

Warmset Australia | Floor Build-up Guide

08/26

Floor build-up table

Floor Finish	Method	Typical build-up layers	Indicative build-up
Tiles, stone, marble	Direct glue, or double glue method	Warmset mat, 6–10mm protective tile adhesive, tile adhesive, floor	6–10mm plus floor
Tiles, stone, marble	In-screed	Warmset mat, 20–40mm screed, floor adhesive, floor	20–40mm plus floor adhesive, plus floor
Tiles, stone, marble	Self-levelling compound	Warmset mat, 10–12mm self-leveller, floor adhesive, floor	From min. 10mm plus floor adhesive, plus floor
Polished concrete	Concrete topping	Warmset mat, min. 20mm concrete, decorative finishing (optional)	20mm minimum, plus any finishing if desired
Engineered timber	Direct stick/self-leveller	Warmset mat, 10–15mm self-leveller, floor adhesive, floor	From 10mm plus timber floor adhesive, plus floor
Carpet	Direct install on Warmset Aluminium	Mandatory IXPE 5mm underlay, Warmset mat, mandatory 5mm MDF board, carpet	From 13 mm, plus carpet and any optional softening underlay
Floating floors (timber, laminate, hybrid)	Direct install on Warmset Aluminium	Mandatory IXPE 5mm underlay, Warmset mat, floor	8mm plus floor

Insulation below the heating layer is recommended where practical because it reduces downward heat loss and improves response. Its type, thickness and location depend on the substrate and overall construction.

Direct glue “under tile”



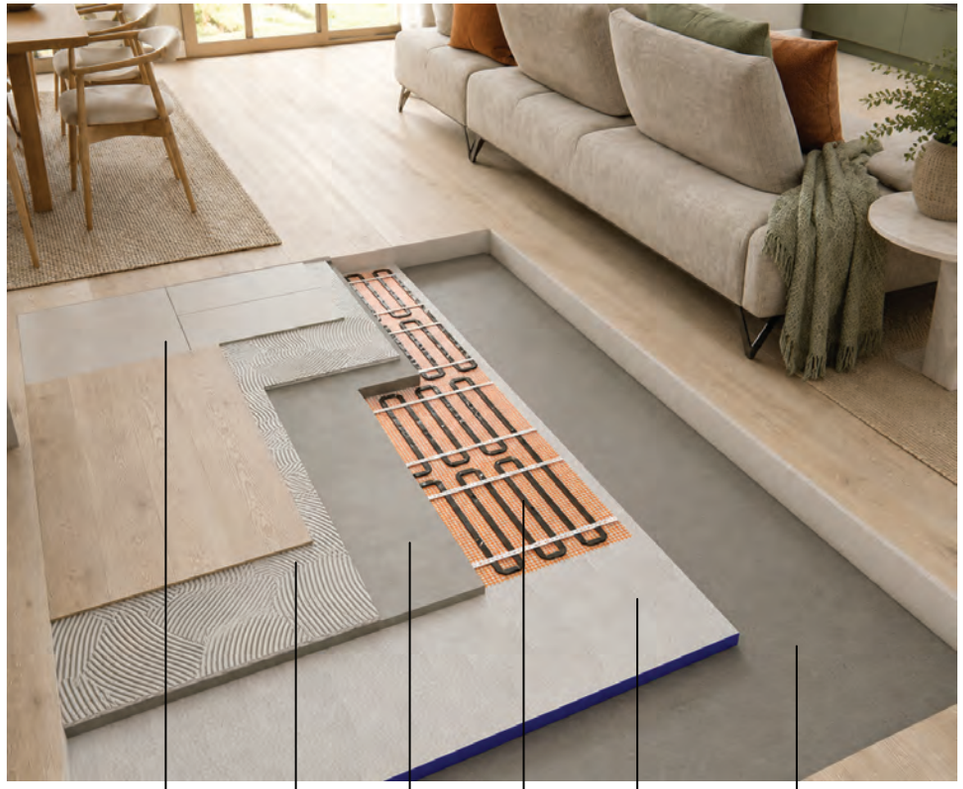
Tile and stone applications use Warmset fibreglass mesh. For smaller tiled areas, the mat can be fixed to the prepared substrate and semi-covered with a compatible flexible tile adhesive. Once that protective layer has cured, the tiles are installed above with further flexible adhesive. This method can avoid a separate screed or self-leveller, but it needs more tile adhesive as the heating needs to be fully covered when the tile is glued on top.

