

PRODUCT INFORMATION

ISSUE 1 – Nov 2024

Product code: UFHLP15

The Low-Profile 15 System is a low-profile injection moulded underfloor heating system, designed mainly for refurbishment projects (RMI) where floor build-up is at a premium.

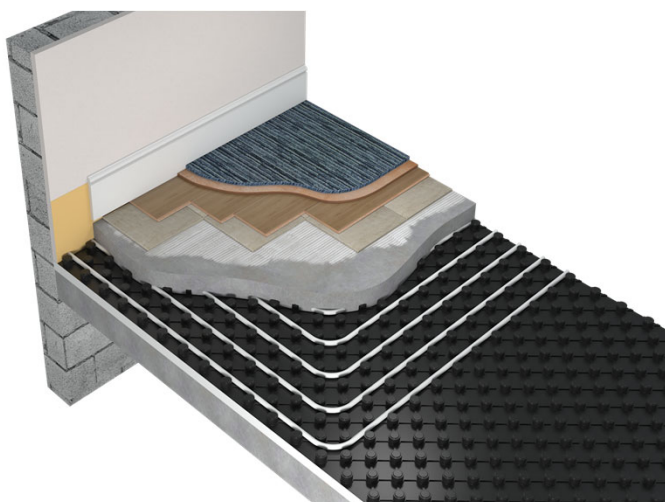
The panel has been designed for optimum system performance and to ensure accurate installation and pipe positioning. The panels are manufactured from 100% recycled polystyrene, panels can be cut to size quickly and easily, thus allowing for a quick and easy installation in any size or shaped room.

The panel's interlock for easy storage and carrying and form a precise grid for the pipe; ensuring minimum pipe bend radius is achieved. In addition, with the panels being self-adhesive backed this allows for easy fixing to the insulation layer whilst the castellations provide protection for the pipe from onsite foot traffic as well.

Requirement of Insulation

New Build Solid Floors require insulation to be installed in accordance with Part 'L' of the building regulations; a suitable layer of thermal insulation must be included in floor construction; it is the responsibility of the Contactor or Architect to provide guidance on the type of thermal insulation required and ensure compliance.

Key Design Information	
Typical Heat Output at 50°C Mean Water Temperature	91W/m ² at 100mm Pipe Spacing
Recommended Design Flow Temperatures	35-50°C
Maximum Circuit Length	120m
Maximum Coverage per Circuit	13.5m ² at 100mm pipe centres 17.5m ² at 150mm pipe centres 25m ² at 200mm pipe centres
Dimensions	1450mm x 850mm x 21mm (Castellation Height)
Fixing Method:	Self-Adhesive Backing (Virgin Hot-Melt Glue) Clear Silicon-Foil Backing (Made of virgin Low Density Polyethylene)
Approximate System Component Usages	Panel: 1 Panel/1.23m ² Ultra-Flexible Pipe: 8.2M Pipe / m ² at 100mm pipe centres 6.4M Pipe / m ² at 150mm pipe centres 4.5M Pipe / m ² at 200mm pipe centres Edge Expansion Strip: 1.1M / m ² UFH Conduit: 2m/circuit length



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Installation Guidance

- Firstly, install insulation beneath the Low Profile 15 System Panels in order to ensure that any downward heat loss does not exceed 10W/m^2 in accordance with BS EN 1264.
- Ensure any gaps in the insulation are taped to prevent any screed seeping into them should this find its way under the panels.
- Install the Polypipe Edge Expansion Strip (PB05855) around the perimeter walls & fixed constructions such as columns, steps & access doors. The edge expansion strip allows for the free expansion of the floor screed. The expansion strip comes with a self-adhesive strip, which enables faster installation. The edge expansion features a plastic apron, which lays over the top of the panel to prevent the screed seeping in and lifting the panels. The edge expansion strip should be fitted in addition to perimeter insulation as required by Building Regulations where applicable.
- Starting in the corner of the room the two sides with full nodules should be up against the wall with the two smaller sides of nodules facing into the room. Remove the self-adhesive film from the back of the panel, sticking to the floor now lay the Low Profile 15 System Panels in a brickwork fashion interlocking at the joints. The panels overlay on one short and one long side of the panel with the two sides with the smaller nodules being designed to go underneath the next panel.
- Install the 15mm Ultra-flexible Polybutylene UFH Barrier Pipe at the required centres in either a whirlpool or serpentine pattern, connecting each circuit back to the manifold making sure not to cross pipes. Consult your Bespoke Polypipe UFH Design or speak with our technical team if unsure.
- The underfloor pipework is then connected to the Polypipe Manifold and pressure tested to 6 bar; it is also highly recommended once the system is pressure tested to add an appropriate percentage of antifreeze/inhibitor if the system is to be left for a while without being operated.
- The Polypipe Low Profile 15 System is suitable to be used with most screed types such as Cementitious Flowing Screeds & Calcium Sulphate (Anhydrite) Flowing Screeds. The main determining factors on the thickness of these are the thickness of the rigid form of insulation material, as well as the finished floor covering to be used. When installed with rigid insulation below the panels the optimal thickness of the screed is 65mm however this can be thinner depending on the screed selected.

