18	8.98	5	5	7.97
	471054	5.2	210	430	1160	11	5.49	5	5	11.58
	471055	6.3	275	430	1160	11	5.49	5	5	13.65
Skilli	on 470320	3.2	105	430	1160	11	5.49	5	5	15.40



Data Sheet - Ceiling

Description

Earthwool® glasswool: Ceiling batts are made from highly resilient, inorganic glass fibres bonded with ECOSE® Technology, a revolutionary binder based on rapidly renewable materials instead of petro-based chemicals. ECOSE Technology reduces binder embodied energy and contains no added phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

Application

Earthwool glasswool: Ceiling batts provide a cost-effective thermal and acoustic barrier for energy-efficient construction. The consistent quality, low dust, and clean-cutting resilient fibres make fabrication easy and installation fast. Earthwool glasswool: Ceiling batts can be used in timber and metal frame applications in residential and commercial structures.

Knauf Insulation offers Earthwool glasswool insulation in a wide range of sizes and R-Values. Earthwool glasswool insulation is highly resilient, recovering quickly to full thickness. It also greatly reduces the transmission of noise in the home.

Features

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 glasswool: Ceiling batt insulation is packaged in a strong white poly bag that offers excellent protection from abuse, dust and
- · Earthwool glasswool insulation packages feature easy to follow installation instructions.
- MasterBags 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.

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 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 Materials used in the Thermal Insulation of Buildings and comply with the Building Code of New Zealand requirements.

Thermal Conductivity

• ASTM C 518

Thermal Resistance

ASTM C 653

Bio-solubility

The formulation used for Earthwool glasswool insulation has been independently assessed to meet the requirements of the stringent Note Q standard (and is therefore consistent with the highest Australian and New Zealand industry standards), and also assessed by Knauf Insulation against the criteria of the Australian Safety and Compensation Council ASCC Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 3rd Edition]. As a result of this assessment, Earthwool glasswool insulation is not classified as hazardous according to the NOHSC criteria.

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.











Energy Saving Insulation for Ceilings



2.2 Earthwool® glasswool insulation: External wall (for thermal applications)

The Earthwool glasswool: External wall batt range is a new generation of softer, safer and more environmentally friendly glasswool insulation. Advanced compression packaging reduces handling time and the risk of damage in transit and onsite. Although the product is primarily designed for use in external walls it can also be used for internal walls to reduce sound transmission from room to room. It is thermally efficient and cost effective in saving energy and providing increased comfort in buildings.



Batts are the traditional insulation product for insulating external walls and are available in thicknesses to suit 90mm and 140mm timber and metal frames.

2.2.1 Timber frame

	Material Code	R-Value (m² K/W)	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	Area per pack (m²)	Packs per MasterBag	MasterBags per Supakube	\$/m² (Excl GST)
	471038	2.2	90	580	1160	29	19.51	4	4	5.23
	471039	2.4	90	580	1160	20	13.46	4	4	7.40
	471070	2.6	90	430	1160	14	6.98	5	5	9.57
Wall	471071	2.6	90	580	1160	14	9.42	4	4	9.57
\$	471040	2.8	90	430	1160	10	4.99	5	5	14.66
	471041	2.8	90	580	1160	10	6.73	4	4	14.66
	471042	3.2	140	580	1160	22	14.80	4	4	6.97
	470319	3.6	140	580	1160	15	10.1	4	4	10.84
	505604	4.1	140	580	1160	9	6.1	4	4	16.95

2.2.2 DriTherm® (a specialist silicone treated masonry wall product)

Material	R-Value	Thickness	Width	Length	Pieces per	Area per	Packs per	MasterBags	\$/m²
Code	(m² K/W)	(mm)	(mm)	(mm)	Pack	pack (m²)	MasterBag	per Supakube	(Excl GST)
475382	1.5	50	600	1100	8	5.28	8	4	



Data Sheet - External wall

Description

Earthwool® glasswool: External wall batts are made from highly resilient, inorganic glass fibres bonded with ECOSE® Technology, a revolutionary binder based on rapidly renewable materials instead of petro-based chemicals. ECOSE Technology reduces binder embodied energy and contains no added phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

Application

Earthwool glasswool: External wall batts provide a cost-effective thermal and acoustic barrier for energy-efficient construction. The consistent quality, low dust, and clean-cutting resilient glasswool makes installation fast. Earthwool glasswool: External wall batts can be used in timber and metal frame applications in residential and commercial structures. These applications include thermal and acoustic treatments to walls, ceilings and floors.

Knauf Insulation offers Earthwool glasswool insulation in a wide range of sizes and R-Values. Earthwool glasswool insulation is highly resilient, recovering quickly to full thickness. It also greatly reduces the transmission of noise in the home.

Features

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 glasswool: External wall batt insulation is packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- · Earthwool glasswool insulation packages feature easy to follow installation instructions.
- MasterBags 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.

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 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 Materials used in the Thermal Insulation of Buildings and comply with the **Building Code**



Thermal Conductivity

• ASTM C 518

Thermal Resistance

ASTM C 653

Bio-solubility

The formulation used for Earthwool glasswool insulation has been independently assessed to meet the requirements of the stringent Note Q standard (and is therefore consistent with the highest Australian and New Zealand industry standards), and also assessed by Knauf Insulation against the criteria of the Australian Safety and Compensation Council ASCC Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 3rd Edition]. As a result of this assessment, Earthwool glasswool insulation is not classified as hazardous according to the NOHSC criteria.

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.











Energy Saving Insulation for Walls

2.3 Earthwool® glasswool insulation: Internal wall (for acoustic applications)

The Earthwool glasswool: Internal wall batt range is a new generation of softer, safer and more environmentally friendly glasswool insulation. Advanced compression packaging reduces handling time and the risk of damage in transit and on-site. Earthwool glasswool: Internal wall batts reduce unwanted noise from outside and also limit sound transmission between adjoining rooms.



2.3.1 Ultimate acoustic

		Material Code	Thickness (mm)	Density (kg/m³)	R-Value (Est)	Width (mm)	Length (mm)	Pieces (per pack)	Area per pack (m²)	Packs per MasterBag	MasterBags per Supakube	\$/m² (Excl GST)
		471045	50	14	1.4	580	1160	38	25.57	4	4	4.45
		471047	75	14	2.0	430*	1160	24	11.97	5	5	6.35
J	Frame	471049	75	14	2.0	580	1160	24	16.15	4	4	6.35
Acoustic	ber Frc	471070	90	20	2.6	430	1160	14	6.98	5	5	9.57
Aco	Timber	471071	90	20	2.6	580	1160	14	9.42	4	4	9.57
		471040	90	27	2.8	430	1160	10	4.99	5	5	14.66
		471041	90	27	2.8	580	1160	10	6.73	4	4	14.66
	Metal Frame	529446	50	11	1.3	600	2700	20	32.40	4	4	3.50
	Me	529447	75	11	1.9	600	2700	14	22.68	4	4	4.99

^{*}Primary size for baffle-stacks over internal partition walls.

Airborne and Impact Sound

The inter-tenancy provisions of NZBC G6 for wall and floor/ceiling elements will be achieved when a System with a minimum STC rating of 55 and a minimum IIC rating of 55 is used.





