

# Harry explains...

## Condensation on the inside of a window



Condensation on windows is a pain. It spoils the view, there's water on the window boards, curtains can get damp and as a worst case scenario it can cause mould on the plaster.

The question is, what can we do about it? How do we fix and prevent condensation in our homes? Let's take a closer look at what condensation is and why it forms on windows.

### → Condensation in homes – what is it?

Condensation in its purest form is caused when moisture in the air comes in contact with a cold surface and it condenses from water vapour to a liquid again.

Condensation points to problems in humidity levels in the home and a lack of adequate ventilation which in turn can lead to damage to the property and mould growth as well.

### → Why does condensation form on windows (and especially newer windows)?

The reason we notice condensation on our nice new thermally efficient windows, particularly in the cooler months, is simple: they are doing their job.

Older windows are usually less air tight, allowing moisture-laden air to pass from inside the home to outside without causing any condensation.

Modern windows will have been manufactured to minimise air loss and sealed up nice and tight during their installation. Now the moisture can't escape and when it hits the glass, which is usually the coldest part of the room, it forms condensation.

Condensation can also appear when there's simply too much humidity in a home, so it can manifest at any time of the year. Think hot showers and steamed up mirrors. Likewise when boiling a kettle or cooking.

So condensation is the result of relatively warmer and humid air meeting a cold surface, in this case, glass.



*"When condensation occurs on thermally efficient windows, it means they are doing their job!"*



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### How can we reduce condensation in our homes?

All living organisms give off humidity simply by existing: humans, animals, even plants.

Then there's the humidity we create with our everyday activities. Changing some habits or making minor lifestyle tweaks can make a lot of difference and help reduce the amount of condensation that occurs in a home.

#### Showering or bathing

The bathroom is the most humid place in the home. Taking a shower releases huge amounts of humidity into the air – the hotter it is and the longer it is, the more water vapour is released. So, where possible, try to reduce this avoidable humidity source and keep your shower at a reasonable temperature for as short a time as possible. You'll save on your bills as well!

If you have one, open a window. Ideally before or during the shower but definitely after, and leave it open for 10-15 minutes at least to let that humid air escape outside fast.

If you don't have a window then you should have a mechanical fan. Make sure this is running during the shower and for 15-20 minutes after.

Make sure also to use a decently sized bathmat to avoid saturating bathroom floors when getting out of a bath or shower. The bathmat should help soak up some of the moisture, helping to reduce the condensation in the room, especially if it is put in the dryer along with the wettest towels.

#### Cooking or using a kettle

Kitchens are the second biggest source of humidity in the home. Cooking, kettles and other appliances all release steam, so be sure to use pan lids when cooking to reduce moisture being created from water boiling.

Make sure also to have a cooker hood that's set to extract and use it all the time while cooking and for a short time afterwards.

*"Changing some habits can help reduce the amount of condensation that occurs in a home."*



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### Close kitchen & bathroom doors

Bathrooms and kitchens are the worst culprits for condensation. When cooking food, boiling the kettle or taking a shower, ensure that the kitchen or bathroom door is kept closed to prevent the moisture in the air from going into colder rooms which will cause condensation to form if it touches a cold surface.

### Laundry

It's difficult in the winter, but try not to dry laundry inside on an ailer or radiator when it's cold outside as every load releases pints of water into the air.

If you can, dry clothes outside or if that isn't a possibility dry them in an exterior-vented or condensing dryer.

### Gas hobs & ovens

When natural gas or propane and butane burns it releases water vapour, carbon dioxide and potentially carbon monoxide.

Make sure you have adequate ventilation to ensure it can escape outside.

### Home renovations

If you're painting or plastering large walls in your house, these surfaces will need to dry, and the moisture will go straight into the interior air unless the space is well ventilated.

Keep your windows open where possible when decorating.



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## Condensation on the outer panes of a window



### ➔ My windows are all misted up on the outside. What's wrong with them?

The simple answer is nothing is wrong with them! In fact, external condensation can be proof that energy efficient windows are performing well (see below).

### ➔ If nothing is wrong, why is there condensation?

The longer answer is that the modern windows that FENSA Approved Installers fit these days are so much more thermally efficient than those installed in decades past. As a result, the heat used to warm homes doesn't escape through to the outer pane.

The outer pane of glass is therefore cooler and when its temperature falls below dew point, moisture in the air condenses on it.

### ➔ Why does condensation only form at certain times of year?

The reason window condensation can be worse during Autumn (and Spring) mornings is that at these times of year the temperature of the glass can really drop overnight, yet the dew point remains relatively high.

Some windows can be affected more than others and slight changes in orientation or shelter can mean that windows or even panes next to each other can react differently.

### ➔ What can I do to stop external condensation forming?

Unfortunately there is not much that can be done to stop this phenomenon. It usually doesn't last long and shows that the heat being used to warm your home is being saved rather than lost through your windows - thus potentially lowering your heating bills and reducing your home's carbon emissions.



*"External condensation can be proof that energy efficient windows are performing well!"*

