

DROP IN FLOOR INSULATION

Specifically designed for suspended timber framed floors* where insulation is installed from above the floor joists, prior to installation of sheet flooring.

THERMAL PERFORMANCE

Terra Lana Drop In Floor Insulation comes in two thicknesses: 70mm and 110mm. The following table details the floors thermal construction value for common floor joist spacings.

FLOOR CONSTRUCTION R-VALUES m ² K/W				
Thickness (mm)	Code	Joist spacing		
		400mm	450mm	600mm
70	DIF 70	R1.63	R1.67	R1.74
110	DIF 110	R2.16	R2.23	R2.39

The floor R-values for the overall assembly including the timber content but neglect any benefit of an enclosed subfloor space.

Floor assembly is assumed to be composed of 15mm plywood with no other floor covering on 45mm thick timber joists with the lower surface exposed to exterior air (as the product density is high and some shielding of the insulation will occur, wind-washing has been neglected).

The portion of the joist height that extends below the insulation thickness (assumed to match the product thickness for 70mm or 110mm) is neglected. As these are conservative assumptions these values may be used as minimum R-values for building code compliance, per NZS4214:2006 $R_{si} = 0.09 \text{ m}^2\text{K/W}$ and $R_{se} = 0.03 \text{ m}^2\text{K/W}$ as generic values for all layers.

Timber fraction in the floor assembly have followed the common NZ practice of assuming no blocking with an additional 1.4% of timber for a rim joist. Plywood and joist assumed to have thermal conductivity of 0.13 W/(mK).

Table values have been provided calculated by the "iso-thermal planes" method, the same method as used in NZS4214:2006.

INSTALLATION

Drop In Insulation segments are suspended by a proprietary fastening system, prior to the sheet flooring being installed. The installation system is BRANZ appraised to tolerate water, but it is advised that installation not be conducted in heavy rain. Sheet flooring must be installed within 24hours. The method of installation and the tools for installation are protected by New Zealand Patent Number 774996.

COMPOSITION

Terra Lana Drop In Floor Insulation utilises recycled offcuts of Drop In insulation, blended with new melt bond polyester fibre. The insulation is deliberately very dense so that it is highly resistant to slumping and to create a wind proof bottom layer that mitigates the effect of wind wash.

The product is designed to expand into the space between the fastening system and the underside of the sheet flooring. This creates continuous contact between the insulation and the sheet flooring to eliminate the possibility of air movement by-passing the insulation.

STANDARD PRODUCTS

Product (mm)	Joist centres (mm)	Width (mm)	Length (mm)	Slabs /bale	m ² /bale	Code
70	400	365	1200	10	4.4m ²	DIF 70365
70	450	415	1200	10	5.0m ²	DIF 70415
70	600	565	1200	10	6.8m ²	DIF 70565
110	400	365	1200	10	4.4m ²	DIF 110365
110	450	415	1200	10	5.0m ²	DIF 110415
110	600	565	1200	8	5.4m ²	DIF 110565

PRODUCT WIDTHS

Insulation can be ordered from the factory in customised widths and lengths for orders greater than 100m². The insulation is designed to be 10mm wider than the gap that it fills.

As standard, the insulation comes in lengths of 1,200mm, however it can be supplied up to 2,400mm. Where customised, the insulation length should be ordered to fit (10mm greater than the gap) between common blocking spacings.

**Suitable for both lined and unlined suspended floors, with or without a fully enclosed perimeter foundation.*



Declare.



Terra Lana Products Ltd (03) 982 0211 // 0800 485 262 // info@terralana.co.nz

55 Francella St, PO Box 19755, Christchurch, NZ // terralana.co.nz