Data Sheet - Internal wall

Description

Earthwool® glasswool: Internal wall batts are made from highly resilient, inorganic glass fibres bonded with ECOSE® Technology, a revolutionary binder based on rapidly renewable materials instead of petro-based chemicals. ECOSE Technology reduces binder embodied energy and contains no added phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

Application

Earthwool glasswool: Internal wall batts provide a cost-effective thermal and acoustic barrier for energy-efficient construction. The batts' consistent quality, low dust and clean-cutting resilient glasswool makes installation fast. Earthwool glasswool: Internal wall batts can be used in timber and metal frame applications in residential and commercial structures.

Knauf Insulation offers Earthwool glasswool insulation in a wide range of sizes and R-Values. Earthwool glasswool insulation is highly resilient, recovering quickly to full thickness. It also greatly reduces the transmission of noise in the home.

Features

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 glasswool: Internal wall batt insulation is packaged in a strong, white poly bag that offers excellent protection from abuse, dust and moisture.
- Earthwool glasswool insulation packages feature easy to follow installation instructions.
- MasterBags 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.

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 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 Materials used in the Thermal Insulation of Buildings and comply with the Building Code of New Zealand requirements.

Thermal Conductivity

• ASTM C 518

Thermal Resistance

ASTM C 653

Bio-solubility

The formulation used for Earthwool glasswool insulation has been independently assessed to meet the requirements of the stringent Note Q standard (and is therefore consistent with the highest Australian and New Zealand industry standards), and also assessed by Knauf Insulation against the criteria of the Australian Safety and Compensation Council ASCC Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 3rd Edition]. As a result of this assessment, Earthwool glasswool insulation is not classified as hazardous according to the NOHSC criteria.

Technical Data

Water Vapour Absorption (ASTM C 1104)

• Less than 5% by weight.

Corrosion Resistance (ASTM C

• No greater than sterile cotton.

Microbial Growth (ASTM C 1338)

• Does not support microbial growth.

Fire Resistance (ASTM E 136)

• Non-combustible.











Sound Absorbing Insulation for

2.4 Earthwool® glasswool insulation: Underfloor (for thermal applications)

The Earthwool glasswool underfloor insulation is a new generation of softer, safer and more environmentally friendly glasswool insulation. Advanced compression packaging reduces handling time and the risk of damage in transit and onsite. The product is high density and specifically designed for overhead installation in tight crawl spaces.

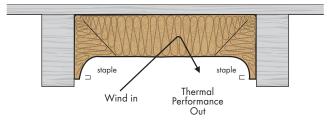


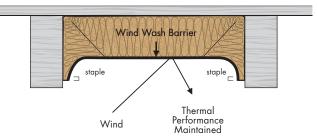
2.4.1 Underfloor with wind wash barrier

Product Code	R-Value (m²K/W)	Thickness (mm)	Length (mm)	Width (mm)	Rolls per pack	Area per pack (m²)	Weight per pack (kg)	\$/m² (Excl GST)
546232	1.8	75	10000	500	2 (500mm wide rolls)	10	9.15	7.20
492704	1.8	75	10000	600	2 (600mm wide rolls)	12	11.3	7.20

NO WIND WASH BARRIER – poor thermal performance

WIND WASH BARRIER – good thermal performance





Underfloor with wind wash barrier is designed to perform in under floors without a fully enclosed perimeter. This product is RTA and NZS 4246 compliant.

2.4.2 Underfloor

Product Code	R-Value (m² K/W)	Thickness (mm)	Length (mm)	Width (mm)	Pieces per pack	Area per pack (m²)	\$/m² (Excl GST)
471056	1.8	70	1160	480	32	17.8	5.49
471057	1.8	70	1160	610	26	18.4	5.49



Data Sheet - Underfloor

Description

Knauf Insulation's Earthwool glasswool: Underfloor insulation is made using recycled glass and ECOSE® Technology, a revolutionary binder based on rapidly renewable materials instead of petro-based chemicals. ECOSE Technology reduces embodied energy and contains no added phenol, formaldehyde, acrylics or artificial colours.

Application

Earthwool glasswool: Underfloor insulation provides a cost-effective thermal and acoustical barrier for energy-efficient construction. The consistent quality, low dust, and clean-cutting resilient glasswool makes installation fast. Earthwool glasswool: Underfloor insulation can be used in timber frame applications in residential and commercial structures. These applications include thermal and acoustical treatments to floors.

Features

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 glasswool insulation is packaged in a strong, white film that offers excellent protection from abuse, dust and moisture.
- Earthwool glasswool insulation packages feature easy to follow installation instructions.
- MasterBag insulation units (containing multiple packs) 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.

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.

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 supports 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.

The Earthwool glasswool: Underfloor 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.

Thermal Conductivity

ASTM C 518 and AS/NZS 4859.1: 2002

Thermal Resistance

ASTM C 653 and AS/NZS 4859.1: 2002

Bio-solubility

The formulation used for Earthwool glasswool insulation has been independently assessed to meet the requirements of the stringent Note Q standard (and is therefore consistent with the highest Australian and New Zealand industry standards), and also assessed by Knauf Insulation against the criteria of the Australian Safety and Compensation Council ASCC Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 3rd Edition]. As a result of this assessment, Earthwool glasswool insulation is not classified as hazardous according to the NOHSC criteria.

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 (AS 1530.1)

Non-combustible.

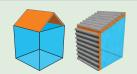






2.5 Earthwool® glasswool insulation: Roof blanket (for thermal applications)

The Earthwool glasswool: Roof Blanket range is a new generation of softer, safer and more environmentally friendly glasswool insulation. Advanced compression packaging reduces handling time and the risk of damage in transit and on-site.



Earthwool glasswool: Roof blankets are an ideal solution for thermal and acoustic insulation of both residential and commercial roofs.

2.5.1 Commercial

Material Code	R-Value (m² K/W)	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	Area per pack (m²)	Packs per MasterBag	MasterBags per Supakube	\$/m² (Excl GST)
511820	1.4	55	1200	30000	1	36	3	3	4.25
511822	1.6	60	1200	28000	1	33.6	3	3	4.75
511826	1.9	75	1200	23000	1	27.6	3	3	5.14
511830	2.4	100	1200	17500	1	21	3	3	7.10
511833	2.6	105	1200	16500	1	19.8	3	3	8.30
511837	3.1	120	1200	14500	1	17.4	3	3	10.80
511842	3.3	130	1200	13500	1	16.2	3	3	11.40
470317	3.6	150	1200	7000	1	8.4	4	5	9.43

2.5.2 Residential

Material Code	R-Value (m² K/W)	Thickness (mm)	Width (mm)	Length (mm)	Pieces per Pack	Area per pack (m²)	Packs per MasterBag	Masterbags per Supakube	\$/m² (Excl GST)
470311	1.8	70	1200	13500	1	16.2	4	6	4.73
470313	2.9	115	1200	8500	1	10.2	4	6	7.70
470315	3.2	135	1200	8000	1	9.6	4	6	8.48
470317	3.6	150	1200	7000	1	8.4	4	6	9.43

Data Sheet – Roof Blanket

Description

Earthwool® glasswool: Roof blankets (unfaced) are made from highly resilient, inorganic glass fibres bonded with ECOSE® Technology, a revolutionary binder based on rapidly renewable materials instead of petro-based chemicals. ECOSE Technology reduces binder embodied energy and contains no added phenol, formaldehyde, acrylics or artificial colours found in traditional glasswool insulation.

