

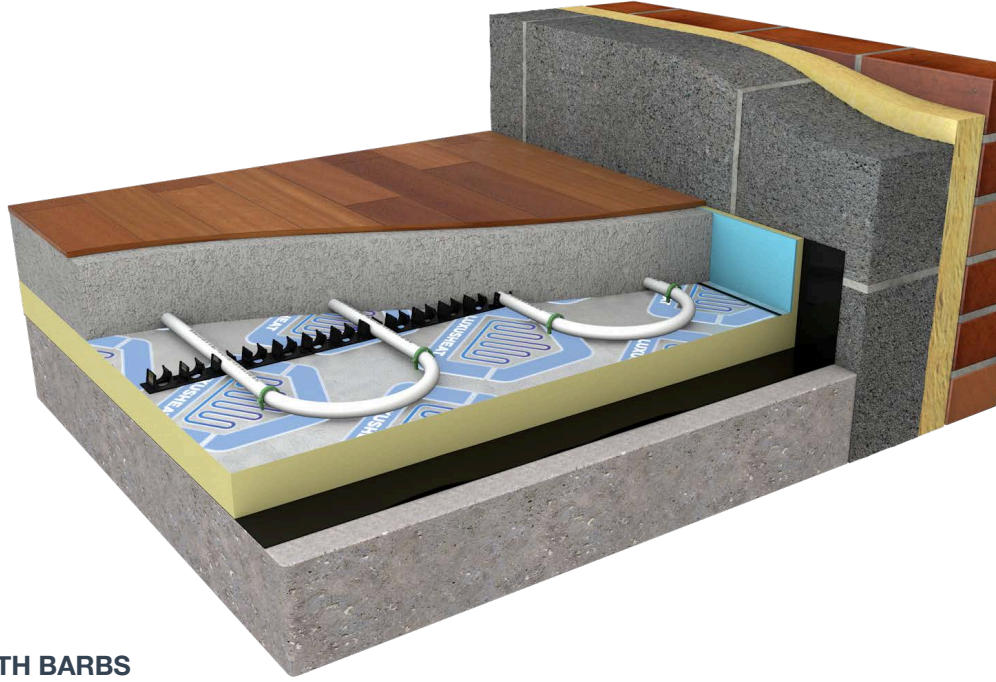


# Floor Construction - FC1 C&D

## Clip Rail & Clip - Screed

### KEY BENEFITS >>>

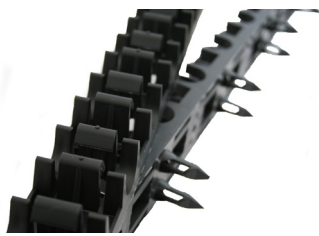
- > Clip rail system provides a ready made pipe spacings.
- > Can be fixed to insulation too thin for staples.
- > Can be used with traditional and liquid screeds.
- > Good for regular shaped rooms.
- > Faster installation = Ideal for larger contractors.
- > Ideally suited for FlexiPex Pipe.



#### ✓ CLIP RAIL WITH TAPE 1m 50CRTAPE



#### ✓ CLIP RAIL WITH BARBS 1m 50CRBARB



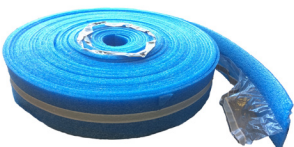
#### ✓ CLIP RAIL CLIPS 50mm 50BARB



#### ✓ CONDUIT PIPE 50m 50CONDUIT



#### ✓ EDGE INSULATION 50m 50MEDGE



#### ✓ PIPE DECOILER DECOIL



### < OVERVIEW

Solid floor constructions are one of the simplest, most cost effective ways of installing UFH. The pipes are laid on insulation then covered with screed which acts as a large heat conductor. There are two types of screed that can be used over the pipes; traditional sand/cement or specialist Anhydrite flow screed.

