



DROP IN FLOOR INSULATION INSTALLATION GUIDE



SUPERIOR NATURAL PERFORMANCE

GENERAL

This product is specifically designed for suspended timber framed floors, where insulation is installed from above the floor joists prior to sheet flooring being installed.

The system comprises of a proprietary fastening system which is installed first and semi-rigid insulation which is suspended in the proprietary fastening system. Terra Lana has developed specific tools and cutting equipment that does not necessarily need to be used but does make the installation easier and faster. The method of installation and the tools for installation are protected by New Zealand Patent No. 774996.

Drop In Floor Insulation can be safely installed without gloves or protective clothing and insulation can be safely exposed continuously to temperatures up to 90°C.

CONDITIONS AND LIMITATIONS

- Suitable for lined and unlined suspended floors with or without a fully enclosed perimeter foundation.
- Whilst the insulation tolerates water, the installation shall not be done in heavy rain.
- After the insulation has been installed, sheet flooring must be installed within 24 hours.

Prevention of fire occurring

- Separation or protection must be provided to Terra Lana Underfloor Insulation from heat sources such as fireplaces, heating appliances and chimneys. Part 7 of NZBC Verification Method C/VM1 and Acceptable Solution C/AS1, and NZBC Acceptable Solution C/AS2 provide methods for separation and protection of combustible materials from heat sources.

Downlights

- Recessed luminaires shall be one of the specified luminaire types and installed in accordance with NZBC Verification Method C/VM1 and Acceptable Solution C/AS1, Section 7.4.
Insulation materials must maintain a clearance of 100mm to undefined recessed luminaires in existing buildings.

Fire affecting areas beyond the fire source – control of internal fire and smoke spread

- When used in an occupied space, Terra Lana Floor Insulation may or may not need to be enclosed by an internal lining depending on the Risk Group. Refer to the relevant NZBC Acceptable Solutions C/AS1 and C/AS2 for specific internal surface finish requirements.
- The installation of a lining material is outside the scope of these instructions.

VARIATIONS TO NZS 4246:

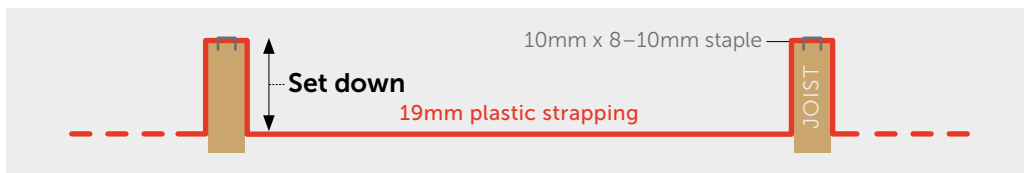
The installation can be carried out following NZS 4246 with the below variations (section numbering refers to NZS 4246 section numbering):

- 7.2.3 step 6: use galvanized staples in all circumstances.
- 7.2.4: no plumbing clearances need to be maintained between insulation and penetrating pipes as the insulation is self-draining and drying.
- 7.3 Step 1: The building does not need to be weather tight to install this product.
- 7.3 Step 4: This step can be ignored as the insulation is not installed from under the floor.
- 7.3 Step 7 and 9: Do not follow NZS 4246, follow the product specific installation instructions of this procedure.
- 7.3 Step 10. (a): No plumbing clearances need to be maintained between insulation and penetrating pipes as the insulation is self-draining and drying.
- 7.4: Ignore this section as this section relates to the installation of rigid sheet underfloor insulation.
- 7.5: Ignore this section as this section relates to installing insulation from under the floor.

INSTALLATION INSTRUCTIONS

INSTALLATION OF FASTENING SYSTEM

- 1 Suspend 19mm plastic packaging strapping between floor joists with a specific set down to ensure the insulation remains in contact with the sheet flooring while not being overly compressed.

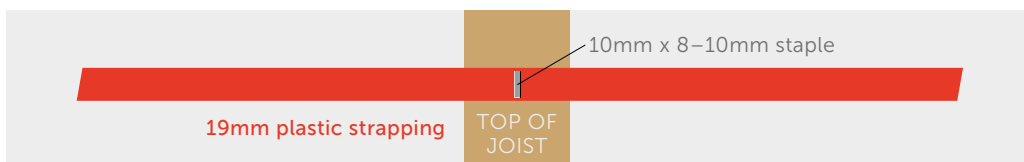


- 2 It is important the correct configuration as per below table is achieved for each of the products.

