



asiantaeth ynni  
**SevernWye**  
energy agency

# A guide to draught- proofing your home



Draught-proofing is one of the cheapest and most efficient ways to save energy. This will help to reduce your bills and protect the environment. It can also improve levels of comfort in your home.

A draught is created where a gap allows cold air to enter a building, particularly on windy days. These gaps can also allow precious heat to escape.

Draught-proofing fills these unnecessary gaps and can also help to reduce noise penetration.



## References



\*For details of the references used in this document please scan the QR image, visit

[www.warmandwell.co.uk/  
warm-and-well/advice-materials.html](http://www.warmandwell.co.uk/warm-and-well/advice-materials.html)

or call us on 0800 500 30 76

## Potential savings

Because draught-free homes are comfortable at lower temperatures, you should be able to turn down your thermostat. As a result, draught-proofing could save you between £25 and £50 per year\*<sup>1</sup>.

If all homes were to do this in the UK, the total energy savings could be worth as much as £190 million per year, and the energy saved would heat nearly 400,000 homes\*<sup>2</sup>.

## Identifying draughts

On cold, windy days, draughts can be identified by moving the back of your hand around the edges of doors, windows and other areas where there may be gaps through which cold air can enter the building.

Alternatively, draughts can be identified by a professional who may use a smoke pencil or match.



# How to draught-proof different areas of your home

## Windows

Where to look for draughts:

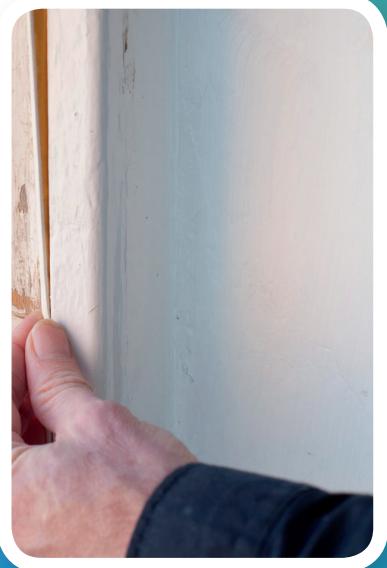
- Gaps between the window and the frame
- The area around any locks or catches

### How to draught-proof:

#### Compression seals

Compression seals provide a professional finish and also prevent dust and moisture entering the home. While these provide excellent performance on narrow window gaps, they are not the best option when draught-proofing sash windows.

*Compression seal being fitted to a window*



## **Brush strips**

If you are looking to draught-proof a sash window or if the gaps between the window and its frame are not consistent due to seasonal changes, brush strips may provide the best solution. For a more aesthetic solution, the brushes or blades may be contained using wooden carriers.

## **Gunned silicone sealant**

Silicon sealant provides a DIY friendly and relatively cheap solution, readily available in DIY outlets and applied by hand. Make sure you have the applicator part as well (sometimes sold separately) and not just a refill tube.

*Silicon sealant being used to draught-proof a window*



## **Curtains**

Curtains are another option for helping to reduce the effect of draughts during the evenings and at night. You can either buy heavy-duty curtains or buy linings for your existing ones – thermal linings are available for extra insulation. Remember not to let your curtains hang over a radiator, as this will reduce the amount of heat entering the room.

# Doors

Where to look for draughts:

- Around the door frame
- The keyhole
- The letterbox

Draught-proofing external doors should be the priority, since this will stop cold, outside air entering the property. However, doors that separate cold rooms from warm rooms should also be draught-proofed to prevent the unwanted circulation of air between the two.



*Brush strip being fitted to the bottom of a door*

## How to draught-proof:

### The door frame

The largest gap around a door frame tends to be underneath the door. This gap can be covered using a brush strip, a hinged flap, a rubber blade or simply a 'sausage-dog' style draught excluder.

Around the sides and the top of the door you can use compression seals or brush strips.

Gunned silicon sealant may also be used.



*Compression seal being used to draught proof a door*

### **The keyhole**

Keyhole draughts can easily be prevented by installing a keyhole cover. This will swing open allowing you to insert the key and swing shut again to stop draughts. Fit tightly to avoid rattling and continued passage of cooler air.

### **The letterbox**

Flaps or brushes can be purchased which can be fitted to letter-boxes to prevent draughts. You can either replace the letterbox itself or simply screw an additional plate to the inside of the door (behind the letterbox).

