

Electric undertile heating of residential and commercial buildings including wet areas

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Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include self-assessment and technical information by manufacturer



Warmup confirms that this minimum level of assurance has been met or exceeded by the following:

BRANZ Appraisal

[644 \[2022\]](#), [774 \[2019\]](#)



The following information has been provided by Warmup demonstrating how this product complies with the [Building Product Information Requirements](#).

Technical Statement

Product Class

CLASS 1

Product Description

Warmup Undertile Heating is electric heating intended for floor surface warming and space heating to stone and ceramic tiled areas of residential and commercial buildings, including wet areas. The electric element heating cable is embedded into tile adhesive or screed over various substrates and finished with tiling.

The undertile heating element comprises of a double insulated multi-stranded resistance wire incorporating a tinned copper braided earth and has an overall diameter of 2.40mm.

Temperature is controlled by a floor sensing Warmup Thermostat. The heating products and accessories used in undertile heating and supplied by Warmup New Zealand are as follows:

Warmup Thermostats - Programmable and non-programmable temperature controllers for Warmup Undertile Heating

Warmup Insulation Board - substrate boards made from extruded polystyrene and coated both sides with a close woven fibreglass mesh embedded on a cement polymer mortar. It is available in a range of thicknesses from 6mm to 50mm.

Heating cables - multi-stranded single conductor, teflon insulated, full earth screen with outer PVC insulation. All heating elements are factory terminated and available in 13 different sizes.

Scope of use

Warmup Undertile Heating has been appraised for use in internal dry and wet areas of buildings, within the following scope:

- On structural substrates of concrete, plywood or compressed fibre cement sheet (excluding particle board flooring); and,
- With optional floor overlays of fibre cement tile underlays or Warmup Insulation Backer Board; and,
- When protected from physical damage by a screed and ceramic or stone tiles; and,
- Where floors are designed and constructed such that deflections do not exceed 1/360th of the span; and,
- Movement and control joints in the substrate must be carried through to the screed, tile or stone finish; and,
- The design and construction of the movement and control joints is specific to the building and therefore the responsibility of the building designer and building contractor and is therefore outside the scope of this Appraisal; and,
- Tiling or stone finishes are outside the scope of this Appraisal; and,
- When used in a wet area a waterproofing system must be used but this is outside the scope of the Appraisal; and,
- Where floors are designed not to exceed a continuous operating temperature of 35°C; and,
- The system must be installed using detailing as set out in the Technical Literature; and,
- Warmup Undertile Heating must be installed by trained applicators, approved by Warmup New Zealand Ltd.

New Zealand Building Code (NZBC)



masterspec partner

Company Contact Details



Company:	Warmup New Zealand Ltd
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Website:	www.warmup.co.nz

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause B2 Durability:** Performance B2.3.1(b), B2.3.1(c)

In the opinion of BRANZ, Warmup Undertile Heating, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the New Zealand Building Code:

Clause B2 Durability: Performance B2.3.1(b) 15 years and B2.3.1(c) 5 years. Warmup Undertile Heating meets these requirements.

- **Clause F2 Hazardous building materials:** Performance F2.3.1

In the opinion of BRANZ, Warmup Undertile Heating, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the New Zealand Building Code:

Clause F2 Hazardous Building Materials. Performance F2.3.1. Warmup Undertile Heating meets this requirement.

- **Clause G9 Electricity:** Performance G9.3.1

In the opinion of BRANZ, Warmup Undertile Heating, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the New Zealand Building Code:

Clause G9 Electricity: Performance G9.3.1. Warmup Undertile Heating meets this requirement.

Notes

B2.3.1 (b) - 15 years. Under normal usage and maintenance conditions Warmup Undertile Heating will provide a servicable life of at least 15 years.

Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

Assessment of electrical safety in compliance with AS/NZS 60335.2.96:2002 "Particular requirements for flexible sheet heating elements for room heating" has been carried out by Parkside Laboratories.

