

Keeping heat in: Draught proofing

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Draughts are caused by cold air forcing its way through gaps around windows or doors. By blocking the gap, you will stop the draught. Autumn is a great time to do draught proofing and weatherising before winter. Hopefully your house is dry after the long summer and, because many weather proofing products use adhesives, this means they will stick better than if you wait until winter to install them.

As a rule of thumb, all houses built before the 1960s, and most houses built before the 1980s, will need some draught proofing. And all ages of homes suffer some weather proofing problems over time. If you've done draught proofing before, it's also important to make sure they are still clean and working. New draught proofing may need to be done in heavy wear areas every 3-5 years.

Where to draught proof

Windows, doors, cat doors, skylights, downlights and chimneys are all weak points where you might get a draught

Doors

Draughts from outside doors are a major source of heat loss in our houses, but they are easy to fix with draught stoppers (for that gap under the door) and using draught strips around the door frame. There are plenty of DIY products available in the hardware stores. Draught sausages are a cheap and effective way of stopping draughts from internal doors also.

Cat doors

An ill-fitting or damaged cat flap is guaranteed to produce a draught. If yours is broken, replace it with a good quality cat flap with a close-fitting flap and strong return mechanism so it doesn't blow open in the wind.

Windows

Draughts from windows are common but often they are a symptom of a need for wider window maintenance. If your curtains move when your windows are closed, then this is a sure sign that your windows need some draught proofing.

Before you draught stop, make sure window catches and hinges are working properly and fix any that are broken or damaged. When draught stripping wooden windows, you need to take care to use a product that won't warp your windows - rubber or foam products are better for use with doors. There are products which create a thin folded V of plastic which perform better for windows.

Chimneys

Block unused chimneys to prevent draughts and stop heat escaping. You can either cap the top of the chimney or block it by using plastic bags stuffed with newspaper. Remember to take them out again before using the fireplace – leave a note inside the fireplace to remind you.

Tips for draught proofing

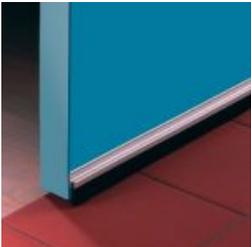
To help **find the source of a draught**, light a candle and use it to find the source. Move the candle around the edge of a frame - the flame will flicker where the draught is coming in.

It is often difficult to **calculate the size of the gap** when draught proofing. To help you measure small gaps, gauge it by the thickness of:

A matchstick = 2mm

A \$2 coin = 3mm

Types of draught proofing products

<p>Self-adhesive foam strip</p> 	<ul style="list-style-type: none"> ▪ Widely available from your local hardware store – usually in packs of different millimetres thickness, or strips you can cut off to the length you want. ▪ This product is best used around doors – on the door frame, so that the door fits snugly when closed. ▪ Eyeball the gap you want to fill and, if possible, measure its width in millimetres before buying your draught strips. ▪ Make sure the surface is clean when you stick it on (clean and then wipe with methylated spirits to remove any grease). ▪ If you use this product on windows, don't use one which is too thick – otherwise it will be hard (or impossible) to close the window. ▪ Don't use this product on wooden windows as it can warp them over time.
<p>Self-adhesive rubber strip</p> 	<ul style="list-style-type: none"> ▪ Similar to foam in terms of availability and use. ▪ It is a more long-lasting product, so although it is slightly more expensive, it is probably worth the cost.
<p>Brush strips</p> 	<ul style="list-style-type: none"> ▪ Widely available from your local hardware store in a range of colours and styles. ▪ These are generally for installation on the bottom of external doors to stop draughts coming in the gap under the door. ▪ Can be mounted (with screws) on either side of the door (inside or out) depending on the way the door opens. ▪ May need to be cut to size.

<p>V Seal</p> 	<ul style="list-style-type: none"> ▪ This is not very widely available in New Zealand. It is stocked by Community Energy Action (www.cea.co.nz) in Christchurch (they have online sales), Negawatt Resources in Wellington, or from Energy Options in Whakatane. ▪ These are able to be used on doors or windows and are particularly good for older wooden sliding windows, double-hung sash windows (as in a villa) or wooden casement windows (as in a bungalow or houses built in the 40s and 50s). ▪ These are self adhesive also, and you need to fold the plastic tape in half (make sure it's a really good fold) before doing the installation. ▪ Clean the frame surface and wipe with methylated spirits to get rid of any grease.
<p>Silicone sealant cartridge</p> 	<ul style="list-style-type: none"> ▪ For filling gaps such as between skirting and floorboards. A flexible sealant will last for many years when used in this way. Silicone-based products are more expensive than other flexible sealants but are generally less prone to deterioration. ▪ Vacuum carefully around the gaps to be sealed and then apply the sealant directly into the gaps. ▪ If you have not used a sealant cartridge before (and even if you have), it may be wise to mask either side of the joint before applying the sealant – the tape should be removed immediately after application as it will be extremely difficult and messy to remove once the sealant has cured.
<p>Draught sausages</p> 	<ul style="list-style-type: none"> ▪ These are easy to make yourself, or you can buy deluxe versions (which go under the door and surround both sides) from community organisations such as Community Energy Action (their online shop at www.cea.co.nz sells these).
<p>Keyhole covers</p> 	<ul style="list-style-type: none"> ▪ For a lock with a hole that goes right through the door, you can buy a range of products from a locksmith that fit over the external hole to prevent draughts when the lock is not in use. ▪ These normally pivot at the top and are simply swung out of the way when the lock is used and swung back afterwards. ▪ They can also be fitted to the inside of the door.

Curtains and pelmets

Curtains are an effective way of improving your window performance – in summer and in winter – because they keep an air pocket between the curtain and glass. In winter a good thick lined curtain will reduce heat loss through your windows, as well as reducing draughts and the feeling of cold radiating into the room.

The air between the curtain and the pane of glass needs to be still for the curtains to be effective. This means that you should:

- Keep your pelmets to stop cold air escaping at the top.
- Have curtains that go down to the floor to stop cold air escaping at the bottom.
- Make sure your curtains close well, and that there are no gaps around the edge.

If you have wall mounted radiators, you need to make sure the curtain doesn't cover them – as well as being a fire risk, the heat from the radiator won't move into the room.

Making your own insulated curtains is easy – you can buy the insulating lining and sew it on the back of existing curtains. Velcro strips sewn on one side to the back of the curtain can also be used to tightly fit your curtain around the side of the window frame.



Try curtain banks for a cheap source of second-hand curtains – make sure they fit your windows down to the floor.

For more information:

- See Fact sheets on
 - Downlights
 - Keeping heat in: Overview
 - Introduction to heating your home