Application

Earthwool glasswool: Roof blankets provide a cost-effective thermal and acoustic barrier for energy-efficient construction. Their consistent quality, low dust, and clean-cutting resilient glasswool makes installation fast. Earthwool glasswool: Roof 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.

Knauf Insulation offers Earthwool glasswool insulation in a wide range of sizes and R-Values. Earthwool glasswool insulation is highly resilient, recovering quickly to full thickness. It also greatly reduces the transmission of noise in the home.

Features

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 glasswool: Roof blanket is packaged in a strong, white poly bag that offers excellent protection from abuse, dust
- Earthwool glasswool insulation packages feature easy to follow installation instructions.
- MasterBags 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.

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 roof systems.

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 Materials used in the Thermal Insulation of Buildings and comply with the Building Code of New Zealand requirements.

Thermal Conductivity

ASTM C 518

Thermal Resistance

ΔSTM C 653

Bio-solubility

The formulation used for Earthwool glasswool insulation has been independently assessed to meet the requirements of the stringent Note Q standard (and is therefore consistent with the highest Australian and New Zealand industry standards), and also assessed by Knauf Insulation against the criteria of the Australian Safety and Compensation Council ASCC Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008 3rd Edition]. As a result of this assessment, Earthwool glasswool insulation is not classified as hazardous according to the NOHSC criteria.

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.











DriTherm®

MOISTURE RESISTANT, THERMAL INSULATION FOR MASONRY WALLS



In the wet and windy English climate, DriTherm Cavity slab has kept family homes comfortable for over 30 years.



High thermal performance with a material R-Value of $1.5 \, \text{m}^2\text{K/W}$.



Earthwool® glasswool DriTherm cavity slabs are manufactured with ECOSE® Technology which reduces embodied energy and delivers superior environmental sustainability compared to other glasswool products.





Earthwool glasswool DriTherm cavity slabs are non-combustible and classified as Euroclass A1 to BS EN ISO 13501-1 – the highest possible.



Earthwool glasswool DriTherm cavity slabs are guaranteed for 50 years to resist the passage of water from the outer to the inner leaf.



herm	Thickness (mm)	R-Value (m²K/W)	Length (mm)	Width (mm)	Pieces per pack	Area per pack (m²)
DriT	50	1.5	1100	600	8	5.3

For more information visit www.knaufinsulation.co.nz











2.6 Climacoustic® HVAC and OEM Insulation

Knauf Insulation's Earthwool® glasswool has already set a new benchmark for sustainable, high performance and cost-effective HVAC insulation solutions in Europe and the USA.

We have an unparalleled commitment to providing products that make mechanical air handling systems more energy efficient and preserve precious resources.

All our products contain up to 80% recycled content and are made with ECOSE® Technology.

2.6.1 External Duct Wrap (Faced)

External Duct Wrap (Faced)

Description

External Duct Wrap (Faced) is a thermal and acoustical insulation blanket made from highly resilient, inorganic glass fibers bonded with ECOSE Technology.



Duct Wrap (Faced) is used as external insulation on commercial or residential heating or air conditioning ducts. It is suitable for the exterior of rectangular or round sheet metal ducts and spaces or surfaces where temperature and condensation must be controlled.

Faced								
Material Code	Density (kg/m³)	R-Value (m² K/W)	Thickness (mm)	Width (mm)	Length (mm)	Rolls per pack	m²/Roll	\$/m² (Excl GST)
2400374	28	0.7	25	1200	18000	18	21.6	\$8.00
2400372	28	1.5	50	1200	9000	18	10.8	\$13.00

2.6.2 Internal Duct Liner Roll (Faced)

Internal Duct Liner Roll (Faced)

Description

Internal Duct Liner Roll (Faced) is a flexible, insulation bonded with ECOSE Technology. It is faced with a tightly bonded woven tissue to give the airstream a smooth, tough surface, resisting damage during installation and operation. The encapsulant edge coating eliminates airstream flaring.



Application

Specifically designed as an interior insulation material for sheet metal ducts used in heating, ventilating and air conditioning. Provides an optimum combination of efficient sound absorption, low thermal conductivity and minimal airstream surface friction.

Faced							
Material Code	Density (kg/m³)	R-Value (m² K/W)	Thickness (mm)	Width (mm)	Length (mm)	Rolls/Container	\$/m² (Excl GST)
TBA	32	TBA	50	1200	15000	240	POA
TBA	32	TBA	75	1200	10000	290	POA

2.6.3 Rigid Plenum Liner (Faced)

Rigid Plenum Liner (Faced)

Description

Rigid Plenum Liner (Faced) is a high-density black tissue faced glasswool board bonded with ECOSE® Technology.



Application

Rigid Plenum Liner (Faced) with ECOSE Technology is specifically designed as an interior insulation material for heating, ventilating and air conditioning plenums and sheet metal ducts. It offers an optimum combination of efficient sound absorption, low thermal conductivity and minimal air surface friction.

Faced							
Material Code	laterial Code Density (kg/m³) Thickness (mm)			Width (mm)	Length (mm)	Boards/Container	\$/m² (Excl GST)
TBA	32	25	TBA	1200	3000	730	POA
TBA	32	50	TBA	1200	3000	360	POA
TBA	32	75	TBA	1200	3000	236	POA
TBA	32	100	TBA	1200	3000	176	POA

Custom Products: For items not listed in this price book, please contact your Knauf Insulation Sales Representative. All custom product requests require approval, regardless of whether the product has previously been produced. Special pricing and minimum order quantities will apply. Minimum order is 1 Unit as part of a Full Container Order.

2.6.4 HVAC/OEM Roll (Unfaced)

HVAC/OEM Roll (Unfaced)

Description

HVAC/OEM Roll (Unfaced) is a thermal and acoustical insulation blanket made from highly resilient, inorganic glass fibers bonded with ECOSE Technology.



Application

HVAC/OEM Roll (Unfaced) is used as external insulation on commercial and residential heating or air conditioning ducts. It is suitable for the exterior of rectangular or round sheet metal ducts and spaces or surfaces where temperature and condensation must be controlled.

HVAC/OEM Roll Unfaced 32kg/m³											
Material Code	Density (kg/m³)	Thickness (mm)	R-Value (m² K/W)	Width (mm)	Length (mm)	Rolls/Container	\$/m² (Excl GST)				
TBA	32	50	TBA	1200	15000	240	POA				
TBA	32	75	TBA	1200	10000	310	POA				

Custom Products: For items not listed in this price book, please contact your Knauf Insulation Sales Representative. All custom product requests require approval, regardless of whether the product has previously been produced. Special pricing and minimum order quantities will apply. Minimum order is 1 Unit as part of a Full Container Order.

HVAC/OEM Roll Unfaced 24kg/m³											
Material Code	terial Code Density (kg/m³) R-Value (m² K/V		Thickness (mm)	Width (mm)	Length (mm)	Rolls/Container	\$/m² (Excl GST)				
TBA	24	1.5	50	1200	18000	240	POA				
TBA	24	2.0	75	1200	10000	290	POA				

2.6.5 HVAC Semi Rigid Board (Unfaced)

HVAC Semi Rigid Board (Unfaced)

Description

HVAC Semi Rigid Board (Unfaced) is a high-density unfaced glasswool board bonded with ECOSE® Technology.

