

CONDENSATION... THE ANSWERS

IT'S FAR EASIER TO TREAT THE CAUSE THAN THE EFFECT



WHAT IS CONDENSATION?

Condensation is a relatively new phenomenon, resulting mainly from changes in lifestyle and our desire to keep heating costs as low as possible. It's related to the way we heat, ventilate and insulate our homes.

In days gone by, most homes had one or two chimneys, allowing up to four air changes per hour, and doors & windows were generally less well-fitting than they are today. This natural ventilation was the very process which prevented condensation. To cope with increased fuel costs came the trend to insulate, resulting in loft & cavity wall insulation and double glazing. However, it is also a fact that energy-efficient homes are more likely to suffer from condensation, because anything that keeps warm air in will also keep fresh air out, creating the ideal conditions for condensation to form.

Before we tackle the resulting problems, we need to understand exactly what condensation is, and then find the best way to deal with it. Condensation is water vapour suspended in the air. It's merely the air's natural moisture content settling on cool surfaces. The amount of moisture in the air is called relative humidity, and if the humidity level rises beyond 70%, mould and mildew will be encouraged to grow. Astonishingly, the average family creates up to 20 pints of moisture every day, simply by washing, cooking and breathing. This moisture must go somewhere and be dealt with in order to avoid condensation.

WHERE DOES MOST WATER VAPOUR COME FROM?

The most common sources of water vapour are from cooking, drying clothes on radiators, washing up, house plants, moisture in newly-built properties & extensions and from the breath we exhale.

WHERE CAN CONDENSATION OCCUR?

Due to the thermal currents within a house, condensation can occur in a number of places, usually in cold spots such as an unheated room or conservatory without any adequate form of heating. Condensation forming on the room-side surface of a sealed unit indicates a high water vapour content is present and that the temperature of the room-side glass surface is inadequate. Condensation within the air space of a sealed unit indicates that the unit has broken down.

DOUBLE GLAZING CANNOT CAUSE CONDENSATION

"I did not have condensation before my new windows were installed. There must be something wrong with them."

This is a common assumption, but one which is incorrect. Windows cannot and will not produce any water. This 'water' is produced by our normal daily activities, therefore we, the householder, create the problem.

HOW DO I KNOW IF I HAVE CONDENSATION?

Condensation will take many forms, the most common being steamed up windows and puddles of water on the window sills. In extreme cases, dark spots of mould will appear around the windows, wall coverings and mastic seals throughout your home. If you have a non-condensing tumble dryer, make sure it is properly vented to the outside of your property. Remember, tumble dryers can create up to 16 pints of water vapour in one cycle.

HOW CAN DOUBLE GLAZING HELP?

Sealed unit replacement windows act as an insulator, which reduces heat loss that would be conducted from the inside of the room to the outside under normal circumstances. Remember that sealed units retain heat but are not actually a source of heat, therefore all rooms in your home should be adequately heated, especially conservatories. The likelihood of condensation forming on a warm surface is therefore reduced.

HOW CAN I REDUCE CONDENSATION?

Condensation can be controlled by providing natural ventilation to change air on a regular basis and by maintaining an even room temperature. This is achieved through ventilating units that are controlled by humidistats, an air brick or by opening a window. Remember, air bricks must be open in order to achieve the desired results. An effective way of controlling condensation is to install a dehumidifier, though this cost can be avoided if the problem is one of ventilation by installing an air brick or controlling the root causes of the moisture.

BREATHING

Two sleeping adults exude 2 pints of moisture within an 8 hour period, which is absorbed as water vapour into the atmosphere.

NEW PROPERTIES

The bricks, timber, concrete and other materials in an average 3 bedroom house absorb 1,500 gallons of water, with the same principle applying to a conservatory base and the construction materials used. As with any new building work, you should always allow a period of drying out to ensure that problems are not encountered in the future.

KITCHENS & BATHROOMS

Prevent water finding its way in to other rooms of your home by closing the adjoining doors and leaving a window open after cooking or showering to allow a change of air. Extractor fans and cooker hoods work well for this purpose.

If you find dark mould spots forming, treat the affected areas immediately with a solution of household bleach or Milton fluid. This will kill the mould spores and prevent them from spreading to other areas. All new houses with improved insulation and replacement windows are likely to trap moisture build-up. This can be identified and dealt with, as long as all rooms in your home are heated and the air is changed on a regular basis.

CONCLUSION

Condensation is the result of a build-up of moisture caused by our everyday lifestyle and the continual improvement and modernisation of our homes. Replacement doors and windows simply cannot produce condensation; double glazing will act as an insulator if there is sufficient heat within your home in the first place. Therefore, it is wise to attempt to control the amount of water vapour displaced within the household and to provide controlled ventilation to dispel the moisture before a problem arises.