

TERRA LANA WOOL INSULATION

BPIR DECLARATION

Version: 4/3/2024 v1

1.1.1.1 Designated building product: Class 1

1.1.1.2 Declaration

Terra Lana Products Ltd has provided this declaration to satisfy the provisions of Schedule 1(d) of the Building (Building Product Information Requirements) Regulations 2022.

1.1.1.3 Product/system

Name	Terra Lana Wool Insulation
Line	Terra Lana wall, ceiling, underfloor, drop-in-floor and acoustic insulation all come under the Terra Lana Wool Insulation group of products.
Identifier	Terra Lana Wool

1.1.1.4 Description

Terra Lana wool insulation is designed for thermal and acoustic applications and can be used for the following applications:

- Steel and Timber Framing
- External Walls (thermal and acoustic)
- Internal Walls and midfloor (acoustic)
- Wall and Ceiling Service Cavities
- Skillion and Truss Roof
- New and Retrofit Underfloor

building wool innovation for life.

Terra Lana Products Ltd

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Terra Lana wool insulation is formulated using a minimum of 60% NZ sheep wool and 40% thermal binder (polyester). Total recycled content is not less than 50% and can be as much as 80% for some products.

The wool content is made up of 50% new wool from local Canterbury farms and 50% pre-consumer 'waste' wool from NZ carpet manufacturers and spinners.

The polyester is made up of 50% recycled polyester and 50% new. The polyester is used to thermally bind the wool fibres together, to form a structurally strong, durable product, that will never slump or lose loft.

Terra Lana is 100% recyclable and provides a recycling programme to ensure the offcuts on site can be returned to the factory to be upcycled into acoustic product.

Terra Lana wool insulation is manufactured in segments or rolls and can be customised specifically for each project, to reduce waste and installation time. The product is grey, or cream in colour and is packaged using clear recyclable bags.

Terra Lana wool insulation has a large selection of standard R-values, ranging from R0.9, through to R8.0. Custom R-values, thicknesses, and widths are available on request.

Terra Lana wool insulation is compatible with timber and steel framing and can be specified within GIB acoustic and fire systems - see letter from GIB

1.1.1.5 Scope of use

Terra Lana wool insulation is suitable for all New Zealand climate zones.

Terra Lana wool insulation is suitable as thermal and acoustic insulation for the following areas:

- Timber and steel framing within commercial and residential buildings (new and existing)
- External walls
- Internal walls and midfloor
- GIB Intertenancy walls and ceiling systems
- Flat, skillion and truss roof
- New and existing underfloor (timber framed only)
- Service cavities for walls and ceilings



1.1.1.6 Conditions of use

Terra Lana wool insulation must be installed as per NZS4246: 2016 Energy Efficiency - Installing bulk thermal insulation in residential buildings.

Specific conditions of use below:

- Terra Lana wool insulation must be installed only when the building is enclosed to ensure the insulation does not become wet (with the exception of our Drop-in-Floor System)
- Where an internal lining is not otherwise required, it is recommended that Terra Lana wool insulation be enclosed to the interior.
- Terra Lana wool insulation must be installed within 3 months from the date of manufacture, to ensure full loft recovery.
- Terra Lana wool insulation is manufactured to standard and custom sizes, depending on the framing layout. The installation should ensure a snug fit, without folds and creases.
- Wall products should friction fit, without the need for extra support, however if designing for no nogs/dwangs, consider stapling to the top plate for extra support.
- Ceiling products should friction fit, however when being installed without support ie when a vapour control layer, such as Pro Clima Intello is being used, consider stapling the bottom edge of the insulation to the framing on either side, before installing the Intello product.
- Where the insulation is retrofitted in external walls without a wall underlay, and with direct-fixed claddings, consideration needs to be made for ventilation and drainage between the insulation and cladding, which may include the need for a 20mm gap.

1.1.1.7 Relevant building code clauses

B2 Durability — B2.3.1 (a)

E3 Internal moisture — E3.3.1

F2 Hazardous building materials — F2.3.1

G6 Airborne and impact sound — G6.3.1, G6.3.2

H1 Energy efficiency — H1.3.1 (a), H1.3.2E



1.1.1.8 Contributions to compliance

Clause B2 Durability: B2.3.1(a), B2.3.1(b) and B2.3.2 Terra Lana wool insulation has a minimum life expectancy of 50 years and is likely beyond 100 years, due to the thermal bonding technology used during manufacturing.

Terra Lana wool insulation must be installed as per NZS4246 guidelines, to ensure the insulation performs to its labelled R-value for at least 50 years. See Terra Lana's installation guides for more information.

Clause E3 Internal Moisture: E3.3.1 Terra Lana wool insulation will not contribute to mould forming on or within the structure of the building.

Terra Lana wool insulation is hygroscopic, so will absorb and release atmospheric moisture, while having a negligible effect on thermal performance - see AgResearch report 'Moisture Regulation of Wool and Polyester Based Insulation Materials'

Clause F2 Hazardous Building Materials: F2.3.1 Terra Lana wool insulation has been VOC tested by CETEC carries no ingredients that are on the 'Red List' and deemed toxic by the International Living Futures Institute - <https://living-future.org/red-list/>.

Terra Lana wool insulation can be handled and installed without the use of protective clothing. See installation guides for more information.