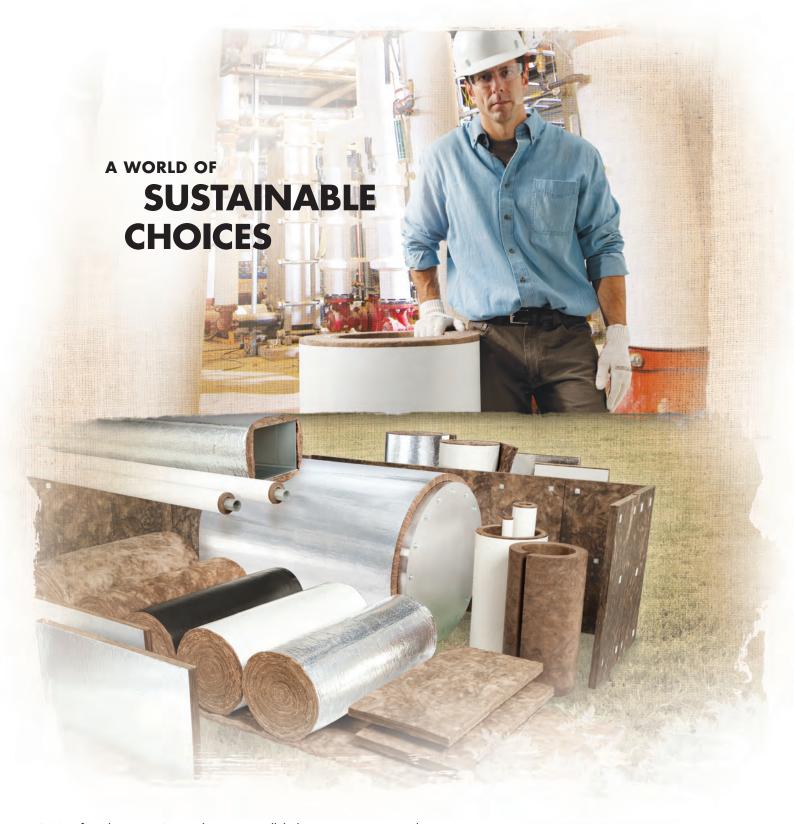


Application

HVAC Semi Rigid Board (Unfaced) with ECOSE Technology is specifically designed as an interior insulation material for heating, ventilating and air conditioning plenums and sheet metal ducts. It offers an optimum combination of efficient sound absorption, low thermal conductivity and minimal air surface friction.

Unfaced								
Material Code	Density (kg/m³)	Thickness (mm)	R-Value (m² K/W)	Width (mm)	Length (mm)	Boards/Container	\$/m² (Excl GST)	
TBA	32	25	TBA	1200	3000	730	POA	
TBA	32	50	TBA	1200	3000	360	POA	
TBA	32	75	TBA	1200	3000	236	POA	
TBA	32	100	TBA	1200	3000	176	POA	

Custom Products: For items not listed in this price book, please contact your Knauf Insulation Sales Representative. All custom product requests require approval, regardless of whether the product has previously been produced. Special pricing and minimum order quantities will apply. Minimum order is 1 Unit as part of a Full Container Order.



At Knauf Insulation, we've made an unparalleled commitment to providing products that make mechanical air handling systems more energy efficient and preserve precious resources.

All of our products contain up to 80% recycled content and are made with ECOSE® Technology, a revolutionary bio-based binder that contains no added formaldehyde.

Low cost and easy to install, Earthwool® glasswool insulation is the new benchmark that stands apart for its genuine sustainability, unsurpassed performance and consistently high product quality.

You can make a world of difference by specifying Knauf Insulation today. More information available at **www.knaufinsulation.co.nz**





2.7 Jet Stream® MAX

Jet Stream MAX is a super high performance, non combustible glasswool designed for injection into walls, roofs, floors and acoustic applications. The system creates a thermal, acoustic and fire resistant barrier. The product completely fills gaps, voids and hard to reach areas around pipes, electrical wires and fixtures.

2.7.1 Jet Stream MAX

	Material Code	Nominal Thickness (mm)	R-Value (m² K/W)	Thermal Conductivity (W/mK)	Pack Dimensions (mm)	Pack Weight (kg)	Packs per Pallet	Coverage/Pack (m²)*	\$/Pack (Excl GST)
	5004165	50	1.0	0.049	991x495x194	15.9	39	34.1	POA
	5004165	75	1.5	0.049	991x495x194	15.9	39	22.7	POA
	5004165	100	2.0	0.049	991x495x194	15.9	39	17.1	POA
Ceiling	5004165	125	2.5	0.049	991x495x194	15.9	39	13.6	POA
Ü	5004165	160	3.2	0.049	991x495x194	15.9	39	11.4	POA
	5004165	180	3.6	0.049	991x495x194	15.9	39	9.7	POA
	5004165	205	4.1	0.049	991x495x194	15.9	39	8.5	POA
	5004165	255	5.2	0.049	991x495x194	15.9	39	6.8	POA
	5004165	310	6.3	0.049	991x495x194	15.9	39	5.7	POA

Note: Jet Stream MAX may only be installed by approved Jet Stream MAX installers.

 $^{^{\}star}$ Installed at 8.5kg/m 3

walls	Material Code	Nominal Thickness (mm)	R-Value (m² K/W)	Thermal Conductivity (W/mK)	Pack Dimensions (mm)	Pack Weight (kg)	Packs per Pallet	Coverage/Pack (m²)*	\$/Pack (Excl GST)
e W	5004165	70	2.1	0.032	991x495x194	15.9	39	8.1	POA
frame	5004165	75	2.3	0.032	991x495x194	15.9	39	7.6	POA
	5004165	90	2.8	0.032	991x495x194	15.9	39	6.1	POA
Timber	5004165	100	3.1	0.032	991x495x194	15.9	39	5.5	POA
	5004165	140	4.3	0.032	991x495x194	15.9	39	3.9	POA

Note: Jet Stream MAX may only be installed by approved Jet Stream MAX installers.

 $^{^{\}star}$ Installed at 28kg/m 3





3. ClimaFoam® XPS Board

ClimaFoam Extruded Polystyrene (XPS) is a high performance, water resistant and lightweight board of thermal insulation recommended for use under and around concrete slabs, green roofs, edge beams and cool rooms. ClimaFoam XPS Board has a high compressive strength and is manufactured in either shiplap or tongue and groove (T&G) edges.

