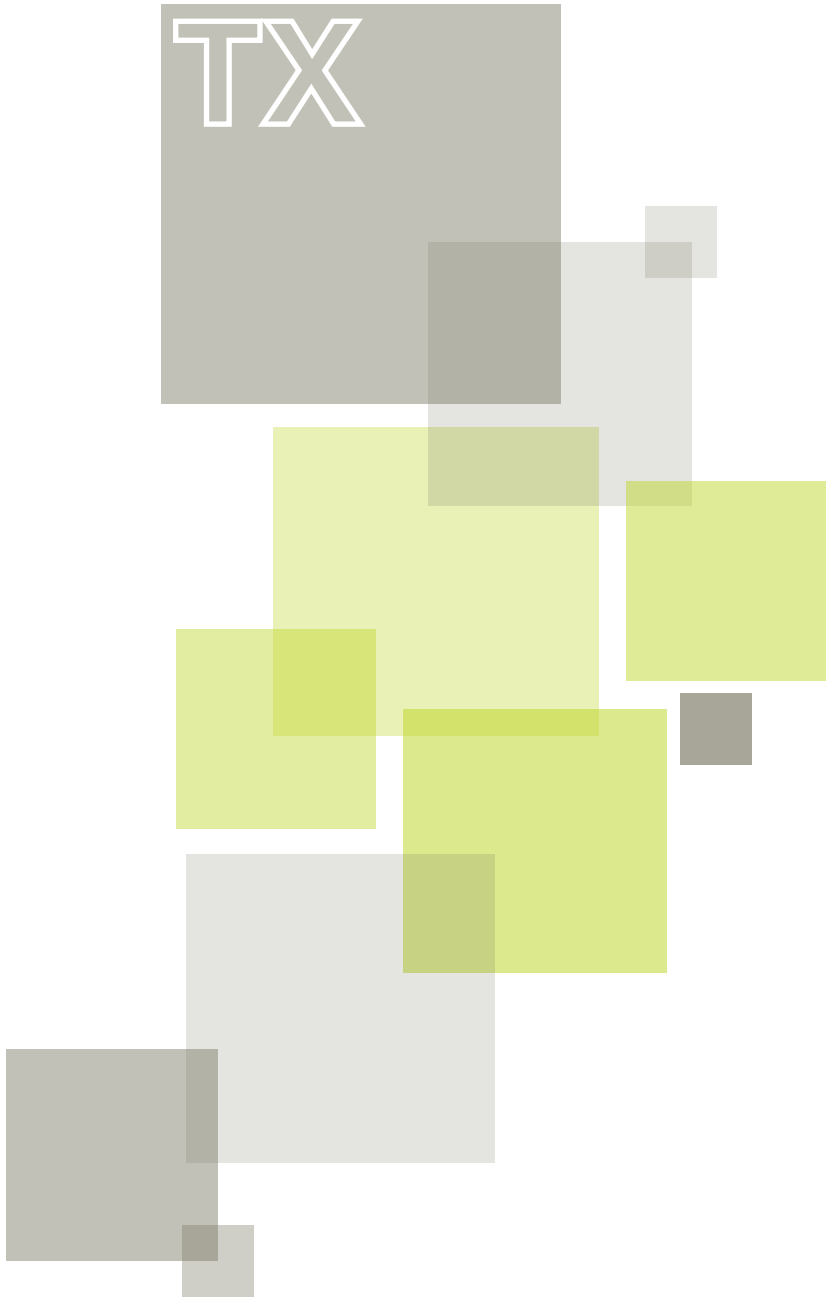
timoleon

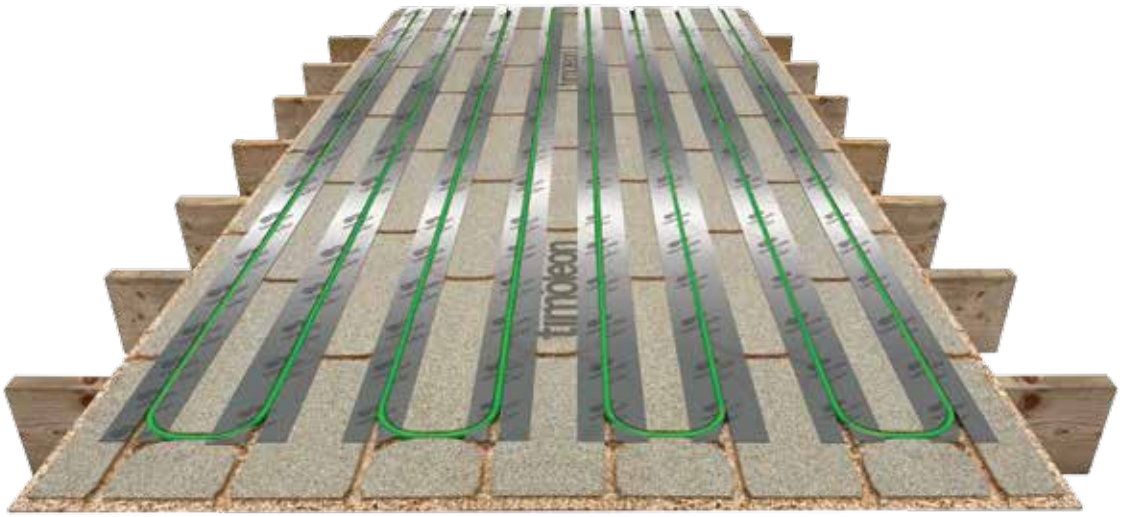
Installation Guides, Data Sheets & Technical Index's

Battened Floor Constructions

TX 105

Detailed technical information on the use with underfloor heating.





Toron2

ToronFloor panels are manufactured from flooring grade chipboard or plywood. The pre-machined panels are routed with a unique pattern to accept 12mm pipe. The design of the panel makes it suitable as a structural floor deck.

The panels are laid and fixed onto the joists in the same way as a normal chipboard floor. The pipe is installed into the grooves with the ends of the circuit dropping into the joist space to then continue to the manifold.

With the pipe installed the pre-glued Toron covering layer is then applied to complete the floor.

IN THIS INDEX:

ToronFloor System for Battened Floor Constructions

INTRODUCTION

The ToronFloor system is a low build up structural underfloor heating system designed to work well with heat pumps. The panels have the pipe as close to the floor finish as possible. This maximises the heat output of the panels whilst minimising the temperature of the water being used.

The system replaces the chipboard or plywood floor deck used in the construction, the panels having pre-routed channels to accept the continuous pipe. The Toron panels are laid on the battens according to the Timoleon design, the pipe is then installed into the channels with the ends of each circuit dropping into the batten space to be connected to a common flow and return.

Once installed an aluminium strip is applied to further improve performance and provide a method for detecting the pipe. A6mm covering ply completes the floor.

INSTALLATION

1. Lay the Toron plywood or chipboard panels according to the design, starting from the corner of the room.

2. All tongues and grooves must be fully glued and the panels screwed to the top of the battens.

3. Starting at the manifold install the pipe into the channels, following the drawing.

4. Run the pipe into the batten space where the circuits are to be connected to a common flow and return.

5. Notch the batten wherever the pipe will cross.

6. Pressure test prior to laying floor deck and finish.

7. Use 6mm ply or equivalent to cover the panels. Keep the system under pressure until the covering ply or flooring has been installed.

Note : Please refer to installation guides for full installation details.

SPECIFICATION

Timoleon ToronFloor system with 22mm moisture resistant plywood or chipboard routed to accept 12mm PE-RT pipe. The Toron flooring panels laid over the battens at 400mm centres and with a 6mm ply or equivalent laid over. The system to be designed, installed and commissioned to BS1264.