## **Loft hatches**

Where to look for draughts:

- The gap between the hatch and the frame.

### **How to draught-proof:**

There tend to be two types of loft hatch:

- 1) The hatch rests on the frame of the loft entrance.
- 2) The loft hatch is hinged and will swing down when opened.

To draught proof the first of these, you can simply put a compression seal or foam strip around the perimeter of the bottom of the loft hatch.

When the loft hatch is hinged, you will need to put either the compression seal or the foam strip on the outside perimeter on the top of the loft hatch. You will also need to put an equivalent strip on the inside of the hatch frame so the two strips meet creating an airtight barrier to stop the draughts.

NOTE: If you intend to draught proof the hatch yourself, it is important to take safety seriously. Take care whenever you work up a ladder and if you feel unsafe, please use a certified installer.

# Floors

Where to look for draughts:

- In between the floorboards
- Around the skirting board

## How to draught-proof:

### Floorboards

If you have a carpet fitted over your floorboards, you can apply a gunned silicone sealant to the gaps between the floorboards. Using thicker underlay below the carpet is also an effective way to stop draughts.

If you have exposed floorboards, you will be more worried about the appearance of any draught-proofing measure. You can purchase tube-like rolls that are pushed into the spaces between floorboards.

Another option is thin v-shaped, one-size-fits-all, plastic lengths that spring apart when pushed into place using a credit card. When in position, this innovative method is invisible.

The most effective way to stop draughts coming up through the floorboards is unfortunately also the most costly and time consuming. This involves lifting up the floorboards and applying insulation between the joists. Unless you are very confident with DIY, this is best done by a qualified professional.



*You can purchase v-shaped draught excluder strips to prevent draughts through gaps between floorboards*

### Skirting boards

You can draught proof skirting boards using silicon-based gunned sealants.



## Cracks

Where to look for draughts:

- Old walls
- Around installed appliances
- Areas of pipe or cable fittings

*Silicon sealant  
can also be used  
for skirting boards*

### How to draught-proof:

Cracks can often vary in size, depending on seasonal changes or shifting pressures of the structure. This means that they need to be filled using flexible filler products that allow for a certain level of movement. If you use rigid filler it is likely that the crack will simply re-open.

For larger cracks and gaps, foam-based filler products should be used. This foam expands, creating an airtight seal. Once the foam has set solid it can be sanded down and painted to match the surrounding area.

Where the crack remains at a constant width, rigid filler provides a smoother, more professional finish and can again be sanded down and painted to match the rest of the wall.

NOTE: If you have any sizeable cracks, it is advisable to book an appointment with a building surveyor to ensure the structural integrity of the building.

# Chimneys

Where to look for draughts:

When your fire is not being used, unnecessary heat loss may occur up the chimney. Here you can use temporary draught-proofing solutions that can be removed as and when you want to light the fire.

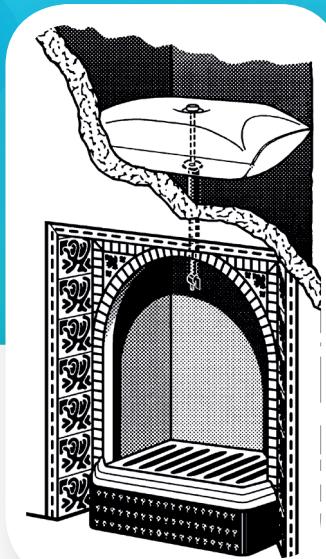
## How to draught-proof:

### Chimney Balloons

A chimney balloon is essentially a balloon that you inflate in your chimney that creates a snug fit, preventing hot air escaping and cold air from entering.

You position the balloon in the lower regions of the chimney stack and then inflate it, which holds it in place. The balloon is designed to stop the majority of airflow, but will still allow some ventilation, avoiding any damp issues.

The inflated balloon can then be left in position until you want to have a fire, at which point you deflate the bag and store it, ready for it to be re-inflated for future use. It is useful to leave a weight hanging from a string attached to the balloon to remind you that it is there and prevent a fire from being lit with the balloon in place.



*Chimney balloons can help prevent draughts through chimneys*

## Chimney Sheep

Chimney sheep are made from 100% natural sheep wool. Sitting snugly in the chimney, they provide the perfect barrier between the cold outside and the warm indoors.



