

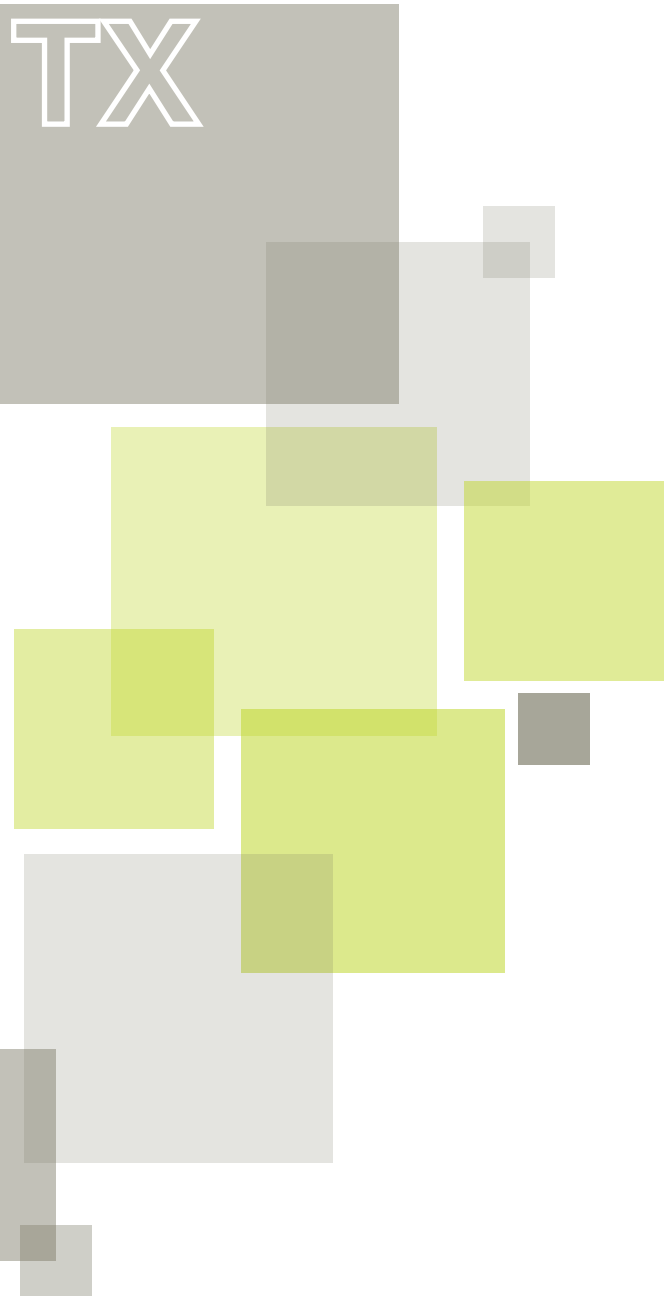


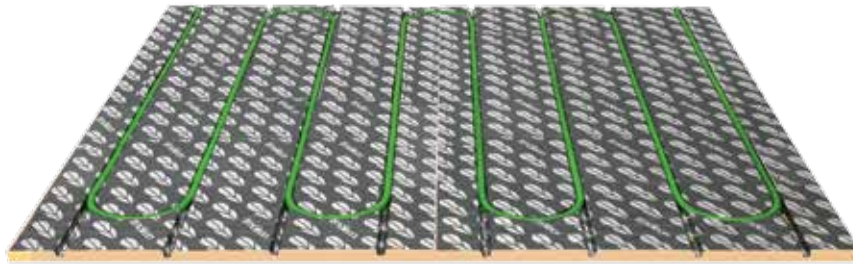
Installation Guides, Data Sheets & Technical Index's

Floating Floor Constructions

TX 107

Detailed technical information on the use with underfloor heating.





Floating floor UFH installations are generally achieved by laying pre-formed high density polystyrene onto either an existing floor system or a new construction. The polystyrene panels will have been formed to accept the continuous underfloor heating pipe work and often an aluminium diffuser will be used to help the distribution of heat.

