**Warmup® Insulated Underlay**

The Warmup® Insulated Underlay is a thin insulation barrier that reflects heat upwards, making the underfloor heating system more efficient and effective. The insulated underlay has been specially developed for installation under the Warmup® Dual Overlay system in combination with the Warmup® foil heating system.

**Warmup® Dual Overlay**

The Warmup® Dual Overlay is a floating over boarding system providing a perfectly smooth, stable surface to which Carpet and Vinyl type flooring can be fixed.

The Warmup® Dual Overlay consists of a composite base board with a precision-finished top board. An interactive adhesive, bonds each layer together, providing a stable base. The boards can be worked easily and cut without producing dust or debris.

**Technical specification**

<table>
<thead>
<tr>
<th>Composition</th>
<th>Warmup® Insulated Underlay</th>
<th>Warmup® Dual Overlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grooved polystyrene with a silver foil with adhesive overlap.</td>
<td>MDF, fitted with an interactive adhesive.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th>Warmup® Insulated Underlay</th>
<th>Warmup® Dual Overlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width – 1200mm</td>
<td></td>
<td>600mm x 1200mm.</td>
</tr>
<tr>
<td>Length – Cut to size to cover areas of 2.5sqm,5sqm,10sqm and 25sqm.</td>
<td>Thickness – 6mm</td>
<td>Total -7mm thickness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Top board 4mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Base Board 3mm</td>
</tr>
</tbody>
</table>

| RM Value \(m^2.K.W.^{-1}\) | 0.19                        | 0.047                  |

The combined thickness of the Warmup® Dual Overlay and the Warmup® Insulated Underlay is 13mm.

**NOTE** : The Warmup dual overlay is not suitable for wet areas.

**Compatible floor coverings**

Floor coverings such as carpet, vinyl and linoleum can be laid directly on to the surface of Warmup® Dual Overlay as the Warmup®Insulated Underlay below the foil heaters will provide a cushioning from step impacts. It is important that any adhesives used are suitable for use with underfloor heating.

**NOTE** : The heating **MUST NOT** exceed 27°C and should always be controlled via a floor sensor thermostat.
Carpets and Underlays

Carpets and Underlay have a higher TOG value and a greater resistance to heat transfer, so it is important to choose carpets and underlays that have low Tog ratings. The thicker the carpet and underlay the longer the warm up time; this will have the effect of slowing the heat transfer of the flooring into the room.

It is important to check the suitability for use with underfloor heating. If you need to use an additional underlay ensure it has a low Tog rating.

NOTE: The maximum Tog rating for the carpet, underlay and the Warmup® Dual Overlay should not exceed 2.5 Tog.

Important Notes for fixing Carpet

When fixing carpet to the Warmup® Dual Overlay it is recommended to use a tackifier adhesive or the double stick method of carpet installation.

If using the stretch method of installation the gripper must be installed before the heating system. In order for the gripper to function correctly, the top surface of the gripper should be level with the top surface of the Warmup® dual overlay system or insulated underlay. This can be achieved either by using an architectural gripper or a timber spacer under a conventional gripper to raise it to the correct level.

Vinyl Type Flooring

This type of floor may be used over the Warmup® Dual Overlay, but it is important to remember that high temperature adhesives suitable for underfloor heating must be used.

When vinyl floor coverings are to be glued, fit the Warmup® dual overlay 24 hours before.

Installation Instructions

Step 1 Warmup® Insulated Underlay Fitting instructions

Ensure that the base is clean and dry. Install the insulation with the silver foil facing down. After fitting the first rows, roll out the next section of underlay. Remove the protective film from the self-adhesive overlap and stick both rows together, creating a damp proof situation.

If another form of insulation such as the Warmup® insulation board install as per the manufacturer's instructions.
Step 2 Install the Warmup® Foil heater

The Foil heater should be installed as per the manual.

Step 3 Warmup® Dual overlay fitting instructions

Once you have laid the heater and tested the system you are ready to install the Warmup® Dual overlay.

