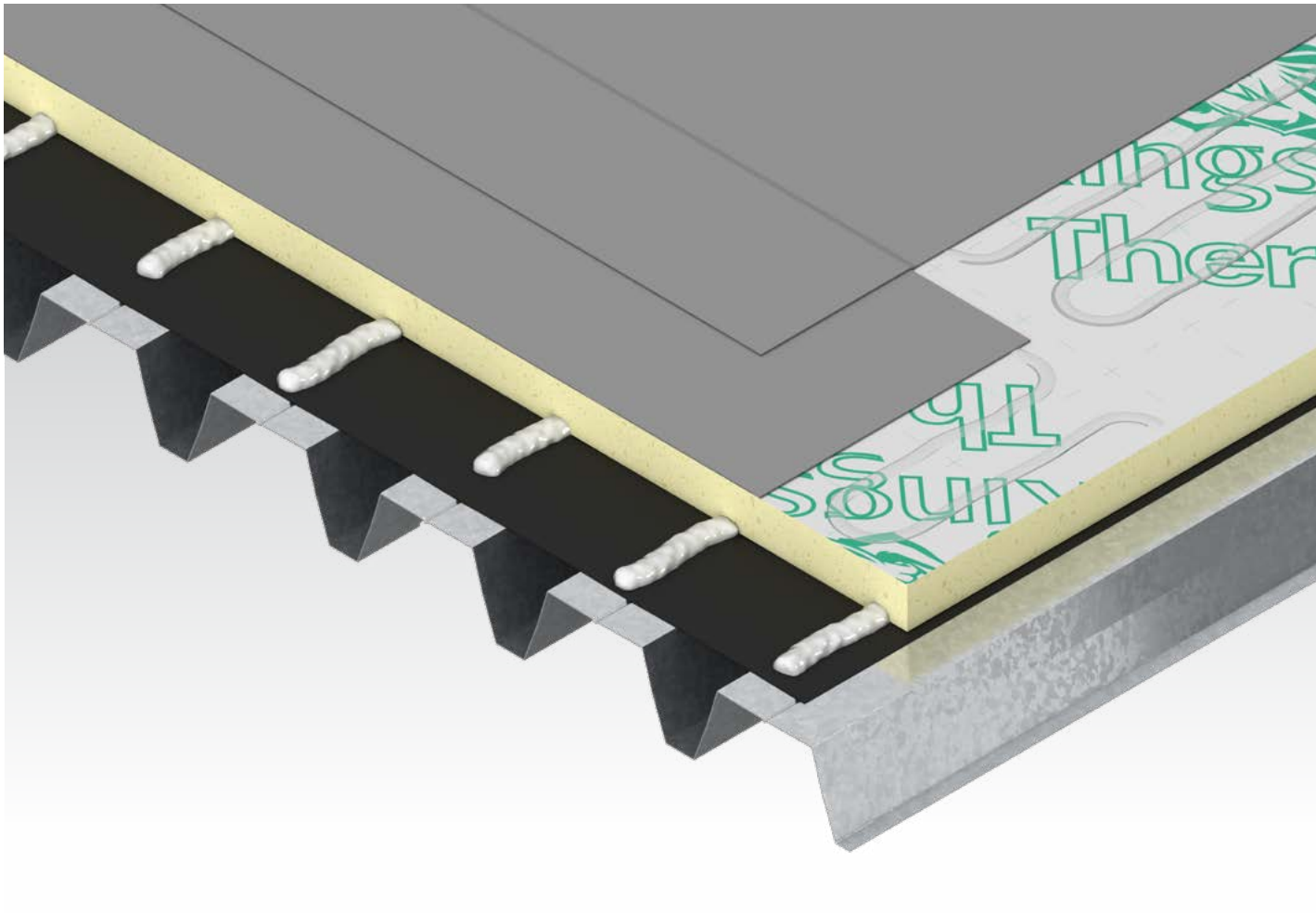
Insulation
New Zealand

Installation Guide
Therma™ TR28
Flat Roof Insulation Board

Insulation for Waterproofed Flat Roofs



Therma™

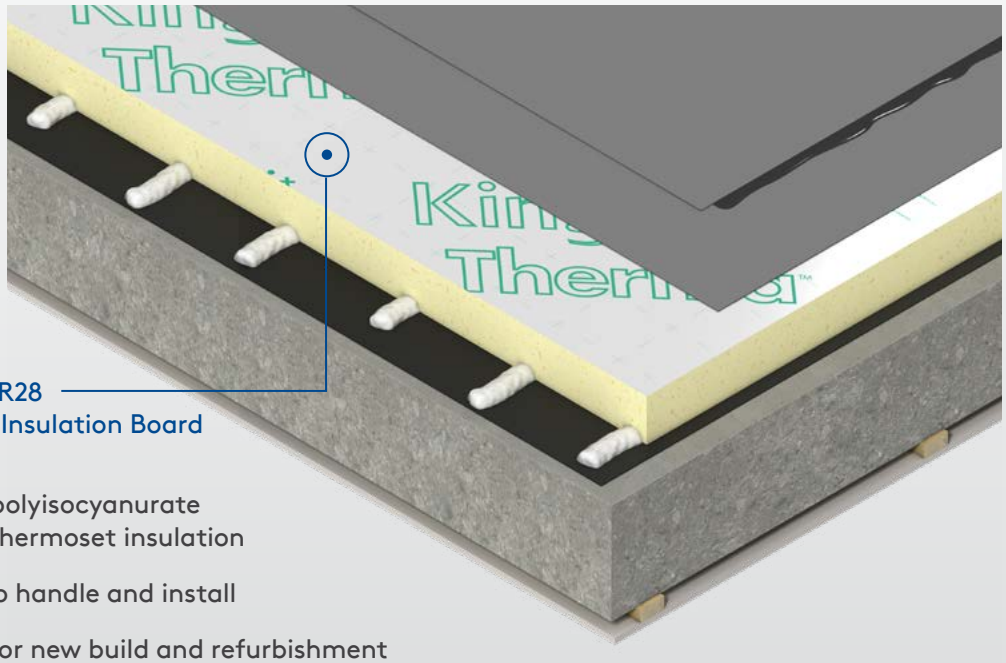
Kingspan®

Therma™ TR28 Flat Roof Insulation Board
Product Description

Therma™

Therma TR28 Flat Roof Insulation Board is a fibre-free rigid polyisocyanurate (PIR) building insulation, faced on both sides with a gas tight reflective aluminium foil composite, autohesively bonded to the insulation core during manufacture. This gas tight reflective surface improves the overall thermal resistance of Therma TR28 Flat Roof Insulation Board.

Therma TR28 is manufactured with a blowing agent that has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).



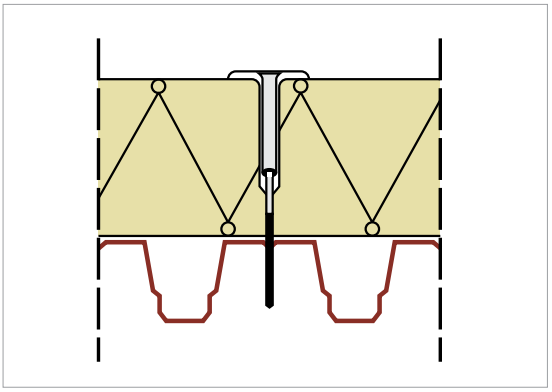
- Rigid polyisocyanurate (PIR) thermoset insulation
- Easy to handle and install
- Ideal for new build and refurbishment
- Compatible with most green roof systems
- Compatible with most 2-layer bitumen roofing systems using a (partially) self-adhered bonded roofing membrane and torched on top sheet
- Compatible with most single-ply non-bituminous membranes that are fully bonded with solvent based adhesive systems
- NZBC and AS/NZS 4859.1:2018 compliant

