**OVERLAY™ FLOOR SYSTEM**

Overlay™ is a perfect solution for a range of projects, including new build and renovation properties, single room refurbishments, floor areas served by a single manifold, or where wall space is limited or required for appliances.

Overlay™ can be installed in most buildings and linked into the existing heating system via a zonal regulation unit (ZRU), or a stand alone system using an electric heat unit (EHU).

The system uses a low profile panel that is laid over existing solid or timber floors. The 18mm thick panels are laid on the existing load bearing floor and glued together.

The pre-formed plastic return bends are placed at opposite ends of the room.

The 12mm barrier pipe is laid in the grooves, and the system can either be directly covered by tile or laminate flooring or a 4mm plywood capping layer used for vinyl.

* PRODUCT SELECTION PROCESS

Overlay™ is available in the following room packs - 5m² (Bathroom Packs), 12m² and 20m²

**AVAILABLE AS A ROOM PACK**

*This product can be supplied as a pack see pages 36-40 for more information

<table>
<thead>
<tr>
<th>Key Design and Installation Information</th>
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<tr>
<td>Maximum heat output</td>
<td>Approx. 100w/m²</td>
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<tr>
<td>Recommended design flow temperatures</td>
<td>45° to 50°C</td>
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<tr>
<td>Maximum circuit length</td>
<td>75 metre</td>
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<td>Maximum coverage per circuit</td>
<td>12m²</td>
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<table>
<thead>
<tr>
<th>Material Requirements (Approx)</th>
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<tr>
<td>Overlay™ floor panels</td>
<td>Coverage 0-48m²</td>
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<tr>
<td>Pipe</td>
<td>7metres/m²</td>
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<tr>
<td>End returns</td>
<td>1 return bend per floor panel</td>
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<tr>
<td>12mm x 80 metre coil of pipe</td>
<td>1 coil per circuit</td>
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<tr>
<td>15mm x 12mm adaptors and stiffeners</td>
<td>1 pack per circuit</td>
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Overlay™ installation diagram
Design and planning

Planning the Overlay™ system prior to installation will save precious time during the installation and maximise the use of the products. The direction of the pipe runs / panels, location of return bends and routing of pipes in rooms with multiple circuits should be planned prior to installation. Note that return bends have a removable panel, which allows for the provision of flow and return pipes to various circuits. Control apparatus (ZRU, EHU or manifold) must be positioned either in or adjacent to rooms to be heated.

In some cases it will be necessary to use a router to create additional access to the panel grooves to ensure minimum cutting. Floor panels should be laid along the longest side of the room, similar to the process used in the laying of laminated or wooden floors.
Laying boards and end returns

1) Lay two end returns in the starting corner of the room 5mm from the wall, removing the panel for flow and return pipes as required by your plan shown below.

2) Clean dust and debris from all edges of the floor panel.

3) Apply a 3mm bead of adhesive to the first panel and glue to the end returns, ensuring that the glue does not flow into the grooves.

4) Line up panel and end return with grooves (Tip: use short lengths of 12mm pipe for alignment).

5) Staple to end return using 11-14mm staples at 150mm centres.

6) After the first row of panels is laid, stagger subsequent panels in a brickwork pattern.

7) When completed clear excess glue from grooves (use a section of 12mm pipe) and vacuum all debris from the floor.

8) You are now ready to lay pipe carefully into the floor plates.
Cutting the panels
Panels can be cut using a hand saw or jig saw, preferably set at a slow speed. Cutting the panels generates dust and, therefore, panels should be cut either outdoors or in a ventilated room. Always use a particle mask when cutting.

Laying pipe
The 12mm barrier pipe has an interference fit into the panels and, therefore, a tap with a soft headed mallet may be required. Pipes should be laid in an up and down pattern, taking the pipe out to the furthest point away from the control apparatus and working back to ensure even heat spread.

Pipe connections
Use the 15x12mm push fit adaptors and pipe stiffeners to connect the pipes to standard 15mm connections (eg manifold, zonal regulation unit or electric heat unit).

Finishing requirements
Use a dry sand and cement mix to fill the void around the perimeter pipework.

Floor coverings
Tiles and wood laminate can be laid directly over the Overlay™ system. If tiling, use a flexible adhesive and grout. If using carpet or vinyl, lay 4mm plywood over the panel and staple to the panel.

Note: Mark pipe locations to avoid stapling.