

Dry Construction Floors Underfloor Heating

Foiled Polystyrene for Joisted/ Battened Floors

Overview

Product

Insulation panels with pre-fitted heat diffuser and pre-routed channels for UFH pipe.

Application

Placement within new or existing timber joisted and battened floor constructions.

In joisted applications, installation work for this system may be from either above or below the floor construction.

Features and Benefits

Product

- ⊕ Pipe and diffuser is fully constrained by the insulation: enables full contact with overlying floor deck
- ⊕ Insulation thickness options: joisted floors = 50/75mm, battened floors = 25/35/50/75mm
- ⊕ Panels to suit 400 and 600mm joists
- ⊕ Bespoke panels are available for nonstandard joist spacing
- ⊕ Supplied with integral PET film

Design/Installation

- ⊕ Separate diffuser plate not required
- ⊕ Easy/fast installation
- ⊕ No pugging or wet trades required: no delay of laying floor deck
- ⊕ Insulation and UFH pipe base installed simultaneously: saves labour time/costs
- ⊕ Panels can be neatly trimmed using circular saw
- ⊕ Pipe in serpentine pattern to follow joists/battens layout
- ⊕ Plastic film shields pipe channels from dirt and debris, enabling better contact between the pipe and the aluminium heat diffuser

System Performance

- ⊕ Floor structure has low thermal mass = fast response to heat demand changes
- ⊕ Fixed pipe centres ensure consistent thermal output
- ⊕ Plastic film prevents floor ticking caused by the diffuser's expansion and contraction



Transitional Areas

For transitional areas, dedicated channel panels are available which insulate the flow and return pipes reducing localised overheating. Where pipes need to be supported and secured for run up wall to manifold: Curved Pipe Supports and Clamps are available (see underfloor heating product guide).

Technical Information

Base Material:	Extruded Polystyrene
Thermal Conductivity:	0.033W/mK
Ozone Depleting Potential:	0
Global Warming Potential:	<5
Density:	33kg/m ³
Compressive Strength:	300kN/m ²
Long Term Load:	130kN/m ²
Panel Dimensions:	2400 x 340/540mm
Panel Thickness:	25, 35, 50 or 75mm
Pipe Spacing:	200mm

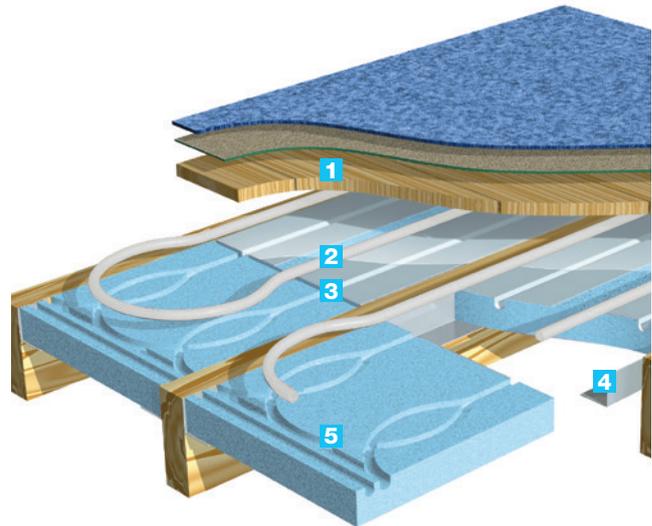
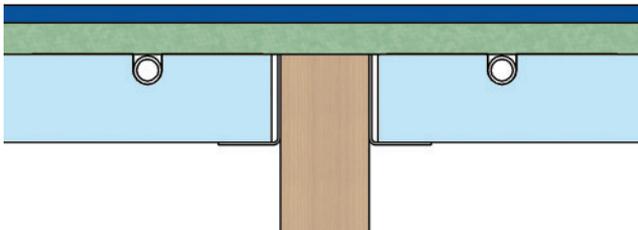
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Joisted Floors

System Construction

1. Timber floor deck
2. 16mm UFH pipe: placed into pre-cut channels at 200mm centres
3. Foiled Polystyrene batten/joist panel (insulation) with pre-fitted aluminium diffuser and polyethylene film
4. Joists with plastic 'L' brackets
5. End panel (insulation)

Section view



Battened Floors

System Construction

1. Timber floor deck
2. 16mm UFH pipe: placed into pre-cut channels at 200mm centres
3. Foiled Polystyrene batten/joist panel (insulation) with pre-fitted aluminium diffuser and polyethylene film
4. Battens
5. End panel (insulation)

Section view