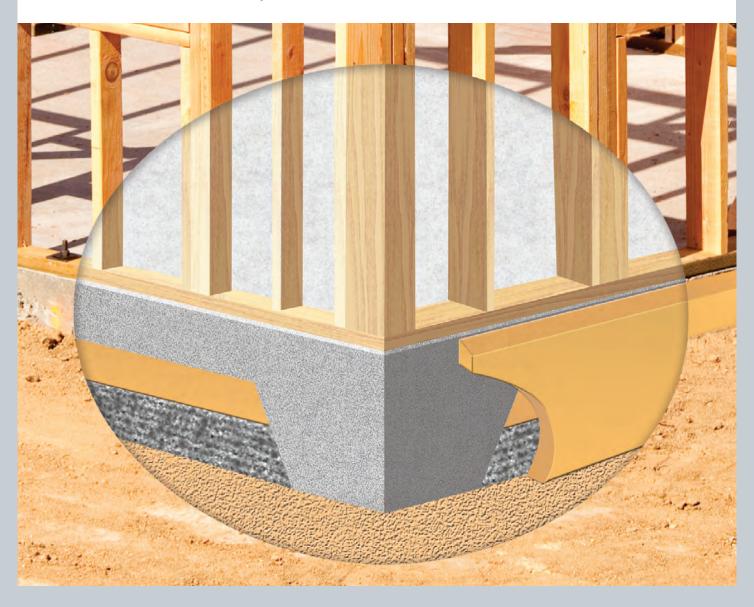
3.1 ClimaFoam XPS Board – 1200mm wide

300kPa Compressive Strength

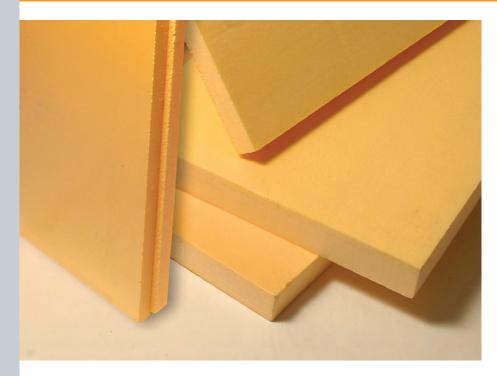
Material Code	Thickness (mm)	R-Value (m² K/W)	Lambda	Length (mm)	Width (mm)	kPa	Skin	Edge	Sheets per pack	\$/m² (Excl GST)
434707	30	1.1	0.027	2200	1200	300	On	Shiplap	10	14.59
455554	40	1.5	0.027	2200	1200	300	On	Shiplap	7	19.88
434706	50	1.8	0.027	2200	1200	300	On	Shiplap	6	24.31
463076	75	2.8	0.027	2200	1200	300	On	Shiplap	4	39.71

ClimaFoam XPS can be layered to create different thicknesses. i.e. two 50mm sheets for 100mm, or a 40 and 50mm to make 90mm. Joints should be staggered.

View the latest ClimaFoam XPS Board Design Guide online at www.knaufinsulation.co.nz



Data Sheet - ClimaFoam®



Features and Benefits

Strong

ClimaFoam XPS Board is more than a simple lightweight insulant. The inherent mechanical strength of the range means that a building element or fabricated item using ClimaFoam XPS Board can withstand a wide range of loading situations. Whether subjected to standard domestic loads or heavy industrial loads, in floors, roofs or in panels, ClimaFoam XPS Board is the ideal solution.

Water Resistant

Many insulants will get wet in use or during installation. ClimaFoam XPS Board is almost 100% closed cell and as such is unaffected by moisture. Whether laying ClimaFoam XPS Board in a floor (where there is often some standing water) or in a protected membrane roof system (where the insulation is exposed to water) the user can be confident ClimaFoam XPS Board will perform as stated.

Technical Data

Standards

• XPS is manufactured in accordance with BS EN 13164: 2008.

Durability

 The continuous service temperature limit of ClimaFoam XPS Boards is up to +70°C.

Thermal Performance

• The thermal conductivity of XPS is 0.027 W/mK.

Compression Resistance

 ClimaFoam XPS Board is highly resistant to compression and withstands both occasional and long term static loads.
 ClimaFoam XPS Board has a compressive strength of 300kPa.

Vapour Resistivity

 ClimaFoam XPS Board has a water vapour resistivity of 625MNs/gm when tested in accordance with ASTM E96-2010.

Moisture Absorption

 ClimaFoam XPS Board has a moisture absorption of 0.6% by volume when tested in accordance with ASTM C 272.

Moisture Resistance

 ClimaFoam XPS Board is resistant to moisture absorption and can be laid in ground water or up against wet concrete with negligible impact on the performance of the product.

Handling and Storage

• ClimaFoam XPS Boards are easy to handle and install. Ensure the board product is not stored close to open flames or other ignition sources and avoid volatile organic compounds and chemicals such as solvents. ClimaFoam XPS Boards should not be left exposed to prolonged sunlight as this will result in surface degradation. When outside storage for extended periods is required cover the products with opaque/ light coloured sheeting.





4. Rock Mineral Wool

Rock mineral wool is a new range of high performance insulation products with combined thermal, acoustic and fire resistance properties. Like the Earthwool® glasswool insulation range, Earthwool rock mineral wool is made with ECOSE® Technology and is safer and more environmentally friendly than traditional rock mineral wool made using formaldehyde. Rock mineral wool can be used in floors, soffits, HVAC and fire protection applications.

4.1 Earthwool rock mineral wool insulation: Building slab

Description

A rock mineral wool, multi-purpose batt for use in a variety of applications.





	Material Code	Thickness (mm)	Thermal Cond. (W/mK)	R-Value (m² K/W)	Density (kg/m³)	Length (mm)	Width (mm)	Batts per pack	Area per pack (m²)	Packs per pallet	\$/m² (Excl GST)
RS60	2411433	60	0.038	TBA	60	1200	600	7	5.04	12	POA
RS60	2411330	75	0.038	TBA	60	1200	600	6	4.32	12	POA
RS100	2411441	50	0.038	TBA	100	1200	600	6	4.32	16	POA
RS100	2411333	75	0.038	TBA	100	1200	600	4	2.88	16	POA
RS100	2411334	100	0.037	TBA	100	1200	600	3	2.16	16	POA

Minimum Order: 1 Pallet of each Product Code selected as part of a full container order — refer to Customer Service for more information.

4.2 Earthwool rock mineral wool insulation: Soffit linerboard

Description

A black tissue faced, fire resistant solution of rock mineral wool for use as an insulated, underlining solution in above ground floor applications and car parks.







Pallet	Thickness	Thermal Cond.	R-Value	Length	Width	Batts	Area	\$/m²
Material Code	(mm)	(W/mK)	(m² K/W)	(mm)	(mm)	per pallet	per pallet (m²)	(Excl GST)
2411454	130	0.040	TBA	1200	600	36	25.92	

Minimum Order: 1 Pallet of each Product Code selected as part of a full container order — refer to Customer Service for more information.

4.3 Rocksilk External Wall Insulation Slab

Description

A high strength compression resistant and water resistant, rock mineral wool batt. It's fire resistance removes the need for fire barriers, giving simple quick and economical insulation for external wall insulation systems. It is designed to thermally upgrade existing buildings some of which may be hard to treat.







Pallet	Thickness	Thermal Cond.	R-Value	Length	Width	Batts	Area	\$/m²
Material Code	(mm)	(W/mK)	(m² K/W)	(mm)	(mm)	per pallet	per pallet (m²)	(Exd GST)
2407423	40	0.041	TBA	1200	600	60	43.20	

Minimum Order: 1 Pallet of each Product Code selected as part of a full container order — refer to Customer Service for more information.

Naturally brown. Certified green.



Earthwool® glasswool insulation, the **ONLY** GreenTag Level A glasswool insulation available in New Zealand. Made using RECYCLED GLASS BOTTLES and with ECOSE® Technology.













To find out more visit: www.knaufinsulation.co.nz





5. Terms and Conditions

Terms and Conditions of Commercial Credit and Sales

In these terms, "you" and equivalent words refers to an entity to which credit is or maybe extended and "we" and equivalent words refers to Knauf Insulation Ltd.