TECHNICAL INFORMATION

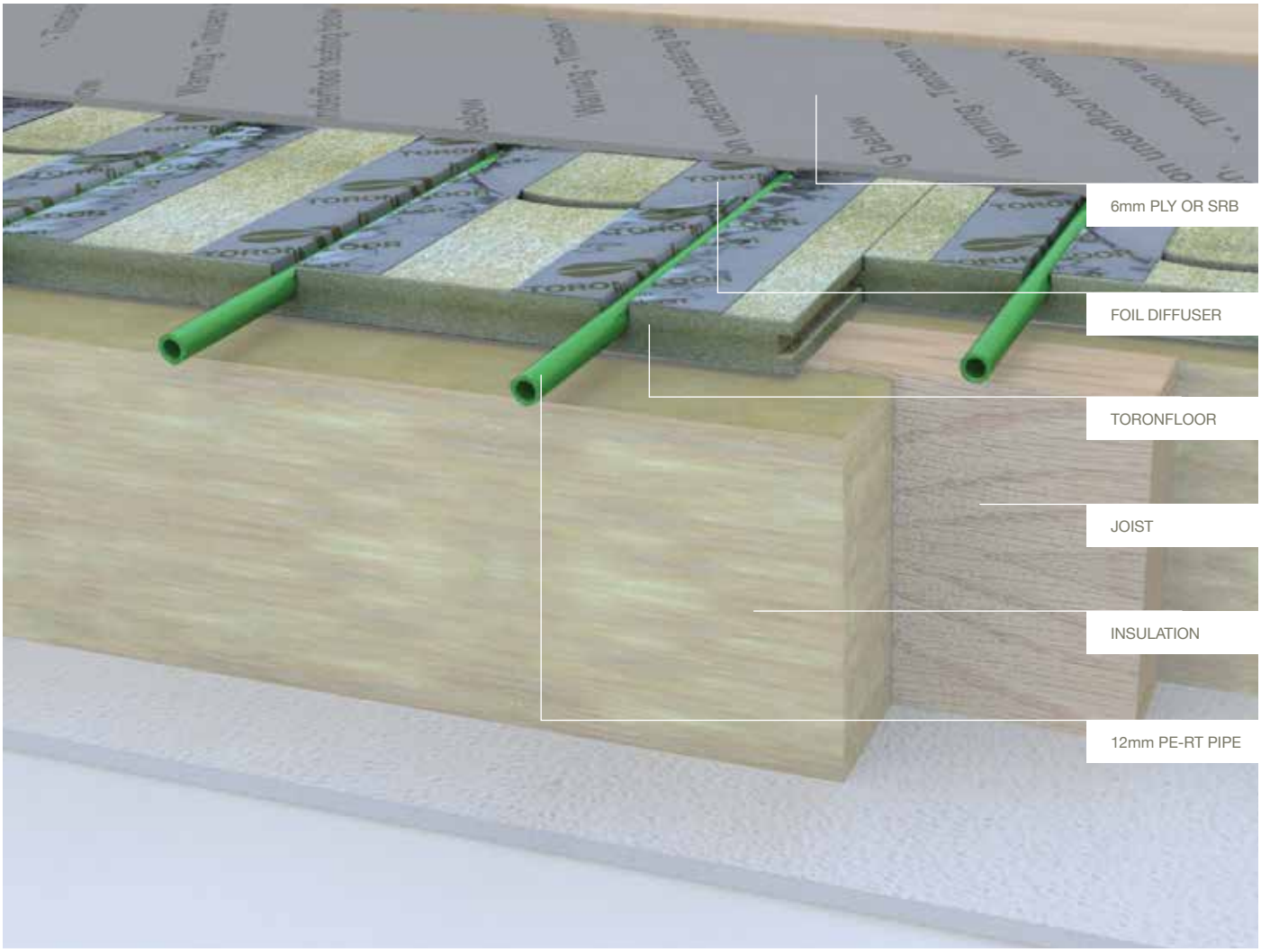
Pipe – 12mm EVOH oxygen barrier PE-RT pipe.

Panel – 22mm tongue and groove Plywood or Chipboard panel (2400mmx600mm) moisture resistant.

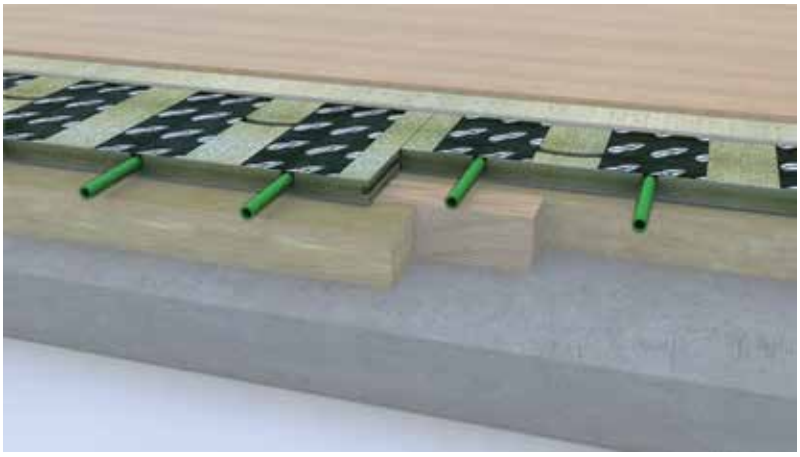
Heat outputs are dependent on the water temperature, floor construction, system dimensioning, floor finish & design conditions. Please call 01392 363605 for advice.

