



Temper
Therm

Installation

TemperTherm 100% Polyester Retrofit Underfloor Guide

TemperTherm 100% Polyester Insulation is proudly manufactured in NZ from thermally bonded polyester fibres, for use in framed walls, ceilings, suspended floors and midfloor applications in both residential and commercial construction. Our Polyester Insulation range is available in a range of widths and performance options and is available in blanket, skillion and segment forms and carry a 50-year product durability warranty.

COMPLIANCE STATEMENTS

The total R-Value of the building system depends on the building materials, design and installation and may be less than, greater than, or equal to the declared R-Value of the product.

The initial performance of the insulation material may be reduced if it is stored for too long in its compressed packaging. Should this product be found to be compressed at installation, it will recover to its nominal thickness and R-Value between 48 Hours and up to one month following installation. TemperTherm Polyester Insulation should be removed from its compressed packaging within 6 months from the date of manufacture.

TemperTherm 100% Polyester Insulation will not settle or reduce its performance over time and will meet and exceed the 50 year durability clause of the NZBC (B2.3.1(a)) when installed in accordance with these manufacturer's instructions.

TemperTherm 100% Polyester Insulation is supplied with labelling compliant with AS/NZS4859.1. The nominal thickness, net area, and nominal weight of each pack is recorded on the product bale label.

INSTALLER SAFETY

TemperTherm 100% polyester insulation is completely safe to handle. TemperTherm polyester is non-toxic, non-itchy, and non-allergenic. That means no itchy skin, sore throats, or lung irritation on contact or following installation.

Refer NZS4246:2016 for required insulation clearances to downlights and electrical appliances. In retrofit situations we recommend that the installation process is performed with the power off.

TemperTherm polyester insulation is safe to handle and install without protective clothing, however due to conditions under some homes we recommend long sleeved loose clothing, face mask, goggles and adequate lighting. We also recommend that a comprehensive first aid kit is available on site.

Beware of sharp objects such as broken glass and protruding nails etc., as well as other hazards such as animals and vermin. Check drainage pipes for leaks and have them repaired before starting the installation.

ELECTRICAL SAFETY

Before installing TemperTherm Polyester Underfloor Blanket we recommend that you locate and identify all wires and cabling in the underfloor area to reduce the risk of electric shock. Insulation should be installed above electrical wiring leaving all cables and wiring clearly visible.

CAUTION: Electric cables and equipment partially or completely surrounded with any bulk thermal insulation may overheat and fail. This applies to wiring installed prior to 1989

- Beware of damaged, exposed or hanging cables and wires.
- Contact a registered electrician to complete necessary repairs prior to starting the installation.
- Treat all wires as live. Wherever possible isolate power to the work area before commencing work.
- Do not staple within 50mm of any wiring.
- Avoid covering and/or hiding electrical wires and cables.

Refer NZS4246:2016 for required insulation clearances to lighting and electrical appliances..



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PRODUCT SELECTION

TemperTherm Polyester Underfloor Blanket is designed for use in exposed joist floors. TemperTherm Polyester Underfloor Blanket is available in a range of widths and performance options and can be installed in new and existing buildings with enclosed, semi-enclosed and open sub-floor spaces. Choose the product width to best suit the framing size. Joist widths can vary so be sure to measure more than just one. You may need several widths of TemperTherm Polyester Underfloor to complete the job and minimise waste.

- TemperTherm Polyester Underfloor @ 450mm wide, ideal for joist spaces up to 430mm
- TemperTherm Polyester Underfloor @ 510mm wide, ideal for joist spaces between 430mm and 500mm
- TemperTherm Polyester Underfloor @ 650mm wide, ideal for joist spaces between 500mm and 630mm

We recommend the use of 12-14mm staples. In coastal areas we recommend you use stainless steel staples to eliminate corrosion, as per the NZBC requirements. Where wind wash is a concern in exposed open sub-floor spaces we suggest selecting the highest R-Value insulation suitable for the building. In fully open sub-floor spaces, it is recommended that a suitable lining material is also installed.

INSTALLATION INSTRUCTIONS

All thermal and acoustic insulation should be installed in accordance with NZS4246:2016 Energy Efficiency – Installing Insulation in Residential Buildings. Standards New Zealand has made this Standard freely available for download from their website.