When you apply to us for credit, in consideration for us assessing your application, you agree to the following terms:

- You authorise us to obtain details of your personal and commercial credit information as necessary, for the purpose of assessing any application for credit. You authorise us to provide information of your credit position with us to persons who may seek that information from us.
- 2 In the event that any of the details you have given on your commercial credit application or other documents are incorrect or incomplete, you must inform us in writing within 7 days. You warrant and represent to us that the information you have provided to us is truthful and complete. You acknowledge that we will rely on that information in assessing your creditworthiness and in making a decision as to whether to extend credit to you.
- 3 If we extend credit to you, you will settle your trading account (and your payment must reach us) on or before 30 days from the end of the month in which the invoice is issued. We will be entitled to charge you and you will pay interest on any amounts unpaid after the last date for payment, at a rate of interest equal to the overdraft rate charged by our bank from time to time.
- We may withdraw credit, withhold product supply or place your account on hold. We will make best endeavours to contact you and obtain a resolution before withdrawing credit, withholding product supply or placing the account on hold.
- 5 You warrant and represent to us that at the time of applying for credit with us:
 - you are not aware of any information or circumstances tending to suggest that you may enter into receivership, liquidation, (or if you are an individual) bankruptcy, external administration or that execution may be levied against any of your assets to satisfy a judgement;
 - (ii) you do not intend to enter into any scheme of arrangement with creditors either formally through a court or otherwise; and
 - (iii) none of your directors, partners or proprietors has been a director of a company placed in liquidation or has been declared bankrupt or has entered into any arrangement with creditors.
- We may assign our rights under these terms and conditions. You may not assign your rights under this agreement unless written permission is granted by us, which permission will not be unreasonably withheld.

When you order goods or services from us, in consideration for us supplying or agreeing to supply them, you agree to the following terms:

- 7 Your order must have a clear order number or reference and be relayed to us via hard copy, fax or email and acknowledged by us.
- 8 The price invoiced by us will be the price agreed and unless otherwise stated, will not include delivery charges and/or handling charges and GST. If it does not, you must in addition pay any delivery and/or handling charges and GST on any taxable supply under these terms, on demand by us.

- 9 If special items, such as pallets are supplied as part of our handling/delivery service they remain our property.
- 10 Title in all goods that we supply to you remains with us until we receive full payment for them. You grant to us or our agents and employees a licence to enter onto your premises (or the premises of any associated company or agent) to take possession of any of the goods to which we have title. You release and indemnify us and our agents and employees in respect of any liability arising from the exercise of any rights under the license.
- 11 Risk in any goods we agree to supply to you will pass to you upon delivery to the point outlined on your purchase order, even if the title has not yet passed from us to you.
- 12 Where you choose to use your own carrier for collection of product from our warehouse, the product will be "delivered" at the time of leaving our warehouse with the product(s). Knauf Insulation is then entitled to invoice you for the relevant product.
- 13 You accept that at the time of collection from our warehouse, you will be liable for any loss or damage to the product during the process of delivery. We will not accept responsibility or liability for any loss or damage that may result from you arranging your own carrier.
- 14 You indemnify us in respect of all costs we reasonably incur and any liability we incur in the exercise of rights set out in Clause 11 hereof to recover goods belonging to us.
- 15 We exclude all conditions and warranties to the full extent permitted by law (including, where you acquire our services or products for the purposes of a business, in respect of the guarantees set out in the Consumer Guarantees Act 1993). In the case of any condition or warranty that cannot by law be excluded, our liability in connection with any such condition or warranty is limited (subject to section 43 of the Consumer Guarantees Act 1993 and any similar laws), at our option, to:
 - a) in the case of the supply of goods:
 - the replacement of the goods or the supply of equivalent goods;
 - (ii) the repair of the goods;
 - (iii) the payment of the cost of replacing the goods or of acquiring equivalent goods: or
 - (iv) the payment of the cost of having the goods repaired; or
 - b) in the case of the supply of service:
 - (i) the supplying of the services again; or
 - (ii) Othe payment of the cost of having the services supplied again.
- 16 Your order will be delivered to the point outlined on your purchase order. We may assist in off-loading the goods. In the event we or our agent are delayed in the offloading due to circumstances beyond our/their control we reserve the right to charge a fee in 1 hour blocks. If your point of delivery cannot be located due to poor direction/instructions/markings or the carrier cannot identify the site because the delivery address is inadequate, the goods will be returned to our premises and you will be charged a transfer fee. You indemnify us in respect of any liability arising from the entry of delivery vehicles on to the delivery site.

- 17 Knauf has commercial arrangements with other parties in its supply chain to hire containers to carry its goods and to arrange delivery of it is goods to you. Knauf may suffer adverse financial and other impacts arising from those container arrangements if you do not remove goods, notify Knauf of the empty container and make available for pick-up empty containers within 48 hours of receipt (unless by prior arrangement an extension of time has been granted to you from us in writing). For example, Knauf has direct or indirect arrangements with suppliers of containers which require those containers to be emptied and returned to those suppliers within an agreed period of time, and if those containers are not returned within that agreed period of time, then Knauf will be charged fees by those suppliers .In addition to any other indemnities provided by you to Knauf, you also agree to indemnify Knauf from and against any claim, suit, demand, loss, liability, damage or cost of whatsoever nature suffered by Knauf which arises directly or indirectly solely from any failure by you to remove goods, notify us that the container is empty, and make available for pick-up empty containers within 48 hours of receipt at the point of delivery outlined on your purchase order.
- 18 You agree to inform us within 72 hours of delivery of our goods if you intend to make a claim. We will only consider credit or other claims where we have supplied goods which are not free from material or workmanship defect, a delivery error on our part or an incorrect invoice detail. We will not be responsible for any loss or damage you suffer as a result of our failure or delay in performing the contract due to reasons beyond our control.
- 19 You may not set-off any amounts owing or said to be owing to you by us against any amounts you owe to us under these terms and conditions.
- 20 You indemnify us in respect of all costs and outlays we incur, in enforcing any rights we have under these terms and conditions, including without limitation, legal costs and outlays (on a full indemnity basis), dishonour fees, telegraphic transfer fees and holding, storage and transport costs.
- 21 These terms and conditions cannot be varied unless the agreed variation is in writing signed by us.
- 22 If any of these terms are void or voidable by operation of law, it may be severed from these terms and the balance of terms given effect to
- 23 Any dispute under these terms and conditions is to be dealt with according to the law of New Zealand and the parties irrevocably submit to the jurisdiction of the courts of New Zealand in relation to any such dispute.
- 24 Product that is to be returned will be assessed by us at the time of requesting the return of product to us. Product that is returned to us will incur a restocking fee of 50% of the invoiced value (excluding GST), Knauf reserves the right to refuse to accept the return of product to the warehouse.
- **25** Damaged or unsalable product will not be accepted as a return under any circumstances.