Clause G6 Airborne and Impact Sound: G6.3.1, G6.3.2 Terra Lana wool insulation has been tested by Marshall Day Acoustics to show compliance when using the Chatterblock acoustic range of products within GIB acoustic and fire-rated wall and ceiling systems.

Terra Lana Drop-in-Floor range of products have been tested to show compliance to G6.3.2 when used within timber suspended floor systems - see Marshall Day reports on the Terra Lana website

Clause H1 Energy Efficiency H1.3.1(a), H1.3.2(e) Terra Lana wool insulation thermal resistance (R-value) has been determined by testing in accordance to AS/NZS 4859:1. Refer to our test reports, under documentation.



1.1.1.9 Supporting documentation

The following additional documentation supports the above statements:

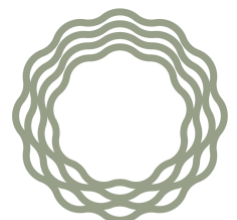
Terra Lana Wool Insulation - Install Guides	February 2024	https://terralana.co.nz/wp-content/uploads/2024/02/Terra-Lana-Wool-Insulation-Install-Guides.pdf
Terra Lana Wool Insulation - Product Data Sheets	February 2024	https://terralana.co.nz/wp-content/uploads/2024/01/Terra-Lana-wool-insulation-products-table-data-sheets.pdf
Terra Lana Wool Insulation - Specification Table	February 2024	https://terralana.co.nz/wp-content/uploads/2024/01/Terra-Lana-wool-insulation-product-specification-table.pdf
Terra Lana Wool Insulation - GIB Acoustic Endorsement	February 2024	https://terralana.co.nz/wp-content/uploads/2024/01/Terra-Lana-Chatterblock-wool-acoustic-insulation-GIB-infill-substitution.pdf
Terra Lana Wool Insulation - BRANZ Appraisal	21 March 2023	https://terralana.co.nz/wp-content/uploads/2024/01/682_2022A1_SmwNGEr.pdf
Terra Lana Wool Insulation - Declare Label 'Red List Free'	March 2023	https://terralana.co.nz/wp-content/uploads/2024/01/Declare-Label-exp-2024.jpg
Terra Lana Wool Insulation - Drop-in-Floor BRANZ Appraisal	2021	https://terralana.co.nz/wp-content/uploads/2024/02/BRANZ-Appraisal-for-Terra-Lana-Floor-insulation-1.1164.2021.pdf

For further information supporting Terra Lana Wool Insulation claims refer to our website.



1.1.1.10 Contact details

Manufacture location	New Zealand
Legal and trading name of manufacturer	Terra Lana Products Ltd
Manufacturer address for service	55 Francella St Bromley Christchurch 8062
Manufacturer website	terralana.co.nz
Manufacturer email	sales@terralana.co.nz
Manufacturer phone number	0800 485 262
Manufacturer NZBN	9429037582074



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1.1.1.11 Responsible person

As the responsible person as set out in Regulation 3, I confirm that the information supplied in this declaration is based on information supplied to the company as well as the company's own processes and is therefore, to the best of my knowledge, correct.

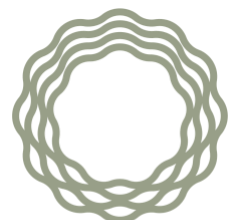
I can also confirm that Terra Lana Wool Insulation is not subject to a warning on ban under [s26 of the Building Act](#).

Signed for and on behalf of **Terra Lana Products Ltd:**

Brad Stuart

Brad Stuart
Specification Manager
March, 2024

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APPENDIX

BPIR Ready selections

Category: Thermal insulation

	Yes	No
Use as part of an intertenancy / abutting occupancy wall system	x	
Use as part of an intertenancy / abutting occupancy floor system	x	

1.1.1.12 Building code performance clauses

1.1.1.13 B2 Durability

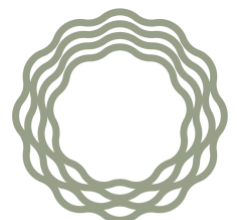
B2.3.1

Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the *specified intended life* of the **building**, if stated, or:

- the life of the building, being not less than 50 years, if: those building elements (including floors, walls, and fixings) provide structural stability to the building, or those building elements are difficult to access or replace, or failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building

1.1.1.14 E3 Internal moisture

E3.3.1



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An *adequate* combination of *thermal resistance*, ventilation, and space temperature must be provided to all *habitable spaces*, bathrooms, laundries, and other spaces where moisture may be generated or may accumulate.

1.1.1.15 F2 Hazardous building materials

F2.3.1

The quantities of gas, liquid, radiation or solid particles emitted by materials used in the *construction* of *buildings*, shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.

1.1.1.16 G6 Airborne and impact sound

G6.3.1

The *Sound Transmission Class* of walls, floors and ceilings, shall be no less than 55.

G6.3.2

The *Impact Insulation Class* of floors shall be no less than 55.

1.1.1.17 H1 Energy efficiency

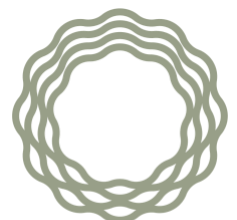
H1.3.1

The *building* envelope enclosing spaces where the temperature or humidity (or both) are modified must be constructed to

(a) provide adequate thermal resistance

H1.3.2E

Buildings must be constructed to ensure that their building performance index does not exceed 1.55.



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