

- > Use in non-energy efficient homes. This can lead to substantially higher running costs.
- > Slab heating requires careful temperature control in north-facing rooms with access to the winter sun. These rooms can become overheated if both the slab and incoming sunshine are providing too much warmth.

What are its advantages?

- > Furniture placement is unrestricted
- > No building modifications are required for installation in a new home with a slab floor
- > No moving air or draughts, enabling rooms to be adequately heated at slightly lower temperatures
- > Especially suitable for people suffering from allergies or respiratory complaints caused by moving air or dust particles
- > Quiet, clean and safe
- > Even heat distribution throughout a room, with no hot or cold spots
- > A combination of radiant and convective heat provides excellent comfort, with little vertical temperature variation, making slab heating suitable for homes with high ceilings
- > Low maintenance

Considerations

- > Limited immediate control
- > Can be expensive to run if kept at higher temperatures
- > Unsuitable for uninsulated suspended slab floors where the space underneath is unoccupied, or slab-on-ground floors in areas with a high watertable

Running the system efficiently

Zoning

In-slab systems should always be zoned, with individual zones having separate, wall-mounted thermostats. This allows you to adjust the temperature to suit the uses of various rooms. The lower the temperature selected, the lower the

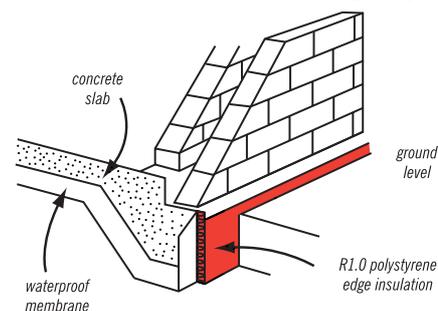
running costs. Thermostats should be placed in draught-free areas, away from windows, external walls and direct sunlight.

Floor coverings

Any floor covering except cork is suitable. Vinyl, ceramic tiles or slate are especially appropriate as they allow heat flow from the slab to the room to occur readily.

Insulation of the slab

Up to 20% of heat is lost through the edges of heated on-ground slabs. High density polystyrene insulation installed around the perimeter can cut these losses in half. The ground provides adequate insulation for the remaining slab area. Heated suspended slabs should have full under-slab insulation if heating cannot be controlled to the area underneath (e.g. a separate flat). Bulk insulation in the form of boards, batts or blankets is suitable for this. There is no need for under-slab insulation if the area below is heated (e.g. a downstairs room). Do not use slab heating if the space underneath is unoccupied (e.g. a garage).



Concrete slab insulation

Ceiling fans

Ceiling fans distribute heat evenly around a room, preventing heat from rising to the ceiling and being lost. Although beneficial in all homes, they should always be installed if the ceiling height is greater than 3 metres.

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