Cutting to Size:

Always cut slightly oversized to ensure a tight friction fit to all surfaces. TemperTherm 100% polyester blankets can be torn across the width by hand. To cut down the length of the roll, we recommend compressing the insulation under a timber off-cut and then cutting through with a sharp wide blade disposable knife. Heavier and higher-density products can be cut using a specialist insulation saw or knife.

Insulate All Areas:

Insulate all areas of the suspended floor from exterior wall to exterior wall leaving no gaps, except as required for electrical and pipe clearances. Small gaps can reduce the overall thermal performance of the construction system. Insulation should extend to the outer edge of the bottom plate wherever possible.

TemperTherm Polyester Underfloor is designed to be installed between timber floor joists. The Underfloor blanket should be wider than the joist cavity with the side edges folded down and stapled at approximately 80mm from the top of the joist. See Fig. 1.

Fit the insulation blanket between the floor joists and adjust so the side edges are equal. TemperTherm Polyester Underfloor should be installed touching the underside of the floor but not compressed.

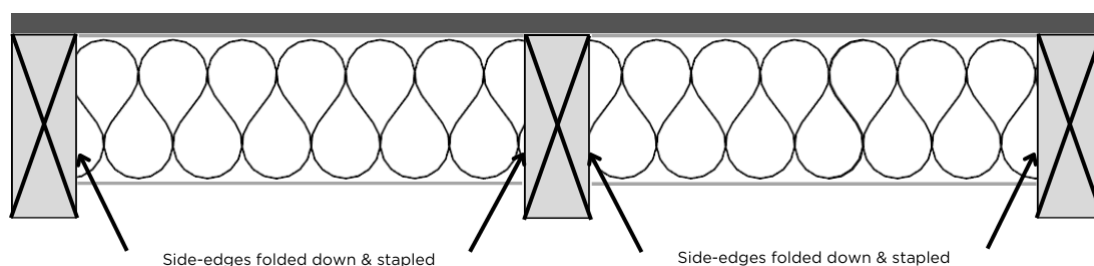


Figure 1.



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CLEARANCES

Leave a clear 100mm gap around waste pipes that penetrate through the floor to allow for future service. See Fig.2

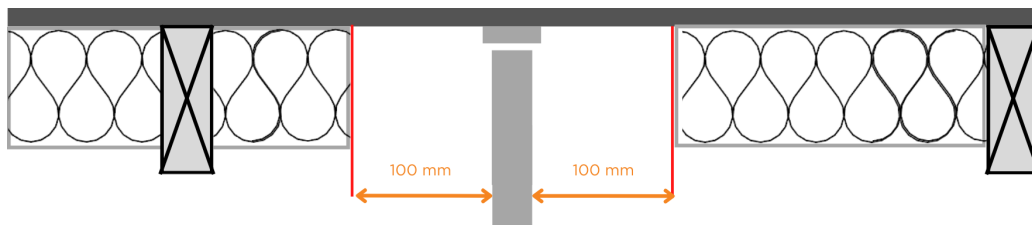


Figure 2.

SURFACE MOUNTED LUMINAIRES AND LAMPS

Follow specified clearances from the luminaire manufacturer. If manufacturers recommendations are unknown, maintain a minimum clearance of 200mm to the luminaire or lamp.

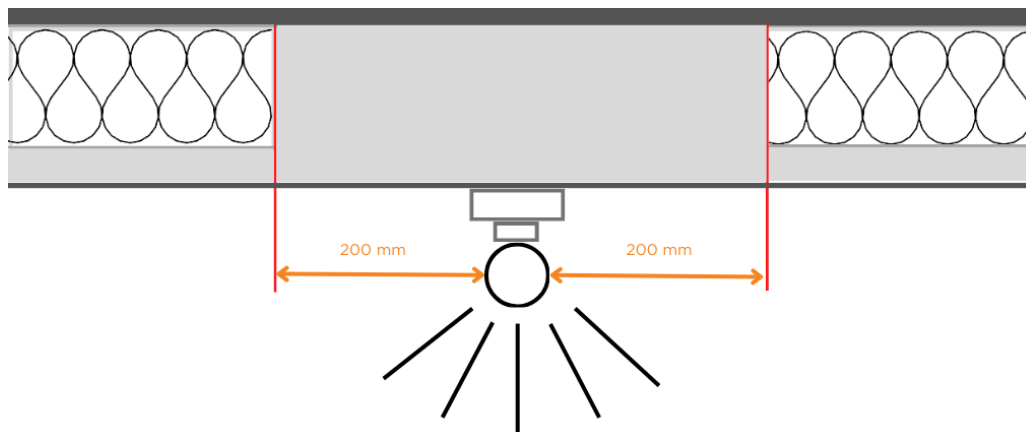


Figure 3.

