

Keeping the heat in

A simple guide to wall insulation

Wall insulation is a great way to prevent heat escaping, helping you to save money on your fuel bills.



Not only will it help keep your home comfy and cosy in winter for less; it also helps to prevent damp forming on your walls and keeps out those dreaded draughts.

It's also good for the environment as it cuts down your carbon dioxide (CO₂) emissions – the biggest contributor towards climate change.

Did you know?

Around a third of all heat in an un-insulated home is lost through the walls.

1

First step

Do I have cavity walls or solid walls?

Different types of insulation are suitable for different types of wall. Find out which you have here:

? Was your home built before 1920?

The walls are probably solid, with no cavity.

Solid walls are made of a single layer of bricks and can be insulated from the inside or from the outside.

? Was your home built after 1920?

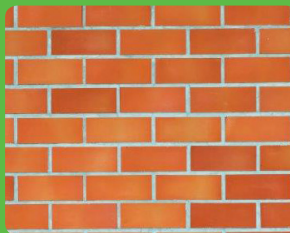
Chances are it has cavity walls.

Cavity walls are made of two layers with a small gap or 'cavity' between them. This gap can be filled with insulation.

The easiest way to tell a cavity wall from a solid one is from the brick pattern on the outside of your house:



Solid walls



Cavity walls

2

Second step

Do I already have wall insulation?

Cavity walls

72% of homes with cavity walls are insulated so if you have cavity walls and your home is less than 15 years old, there is a good chance your walls have already been insulated.

But if you're not sure, an installer can perform a simple test which involves drilling a small hole in your outside wall. They can then check to see whether you have un-insulated cavity walls and whether your home is suitable for insulation.

Solid walls

Only 3% of the 8 million homes with solid walls have had solid wall insulation. So if you live in a home with solid walls, it's likely that they haven't been insulated.

Cavity wall insulation:

What's involved?

Cavity wall insulation can be made from mineral wool, beads, granules or foamed insulants. All types are manufactured according to British standards and verified by the British Board of Agrément (BBA). Your installer will know the most suitable type of insulation for your home. Installing cavity wall insulation is a straightforward process:

An installer drills small holes at around 1m intervals into the outside walls of your house. The insulation is then blown into the cavity by the installer.

When all the insulation is in, the installer fills the holes in the brickwork, ideally matching your existing mortar.



Cavity wall insulation costs around £480 for a semi-detached 3 bedroom house and could save £155 a year.

External solid wall insulation:

What's involved?

If you're repairing the outside of your home, it's a great time to install external wall insulation. It involves adding a decorative weather-proof insulating treatment to the outside of your house. The thickness of the insulation needs to be between 80mm and 140mm.

Unlike internal insulation, it won't affect the size of your rooms but you might need planning permission, as it will change the appearance of your home.

External wall insulation doesn't cause any disruption inside your house, and it can actually increase the life of the property because it protects brickwork.



External solid wall insulation could cost between £8,000 and £22,000. In a semi-detached 3 bedroom house this could save £260 a year.

Internal solid wall insulation:

What's involved?

If you're re-plastering your walls or changing major fittings in your bathroom or kitchen, it's an ideal time to think about installing internal wall insulation.

Internal wall insulation can be carried out one room at a time. You will need to remove skirting boards and electrical fittings and then reattach them to the new wall surface. It will slightly reduce the size of your rooms (by an average of 7.5cm per insulated wall).

The insulation battens or plasterboards are fixed to the walls inside and covered with plasterwork. You can get Energy Saving Trust Recommended 'dry lining' products which can be fixed to the internal surfaces of walls.



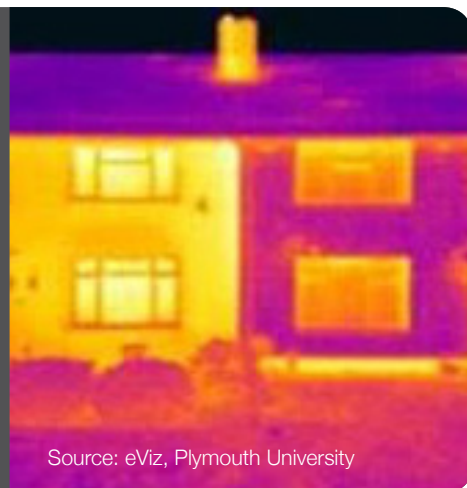
Internal solid wall insulation could cost between £4,000 for and £13,000. In a semi-detached 3 bedroom house, you could save £260 a year.

ECO (the Energy Company Obligation) requires larger energy suppliers to provide funding towards energy efficiency improvements in domestic households in Great Britain. These improvements include loft, cavity wall and solid wall insulation. Some of the funding is specifically directed at people on certain benefits, and can support heating system improvements.

Find out what grants and offers are available in your area at energysavingtrust.org.uk or call a friendly advisor at the **Energy Saving Advice Service on 0300 123 1234 (England and Wales)**.

If you live in Scotland, you can contact **Home Energy Scotland on 0808 808 2282**.

In this thermal image the house on the right has had solid wall insulation installed. The light colour on the left shows the heat escaping from an uninsulated house.



Source: eViz, Plymouth University

Find an installer

Always use an installer who has signed up to a professional code of practice

A registered installer should be a member of at least one of these organisations:

Insulated Render and Cladding Association (INCA)
inca-ltd.org.uk

National Insulation Association (NIA)
nationalinsulationassociation.org.uk



Estimated savings and costs quoted are based on a family of 4 sharing a 3 bedroom semi-detached home (Energy Saving Trust, April 2016).

For expert and impartial free advice on reducing your fuel bills, saving energy and making your home more comfortable visit energysavingtrust.org.uk or call: England and Wales - The Energy Saving Advice Service on 0300123 1234 (charged as a national rate call). Scotland - Scottish Government's Home Energy Scotland hotline on 0808 808 2282 (calls are free).