	Flow & return water temperature (°C)		
Heat Output Table (W/m²)	50/40	45/35	40/30
Tile Finish (0.01m²K/W)	67	54	40
15mm Wood Finish (0.1m²K/W)	59	47	35
Carpet & Underlay (0.15 m²K/W	56	45	33

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



New & improved ToronFloor 2 - for Suspended & Battened floors (Supplied on all new projects using ToronFloor



Old ToronFloor 1st edition - Battened Floor
(Please note: Manufacturing has stopped on this product)

FoilBoard System for Battened Floor Constructions

INTRODUCTION

Our FoilBoard system can be laid between timber battens. The FoilBoard panels are manufactured from XPS insulation with pre-bonded soft temper aluminium. As no thick rigid plates are used the panels can be easily trimmed on site.

The panels are designed so that when a floor deck is laid over and fixed to the battens it will be in direct contact with the heat diffuser, ensuring good thermal transfer. The nature of the FoilBoard panel to transfer heat efficiently increases performance by over 30% compared to systems that do not use heat diffusers.

The standard product is available in thicknesses from 25mm to 75mm and for a variety of batten centres. However, FoilBoard can be manufactured to a specification to suit your construction.

INSTALLATION

1. Lay 50mm battens at 400mm centres and to best practice.

2. Between each batten lay the FoilBoard loop panels at each end of the run.

3. Lay FoilBoard straight panels between the loop panels, trimming where necessary.

4. Notch the batten wherever the pipe will cross.

5. Starting at the manifold, lay the pipe into the FoilBoard according to the design.

6. Pressure test prior to laying the floor deck and finish. Keep under pressure.

Note : Please refer to installation guides for full installation details

SPECIFICATION

Timoleon Foilboard Batten 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

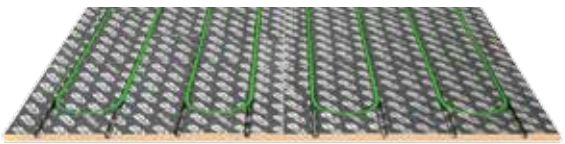
Pipe – 16mm PE-RT Pipe

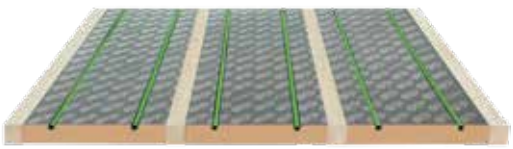
Foilboard Batten Panel – XPS polystyrene panel with pre-bonded soft temper aluminium (k=0.033W/mK).

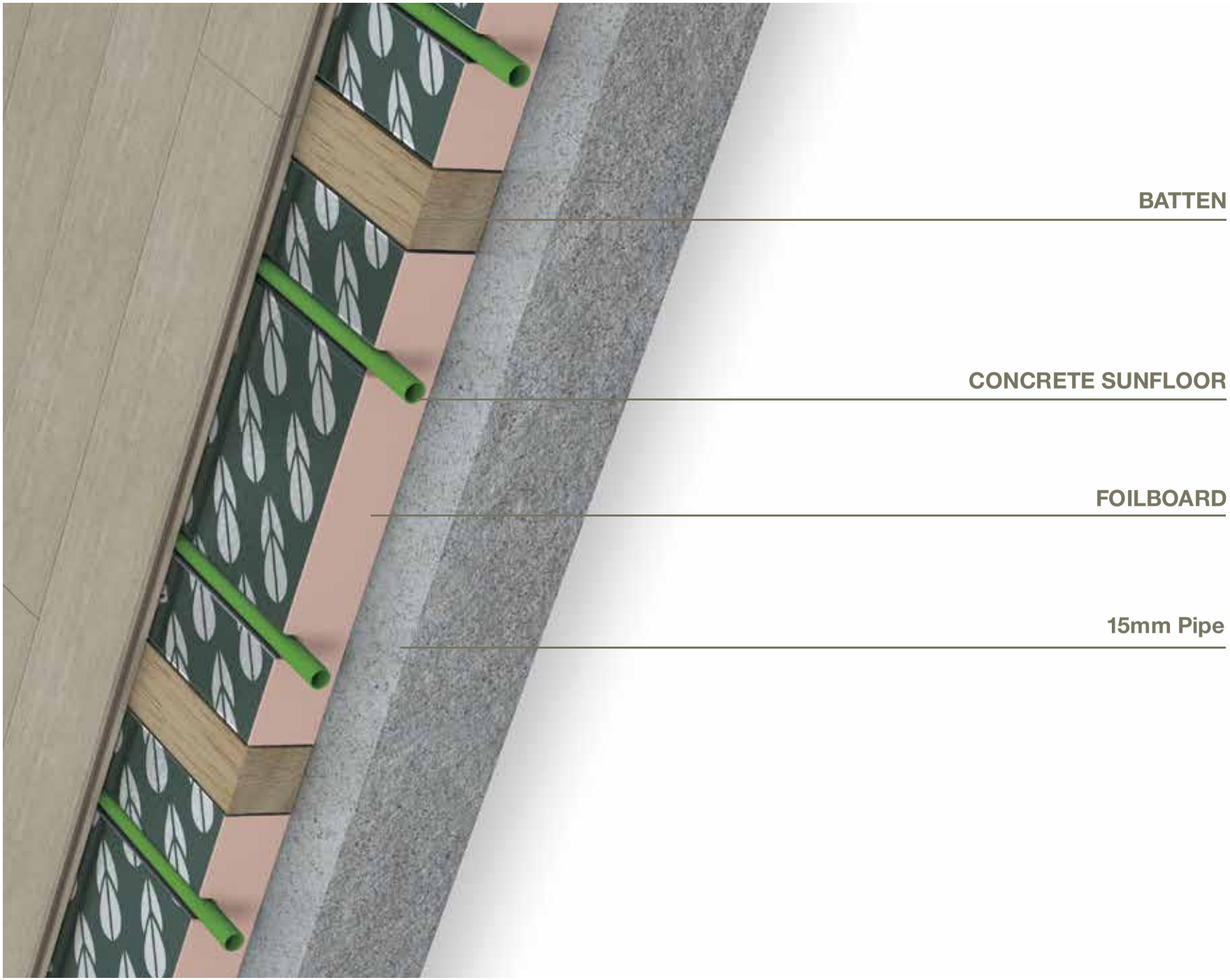
Heat outputs are dependent on the water temperature, floor construction, system dimensioning, floor finish & design conditions. Please call 01392 363605 for advice.