Figure 4 is an example of underfloor insulation installed with clearance around a light fitting mounted to the bottom of a floor joist. On the right hand side a smaller clearance is acceptable as the insulation is fully and permanently shielded by timber framing.

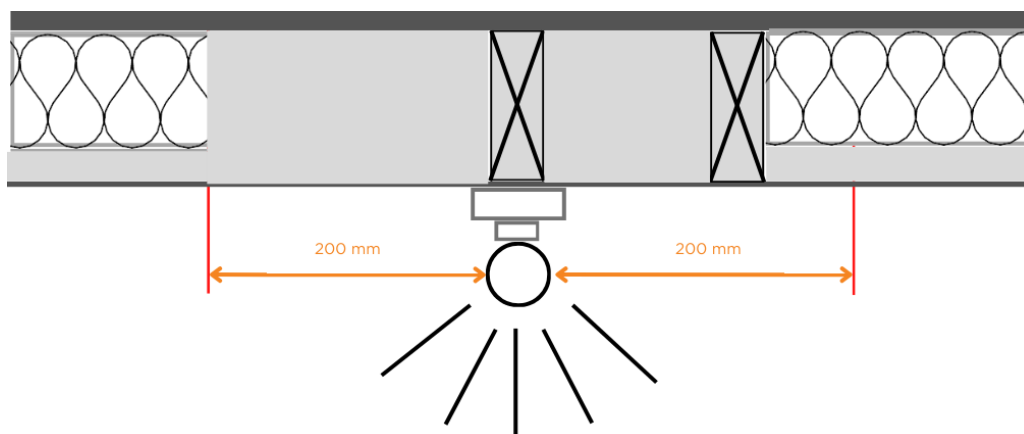


Figure 4.



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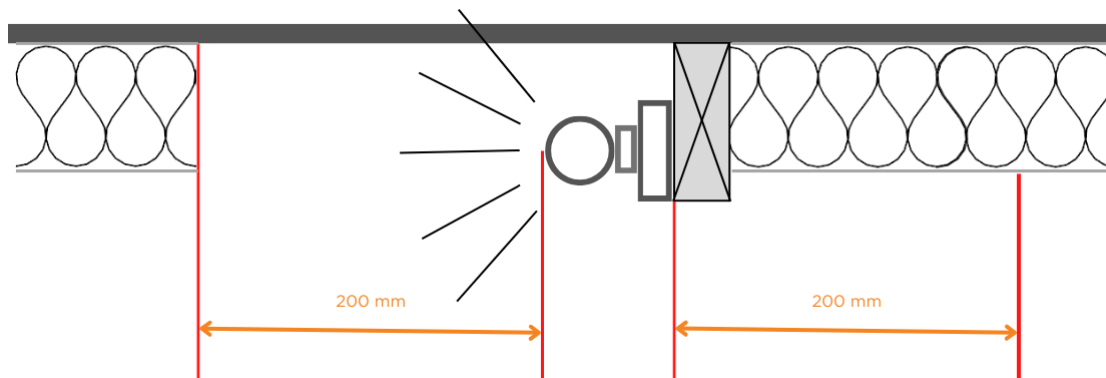


Figure 5.

Figure 5 is an example of underfloor insulation installed with clearance around a light fitting mounted to the side of a floor joist.

Maintain a 50mm clearance for brick/concrete chimneys.

For other clearances, refer to NZS4246:2016 Energy Efficiency – Installing Insulation in Residential Buildings.

COMPLETION

At the end of the installation, check and repair any visible gaps. Ensure all electrical wiring or cables have not been damaged. Remove the product label from the packaging and staple it near the access point for possible future inspection. Leave work area tidy and remove unused materials, offcuts and waste from site.

SPECIFICATIONS & TECHNICAL SUPPORT

TemperTherm specification documents are available from our website. For specification or technical support please contact our Technical Team on 07 282 1184, or email support@tempertherm.co.nz

TemperTherm

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