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White Paper:

Tackling condensation on windows & doors

Advice from Evander Glazing and Locks, now part of VPS Property Solutions

Different types of condensation have different effects on your property but they don't automatically mean that you'll need to replace your double-glazed windows or doors - in fact, there may be a much cheaper and simpler solution.



The different areas of condensation

Condensation is caused when water vapour collects on colder surfaces. This creates a misty appearance, which can turn into a covering of larger water droplets in more severe cases. There are three main different 'areas' of condensation.:

- Inner condensation, which collects on the *inside* of your windows
- Outer condensation, which collects on the *outside* of your windows
- Gap condensation, which collects between the two panes of glass on double-glazed windows and doors

Of course, if your windows or doors are single-glazed, you'll only have either outside or inside condensation. If you have triple-glazed windows, you may experience gap condensation in one or both of the spaces between the glazed panels, but this is unlikely if the unit has not been obviously damaged.





Inside condensation is the most common, and outside condensation is a relatively new problem, albeit a relatively harmless one.

Why condensation forms on windows and doors

Knowing why the condensation forms on your glazing can help you to solve the problem quickly without too much expense. Each area of condensation is caused by something different:

Inner condensation is caused by an overabundance of water vapour in the air inside your home. When the outside of the window gets cold, the warm, damp air hitting the window on the inside will turn into condensation. You are likely to notice this happening more when you are cooking or showering, as well as during the autumn and winter, when the inside of your house is warmer than outside.

This type of condensation is very common on single-glazed panels and can easily form on more efficient double-glazed windows and doors too. You may be surprised at the amount of water vapour that your household generates in a 24-hour period. Showering, drying clothes and cooking are all obvious sources of inner condensation, but you also create water vapour by simply breathing and going about your day. *Approximately 15.7 litres of water vapour is produced a day* by the average four-person household. Without the proper ventilation, this can cause condensation and damp problems.

Outer condensation is caused by the same reaction, just the other way around. It affects properties which have very efficient windows and doors, and is caused by warmer air hitting the outside of your window. This is most likely to happen in the morning, as the sun is coming up and could happen in any season, depending on the conditions. This does not mean that the inside of the home is cold in comparison — it simply means that the glazing is so efficient that the outer pane is much colder than the inner one, hence the condensing reaction with the air outside.

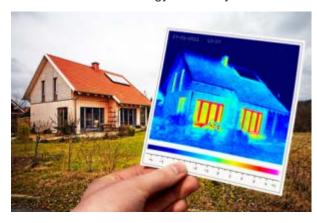
Gap condensation happens because of the double-glazed unit failing. All double-glazed windows and doors have a small gap between the two panes. This space is filled with a harmless gas, which creates an insulating layer of air, thus helping to keep the warm air in and the cold air out. If the seal has broken around the edges of the unit, the insulating gas will escape and condensation will occur between the panes. This can, in some very extreme cases, to cause the inner space to fill with water.



Related issues

Both inside and gap condensation cause problems and should be addressed as soon as you can to prevent further issues and expense.

Gap condensation within your double-glazed units seriously reduces the energy efficiency and will have a noticeable effect on the temperature in your household, not to mention your energy bills. If you have more than one failed unit, you could find that your heating bills are higher and that you experience more issues with damp and condensation on the inside of the window, due to the decrease in energy efficiency.



Inside condensation can cause damp or mould in the worst affected rooms. This usually manifests as green or white patches with discolouration of paintwork and/or peeling wallpaper, usually in the upper corners of the affected room. You may also be able to smell the damp as it can emit a rather musty odour.

If you commonly find condensation on the inside of your windows and doors, it's quite likely you'll experience some mould or mildew at some point. If the condensation is leaving puddles of water on your window sills or flooring, you should address the issue as soon as you can. Mould and damp is not just unsightly, but can pose serious problems to your health such as respiratory issues and allergic reactions, so getting it sorted sooner rather than later is paramount.

Outside condensation does not cause problems with your property but may be frustrating, as your external views are misted up.

Condensation solutions

For inside condensation, there is no quick fix. Instead, tackling it is an ongoing issue and will mean adapting your lifestyle in some key areas. Firstly, **ensuring your home is well ventilated** is paramount, as this will allow water vapour to escape and fresh air be drawn into your home. Open a window when you're cooking and when you're in the bath or shower — try to do this all



year round if you can. When you first spot condensation, open the window (or a window in the same room) a small amount and wipe up any moisture which has already formed with a towel.

Installing a dehumidifier can also make a big difference, and it is worth researching the best size and power for your needs before purchasing one, as there are a wide range of options available.

Drying clothing inside the home is one of the worst causes of water vapour, so aim to **dry your clothes outside or tumble-dry them** where possible. Where this is not an option, ensure your windows are open and try not to put out too many wet clothes at once. It's not a good idea to dry clothes in a room which does not get a lot of sunlight due to the direction it faces or because it is in shadow, as this can exacerbate issues with mould, so when indoors is your only option, aim to dry your clothing in sunnier, well ventilated rooms.

Outside condensation should clear on its own and should not stay for very long. However, the severity of it can vary depending on how much sun your home gets. If outside condensation is becoming a problem, your local DIY shop is likely to stock a waterproofing spray which can be applied to the outside of the glass to ensure the condensation cannot 'stick' to the surface as easily. Check with whoever installed your windows to ensure this does not affect any warranty you may have.

Gap condensation can only be solved by having the unit replaced, which may be under warranty or covered in your home insurance policy. If not, you don't have to worry about replacing the whole window or door as the glazed unit can be removed and a new one can be fitted into the same frame. Double glazed units should not fail like this but it does happen, either through general wear & tear or accidental damage.

Window & door best practice

Looking after your windows and doors and ensuring that they are kept up to date where efficiency is concerned is important in many ways, and can also help to tackle condensation on a long-term basis. If you have very old doors and windows, they will not be as efficiently glazed as newer versions. The manufacture of glazing has come so far in recent years that you may be surprised at what a difference new double-glazing and efficient frames can make to your comfort and your energy bills.

Keeping your windows and frames clean and free of debris is also important, as a build-up of grime could cause water to build up where it shouldn't due to blocked drainage holes. This





in turn can accelerate the wear and tear on the unit, causing it to fail.

There is a huge on-line resource library with guides and tips on windows, doors, garages, home security and locks on VPS Property Solutions' Evander website at http://www.evander.com/help- advice/

VPS Property Solutions is the new division that combines Evander, the UK's leading nationwide windows, doors, and emergency response glazing and locks provider, with VPS, the property management services specialist.





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