- 26 Personal Property Securities Act 1999 ("PPSA")
 - a) Definitions and Interpretation:
 - b) Where terms are used in this clause 28 of these Terms & Conditions and they are terms defined by the PPSA, then those terms are intended to have the meaning defined in the PPSA. You acknowledge that these Terms & Conditions create a security interest in all present and after acquired goods supplied or to be supplied by us and any proceeds of the sale of the goods as security for all of your obligations to us pursuant to the PPSA and that we may register a financing statement to perfect our security interest in the goods delivered or to be delivered to you in accordance with the provisions of the PPSA.
 - c) you shall provide all information, execute or arrange for execution of all documents and do all other things that we may require to ensure that we have a perfected first ranking security interest in the goods under the PPSA.
 - d) you waive your rights to receive a verification statement in respect of any financing statement or financing change statement registered by or on our behalf under the PPSA and agree that as between us and you, you will have no rights under (or by reference to) sections 114(1)a. 116. 117(1)(c). 119. 120(2). 121. 125. 129. 131. 132. 133. and 134 of the PPSA and where we have rights in addition to those in part 9 of the PPSA those rights shall continue to apply.
 - e) you shall immediately upon request by us, procure from any person considered by us to be relevant to our security position such agreements and waivers as we may at any time require.
 - f) you shall immediately notify us of any change in your name, address details and any other information provided to us to enable us to register a financing change statement if required.

Our privacy policy can be viewed at www.knaufinsulation.co.nz

6.1 Glasswool Warranty

Knauf Insulation Warranty: Earthwool® Glasswool Insulation

- 1. WARRANTY APPLICATION: Knauf Insulation Pty Ltd (ACN 129 827 336) and Knauf Insulation Ltd (Registered NZ Company No. 35 271 92) (Knauf) warrant that Earthwool® glasswool insulation products (Product) are manufactured in accordance with AS/NZS-4859.1 and are fit for the purpose of insulating ceilings, external timber frame walls, underfloors and internal acoustic partitions, if tested in accordance with the methodology referred to in AS/NZS-4859.1, if properly installed in accordance with the installation instructions and if maintained according to relevant Standards including AS-3999/NZS-4246.
- 2. WARRANTY COVERAGE: Knauf warrants to the person purchasing the Product (Covered Person) that:
- **A.** The Product is free from manufacturing defects for a period of 50 years from the date of purchase.
- **B.** When used for its intended purpose, properly installed in accordance with Knauf installation instructions, tested in accordance with the methodology referred to in AS/NZS-4859.1 and maintained in dry conditions and otherwise in accordance with AS-3999/NZS-4246, the NZBC Clauses E2 and E3 (or equivalent), the Product can be expected to maintain its thermal insulation properties for a period of 50 years from the date of purchase (Product Serviceable Life).
- **3. CONDITIONS OF WARRANTY:** Knaul's liability to the Covered Person under this Warranty shall be subject to the following terms and conditions:
- **A.** The claimant must provide proof that he/she is a Covered Person including a receipt showing the date of purchase of the Product and details of the seller and the installer.
- **B.** The Product must be transported and stored in dry conditions at all times between purchase and installation and without bearing the weight of other materials. Knauf will have no liability under this Warranty in respect of wet or water damaged Product.
- **C.** The Product must be installed in accordance with Knauf installation instructions and maintained according to AS-3999/NZS-4246, the NZBC Clauses E2 and E3 (or equivalent) and all other applicable building codes adopted by federal, state or local governments or government agencies and applicable to the installation or maintenance. Failure to properly install or maintain the Product in accordance with this Clause will void this Warranty.
- **D.** The Covered Person may not claim for manufacturing defects under this warranty that appear outside the Product Serviceable Life 50 years after the date of purchase.
- **E.** The Covered Person must provide written notice to Knauf within 30 days after discovery of any claimed defect or failure covered by this Warranty and before beginning any permanent replacement, rectification or repair. The notice must describe the location and details of the defect or failure and such information as is necessary for Knauf to investigate the claim. Photographs of the Product, showing the defect or failure, must accompany the notice. Product samples must be provided.
- **F.** Before commencing any replacement, repair or rectification work, the Covered Person must allow Knauf or Knauf's agent to enter the property where the Product is installed and examine, photograph and take samples of, the Product.
- **G.** Instead of repairing, replacing or rectifying the Product, Knauf may elect to make a full refund of the purchase price of the Product.
- **H.** Knauf will pay the reasonable, direct expenses of the Covered Person claiming under this Warranty. The Covered Person may submit details of their expense claim to Knauf for consideration.
- **1.** For the avoidance of doubt, this Warranty applies only to the Covered Person and does not transfer to any subsequent purchaser of any structure in which the Product has been installed.
- **4. EXCLUSIONS:** Knauf will have no liability under this Warranty in respect of damage or defects resulting from, or in any way attributable to:
- (a) the storage, shipping, handling or installation of the Product in an improper manner or in a manner other than as described above;
- (b) neglect;
- (c) abuse;
- (d) misuse;

- **(e)** damage from incorrect design or construction of the structure in connection with which the Product is used:
- (f) acts of God including, but not limited to, cyclones, tornados, floods, earthquakes, severe weather, fire or other natural phenomena, (including, but not limited to, unusual climate conditions);
- (g) growth of mold, mildew, fungi, bacteria, or any organism; and
- (h) lack of proper maintenance.
- 5. CLAIMS: For any claim by the Covered Person under the terms of this Warranty:
- (a) if the Product is found to be non-compliant with this Warranty, Knauf will (at Knauf's sole option) either (i) refund the purchase price; or (ii) repair, replace or rectify the Product.
- (b) such claims must be made by written notice:
 - i. sent to the following address:

Knauf Insulation Warranty Claims Section

PO Box 244

Cannon Hill Queensland 4170

Australia.

Phone +61 7 3393 7300

ii. received within 30 days after discovery of any circumstance giving rise to liability under this Warranty;

iii. containing the details specified in section 3 E above and attaching documentary evidence of the matters specified in section 3 A above.

- **6. EXCLUSION OF INCIDENTAL AND CONSEQUENTIAL DAMAGES:** Under this warranty Knauf shall not be liable for any incidental, special, indirect or consequential damages. Any monetary compensation is limited to a refund of the purchase price of the Product except as required by law.
- **7. MODIFICATIONS AND ALTERATIONS OF PRODUCT:** Knauf Insulation shall have no liability under this Warranty for any Product subjected to further processing or alteration by any person other than Knauf or its related companies.
- **8. SETTLEMENT OF CLAIM:** Any refund or material replacement by Knauf pursuant to section 5 above of this Warranty shall constitute a full settlement and release of Knauf by the Covered Person of all claims, potential claims or actions of any Covered Person for damages or other relief under this Warranty.
- **9. OTHER RIGHTS:** The benefits given by this Warranty are additional to other rights and remedies that the Covered Person may have under law. Australian customers: Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the Product repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. New Zealand Consumer Guarantees Act: It is acknowledged that where a claimant has acquired the goods and/or services for the purpose of a business, the claimant and Knauf agree that the provisions of the Consumer Guarantees Act 1993 shall not apply to the supply of goods and/or services by Knauf to such business applicants.
- 10. LIMITATION OF WARRANTY: This Warranty constitutes the only warranty extended by Knauf for the Product. Knauf disclaims all other warranties, express or implied, but does not exclude any statutory warranties or consumer guarantees that may apply and which cannot be excluded at law. For the avoidance of doubt, any and all other warranties or conditions which are not guaranteed by the Australian Consumer Law, the New Zealand Consumer Law or the Competition and Consumer Regulation 2010 (Australia) and which are not expressly included in this Warranty as additional warranties or conditions, are expressly excluded where permitted, including liability for incidental or consequential damages caused by the breach of any express or implied warranty or condition.
- 11. LIMITATION OF LIABILITY: You may be entitled to statutory consumer guarantees and Knauf does not exclude, restrict of modify those consumer guarantees. In all other respects, in so far as and to the maximum extent that it may lawfully do so, Knauf excludes any liability, whether in tort (including negligence), contract, equity or otherwise, connected with, or arising in relation to, the use or installation of the Product.