The insulation continuously supports the tongue and groove floor deck that is laid over. The supporting insulation should have a minimum density of 15 kg/m³ if expanded polystyrene and 25 kg/m³ if extruded polystyrene. As the insulation fully supports the floor deck no battens are required except at thresholds, room perimeters, access traps and movement gaps.

When used in a robust standard detail for compliance with Part E no underfloor heating can be installed within the fully floating floor resilient layers FFT 4 or FFT 5. If an underfloor heating system is used in this application the construction will need PCT (pre-completion testing) to confirm compliance with Part E, the continuous insulation layer in the construction being substituted with a Timoleon Floating floor system. It is advisable to use one of the other floating floor treatments using resilient acoustic battens or use E-FT-5, a floating floor system using a ScreedBoard overlay..

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- Foilboard Floating floor Construction & Datasheets
- FoilBoard SRB floor Construction & Datasheets



LowBoard Flooring System for Floating Floor Constructions

INTRODUCTION

The LowBoard is a 15mm thick panel laid over a solid sub floor. The low panel height makes it suitable where there is not enough floor-to-ceiling height to install a conventional underfloor heating system. The panel has a multidirectional design that allows the pipe to be installed in any direction. The universal panel is simply laid across the floor – no loop ends and straights to configure – and the pipe is pressed into the channels. A 6mm ply is laid and fixed over the LowBoard panels to complete the floor. Insulation must be present in the floor.

INSTALLATION

1. Make sure the floor is flat and level and has been swept to remove all debris.
2. Starting at one corner, leaving a 10mm gap around the perimeter, lay the first panel.
3. Continue laying the panels making sure that the exit routs between panels are aligned.
4. Following the issued CAD drawing and starting at the manifold position push the pipe into the routed channels. The circuit will finish at the manifold.
5. Pressure test each circuit to ensure that it has not been damaged in installation. Keep the pipe under pressure until the floor is complete.
6. With all the circuits installed lay and screw the 6mm covering layer over the LowBoard panels.

SPECIFICATION

Timoleon LowBoard system using 12mm PE-RT pipe. The 15mm LowBoard panels to be laid fully floating as a continuous layer over a subfloor. A 6mm covering layer such as ply is then to be fixed over the LowBoard panels. The system is to be designed, installed and commissioned to BS1264.

TECHNICAL INFORMATION

Pipe – 12mm PE-RT pipe with EVOH oxygen barrier.

