

# Solid-wall insulation: options for older homes

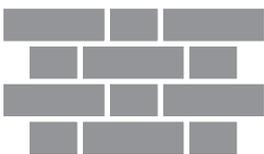


Nearly half the warmth in some solid-walled houses escapes through the walls, so insulating solid walls can make a tremendous difference to the warmth and comfort of your home.

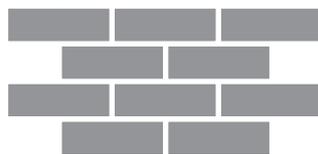
Solid walls can be insulated internally (from the inside) and externally (from the outside). Both are significant undertakings in terms of cost and disruption – and *external* solid-wall insulation is most definitely **not** a DIY task. However, both options can make your home warmer and more comfortable, and greatly reduce your heating bills at the same time.

If your home is made of brick, and the bricks have an alternating long-short-long pattern (below left), then the walls are likely to be solid. If you can see only the long edge of the bricks (below right), then the wall is almost certainly a cavity wall. For information about insulating cavity walls, see our other leaflet.

Solid wall



Cavity wall



Many solid-walled homes are off the national gas network and so are heated with oil or electricity. These are expensive fuels making home insulation especially important.

## How much money will I save?

<b>Installation cost (external)</b>	<b>£10,500–£14,500</b>
<b>Installation cost (internal)</b>	<b>£5,500–£8,500</b>
<b>Annual saving</b>	<b>£445–£475 approx</b>
<b>Annual CO<sub>2</sub> saving (both)</b>	<b>1.8 tonnes approx</b>

These are estimated figures based on a gas-heated, three-bed semi, and are for the **whole installation**. If you are using a more expensive heating fuel, e.g. oil, the savings will be higher, and if you are only insulating one or two walls (e.g. if your house is in a terrace) the installation costs will be lower



Solid-wall insulation can improve the warmth and thermal comfort of older homes in both urban and rural areas

## How does solid-wall insulation work?

Solid-wall insulation works by coating the walls with a layer of material that slows down the rate at which the heat passes through, keeping the warmth inside your home for longer.

There are two types of internal solid-wall insulation, both of which can be installed by a competent DIY-er or a professional.

- 1) The highest energy saving comes from **rigid insulation boards**. These come in varying thicknesses depending on price. The cheaper ones are thicker – up to 10cm – so you'll lose some floor space for each wall.
- 2) **Flexible insulation sheets** are cheaper. They come in rolls and are hung like wallpaper. These are thinner so take less space but they are not as efficient.

If you're thinking about **external solid-wall insulation**, you'll need a specialist installer trained by approved system designers. To find such an installer visit the website of the Insulated Render & Cladding Association (INCA) at [www.inca-ltd.org.uk](http://www.inca-ltd.org.uk). You can also contact manufacturers with INCA-approved solid-wall insulation solutions who have lists of installers for their systems.



"Solid-wall insulation can cut fuel bills by £445-£475 a year - and helps to combat climate change, too!"

# Tips for lower energy bills

**Happy paying your electricity and gas supplier more money than you need to? Thought not. Here are 10 ways to cut your bills ...**

**1) Give your clothes a day in the sun;** and give your tumble drier a break. Clothes dried in the fresh air feel great, and there are drying days in winter, too.



**2) Keep the oven door shut as much as possible;** every time you open it, nearly a quarter of the heat escapes.



**3) Catch 'em young.** Encourage your children to switch off electric toys and lights that they're not using. They'll soon get the hang of saving energy.

**4) Be a friend to your freezer.** Defrost it regularly to help it run more efficiently.

**5) Buying a new washing machine, TV or dishwasher?** Look out for the Energy Saving Trust logo.



**6) Don't over-fill the kettle** (but do make sure you cover the metal element at the base).



**7) Dodge the draught!** Fit draught-excluders to your front door, letter box and key hole, and draw your curtains at dusk to keep the heat in.

**8) Turn your heating down by 1 degree.** You'll hardly notice the change in temperature, but it'll make a big difference to your heating bill.

**9) Wait 'til you have a full load before doing a wash.** Two half-loads use more energy (and water) than one full load.

**10) Sleep tight.** Make sure all the lights are turned off when you go to bed. If you want to light a child's room or a landing, use a low-wattage night light.



This leaflet is one of a series that covers a range of energy efficiency and renewable energy topics, produced by the Sustainable Energy Across the Common Space (SEACS) project, for you to view online or download to share in your community.

SEACS brought together three UK and two French local authorities – Devon County Council, Dorset County Council, Wiltshire Council, le Conseil Général des Côtes d'Armor and Lannion-Trégor Agglomération – to tackle the energy challenge that is faced on both sides of the channel.

The aim was to create opportunities for individuals, households, communities, schools and local authority buildings in both UK and France to reduce their energy consumption, implement energy efficiency measures and use clean/renewable energy where possible. The project has raised awareness of climate and energy issues and encouraged long term behavioural change towards energy use. Cooperation was the ethos of the project and participants had the opportunity to exchange and learn from each other.

For further information about SEACS project, to get ideas and view case studies to help you and your community save energy, and to find out which schools and community groups in your area have been involved, visit the SEACS website or the energy pages of your local authority's website.

[www.seacs.info](http://www.seacs.info)

[www.wiltshire.gov.uk/sustainability](http://www.wiltshire.gov.uk/sustainability)

[www.dorsetforyou.com/climatechange](http://www.dorsetforyou.com/climatechange)

[www.devon.gov.uk/energy](http://www.devon.gov.uk/energy)

This leaflet was first produced by the Centre for Sustainable Energy (CSE) and reprinted in this version on behalf of SEACS.

CSE's Home Energy Team offers free advice on domestic energy use to householders in Bristol and Somerset (including the unitary authorities of North Somerset and Bath & North East Somerset).

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