Fibre-free Core

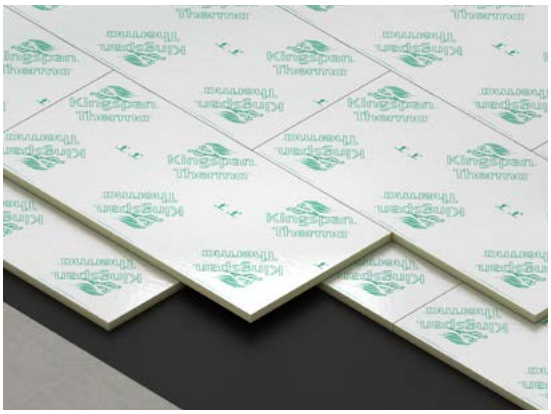
Therma™ TR28 Flat Roof Insulation Board
Installation Instructions

This document needs to be read in conjunction with the proprietary roofing system supplier's installation instructions and Therma TR28 Data Sheet.

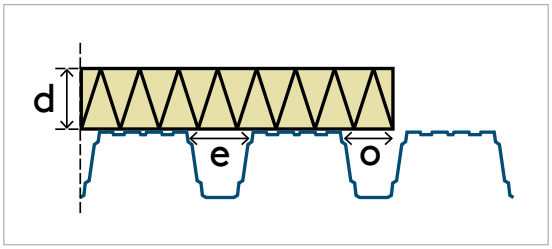
1. Check that the supporting roof structure is in good condition, safe to work on and it has the required load bearing capacity.
2. Check that there is sufficient slope in the roof design to prevent water ponding.
3. The roof supporting structure must be clean, evenly leveled, and dry before installing Therma TR28. The surface must remain dry until the installation work is completed.
4. Cutting should be carried out either by using a fine toothed saw, or by scoring with a sharp knife, snapping the board over a straight edge and then cutting the facing on the other side. Ensure accurate trimming to achieve close-butting joints and continuity of insulation. Appropriate personal protection equipment must be used.
5. The side with Kingspan printed logo should face to the top/outside.
6. Refer to the proprietary roofing system supplier's specifications on the exact number and type of mechanical fasteners to use per sheet of Therma TR28.