	Flow & return water temperature (^{0}C)		
Heat Output Table (W/m^2)	50/40	45/35	40/30
Tile Finish (0.01m^{2}K/W)	46	37	27
15mm Wood Finish (0.1m^{2}K/W)	41	33	24
Carpet & Underlay (0.15 m^{2}K/W	37	29	22

Based on 16mm PE-RT pipe at 200mm centres using standard product (high performance configurations available) with 18mm chipboard laid over (plus 10mm ply for tiles). 0.15 m^{2}K/W = 1.5 TOG.
Air Temperature = 20^{0}c






BATTEN
CONCRETE SUNFLOOR
FOILBOARD
15mm Pipe

AB Plate System For Acoustic Batten Constructions

INTRODUCTION

The AB Plate is suitable for Acoustic Batten Constructions. The AB Plates are pre-formed diffuser plates designed to be installed over acoustic battens. The modules have integrated insulation to ensure the performance and output though the floor deck. The “wings” of the module are angled slightly upwards so that when the floor deck is laid there is guaranteed contact. The system complies with the requirements of an underfloor heating system in an acoustic RD construction.

INSTALLATION

1. Lay the acoustic battens and insulation quilt to manufacturer’s instructions

2. Fix the plates to the top of the joist, snapping the plate to fit where the plate needs to be trimmed

3. Fix the plates to the batten though the centre hole

4. With the plates installed insert the pipe into the modules following the drawing. The circuit will start and finish at the manifold.

5. The pipe should be pressure tested and left under pressure while the gypsum layer and floor deck are installed tocomplete the floor deck.

SPECIFICATION

Timoleon AB Plate system with pre-formed insulated modules to be installed over acoustic battens laid at 400 to 450mm centres with grooves for 16mm PE-RT pipe.

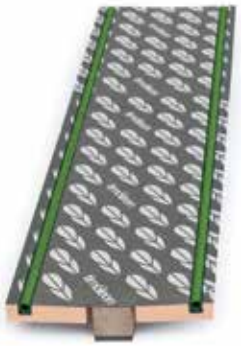
TECHNICAL INFORMATION

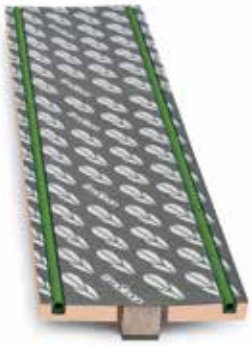
Pipe – 16mm PE-RT pipe with EVOH oxygen barrier.

