

Red Panel System – Solid Floor

Data Sheet

PRODUCT INFORMATION

ISSUE 1 – JULY 2020

Product code: PB08576

Predominately installed in new build or renovation where a floor requires excavation – Polypipe Underfloor Heating's Red Panel System is designed for solid or screeded floors.

The Polypipe Red Floor Panel system offers optimum performance alongside quick and simple installation for solid/screeded floors.

This is the optimum performance system for Solid/Screeded floor applications.

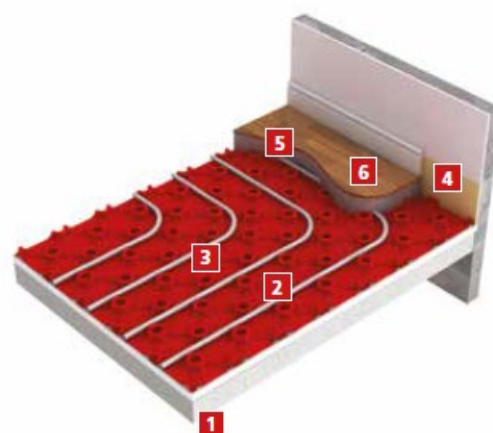
The unique, lightweight floor panels are quick and easy to cut to size and lay. The Red Floor Panels then aid in system performance by acting as a guide for laying the ultra flexible pipe in the required spacings/intervals, and best practice spiral configuration. They also lift the pipe slightly off the insulation panels laid beneath, allowing the pipes to be fully enveloped by the screed. This in turn facilitates better heat penetration and retention of the floor slab once the system is up and running.

The Red Floor Panels also offer a degree of protection for the pipes after installation, allowing other workmen access to continue working on site until the screed is poured, with a reduced risk of knocking the pipe out of position.

Choosing this system, gives you all of the benefits outlined above whilst also allowing you to offset your financial investment in the Red Floor Panels by reducing the amount spent on screed. Screed depth is measured from the bottom of the panel and the guidance castellations in the Red Floor Panels account for some of the volume within the finished floor slab, meaning you need approximately 15% less screed to achieve your required screed depth than with an alternate Solid/Screeded floor system.

Features & Benefits

- Simpler, more accurate installation
- Precise pipe positioning
- Ensures minimum pipe bending radius is achieved
- Panels are quick and easy to cut to size
- Can be used in any size or shape room
- Facilitates spiral configurations and 100 mm pipe centres
- Approximately 15% less screed required.



- 1 Insulation
- 2 Pipe
- 3 Red Floor Panel
- 4 Edge expansion
- 5 Screed
- 6 Finished floor

Key Design Information

Typical heat output at 50°C mean water temperature	91 W/m ² at 200 mm pipe spacing
Recommended design flow temperatures	50°C
Maximum circuit length	100 m
Maximum coverage per circuit	12 m ² at 100 mm centres 22 m ² at 200 mm centres 30 m ² at 300 mm centres (18 mm pipe only)

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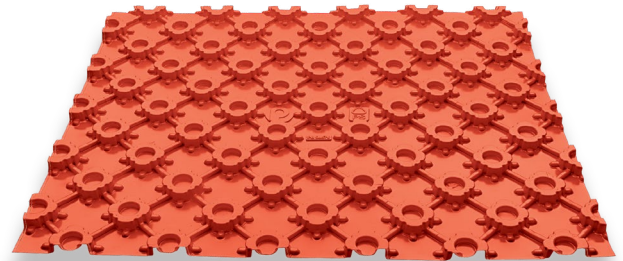
Product Information

Technical Properties:

The panel is manufactured from a vacuumed formed high impacted raisin enabling quick installation and easy cutting, this allowing Polypipe underfloor heating to be installed into any shaped or size room.

In addition, the unique castellation's slightly lifts the pipe off the insulation allowing the pipe to be fully enveloped by the screed; this in turn helps better heat penetration and retention of the floor slab once the system is in full operation. The castellation also represent saving of approximately 15% on required screed. Polypipe's Red Floor Plate accommodates for 15mm, 16mm & 18mm diameter pipe.

The Ultra-Flexible Underfloor Heating Pipe is predominately installed in a spiral pattern, this enables the pipe to be installed at 100mm or 200mm centres allowing for a more even heat distribution.



Installation Guidance

- Insulation should 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.
- The edge expansion strip allows the free expansion of the floor screed. The expansion strip comes with a self-adhesive strip, which enables faster installation it should be installed around the perimeter wall and around fixed constructions such as columns, steps and access doors.
- The edge expansion features a plastic apron, which lays over the top of the insulation panel to prevent the screed seeping in and lifting the panels. Edge expansion strip should be fitted in addition to perimeter insulation as required by Building Regulations.
- If a liquid screed is being applied, the insulation must be taped and sealed to provide a watertight layer.
- Polypipe ultra-flexible underfloor heating pipework is installed in circuits and secured by the unique pipe retention ridge built into the castellation design.
- The underfloor pipework is then connected to Polypipe's exclusive Auto-balancing Manifold and then pressure tested to 6 bar, it is also highly recommended once the system is pressure tested to add an appropriate percentage of antifreeze/inhibitor.
- As soon as practical after the installation is completed, the screed should be laid over the system to the required depth.