Complies with AS/NZS 60335.1 "Household & similar electrical appliances".

See the [Supplier Declaration of Conformity](#).

In the opinion of BRANZ, Warmup Undertile Heating, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the New Zealand Building Code:

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:



BRANZ Appraisal
[644 \[2022\]](#), [774 \[2019\]](#)

Product Criteria

Design requirements

Warmup Undertile Heating is a low temperature radiant, electric floor surface warming and space heating system. It is suitable for use in most internal tiled areas of buildings where floor warming and space heating is required. It is also suitable for use in wet areas, including shower areas provided a waterproofing membrane is used.

Heating Design - Space heating design, including the layout of the electric element cables, must be carried out by Warmup New Zealand Ltd.

Wet Area Membrane - A BRANZ appraised wet area membrane must be used in all wet areas, in accordance with the relevant requirements of NZBC E3 Internal Moisture.

Installation requirements

The system must be installed as set out in Warmup's technical literature by trained applicators approved by Warmup.

Installation of the electrical wiring and components must be carried out by a registered electrician.

Maintenance requirements

Under normal usage and maintenance conditions, Warmup Undertile Heating will provide a serviceable life of at least 15 years. The thermostat is readily accessible for servicing should it be required.

Warmup Undertile Heating

Product Technical Statement: 103940



No servicing of the electrical elements should be required unless damage has occurred. Should the tiling surface require repairs, Warmup New Zealand Ltd must be referred to regarding the heating element. Any electrical repairs must be carried out by a registered electrician.

Warrantees

When it is installed, tested and signed off by an authorised Warmup installer, your Undertile Heater is warranted for the lifetime of the floor covering under which it is fitted - t's and c's apply.

Company Product Information

Environmental

Electricity - Electrical components used in Warmup Undertile Heating meet the requirements of the Electricity (Safety) Regulations 2010 for electrical safety of fittings and electrical appliances.

Energy efficiency -Where Warmup Undertile Heating is used as space heating in new buildings, the requirements of NZBC Acceptable Solution H1/AS1, Table 3 must be complied with. This requires for climate Zones 1, 2 and 3 a thermal resistance of R1.9 between the heated plane and the outside air. For suspended timber floors, bulk underfloor insulation can be designed to meet this requirement. For concrete slab-on-ground floors, refer to the BRANZ House Insulation Guide for design options.

Videos

[Warmup Tiled Bathroom Heating with Peter Wolfkamp](#)
[Warmup brand video](#)

Building Product Information Requirements

Manufacturer

Legal Trading Name:

n/a

Contact Number/s:

+64 -n/a
n/an/a

Importer

Legal Trading Name:

Warmup New Zealand Ltd

Business Email:

info@warmup.co.nz

Company Website:

www.warmup.co.nz

Contact Number/s:

0800 927687

Product Identifier

UNDERTILE HEATING ELEMENT PRODUCT ELEMENT WATTS LENGTH COVERAGE AREA
W1201 UT200 200 16.5M 0.5M2 - 1.0M2 W1301 UT300 300 25.0M 1.0M2 - 2.2M2 W1401 UT400 400 33.3M 2.3M2 - 3.0M2 W1501 UT500 500 41.5M 3.0M2 - 4.0M2 W1651 UT650 650 54.0M 4.0M2 - 5.0M2 W1801 UT800 800 66.5M 5.0M2 - 6.0M2 W11001 UT1000 1000 83.5M 6.0M2 - 7.5M2 W11251 UT1250 1250 105.0M 7.5M2 - 9.0M2 W11501 UT1500 1500 125.0M 9.0M2 - 12.0M2 W11801 UT1800 1800 150.0M 11.0M2 - 13.5M2 W12001 UT2000 2000 166.5M 13.5M2 - 16.0M2 W12501 UT2500 2500 208.5M 16.0M2 -20.0M2 W13001 UT3000 3000 250.0M 20.0M2 - 24.0M2

Warnings

This product has no warnings associated with it.



Date last validated: **06 March 2024**



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