Brackenwood

IMPROVING HOMES SINCE 1987

Condensation Fact Sheet

Before we tackle the problem, we have to understand exactly what condensation is, then find the best way to deal with it.

What is condensation ?

Simply, condensation is water vapour suspended in air. Condensation is a relatively new phenomenon resulting mainly from changes in lifestyle and our desire to keep heating costs as low as possible. Condensation is the air's natural moisture content settling on cool surfaces. The amount of moisture in the air is called relative humidity. If the humidity level rises about 70%, mould and mildew will be encouraged to grow. Astonishingly, the average family creates up to 10 litres of moisture every day, simply by washing, cooking and breathing. This moisture must go somewhere and be dealt with to avoid condensation.

Where does most water vapour come from ?

Condensation is related to the way we heat, ventilate and insulate our homes. In days gone by, most homes had one or more chimneys; allowing up to four air changes per hour. Doors and 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. This resulted in loft insulation, 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. The most common sources of water vapour are cooking, drying clothes on radiators, washing up, house plants, moisture in newly built properties and extensions (the bricks, timber, concrete and other materials in an average three bedroom house absorb 333 litres of water). The same principle will apply to a conservatory base and the construction materials used there – as with any new building work, a period of drying out is required to ensure problems are not encountered in the future and from the breath we exhale (two sleeping adults exude one litre of moisture in eight hours, which is absorbed as water vapour into the atmosphere).

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Where can condensation come from ?

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

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

This is a common assumption but it is also incorrect. DOUBLE GLAZING CANNOT CAUSE CONDENSATION. By acting as a heat barrier and providing an inner pane which is considerably warmer than the outer pane, the likelihood of condensation forming is reduced. Windows cannot and will not produce any water. This ‘water’ is produced by our normal living activities.

How do I know if I have condensation ?

Condensation will take many forms, the most common being steaming 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 the house. If you do find dark mould spots forming, treat the affected areas immediately with a solution of household bleach or a proprietary mould removal product. This will kill the mould spores and prevent them from spreading to other areas.

How can double glazing help ?

Sealed unit replacement windows act as an insulator, reducing heat loss which under normal circumstances would be conducted from the inside of the room to the outside. Please remember that sealed units act as an insulator and are not a source of heat, therefore all rooms should be adequately heated – especially conservatories. The likelihood of condensation forming on a warm surface is therefore reduced.

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How do I reduce condensation ?

All modern houses with improved insulation and replacement windows are likely to trap moisture build-up. This can be identified and dealt with by providing natural ventilation to change the air on a regular basis and by maintaining an even temperature. An effective way of controlling condensation would be to install a dehumidifier. However, if the problem is one of ventilation, this cost could be avoided by installing an airbrick or a trickle vent (but please remember that the airbrick/trickle vent must be open to achieve good results), opening a window or by controlling the causes of moisture.

Bathrooms and kitchens

Prevent water vapour finding its way into other rooms by closing adjoining doors and leaving a window open during and after cooking or showering to allow a change of air. Extractor fans and cooker hoods also work well for this purpose. If you have a non-condensing tumble dryer, make sure it is properly vented to the outside of your home. Tumble dryers can create eight litres of water vapour during one cycle..

Conclusion

Condensation is the result of a build up of moisture and caused by normal lifestyle and the continual improvement and modernization of our homes.

Replacement windows cannot produce condensation. Double glazing will act as an insulator if there is sufficient heat within the home in the beginning. Therefore it is wise to attempt to control the amount of water vapour displaced within the household and to provide controlled ventilation to dispel this moisture before a problem arises.

Remember, it is far easier to treat the cause than the effect.