In-screed (tile, stone and engineered timber)



In-screed applications use Warmset fibreglass mesh and are suited to floor build-ups where additional depth is available/required or a layer of thermal mass is desired. The mat is fixed to the substrate and fully encapsulated within a compatible cementitious screed, typically 20–40 mm thick, before the final floor finish is installed. The screed stores and distributes heat evenly. Its thickness influences response time: thinner screeds warm more quickly, while thicker layers take longer to heat but retain warmth for longer.

Under self-leveller (tile, stone and engineered timber)



Self-levelling applications use Warmset fibreglass mesh and are suited to low-profile floor build-ups beneath a variety of floors such as tile, stone or engineered timber.

The mat is fixed to the substrate and encapsulated within a compatible self-levelling compound. Warmset recommends a minimum 10–12 mm layer to ensure the mat, junctions and cables are completely covered before the final floor finish is installed. Minor chasing may be required to recess the cables and maintain adequate coverage.

With less thermal mass than screed, the system generally responds more quickly. However, the final response will depend on floor material and thickness.

Can Warmset be used beneath engineered timber?

Engineered timber is a popular flooring choice among our clients, so this is a question we receive frequently.

The answer is YES.

Some engineered timber manufacturers restrict conventional electric underfloor heating because narrow heating cables can operate at high temperatures, and the heat is concentrated along the thin cable runs.

Warmset works differently. Its wide, flat heating ribbons create a broad radiating surface, distributing gentle, low-temperature heat evenly across the floor. In terms of operating temperature and heat distribution, Warmset is therefore more comparable to hydronic underfloor heating than to a conventional electric cable system.

A floor sensor and thermostat limit the floor temperature in accordance with the timber manufacturer's requirements. The selected flooring, adhesive and complete build-up must always be confirmed as suitable for underfloor heating.

Engineered timber brands used in past projects

Warmset has been installed beneath a wide range of engineered timber flooring products in past projects.

These are some of the brands that have been used in recent projects.