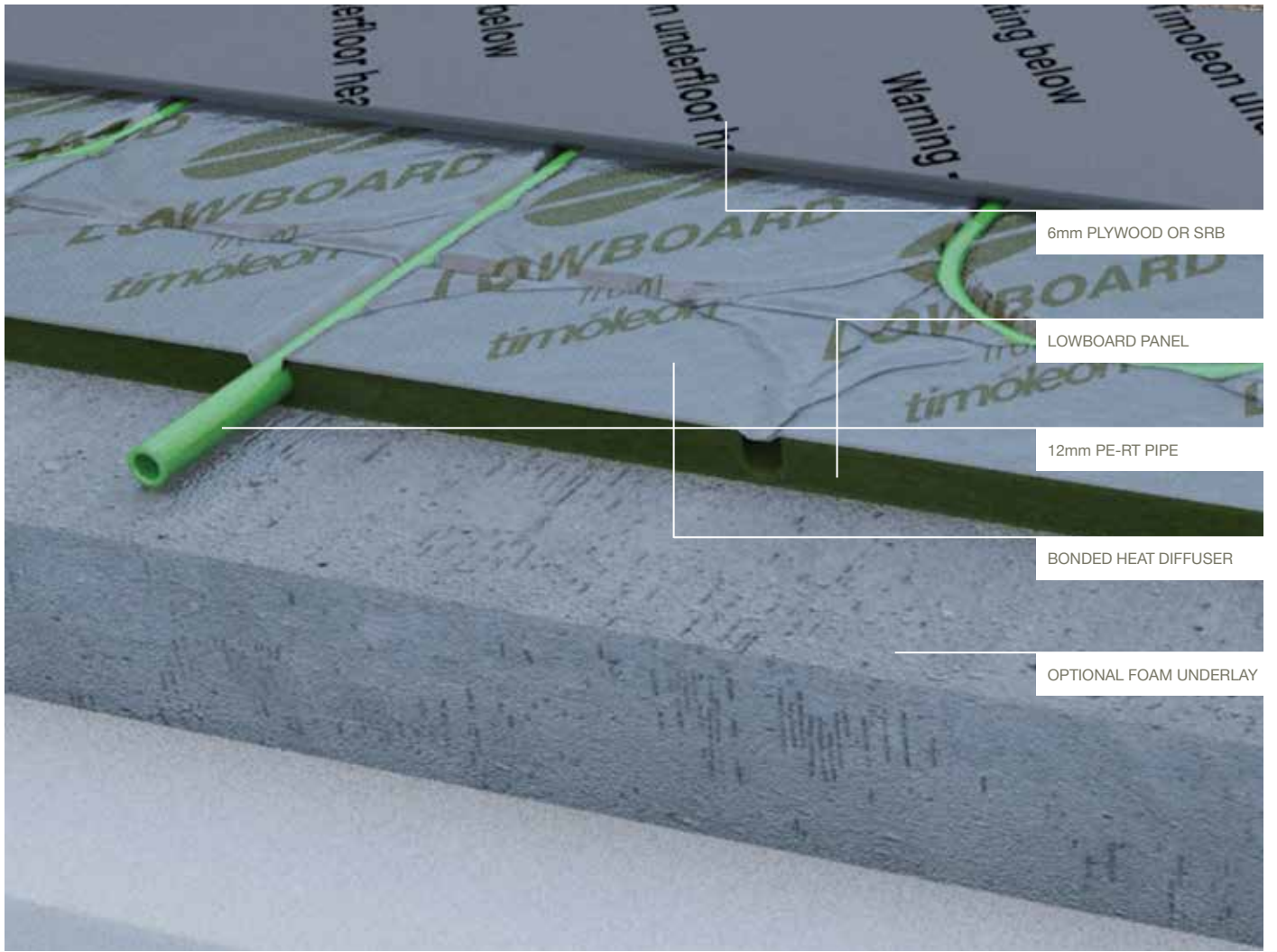
LowBoard panels – 15mm wood supporting panel with integrated diffuser. Panel dimensions are 1200x600mm. Pipe is set at 150mm centres.

Heat outputs are dependent on the water temperature, floor construction (including insulation levels), system dimensioning, floor finish & design conditions. Please call 01392 363605 for advice.

Heat Output Table (W/m ²)	Flow & return water temperature (°C)		
	50/40	45/35	40/30
Tile Finish (0.01m ² K/W)	76	60	44
15mm Wood Finish (0.1m ² K/W)	66	52	39
Carpet & Underlay (0.15 m ² K/W)	62	49	36

Heat output based on standard product with high-output aluminium foil and 6mm ply installed over (12mm ply for tiles). Air Temperature = 20°C





