

Floor Insulation

Insulation works by adding a thermal barrier that helps keep in the heat you generate within your home. It's not magic, and only leads to a reduction in energy bills if the resident reduced their heating levels.

Because the barrier blocks heat, it can lead to homes being warmer in winter, and also cooler in summer, as it can prevent the sun's rays from raising the property's internal temperature during heatwaves.

The most important areas of the property to insulate are the walls and roof, which account for over 50% of the heat lost from properties. Approximately 8% of the heat lost from our homes goes through the floor, so preventing this can be a good way to save money on heating bills.



On modern construction sites, blocks of polystyrene form an insulating layer for new homes being built

WHAT TYPE OF GROUND FLOOR DO I HAVE?

It's usually only the ground floor that needs to be considered for insulation. Floors between storeys needn't be insulated, and can benefit from the movement of heat between them.

If part of your property is above an unheated space, such as a garage, or if it's open to the elements, like an alleyway, then it could be beneficial to insulate those areas too.

Most ground floors are constructed from either timber floorboards or solid concrete. Either of these forms of construction can be insulated.

If you're not sure of your floor type, here's a guide:

Check for an echo

If you stamp your feet on a carpeted area you can listen for a "hollow" sound, indicating floorboards, or a "solid" sound, indicating concrete. This should also work on laminate flooring. It will be trickier if the floor has been tiled.

Air Bricks

If you're not sure after stamping your feet, you can check the brickwork outside your property. If the building was constructed with wooden floorboards, the builders should have installed air bricks (literally bricks filled with dozens of air holes) beneath the line of the property's flooring.

If you can't see any such air bricks, then it's likely to be the case that the property was constructed with a solid concrete base.



Year of Construction

Various eras of construction have favoured either wooden or concrete flooring, so it's not possible to suggest the floor will have been constructed in a particular way before/after any particular year.

However, since 1996 properties have been required to be constructed using an insulated, solid base. So, if your property is dated from 1996 onwards, you can rest assured that there already exists an insulating layer, saving you money on your heating bills.

For further information call the
Save Energy Advice Line:

SUSPENDED TIMBER FLOOR INSULATION

These types of floors can be insulated from underneath. There is often an access hatch built into the floorboards, usually under the stairs. This was a deliberate addition, so as to allow future contractors to access electrics/pipework/etc.

It also allows an insulation installer to move around, fixing insulating rolls to the underside of the floorboards.



Insulation secured to the underside of floorboards

If there's no access hatch, it should be possible to install one, but the lack of an access hatch might indicate that there is not a sufficient gap beneath the floor to allow for a contractor to move about.

In this case, it might be possible for a specialist, under-floor insulating robot to be lowered through the access hatch in order to apply a spray-on insulating foam, instead of the traditional rolls of insulation that a human would install.



Introducing, Q-Bot, the insulating robot

SOLID FLOOR INSULATION

If your property was constructed on a solid concrete base it is far trickier to add insulation as a retrofit measure. There are two suggested routes for this to be done:

Replace the Concrete Base

Should a building expert recommend that the concrete base of your property needs to be replaced, then that's the perfect time to add an insulating layer to the new base.

However, due to the massive upheaval required to remove and replace the concrete base, we wouldn't recommend you consider this otherwise.

Insulate above the Concrete Base

This is a much less disruptive, but less effective method of insulating, where you remove the existing flooring (carpet/laminate/etc) and add an insulating layer, before replacing the flooring.

Several products are available on the market that provide this insulating barrier, and as technologies improve, they are increasingly thin and effective. One such product is "Sempafloor", by Mould Growth Consultants.



Image courtesy of Mould Growth Consultants

COST AND SAVINGS

For an average, 3-bed, semi-detached house, the cost of installing floor insulation is £500-£2,500, with potential savings of £40 per year.

For further information call the
Save Energy Advice Line:



Freephone 0800 043 0151
Standard rate phone 0151 637 3670
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