

Terra Lana Walls, Ceilings & Underfloor - Wool Insulation

Product Technical Statement: 101409



Wool insulation for new and existing residential buildings; walls, ceilings & underfloor

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Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include self-assessment and technical information by manufacturer



Terra Lana confirms that this minimum level of assurance has been met or exceeded by the following:

Marshall Day Acoustics

[Chatterblock Acoustic Report](#)



Technical Statement

Product Description

Ceiling insulation is usually sold in standard width rolls, but can be supplied in nonstandard width rolls or in precut slabs if nonstandard dimensions are required.

Available in a range of length, thicknesses and R-values.

Terra Lana natural wool insulation was developed and tested by the Wool Research Institute of New Zealand (WRONZ, now AgResearch) and is BRANZ appraised (Appraisal 682 : 2010).

Composition

The wool in Terra Lana natural wool blend insulation is a mixture of clean, recycled fibre from textile mills and new sheep's wool. The wool is blended with polyester melt bond fibre and thermally bonded to form a dimensionally stable structure. It varies in colour from light to dark grey and can be supplied in slab or roll form.

Durability

Terra Lana wool wall and ceiling insulation has been BRANZ appraised to last for 50 years.

Insect Resistance

Terra Lana wool insulation is manufactured from new wool and recycled wool and textile fibres that are treated for insect resistance.

Scope of use

Terra Lana Wool Insulation has been appraised as a thermal insulation material for ceilings, walls and under floors of buildings within the following scope:

- framed or part-framed domestic and commercial buildings where the insulation remains dry during its serviceable life.
- Terra Lana Wool Insulation must be installed in accordance with the manufacturers technical literature to meet the stated thermal performance rating of the insulation.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- Clause B2 Durability:** Performance B2.3.1(a)
- Clause E3 Internal moisture:** Performance E3.3.1
- Clause F2 Hazardous building materials:** Performance F2.3.1
- Clause H1 Energy efficiency :** Performance H1.3.1(a)

Notes

This is an Acceptable Solution in terms of New Zealand Building Code Compliance. Terra Lana Wool Insulation thermal resistance (R-value) has been determined by testing to AS/NZS 4859.1 which is an acceptable method.

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:

Marshall Day Acoustics

[Chatterblock Acoustic Report](#)

Use in Service History

In-service use. Terra Lana Wool insulation has been in use for the NZ Construction Industry for over 22 years. In 1999 Terra Lana Products Ltd pioneered making insulation and eco-textiles from recycled

masterspec partner

Company Contact Details



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wool, building on work done by the Wool Research Organisation of New Zealand (WRONZ, now AgResearch). We were the first New Zealand company with wool based insulation products appraised by BRANZ (2012).

Product Criteria

Design requirements

Rolls can be laid out between or over framing members, depending on the construction method. Care should be taken to avoid the creation of any air gaps under the insulation that could cause heat loss. Where recessed lights are used, a minimum clearance must be observed according to the lighting manufacturers instructions. The thermal performance of the insulated space may be reduced, requiring a higher R value insulation to compensate.

Installation requirements

Terra Lana insulation can be handled with bare hands and requires no protection to install. Rolls can be ripped cross ways by hand. If required, the insulation can be cut length ways using a straight edge and sharp knife, or a sharp pair of wool shears.

Care should be taken not to compress the insulation (see Technical Data for nominal heights) as this will negatively effect its thermal performance.

Insulation must be kept dry pre and post installation.

Always allow a 25mm gap below any roofing membrane.

Lay underneath pipes and wiring.

If fitting from below, make sure Terra Lana is well supported with battens or strapping before ceiling liner is installed. Terra Lana should reach to at least the middle of the top plate of the exterior wall.

Pitched or Skillion Roofs - Terra Lana is usually fitted from below before the ceiling lining is in place. Use pre cut widths to ensure a snug fit. Where there are no battens or ceiling joists, staple Terra Lana directly to the rafters.

Maintenance requirements

Terra Lana must be kept dry. If wet, remove from ceiling and dry naturally before returning. There are no other on going maintenance requirements.

Terra Lana will perform to specification until the end of the building's life at which time it can be composted or used as mulchmat. Recycling is not recommended unless the insulation is clean and free from dust.

Warrantees

The Terra Lana warranty applies only to the original purchaser of the product (The Purchaser) to the extent that:

The Product has no manufacturing defects apparent for a period of 50 years, from the date of its original purchase.

The product can be expected to maintain its thermal insulation properties for a period of 50 years from the date of purchase.

Company Product Information

Environmental

Terra Lana uses sheep's wool which is a naturally renewable insulation material that does not endanger the health of people and composts safely when disposed of. The majority of the wool used is waste wool from NZ carpet and textile manufacturers which would otherwise be dumped into landfills. Terra Lana is capable of trapping (within the wool fibres) close to 100% of the formaldehyde commonly found in most new buildings, thereby lessening the effects of 'sick building syndrome'. Terra Lana's embodied energy is 7 times less than fibreglass insulation and 3 times less than polyester insulation.

Relationships



New Zealand Made



Member of New Zealand Green Building Council



Date last validated: **17 November 2022**



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