

'Hard to treat' cavity walls

Not all cavity walls can be insulated ...

As many as 5.8 million properties in the UK have cavity walls that are classed as 'hard to treat'. This means that they cannot be insulated using the same methods and products as a standard cavity wall.

How is a 'hard to treat' cavity wall different to a standard cavity wall?

Hard to treat cavity walls usually have one of the following construction characteristics:

- A cavity that is less than 50mm wide
- A prefabricated concrete construction with a cavity
- A metal frame construction with a cavity
- A stone cavity (e.g. many older properties have uneven cavities in walls constructed of a natural stone outer leaf and a block or brick inner leaf)
- A timber framed un-insulated studwork cavity. These properties have a masonry cavity, which must not be filled
- Cavities that have already been partially filled.

Other properties that may have cavity walls which aren't suitable include: those of more than four storeys tall; those where features such as conservatories create difficulties in terms of access; and those exposed to severe wind driven rain, such as homes near the sea or on top of hillsides.

A further category of hard to treat cavity walls is where there is a fault like significant cracking in the outer leaf of the wall. This will need to be remedied before the cavity



can be filled. In some cases, exposed walls can be clad to prevent water ingress, but this can be a costly option and it may be cheaper to opt for solid wall insulation instead.

How can a hard to treat cavity be filled?

Standard cavity walls are insulated using materials such as mineral fibre and bonded beads. Hard to treat cavity walls, however, are insulated by drilling holes in the outer leaf of brickwork and injecting expanding foam into the wall cavity. The process can be described in five stages:

- 1) The internal wall is checked for holes into the cavity. Any found are filled to ensure there is no leakage into the property when the insulation is installed;
- 2) Holes are drilled in a specific pattern (photo, left) and spray foam is injected in a staged process to ensure the whole cavity is filled from the bottom to the top;
- 3) The contractor may use a camera to ensure that the whole cavity is filled equally and that no gaps are left;
- 4) Upon completion, the installer will check all flues, vents, and pipes to ensure that all appliances are operating correctly and that nothing has been blocked by the new insulation;
- 5) Finally, a mortar is used to fill the holes in the external brickwork.



'Hard to treat' cavity walls are sometimes referred to as 'hard to fill'

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

www.wiltshire.gov.uk/sustainability

www.dorsetforyou.com/climatechange

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).

Call: 0800 082 2234 or 0117 934 1957

Email: home.energy@cse.org.uk

Web: www.cse.org.uk/loveyourhome

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3 St Peter's Court
Bedminster Parade
Bristol BS3 4AQ

Charity 298740

0117 934 1400
www.cse.org.uk
info@cse.org.uk

Founded 1979

We are a national charity that helps people change the way they think and act on energy