*Chimney sheep come in a range of shapes and sizes*

## Pipes and vents

Where to look for draughts:

- Where pipes enter and exit the building
- Around vent installations

### How to draught-proof:

Foam-based fillers are ideal and simple to use when you are looking to draught-proof irregular gaps such as those around pipes. Rigid fillers may also be used if a smooth finish is preferable.

NOTE: Air bricks and bathroom vents should never be covered up as they are designed to prevent condensation and damp.

## Ensuring adequate ventilation

It is important to maintain adequate ventilation.

Therefore, you should ensure that you don't block or seal any intentional ventilation, such as:

- Extractor fans
- Under-floor grilles or airbricks
- Wall vents and air bricks
- Trickle vents in windows
- Boiler and fire flues

It is particularly important that adequate ventilation is maintained in rooms at risk of condensation such as bathrooms, kitchens and utility rooms. You should never interfere with air vents for fires and heating appliances.

## DIY or professional?

If you're happy carrying out simple DIY tasks, you will be able to install many draught-proofing measures yourself. However, professional draught-proofing is likely to save more energy because the installer will know the best materials to use and where to use them. If you are uncomfortable carrying out the work yourself, we would strongly recommend getting in a professional to complete the work.

## Purchasing draught-proofing materials

Look out for products carrying a kitemark or certified to British Standard 7386. British Standard Institution accredited products have a 20-year life when correctly installed and maintained.

## Choosing an installer

The National Insulation Association website ([www.nia-uk.org](http://www.nia-uk.org)) lists registered installers whose work is guaranteed for ten years. They will be skilled in fitting a wide range of durable products to the BS Code of Practice 7880.

Severn Wye run a website called Link to Energy that allows you to search for suitably qualified local installers.

To get started, simply visit [www.linktoenergy.org.uk](http://www.linktoenergy.org.uk) and enter your postcode or town. Alternatively, you can call our advice line on **0800 500 30 76** and one of our advisors can provide further guidance and make referrals to suitable companies on your behalf.

We would always recommend getting a few quotes when you are considering having work done.



## Financial assistance

There may be financial help available for installing draught-proofing measures. However, this varies according to your individual circumstances, so please call our advice line on **0800 500 30 76** to see if there might be help available.

## Energy saving tips

Alongside draught-proofing, the following tips will help you achieve the highest savings on your heating bills:

- You may find that you can turn your thermostat down a degree or two and still feel comfortable. Try experimenting by half a degree at a time and see how low you can go – turning down your room thermostat by just one degree can save between £85 and £90 a year<sup>\*3</sup>. However, this should never be done at the expense of health, particularly where there are children, or vulnerable people present.
- Your property may now take less time to heat up and retain the heat for longer after your heating is switched off; try experimenting with your heating controls so that your heating is on for a shorter period of time. Alternatively, you can work out your property's heat up and cool down times and set your timer according to this. We have a leaflet with instructions on how to do this. Contact the advice line on **0800 500 30 76** for a copy.
- Consider fitting reflective radiator panels to radiators on external walls. These attach to the wall behind your radiators, reducing heat loss by reflecting heat back into the room.
- Check your loft – take a look at how much loft insulation you have. The recommended level is 270mm or approximately 12 inches. Take a look at our loft insulation leaflet for more information.
- Check if you can have cavity wall insulation installed. Take a look at our cavity wall insulation leaflet for further information.



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Severn Wye Energy Agency is a not-for-profit company and charity (charity no. 1083812), established in 1999 under the European Commission SAVE programme to promote sustainable energy and affordable warmth through partnership, awareness-raising, innovation and strategic action.

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# SevernWye energy advice fact sheets



**Warm and Well** has been running for over 10 years and has helped thousands of people tackle their energy bills and make their homes more comfortable. Our friendly advisors provide free advice on reducing energy use and on the grants and incentives available.

**0800 500 30 76**

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**[www.warmandwell.co.uk](http://www.warmandwell.co.uk)**

This fact sheet is part of a series that includes information on heating and hot water, home power generation, lighting and electrical appliances and reducing heat loss.  
The full series of fact sheets can be found at:

**[www.warmandwell.co.uk](http://www.warmandwell.co.uk)**

Large print copies are available on request