Our recommended membrane solution for tile and stone floors

ThermoSphere is a trading name of Thermogroup Ltd.

ThermoSphere heating solutions are covered by our lifetime warranty when you register your system online.

Combined underfloor heating and uncoupling system

ThermoSphere heating and uncoupling membrane is a proven combined electric underfloor heating and uncoupling system. Rated for extra heavy use, ThermoSphere membrane is one of the most robust heated uncoupling systems available.

Underfloor heating
The membrane is designed to hold ThermoSphere membrane heating cables at variable spacing depending on the required output.

Uncoupling layer
Neutralises the stress caused by different rates of expansion and contraction in a tiled floor. This minimises the risk of tile delamination and cracking.

Superior vapour management
The studs and fleece backing in the membrane allow water vapour to escape effectively. This means you can save time by tiling over a substrate that is not fully cured.

Easy waterproofing
A fast and easy way to create a heated wetroom. ThermoSphere membrane can be installed on walls as well as floors and sealed with the ThermoSphere waterproofing kit.

Efficient load distribution
Heavy loads are no problem for floors that include a layer of ThermoSphere membrane. The stud structure transfers the load to the sub floor without risking cracks. Suitable for use in high traffic areas.
Installation overview

ThermoSphere electric underfloor heating membrane is quick and easy to install. This overview gives a guide to the basics. Always read the instructions in full before attempting your own installation.

1. Spread tile adhesive
   Spread a flexible cement based tile adhesive over the floor

2. Lay the membrane
   Roll the membrane out over the whole floor and press into the adhesive

3. Install the cable
   Press the heating cables into the membrane, in the areas that you want to be heated

4. Install the tiles
   Use a flexible adhesive to fix your tiled floor finish directly over the membrane

Always check with your floor finish manufacturer for suitability of use with floor heating and maximum temperature guidelines.

This is an illustrative guide only. Read the instruction manual that is supplied with every ThermoSphere system, in full, before attempting to install a heating system. Search “ThermoSphere” on YouTube and watch the videos.
ThermoSphere membrane

Specify enough membrane to cover the whole floor

<table>
<thead>
<tr>
<th>Stock Code</th>
<th>Description</th>
<th>Size</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDM-001</td>
<td>Decoupling Membrane 1m²</td>
<td>1 x 1m</td>
<td>Panel</td>
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<tr>
<td>HDM-005</td>
<td>Decoupling Membrane 5m²</td>
<td>5 x 1m</td>
<td>Roll</td>
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<tr>
<td>HDM-015</td>
<td>Decoupling Membrane 15m²</td>
<td>15 x 1m</td>
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</table>

ThermoSphere membrane heating cables

Select a cable to fit the heated area at the output per m² that you require. Use 3 row spacing for 130Wm² or 2 row spacing for 195Wm²

<table>
<thead>
<tr>
<th>Stock Code</th>
<th>Length (m)</th>
<th>Area 130Wm² (m²)</th>
<th>Area 195Wm² (m²)</th>
<th>Output (W)</th>
<th>Resistance (Ω)</th>
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<tbody>
<tr>
<td>HDMC-012-0150</td>
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<td>0.8</td>
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<td>HDMC-018-0225</td>
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<td>HDMC-037-0450</td>
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<td>450</td>
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<td>HDMC-050-0600</td>
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<td>600</td>
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Waterproofing accessories

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<th>Description</th>
<th>Coverage</th>
<th>Size</th>
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<tbody>
<tr>
<td>HDM-WP-01</td>
<td>Waterproofing Paste</td>
<td>Joins: 300g/lm</td>
<td>5kg</td>
<td>Bucket</td>
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<td>HDM-WT-01</td>
<td>Waterproofing Tape</td>
<td>10lm</td>
<td>10m</td>
<td>Roll</td>
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</table>
ThermoSphere heating and uncoupling membrane is designed for use under tiles and can be installed over a variety of substrates.

**Heated wetrooms installation**

- Membrane
- Heating cable
- Waterproofing paste
- Flexible cement based adhesive
- Waterproofing tape
- Tiles

If a timber, concrete or anhydrite screed is exposed to moisture the tile layer above can become damaged and completely delaminate as a result.

**Single or double ply over a ceiling void**

- Tiles
- Membrane heating cable
- Membrane
- Flexible cement based adhesive
- Single or double ply / Tile backer board

Plywood panels are vulnerable to moisture and large changes in humidity which can cause expansion, contraction, bending and deflection.

**Anhydrite based screed installation**

- Tiles
- Heating cable
- Membrane
- Anhydrite compatible adhesive
- Flexible cement based adhesive
- Anhydrite based screed

Regulations state that anhydrite (calcium sulphate) screeds must have a residual moisture level below 0.5% before tiling can begin. Failure to observe these guidelines can result in delamination and detachment of the tiles.

**Insulated concrete screed substrate**

- Tiles
- Membrane heating cable
- Membrane
- Flexible cement based adhesive
- Cement based screed

The curing process of concrete screeds can bring about long term form changes in the substrate resulting in tensions between the substrate and floor finish. These tensions can lead to cracking and delamination.