This Warranty is given by Knauf Insulation Pty Ltd ACN 129 827 336 and Knauf Insulation Ltd (Registered NZ Company No. 35 271 92).



INSULATE TO THE MAX





Proven, high thermal performance in Nordic and Scandinavian countries and for Passive Houses.

Jet Stream® MAX is a premium blow-in solution for insulating external and internal walls, ceilings, skillion roofs and mid-floors in both residential and commercial buildings.

- Excellent thermal and acoustic performance
- CodeMark certified
- ✓ Completely fills gaps and voids
- Quick and clean to install with reduced waste on site
- Installed by a national network of Approved Installers



Excellent thermal performance



energy cost



Non-combustible



Helps to create a



Trusted insulation solution

For more information visit www.knaufinsulation.co.nz



6.2 Glasswool Warranty (Faced)

Knauf Insulation Warranty: Glasswool (Faced)

Products Subject to this Limited Warranty

This Warranty applies only to glasswool (faced) insulation manufactured and sold by Knauf Insulation Pty Ltd ("Knauf Insulation") (the "Products").

Who is Entitled to this Limited Warranty

Knauf Insulation grants this Limited Warranty solely in favor of the original purchaser of the Products (the "Original Purchaser"), but to no other person or entity whatsoever. No person or entity, other than the Original Purchaser, shall have any right to assert any claim under this Limited Warranty, or otherwise, in connection with the Products. This Limited Warranty is personal to the Original Purchaser and may not be transferred by the Original Purchaser to any other person or entity, by contract, operation of law, transfer of the property into which the Products are installed, or otherwise.

Length of this Limited Warranty

This Warranty shall begin on the date the Products are sold by Knauf Insulation to the Original Purchaser and shall continue for a period of 1 year thereafter (such period of time, the "Warranty Period"), after which this Limited Warranty shall expire and be of no further force or effect. FURTHER, ALL WARRANTIES IMPLIED BY APPLICABLE LAW, INCLUDING ANY WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY, SHALL (TO THE EXTENT PERMITTED BY APPLICABLE LAW) BE LIMITED TO AND EXPIRE AT THE END OF THE WARRANTY PERIOD.

What is Warranted

Subject to the conditions and limitations set forth in this Limited Warranty, Knauf Insulation warrants to the Original Purchaser that during the Warranty Period the Products will be free from manufacturing and design defects.

What Knauf Insulation Will Do

In the event that any Product fails to comply with this Limited Warranty, Knauf Insulation will either replace the defective Product at its cost or refund the purchase price paid by the Original Purchaser for the defective Product upon authorized return of the defective Product. Knauf Insulation shall elect the remedy in its sole and absolute discretion.

In the event Knauf Insulation elects to replace any defective Product, Knauf Insulation may replace the defective Product with the same type of fiber glass insulation or with any fiber glass insulation product it deems comparable in terms of quality or price. In such event, the costs of shipping any replacement fiber glass insulation shall be paid by the Original Purchaser and Knauf Insulation shall not be liable for any other costs or expenses, including any labor charges or any other expenses in connection with removal or installation of either the original or replacement insulation.

In the event Knauf Insulation elects to offer the Original Purchaser a refund for any defective Product, Knauf Insulation shall promptly refund the Original Purchaser an amount equal to the original purchase price for the defective Product and shall have no further obligation or liability under this Limited Warranty or otherwise in connection with the defective Product.

THE FOREGOING DESCRIBES KNAUF INSULATION'S SOLE LIABILITY, AND THE ORIGINAL PURCHASER'S SOLE REMEDY, FOR ANY BREACH OF WARRANTY IN RESPECT OF THE PRODUCTS.

How to Make a Claim

To make a claim under this Limited Warranty, the Original Purchaser must notify Knauf Insulation in writing of any claimed defect in a Product. Such notice must be given promptly following discovery of the claimed defect and in any event prior to the expiration of the Warranty Period. The Original Purchaser must submit with such notice proof of purchase and proof of the date of purchase of the Product claimed to be defective. Notification shall be provided to:

Knauf Insulation Pty Ltd Unit 1, 44 Borthwick Ave

Murarrie, QLD 4170 Australia

Attention: CLAIMS

Knauf Insulation shall then promptly inspect the claimed defect and if such examination does disclose a defect covered by this warranty, shall, within 30 days after inspection replace the defective Product or issue a refund for such defective Product (as it shall elect in its sole and absolute discretion), subject to the terms set forth above.

Limitations

- 1. Knauf Insulation shall not be liable under this Limited Warranty for any of the following:
 - Defects in or failure of the Products caused by storage that is not in strict adherence with the written instructions of Knauf Insulation.
 - B. Defects in or failure of the Products caused by installation of the Products not in strict adherence with the written instructions of Knauf Insulation.
 - C. Any damage to the Products caused by impact of foreign objects, lightning, gale, hurricane, tornado, earthquake, rain or flood, fire, explosion or other casualty, or other acts of God.
 - D. Defects in, failure of, or damage to the Products caused by materials adjacent to the Products.
 - E. Damage to the Products caused by alteration after completion of their installation, whether such alteration be by structural additions, changes, replacements or by equipment installation.
- 2. IN NO EVENT SHALL KNAUF INSULATION BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGE TO THE PROPERTY IN WHICH A PRODUCT IS INSTALLED, ITS CONTENTS OR ANY PERSON THEREIN. NO FIELD REPRESENTATIVE, DISTRIBUTOR OR DEALER OF KNAUF INSULATION IS AUTHORIZED TO MAKE ANY CHANGE OR MODIFICATION TO THIS WARRANTY. SOME STATES MAY NOT ALLOW LIMITATIONS ON OR THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSIONS MAY NOT APPLY TO YOU.

The invalidity, illegality or unenforceability of any one or more provisions of this Limited Warranty shall in no way affect or impair the validity, legality or enforceability of the remaining provisions, which shall remain in full force and effect.

Legal Remedies

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

"I don't miss the ITCH!"

Make the switch

Can insulation really feel THIS good?

The Earthwool® glasswool insulation range of products don't look or feel like any insulation you've ever experienced, that's because the natural brown colour represents a level of sustainability and ease of handling never before achieved in New Zealand. The colour and 'super-soft' feel of this glasswool comes from a revolutionary sustainable binder which does not contain the added petro-based chemicals, formaldehyde or artificial colours commonly used in other insulation.

EARTHWOOL GLASSWOOL

the feel good glasswool insulation



Reduced handling

Unique compression packaging means more insulation per pack, more insulation per load.

Fire safe

Earthwool glasswool insulation is non-combustible.

absorbs sound for a quieter home.

environmentally conscious customers.

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® glasswool insulation 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 the Government's commitment to reduce CO₂ emissions.

We're here for good and we mean business.

We didn't choose brown, it just came naturally

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





Knauf Insulation Building 1, Unit 2, 15 Accent Drive, East Tamaki 2013, Auckland, New Zealand

Customer Service 0800 KNAUFi (0800 562834)

+61 7 3393 7300

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Marketing Support & Brochures info.nz@knaufinsulation.com

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