



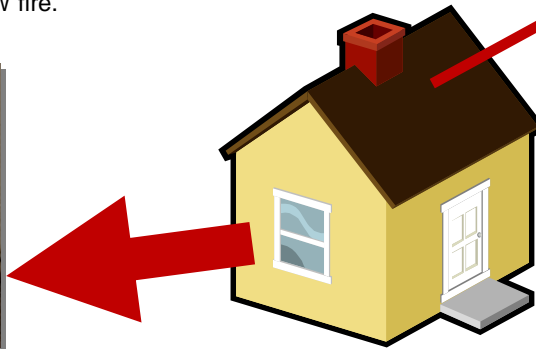
**Derwent-Head**  
Home Energy Advice

## Insulation measures

- 1) Fit additional insulation in your loft, an approximate 270mm thickness of mineral wool is now recommended.
- 2) If your house is suitable, have cavity wall insulation installed by a CIGA registered insulation company.

Using as an example a typical 1930's to 1950's, 3 bedroom semi-detached house without any cavity wall insulation and only 50 mm insulation in the loft. On a cold winter's day with an outside temperature of 2°C (just above freezing) and a living room temperature of 21°C the continuous heat loss through the walls and roof is about equivalent to all the heat from a 2 KW electric fire.

The heat loss from the walls is equivalent to about 3/4 of the heat from the 2 KW fire.

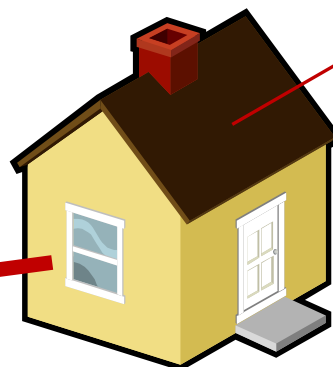


The heat loss from the roof is equivalent to about 1/4 of the heat from the 2 KW electric fire.



Taking now the same house, on the same winter's day, but with the loft insulation topped up to 270mm and the cavity wall filled with insulation, the total heat loss from the walls and roof is now reduced to only about a third of the above. These two measures can therefore make appreciable savings on heating bills.

The heat loss from the walls is now only about a 1/4 of the heat from this 2KW fire.



The heat loss from the roof is now only about a 1/12<sup>th</sup> of the heat from this 2 KW fire.



## Notes regarding loft and cavity wall insulation:-

- i) Some of the subsidised offers now available are almost as cheap as DIY but if you decide to do a DIY top up loft insulation there are several important points to keep in mind:
    - Wear protective clothing and a dust mask while doing this work and ensure personal safety at all times particularly regards a safe footing.
    - Ensure the insulation being laid stops short of the eaves so as not to impede the required air ventilation from the eaves.
    - If not already fitted, place the first layer between the joists and then place a second layer at right angles to the first layer and over the joists. Remember to leave clear boarded access to any water tanks.
    - Don't allow any electrical wiring to be covered over between the layers of insulation, lift the wiring while positioning insulation.
    - Insulate the loft hatch with an insulation filled polythene bag securely fixed to the top of the hatch. Also fit a draught proof strip to the hatch opening.
    - If not already done, make sure the insulation is fitted around the sides and on the top of any water tanks but not underneath. Also fully insulate any pipework in the loft. This is to prevent water in the tanks or pipework from freezing in cold weather as the loft space will be colder once the insulation is installed.
  - ii) If your house dates from the 1930's onwards it is likely to have cavity walls. Some earlier houses also have them. More recent houses from the eighties onwards were built with insulation already in the cavity. A registered Cavity Wall Insulation firm will be able to check the suitability of your house.
- 3) If you have an extension with a flat roof and the time comes for needing to replace the roofing felt, consider having insulation fitted at the same time. There are two main methods of fitting insulation to flat roofs, so called warm deck and cold deck. Discuss the pros and cons of using one or the other with a competent roofing firm before going ahead.
  - 4) If you have a hot water tank with only a single insulating jacket, fit a second jacket over the top to give a total thickness of at least 100 mm. Also fit rigid foam insulating tubing to all accessible pipework connected to the tank. Enough heat will still escape from the tank for airing clothes, if required.
  - 5) Particularly in houses with solid, un-insulated walls, fit proprietary reflective foil or panel behind the radiators on external walls. This will reflect heat back into the room that would otherwise be absorbed into the wall and lost to the outside air.
  - 6) Don't place furniture in front of radiators, this will inhibit heat from the radiators passing into the room.
  - 7) Particularly if you have single glazing, but also with double glazing well fitted curtains with a liner will considerably reduce the heat loss from the window on cold winter evenings. The curtain rail should be positioned to hold the curtains so they hang from above the top of the window opening and close to the wall. They should not cover any part of a radiator and the bottom of the curtains should either just cover or fit snugly to the top of the window sill.