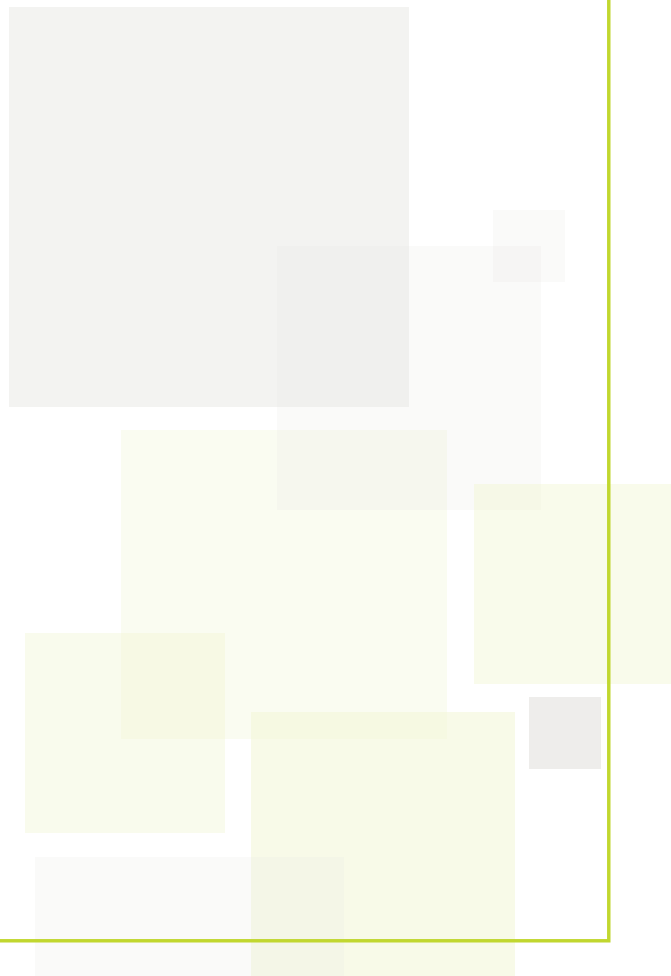
6mm PLYWOOD OR SRB

LOWBOARD PANEL

12mm PE-RT PIPE

BONDED HEAT DIFFUSER

OPTIONAL FOAM UNDERLAY



FoilBoard System for Battened Floor Constructions

INTRODUCTION

Our FoilBoard Floating system is laid over a solid floor. The panels provide the support for the fully floating floor deck that is laid over. Each panel is manufactured from extruded polystyrene insulation which has a high compressive strength, suitable for floating floor applications.

The heat diffusers are pre-bonded and made from soft temper aluminium. As no thick rigid plates are used the panels are easily trimmed on site.

Once the insulation is laid a tongue and groove floor deck is laid over. The product is available in standard thicknesses from 25mm to 75mm, however other thicknesses are available to suit your project as required.

INSTALLATION

1. Lay the FoilBoard loop panels at each end of the room over a level floor according to the design.
2. Lay FoilBoard straight panels between the loop ends.
3. Use plain insulation of the same thickness and grade to complete the floor where necessary.
4. Starting at the manifold, push the pipe into the FoilBoard grooves according to the design.
5. Pressure test each circuit prior to laying floor deck and finish.
6. Lay a fully floating tongue and groove floor deck over. Keep under pressure.

Note : Please refer to installation guides for full installation details

SPECIFICATION

Timoleon Foilboard Floating system using 16mm PE-RT pipe installed into FoilBoard panels comprising of 50mm XPS with pre-bonded heat diffusers to be installed between 50x50mm battens at 400mm centres. Floor Deck to be laid and fixed over. The system to be designed, installed and commissioned to BS1264.

TECHNICAL INFORMATION

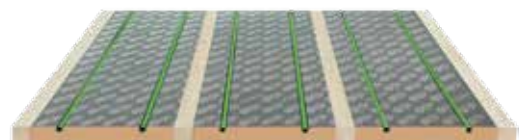
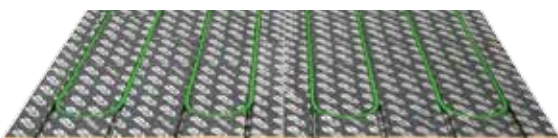
Pipe – 16mm PE-RT pipe with EVOH oxygen barrier.

