

Underfloor Heating

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Under-floor heating is widely used in northern Europe and has in recent years become quite popular in the UK, both for new builds and updating existing property. As with most things, there are various factors for and against under-floor heating and whether it's the choice for you depends largely on your lifestyle. With an under-floor heating system, the floor itself becomes the heat emitter and the heating of the room is from the floor up, unlike radiators in a normal central heating system where the emitters are mounted on the wall and the room is effectively, heated from the ceiling downwards.

Both electric and water based under-floor heating systems are available. They are almost identical apart from that one uses electric heating cable while the other circulated heated water through a pipe.

Water based under-floor heating uses water heated to a lower temperature than conventional water central heating (typically 50°C rather than 60°C plus), which makes it ideal for use with high efficiency condensing boilers. The lower operating temperature also makes it more suitable for use with heat pumps or solar water heaters. Normally an existing conventional boiler will suit under-floor heating, however it may be necessary to fit a higher rated pump as the back pressure may be greater than in a conventional radiator type central heating system.

Whichever system is used, the heat source is located under the floor and the area to be heated is separated into separate zones (normally one zone per room) and each zone is heated and controlled independently. When being installed in existing buildings with solid floors, the pipe/mat is normally laid on the surface and covered by a timber, laminate or tile surface. This lifts the level of the floor which will mean that doors and skirting boards will also need to be lifted.

Benefits

Water based under-floor heating is often claimed to be cheaper to run than central heating using radiators, part of the logic being that the water used is at a lower temperature (typically 50°C rather than 60°C plus). It is claimed that the same level of comfort is achieved with the temperature in an under-floor heating heated room about 2°C lower than in a room heated with conventional radiators. Wall mounted radiators act as convectors to heat the air, with under-floor heating, the whole floor area acts as a emitter for radiated heat. With no need for wall mounted emitters, there is less restriction on placing furniture in the room also less 'dust traps' so the rooms are easier to keep dust free.

Photo's of Underfloor Heating

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