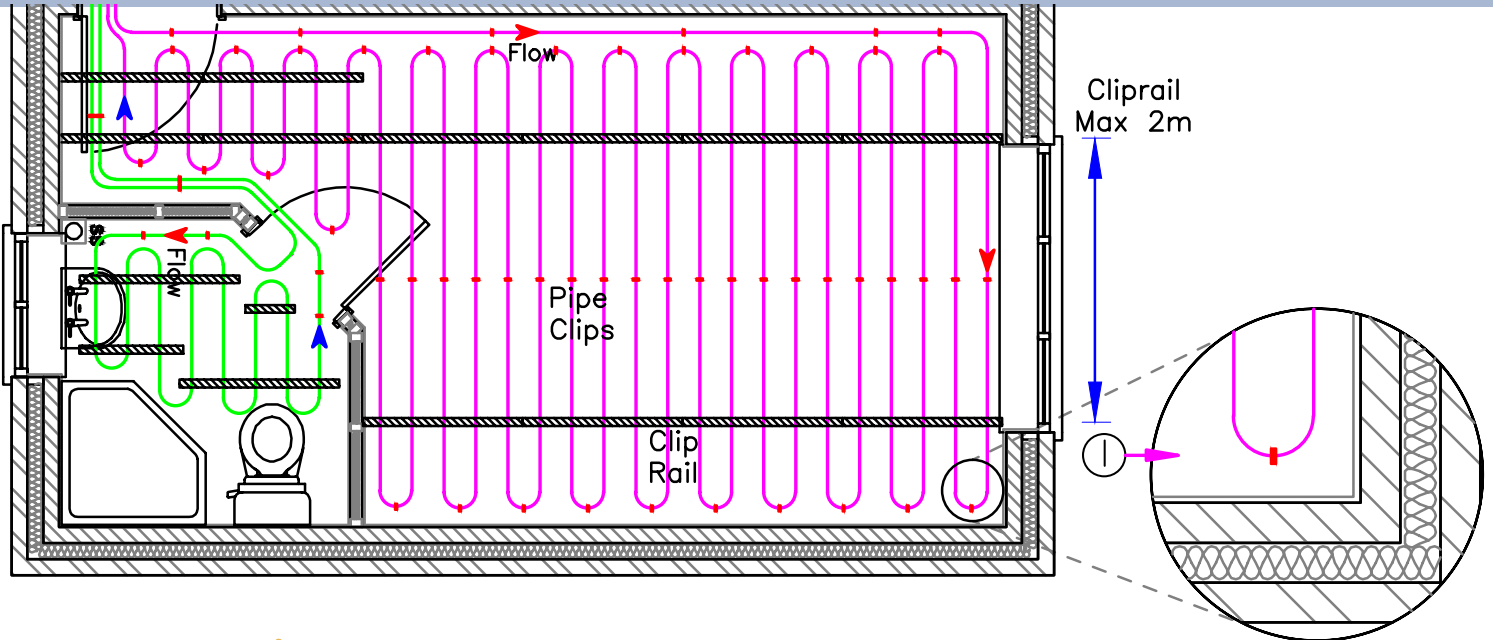
Where the pipe is laid on insulation with sand/cement the optimum screed depth is 65mm for domestic and 75mm for commercial applications. The same situation with an Anhydrite screed will only call for a nominal screed thickness of 50-55mm.

- Best suited for Pex Pipe.
- Maximum outputs: 100w/m<sup>2</sup> - Stone/tile/carpet  
70 w/m<sup>2</sup> - Timber floor finishes
- Flow temperatures 40 - 50°C
- BS EN1264 design on request.



