



## Wall insulation

After the loft, wall insulation can greatly improve your energy loss from the house. How this can be done varies depending on the house construction.

In all cases – cavity brick or block walls or solid brick walls – it is imperative to have walls free from moisture.

This can happen through cavity bridging or a failed damp proof course in walls of cavity construction. Solid walls are more prone to damp since they are generally pre-1920s construction and damp usually finds its way in through the mortar between bricks, and a failed damp proof course.

Any damp issues need to be rectified before embarking on any form of wall insulation.

### Cavity Walls

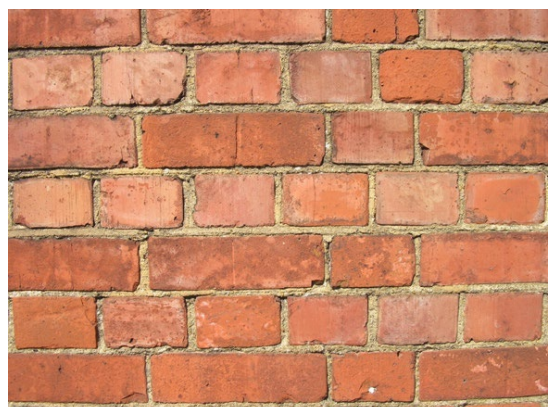
The best solution is to fill the wall cavity with insulation. There are three main types used – PU foam, fibreglass, and expanded polystyrene. The most common is blown fibreglass or rockwool.

All three need to be installed by professionals. Installing cavity insulation in a house with standard 50mm cavities will reduce the U value of the walls from 1.5 to 0.3. Costs of having blown fibreglass insulation fitted range from £2,500 for a big detached house, £950 for a detached bungalow to £600 for a terraced house. Annual savings would be £500, £200 and £150 respectively.

### Solid walls

If you have solid walls, you will see end-on bricks on the wall face. With no cavity, insulation can only be fitted on the outside of the house or on the inside of the rooms.

External insulation can be expensive but does not reduce the size of your rooms. However, it can be more tricky to fit if you are in a semi-detached or terraced property as there will be a step change in levels at



the boundary to the next door property which could allow damp into the house. It is a professional fit product and is usually fibreglass batts under a thin rendered skin. Although a brick finish is possible, the usual finish is rendering.

Internal insulation is cheaper, simpler to install and is even a DIY project which can be done on a room by room basis when you are going to redecorate anyway. However, because of the potential damp issues and the need to re-plaster, a professional is probably a better bet.

Construction is often fibreglass batts on a wall which has had battens fitted. A vapour barrier is fitted against the wall followed by the insulation and then plasterboard to cover. This is then skimmed with plaster and decorated. Skirting and coving will need to be refitted and you will need deeper windowsills. Radiators may need to be repositioned.

An alternative and simpler method is to fit insulation board which is a foam insulation-backed plasterboard. This is often fitted with the Dot and Dab method being simply stuck onto the wall. The plasterboard finish is then skim plastered and decorated. New skirting, coving and windowsills may be required, and radiators may need repositioning of course.

## **Costs**

External insulation is about £6k for a terraced house, £15k for a semi-detached, and £25k for a detached house

Internal insulation costs depend upon whether you DIY or have the insulation installed by a builder.