

Underfloor Heating



Underfloor heating has been around for many centuries, but it has never been easier to sell and install than now. Systems have been developed to allow for different methods of underfloor heating, e.g. gas and solar power, and can be connected to any sealed or open vented system.

Underfloor heating must be compliant with BS EN 1264:1998

The most common underfloor heating system is warm water circulating through plastic pipes either within the floor or just below it. Installation can easily be carried out by a professional plumber, particularly in domestic properties and extensions.

Many suppliers are now producing UFH in complete pack forms, containing everything needed to install the heating in a single room.

Underfloor heating or radiant heating, allows for more room space as radiators or heaters are not required.

Underfloor heating in extensions and conservatories can run independently from the rest of a heating system.

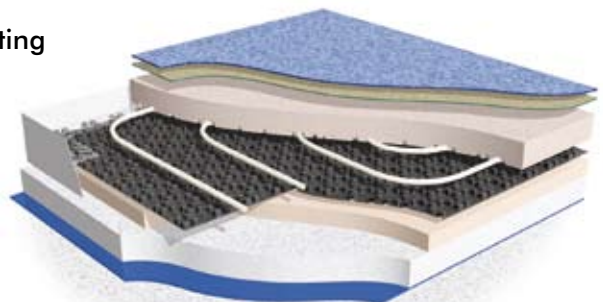
An insulation barrier is essential for underfloor heating as the heat will travel both up and down – down means lost heat. The better the insulation the more heat will travel upwards. The minimum insulation required is a U-value of 0.25 W/m²K in accordance with Building Regulations.

Underfloor heating is suitable for use under carpets, laminates, hardwood, lino and stone flooring.

Underfloor heating systems can also incorporate a “chiller” unit to enable them to also be used as a cooling system.

The most common types of floor construction are:-

- Solid/screed
- Timber
- Floating





Benefits

- Easy to install
- Economic to run
- Can save between 15 – 40% energy
- Gives more room space as no radiators are required
- Moisture generated is too low to sustain dust mites so helps asthma sufferers
- A quieter system as no expansion of pipes in floor voids
- The temperature of each room can be individually controlled
- As the heat is evenly distributed there are no "cold" spots

There are 3 types of underfloor heating systems:-

- Cable
- Cable Mats
- Pipe

Cable

- The cables are made from copper, contain insulation, heating conductors and are encompassed in a PVC protective "jacket".
- They are completely waterproof and can be installed during "wet" conditions.
- Produce 12 watts of heat per linear metre

Cables are suitable in small areas such as kitchens and bathrooms.

Mats

Cables are attached to mesh weave mats which come in different sizes for different heat outputs. When evenly spaced they produce standard heating output.

- Covers large areas
- Suitable for use above both concrete and wood sub-floors
- Suitable for conservatories and high heat-loss areas
- Each mat has a programmable thermostat.



Pipes

Pipes work in the same way as a radiator, with the hot water flowing through them from the boiler. If the underfloor heating is

being installed into a conservatory or extension it will probably require extra pipework, and may even need a new boiler to produce the necessary wattage output.

Screed

If the underfloor heating is being installed beneath a screeded floor, Building Regulations require insulation both beneath the pipes and at the edges.

Add on Sales

- Programmable room thermostats
- Manifold for connecting the system to the boiler
- Thermal insulation barrier
- Flexible tiling adhesive – if tiles are being fitted
- Flexible tiling grout – if tiles are being fitted
- Levelling compound
- Corrosion inhibitors

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