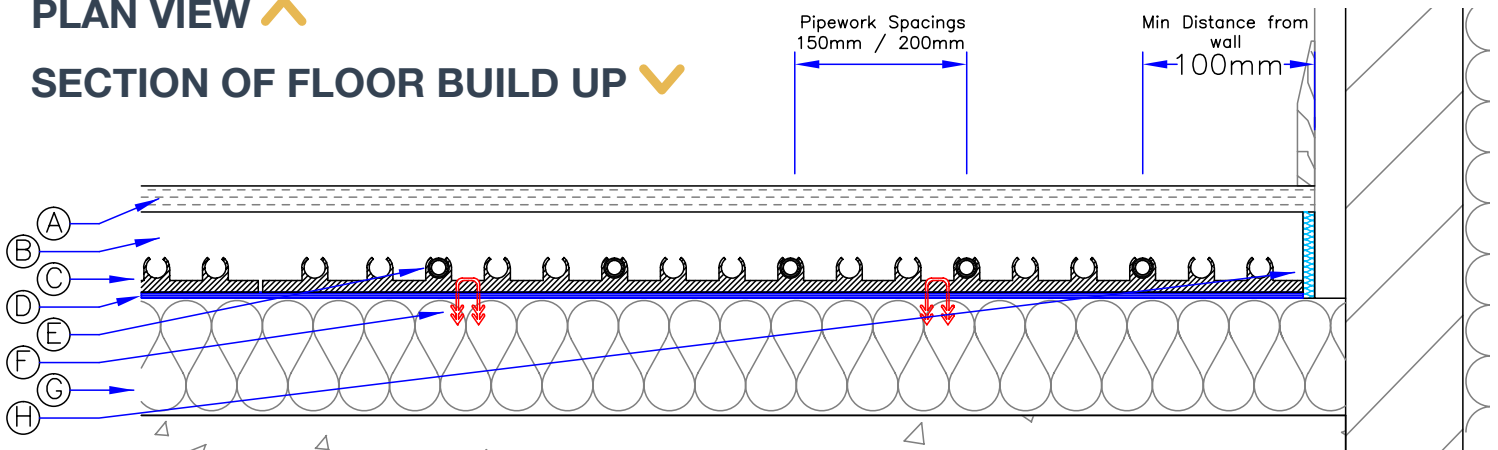
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### PLAN VIEW

### SECTION OF FLOOR BUILD UP



- A** > **Floor Finish.**
- B** > **Screed** - Traditional Sand/Cement 4:1 65-75mm depth. Liquid Screed 55-65mm depth.
- C** > **Clip Rail** - 1m Length of Clip Rail positioned a maximum of 2m apart with double sided tape for locating Clip Rail. Once Clip Rail is laid in position it is to be secured with pipe fixing clips. Alternatively Clip Rail with integral Barbs can be used.
- D** > **Protective Vapour Layer** - It is essential to prevent the screed from slipping between the insulation board joints. This can be achieved by taping the joints of the insulation or alternatively using a polythene membrane (in addition to builders DPM).
- E** > **UFH Pipe** - Lux Pert-Al-Pert or FlexiPex 16mm Heating Pipework laid at 200mm centres unless specified in quotation and laid approximately 100mm away from walls.
- F** > **Clip Rail Clips** - White nylon clip used to secure clip rail in place, the clips require a minimum of 25mm insulation depth to be fitted into.
- G** > **Insulation** to comply with Part L of the Building Regulations.
- H** > **10mm Edge Insulation** with self adhesive backing must be positioned around all wall edges to reduce heat loss and take up screed expansion.
- I** > **Pipe Clip** for securing pipe on the bends and in localised areas so pipework is securely fixed to the insulation.