7. Immediately cover or protect Therma TR28 with permanent roofing membrane after installation. Do not leave Therma TR28 exposed to the weather elements.
8. Sheets of Therma TR28 should be installed on the roof supporting structure with staggered seams.
9. Therma TR28 can be installed in multiple layers. The joints of the above layer should not coincide with the below layer.



10. Avoid installing Therma TR28 with sheet size less than 300x300mm. This is because smaller boards introduce additional butt joints and therefore can reduce the roof system's thermal efficiency.
11. Therma TR28 must be adequately protected from excessive loads during installation and normal use. This can be done by taking precautions on walkways and at the level of the working areas. For example, laying sheets of plywood to distribute the load.
12. Best practice is for Therma TR28 is to be fully supported by the profiled metal or plywood roofing substrate. Where practical, avoid installing Therma TR28 where it is unsupported in the trough or the pan of a profiled metal roofing substrate. However, if this cannot be avoided, Therma TR28 should be placed across the trough or pan opening and the maximum cantilever distance **(o)** is **100mm** permitted on Therma TR28 that is greater than or equal to 50mm board thickness **(d)**. Therma TR28 less than 50mm thickness CANNOT be cantilevered on trough or pan profiled metal roofing supporting substrate as the insulation material could break under load.



13. The maximum trough or pan opening/distance **(e)** depends on the Therma TR28's board thickness and it shall be determined by: e <= 3d
14. Refer to roofing membrane or material's installation instructions.

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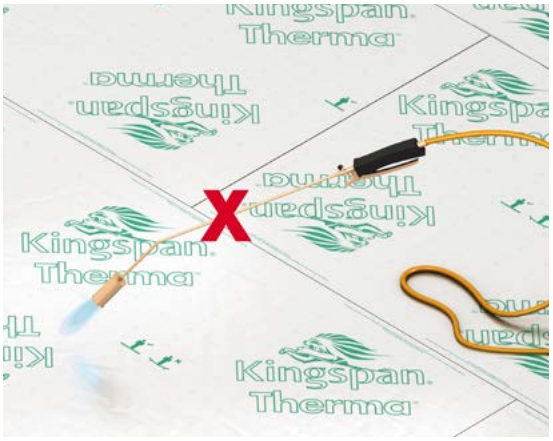
Installation Instructions

15. Therma TR28 is suitable only with cold applied synthetic adhesive. Synthetic cold bonding adhesive must be tested for compatibility before mass applied on the roof. Unless a synthetic self-adhesive based sheet is used prior, do not use Therma TR28 directly with bituminous membrane or any substrates needing heat activation. For example, open flame gas torch must not be used on Therma TR28 as excessive heat can damage the facer material of the Therma TR28 product.



16. Do not load the roof system too soon after applying the synthetic cold bonding adhesive onto or with Therma TR28 as the adhesive may not be fully cured. Follow the synthetic cold bonding adhesive manufacturer's installation instructions.
17. When renovating a roof with an existing bituminous product, it is important to check the bitumen's compatibility with Therma TR28. If there is incompatibility, a separation layer will need to be used. However, this should only be used after satisfying a compatibility test with the separation layer.

Storage and Handling

The packaging of Therma TR28 should not be considered adequate for outdoor protection. Ideally boards should be stored inside a building. If, however, outdoor storage cannot be avoided then the boards should be stacked clear of the ground and covered with an opaque polythene sheet or weatherproof tarpaulin.

Boards that have been allowed to get wet should not be used as this may cause delamination of facers.

Resistance to Solvents

The insulation core is resistant to short–term contact with petrol and with most dilute acids, alkalis and mineral oils. However, it is recommended that any spills be cleaned off fully before the boards are installed. Ensure that safe methods of cleaning are used, as recommended by suppliers of the spilt liquid.

The insulation core is not resistant to some solvent-based adhesive systems, particularly those containing methyl ethyl ketone. Adhesives containing such solvents should NOT be used in association with this product unless compatibility testing has been completed by the proprietary system supplier.

Damaged boards or boards that have been in contact with harsh solvents or acids should NOT be used.

Health and Safety

Kingspan Insulation products are chemically inert and safe to use. A Product Safety Data Sheet is available from Kingspan Insulation NZ Ltd. Ensure all relevant New Zealand health and safety guidelines are followed when using the product.

Warning: Do NOT stand on or otherwise support your weight on Therma TR28 unless the insulation board is fully supported by a load bearing surface.

Product Warranty

Standard Kingspan Insulation Warranty applies. Refer to Kingspan Insulation Warranty statement for further details. This is available online at **kingspaninsulation.co.nz**; or call us on **0800 806 595**; or email **info@kingspaninsulation.co.nz**

Technical Enquiry:

For technical queries contact: **technical@kingspaninsulation.co.nz** or **0800 806 595.**