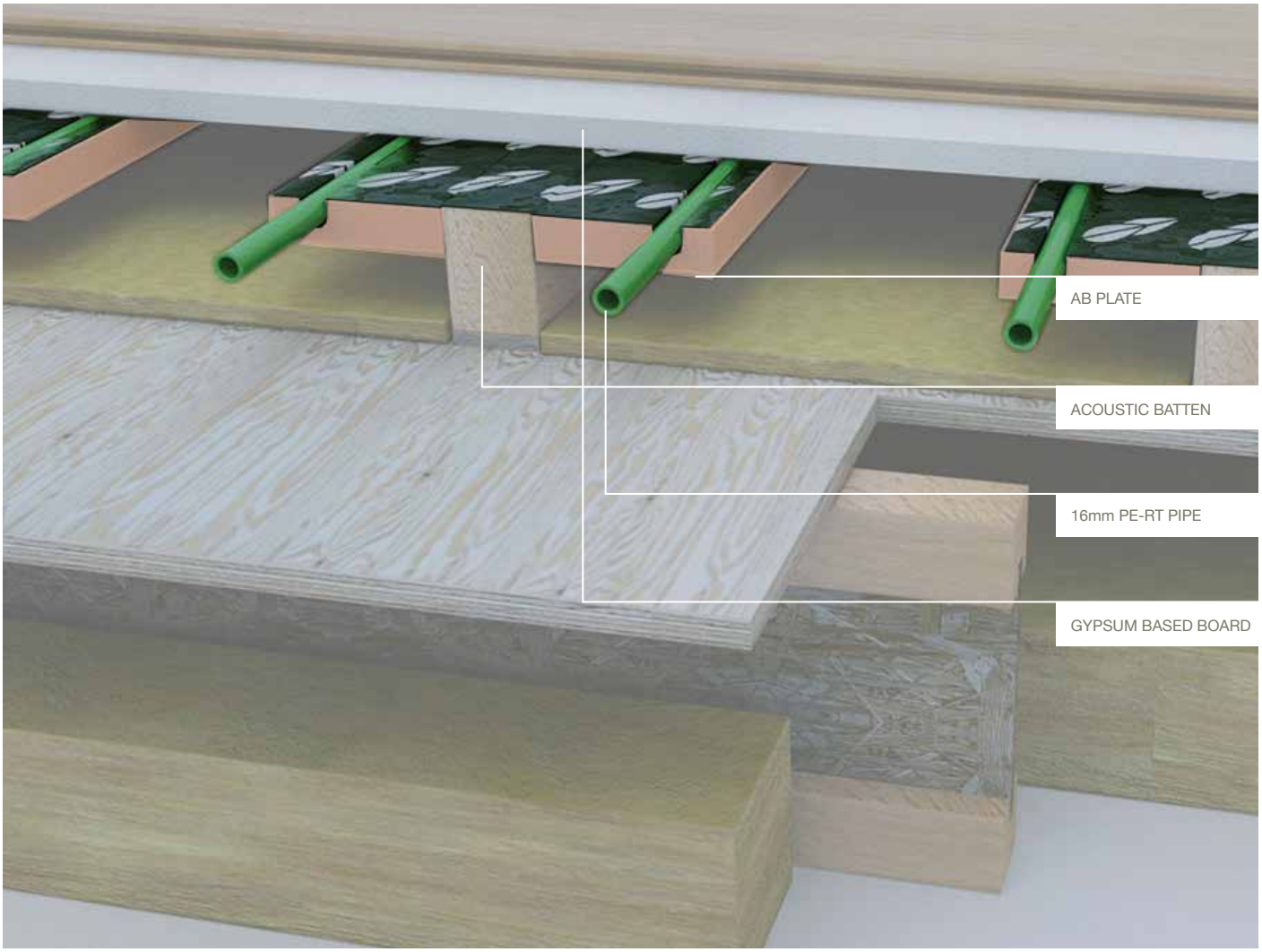
Heat outputs are dependent on the water temperature, floor construction, system dimensioning, floor finish & design conditions. Please call 01392 363605 for advice.

	Flow & return water temperature (ºC)		
Heat Output Table (W/m²)	50/40	45/35	40/30
Tile Finish (0.01m²K/W)	51	40	30
15mm Wood Finish (0.1m²K/W)	45	36	26
Carpet & Underlay (0.15 m²K/W	38	30	22

Based on 16mm PE-RT pipe at 200mm centres with 18mm chipboard laid over (additional 10mm ply with tiles).
Air Temperature = 20°c






AB PLATE
ACOUSTIC BATTEN
16mm PE-RT PIPE
GYPSUM BASED BOARD

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

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timoleon

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