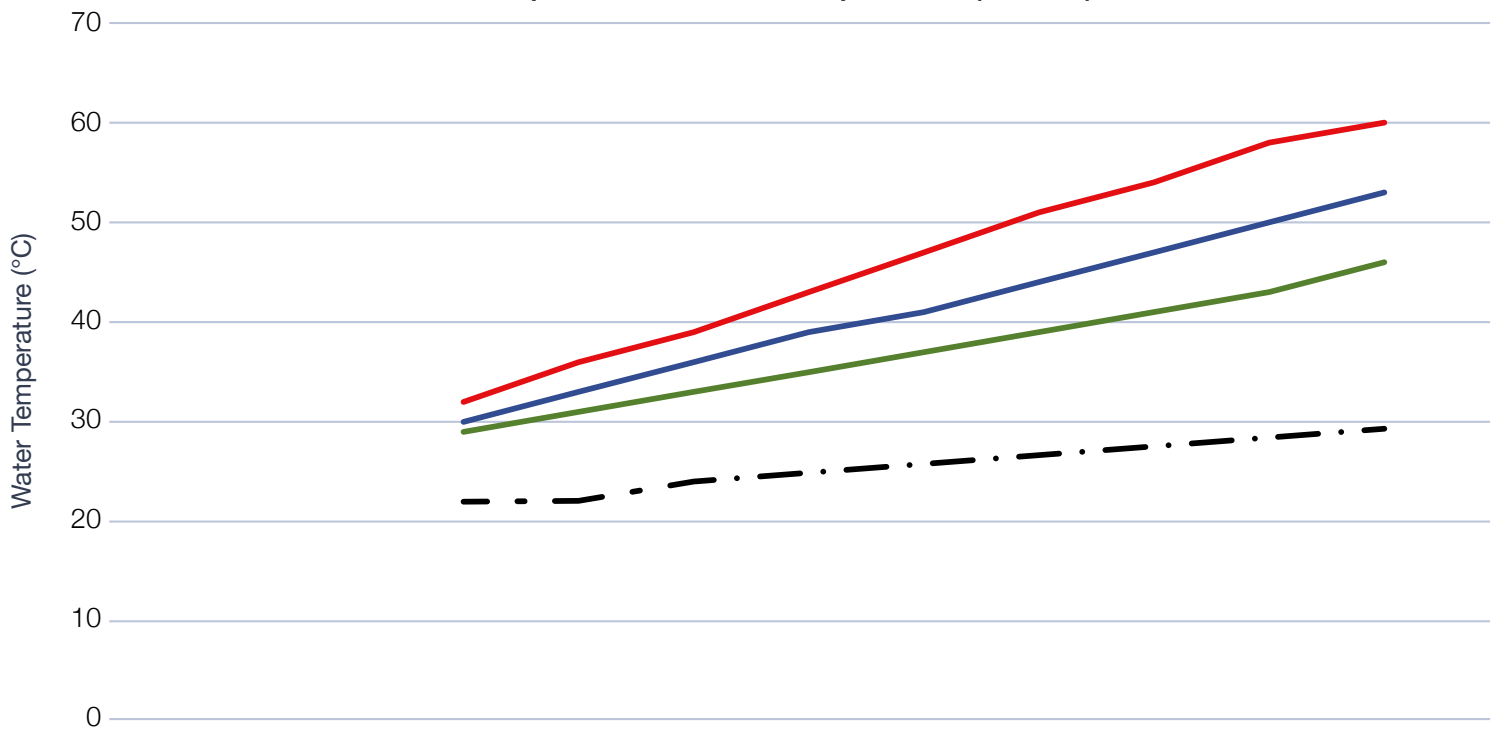
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### OUTPUTS/WATER TEMPERATURES & FLOOR COVERINGS >

The available output of the system will vary depending on the overall resistance of the floor finish. Based on a Design room temperature of 20°C & 7.5K ΔT. The table below is for guidance only and actual outputs and temperatures may vary.

Heat output / Flow water Temperature (Screed)



Output w/m²

	20	30	40	50	60	70	80	90	100
Tile / Stone	29	31	33	35	37	39	41	43	46
Laminate / Vinyl	30	33	36	39	41	44	47	50	53
Carpet	32	36	39	43	47	51	54	58	60
Floor Temp	22	22	24	25	26	27	27	28	29