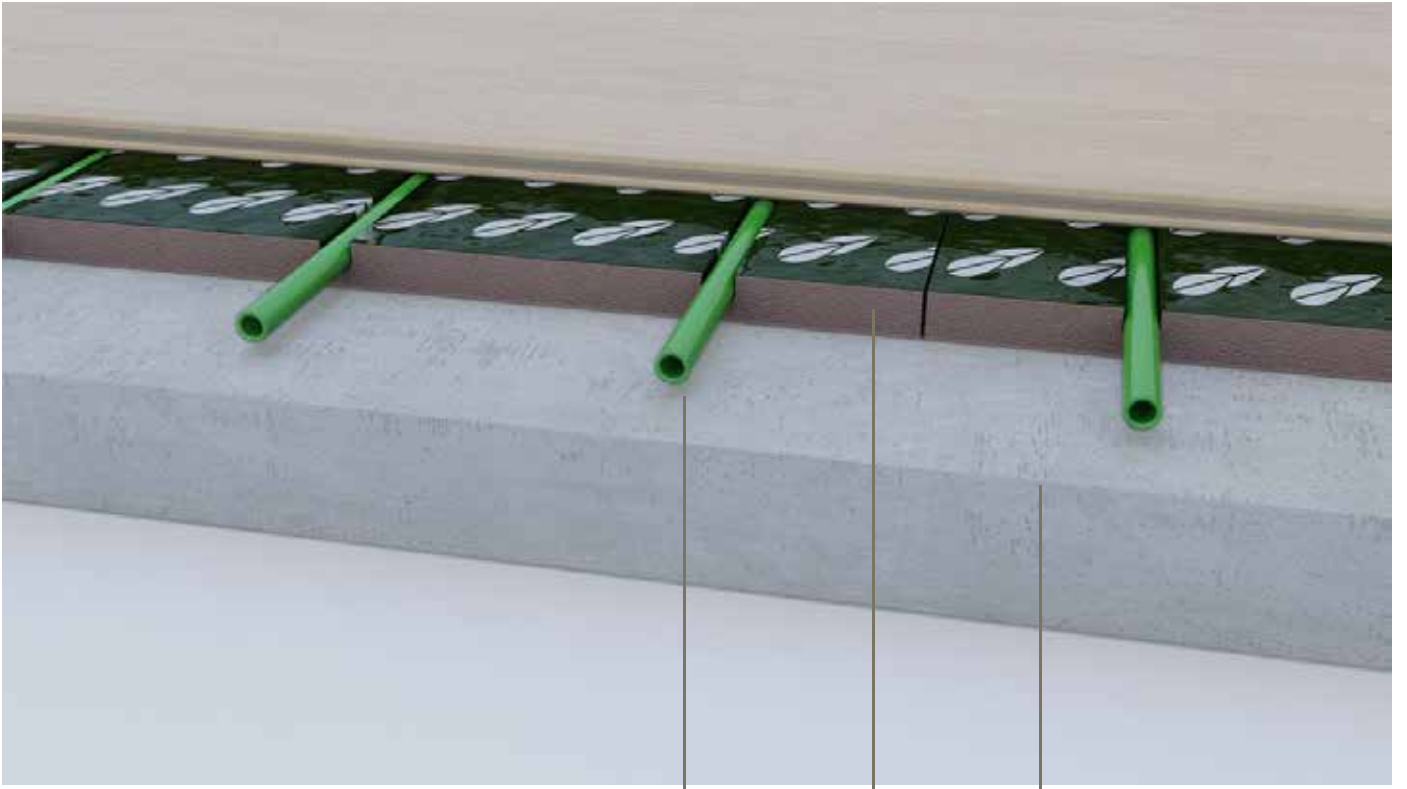
Foilboard Batten Panel – XPS polystyrene panel with pre-bonded soft temper aluminium ($k=0.033W/mK$). Panel dimensions 1200mm x 600mm x 50mm (other thicknesses are available).

Heat outputs are dependent on the water temperature, floor construction, system dimensioning, floor finish & design conditions. Please call 01392 363605 for advice.