**NOTE:** The heating system **MUST** be switched off before installation.

The Warmup® Dual overlay boards must acclimatise in their sealed packaging, in the room where they are to be fitted, for at least 48 hours, at a temperature of at least 18°C. Before starting your installation it is important that you ensure your floor is permanently dry, clean and free of dust.

**Cutting the boards**

When cutting, we recommend that you use a Retractable bladed knife or similar and a straight-edge. Score the boards two or three times and then snap along the cut. This avoids making sawdust which would prevent the adhesive from bonding correctly.

**Installation Overview**

The Warmup® Dual Overlay is a floating sub-floor. It is not fixed to the floor below. Each layer is laid out with staggered joints and arranged so that the top boards overlap the joints in the baseboards. Baseboards are thinner and have a protective plastic film to keep the self-adhesive coating clean. This is laid facing upwards and the film is left in place until cutting and fitting is completed.

The top boards are thicker and have no plastic film over the adhesive coating. They are carefully positioned, adhesive side down, so that they overlap all the baseboard joints. It is important to check that any trimming of the top board is accurate and that the adhesive coating is free from dust or fragments before removing just sufficient amount of the protective film from the baseboards to allow the top board to be bonded in place. The adhesive will allow adjustments to be made for accurate positioning until pressure is applied. Ensure close contact of the adhesive coatings so to produce a strong, permanent bond. Take care to position boards accurately as it is very difficult to separate them once bonded.

**Baseboard first row (picture 1)**

The first row of baseboards is created by splitting boards in half lengthways and turning the cut edges towards the wall. The first piece is shortened to 3/4 of its length with both cut edges against the wall. Lay out the other pieces end to end in a line along the wall, adhesive side up, leaving the protective film in place. Leave an expansion gap of 8-10 mm all around the perimeter and around pipes and other fixed objects, this also applies to the final floor finish.
Baseboard second row.

Boards in the second row are laid out in the same direction as the first row. Start by cutting a board to 1/4 of its length and place this piece, with the cut end to the wall, next to the first row. Now place a full sized baseboard end to end with it and alongside the first row. The large off-cut will be used to start the third row of baseboards. Do not remove the protective film at this stage and keep the job clean and free from dust.

Top boards first row.

The top boards are laid in the same direction as the baseboards, but with the adhesive side down. The first board of this row is full size and positioned into the corner overlapping both the first and second rows of baseboards. If the board fits neatly into the corner no trimming is required, in which case it can be lifted out and the plastic film can be peeled back from the baseboards that it will cover. Avoid removing more film than is necessary to accommodate the top board on the adhesive. The top board is carefully repositioned and adjusted for alignment, at the same time the baseboards should be checked for any gaps and adjusted if required; finally the top board is fixed in place by tapping down with the rubber mallet.

Top boards second row (picture 2)

For the best result it is important to keep the joints between the top boards as tight as possible. The easiest way to achieve this is by starting the second row of top boards with a half-length piece, followed by a full board and pushing all the edges tightly together before tapping down. Adding further boards, alternately, to the first two rows keeps the lines straight and so prevents gaps from developing.

Due to possible influences of air humidity, glue the floor covering on the Warmup® Dual Overlay no later than 48 hours.

Every room should be fitted separately, leaving an expansion gap of at least 8 -10 mm and 16mm in door openings when Warmup® Dual Overlay is continued in the adjoining area.

If the floor covering is to be glued onto the total surface and should not to exceed the edges of the Warmup® Dual Overlay Boards.

This method of installation will provide a stable surface for the floor finish to rest on and avoid any joints showing through the final floor finish.

Now you have installed the Warmup® Dual Overlay boards you can either glue your final floor finish to the boards as a final layer or simply lay it freely upon them.

Before installing the final floor finish test the Warmup® foil heater(s) and floor sensor to ensure that no damage has occurred during the installation.

Note: If the floor finish is to be glued the underfloor heating system must not be switched back on until the glue has completely set. Temperatures should then be increased gradually.

If you need any further assistance regarding the product all installation or operation of the heaters please contact the Warmup Technical Support help line on 0845 345 2288.