ASH

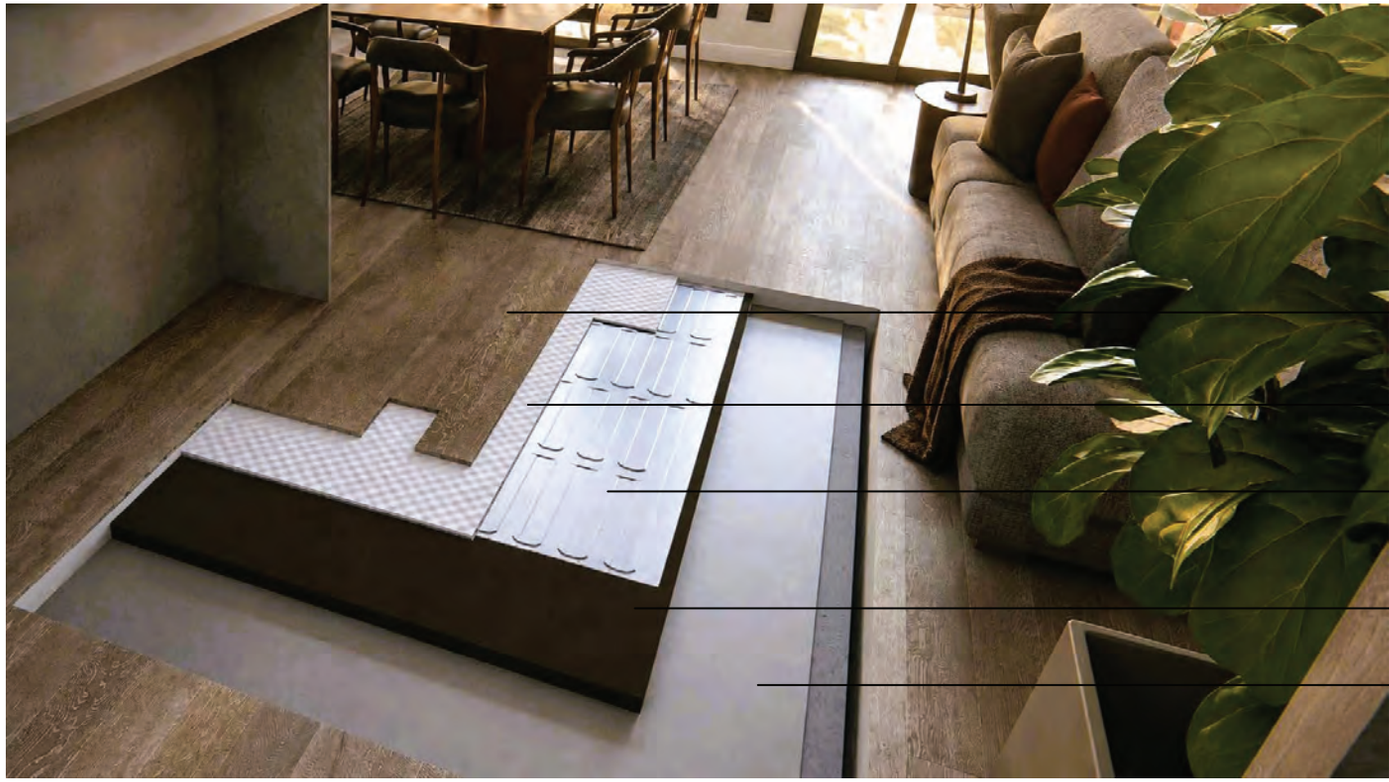
EY OR ST

HAVWOODS

QUICK·STEP FLOOR DESIGNERS

*Does not imply endorsement, partnership or universal compatibility. Suitability must always be confirmed for the specific flooring product and installation method.

Floating floors



Floating-floor applications require the aluminium-foil version of Warmset. A 5 mm insulating underlay must be laid over the substrate, followed by the 3 mm Warmset mat. The floating floor is installed directly above. Within this low-profile build-up, the aluminium foil acts as a heat spreader, distributing warmth evenly across the floor.
As no screed, self-levelling compound or adhesive encapsulation is required, installation is quick and simple.
The system adds only 8 mm to the floor build-up and, with the heating element positioned immediately beneath the flooring, responds rapidly.

Carpet floors



Carpet applications, most commonly used in bedrooms and lounge rooms, require the aluminium-foil version of the Warmset mat. A minimum 5 mm IXPE closed-cell foam underlay is laid over the subfloor, followed by the 3 mm Warmset mat and a mandatory 5 mm MDF board. The carpet is then installed above, with an optional softening underlay if required.

The aluminium foil distributes warmth evenly, while the MDF spreads concentrated furniture loads—such as the weight of a bed—across a broader surface and protects the heating element from pressure points.

Polished concrete



Polished-concrete applications use Warmset fibreglass mesh. The heating mats are secured flat to the subfloor, then fully encapsulated within a minimum 20 mm concrete layer, which is subsequently polished to create the finished surface. The concrete protects the heating system and its thermal mass absorbs and stores warmth, releasing it gradually and evenly throughout the space.

The right fit for any project

This brochure provides a quick reference to the most common Warmset floor build-ups.
The most appropriate installation method forms part of the overall construction strategy and will depend on the substrate, floor finish, available build-up and specific project requirements.

Always discuss your project with your Warmset representative.
Our technical team is available to help identify the most suitable solution.

For more detailed installation information, refer to the Warmset Installation Guide and installation videos, which are available on our website.

Warmset Australia
www.warmsetaustralia.com.au
info@warmsetaustralia.com.au
0425 321 715

warmset®
AUSTRALIA & NEW ZEALAND