	Flow & return water temperature (°C)		
Heat Output Table (W/m ²)	50/40	45/35	40/30
Tile Finish (0.01m ² K/W)	66	53	39
15mm Wood Finish (0.1m ² K/W)	53	42	31
Carpet & Underlay (0.15 m ² K/W)	47	38	28

Based on 16mm PE-RT pipe at 150mm centres using standard product with 18mm chipboard laid over.
0.15 m²K/W = 1.5 TOG.





15MM PIPE

FOILBOARD

CONCRETE SUBFLOOR



FoilBoard SRB for Floating Floor Constructions

INTRODUCTION

Our FoilBoard Floating SRB system is laid over a solid floor. Each panel is manufactured from extra high density insulation which has a high compressive strength, suitable for floating floor applications.

The heat diffusers are pre-bonded and made from soft temper aluminium. As no thick rigid plates are used the panels are easily trimmed on site.

Once the insulation is laid a screed replacement board (SRB) is laid over. The SRBs are made from highly conductive cementitious materials, similar to that of concrete screeds, that improve the performance of the underfloor heating system. Using SRBs mean that the underfloor heating system can run at even lower water temperatures further improving the efficiency of a heat pump.

The product is available in a standard thickness of 35mm to 75mm, however any thickness is available to suit construction as required. SRB panels are available from Timoleon.

INSTALLATION

1. Lay the FoilBoard loop panels at each end of the room over a level floor according to the design.
2. Lay FoilBoard straight panels between the loop ends.
3. Use plain insulation of the same thickness and grade to complete the floor where necessary.
4. Starting at the manifold, push the pipe into the FoilBoard grooves according to the design.
5. Pressure test each circuit prior to laying the SRBs and finish.
6. Lay the fully floating tongue and groove SRBs over the FoilBoard panels. Keep under pressure.

Note : Please refer to installation guides for full installation details

SPECIFICATION

Timoleon FoilBoard Floating system using 16mm PE-RT pipe to BS7291 installed into XXmm FoilBoard panels comprising of insulation with pre-bonded heat diffusers to be installed as a continuous insulation layer to support a fully floating floor. 23mm Timoleon Screed Replacement Boards to be laid over. The system to be designed, installed and commissioned to BS1264.

TECHNICAL INFORMATION

Pipe – 16mm PE-RT pipe with EVOH oxygen barrier.