INSTALLATION SPECIFICATIONS

Common joist spacing (mm)	Insulation width (mm)	Min. joist depth (mm)	Set down (mm)	Section strap length (mm)
70mm thick product				
400	365	90	60	520
450	415	90	60	570
600	565	90	60	720
110mm thick product				
400	365	140	100	600
450	415	140	100	650
600	565	140	100	800

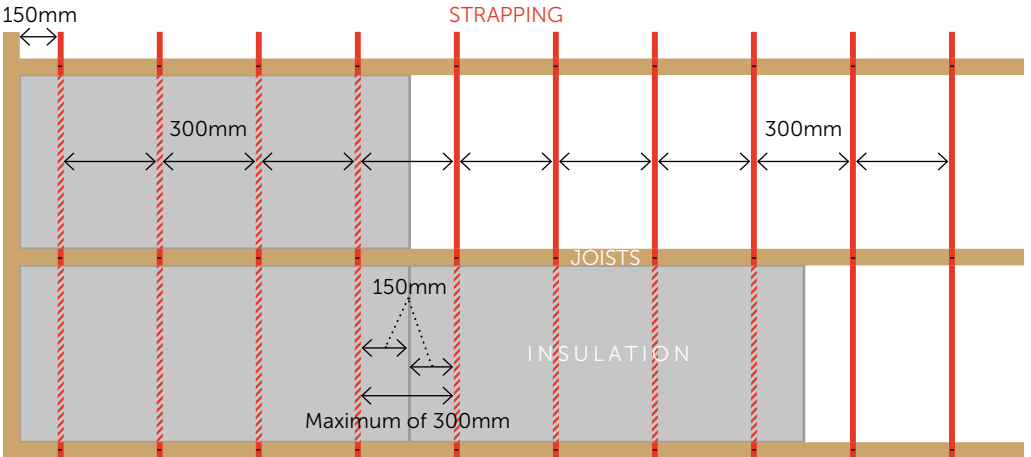
- 3 It is best to use the proprietary stapling tool supplied by Terra Lana that quickly sets the strapping to the correct depth as the strapping is stapled into the top of the floor joist. Specific video instructions are supplied with this tool in order to quickly and easily meet the requirements of this procedure.
- 4 Working from one side of the house to the other, staple the strapping into the top of the floor joist while maintaining the correct set down for each joist spacing (refer to table above). Use galvanized staples with a 10mm crown and an 8 or 10mm leg. Ensure the staple is centered in the middle of the strapping and in the middle of the top of the joist as per the following illustration.



- 5 The first line of strapping must be 150mm from the header joist, boundary joist, solid foundation, or solid blocking (between the ends of the joists). A line of strapping must be spaced a maximum of every 300mm thereafter.
- 6 Strap the entire floor frame before installing insulation.

INSTALLING INSULATION

- 1 Choose the correct width insulation for the common joist spacings as per the Installation Specifications table (previous page). Where the joists spacings are less than the common spacings, the insulation segments must be cut 10mm wider than the gap between joists.
 - 2 Install the insulation with the more rigid side facing down. The more rigid underside of the insulation is designed to spread the strapping between the floor joists without significant compression of the insulation. Furthermore the more rigid side of the insulation mitigates the effect of wind wash.
 - 3 Push each slab of insulation down evenly on both sides until the slab is cradled within the strapping. If necessary, spread the insulation upwards so that the bulk of the insulation fills the void between the strapping and the top of the joists.
- Note:** *the insulation can take up to three months to fully recover its thickness after compression packaging.*
- 4 Work your way along the length of the slab pushing the insulation in and then spreading it up.
 - 5 Allow a 5mm overlap where the insulation abuts another slab or blocking. The insulation is designed to allow a small amount of compression across the length and width so that once installed it presses firmly with no gaps and minimal creasing against floor joists and adjacent slabs. The join between two insulation slabs can be up to 300mm from the strapping, however for best results the gap should be between 50mm and 250mm from strapping.
 - 6 Where partial depth blocking has been used i.e. a 90 x 45mm timber placed on its side, run plastic strapping 150mm each side of the blocking. Cut the insulation so that the insulation butt joins under the partial depth blocking.
 - 7 For gaps of less than 150mm between joists, the product will self-support without plastic strapping.
 - 8 Where segments have been cut down to less than 500mm in length, a minimum of two straps is required to suspend segments.



Declare.



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