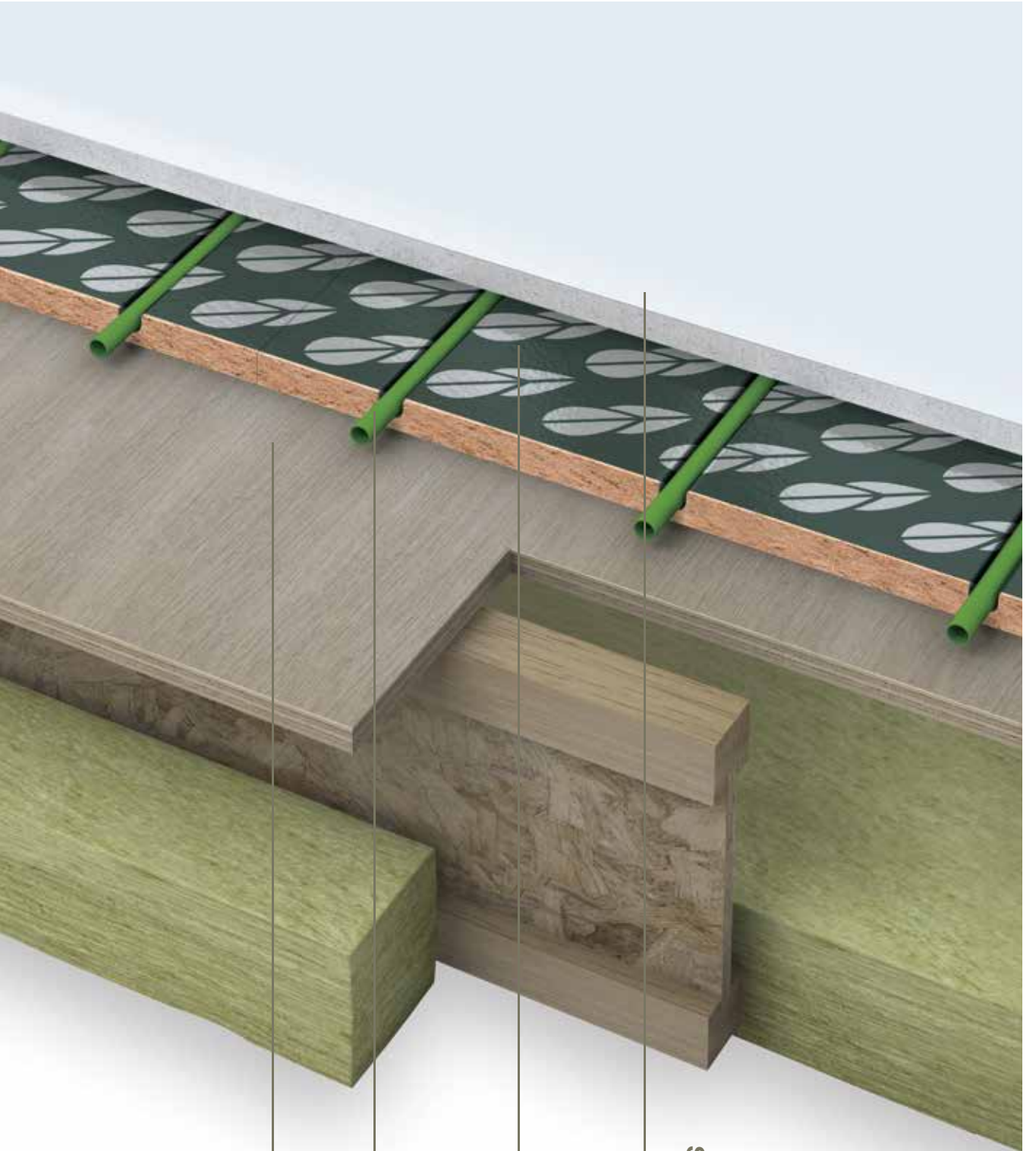
FoilBoard Floating Panels – insulation panel with pre-bonded soft temper aluminium (k=0.039W/mK). Panel dimensions 1200mm x 600mm x 35mm (other thicknesses are available).

Heat outputs are dependent on the water temperature, floor construction, system dimensioning, floor finish & design conditions. Please call 01392 363605 for advice.

Heat Output Table (W/m ²)	Flow & return water temperature (°C)		
	50/40	45/35	40/30
Tile Finish (0.01m ² K/W)	90	72	53
15mm Wood Finish (0.1m ² K/W)	72	57	42
Carpet & Underlay (0.15 m ² K/W)	63	50	37

Based on 16mm PE-RT pipe at 150mm centres (higher performance configuration) with Timoleon 23mm SRB panels laid over. 0.15 m²K/W = 1.5 TOG. Air Temperature = 20°C





**SCREED REPLACEMENT
BOARD**

FOILBOARD

15MM PIPE

FLOOR DECK



streamline

STREAMLINE - SERVICING & SUPPORT

Timóleon Streamline provides a specialist service that commissions, services and troubleshoots underfloor heating systems.

Underfloor heating systems have a well deserved reputation for reliability, but from time to time, can provide the owners with problems. Systems that develop problems, haven't been commissioned properly or have been poorly serviced will inevitably become less effective and less energy efficient.

A properly commissioned and maintained system will keep it working as efficiently as possible throughout its life time, will reduce energy bills and will maximise the life of its components.

To enquire about servicing or commissioning your underfloor heating system or for more information about any of our products, please call us on 0845 6803605.

HELP & ADVICE

Questions?

Call the project team on
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timoleon

Change is coming.
We are ready.
We can help you face it.

