

## HOME BUILDING SURVEY – CONDENSATION/HEATING/VENTILATION – GENERAL ADVICE

Homes are many ages and different designs/construction plus often altered and extended. Understanding how to live in your home and how the building performs can attribute to better living conditions for the family.

Condensation is water vapour contained within a building which condenses on colder surfaces to form dampness and is not linked to rising damp or water leakage. High energy prices today mean that often sealed double glazed windows/doors are fitted, extra insulation added in the loft plus more use of showers, drying clothes, higher inside temperatures and the design of heating/ventilation may all contribute to causing condensation. Occupation of the dwelling by people breathing and using the services produces water vapour. The number of people in the building, activities, weather conditions, heating levels, ventilation and the design of the services can influence if condensation occurs both in the dwelling and in the loft space.

Significant condensation mould or smell is reported in the survey but a surveyors report is not a technical analysis of the heating, ventilation or performance of the building. Improvement works may be required as the need arises and we can offer further advice here. Condensation is unlikely to be cured by the application of special paints or chemicals.

Some areas of a building where condensation is more likely to occur could be:-

- Window/door frames and glass especially on single glazing and metal window frames.
- Inside the windows/doors on the edge reveal plasterwork to the adjacent wall.
- Where concrete lintels are found above windows and external doors.
- Around air bricks inserted through an external wall.
- Top of the walls by the ceiling or the edge of the roof where cold may be bridging from outside the building. Concrete finlock gutters can cause this problem.
- Behind fitted cupboards or wardrobe cupboards built against outside walls.
- On the inside face of outside walls in a room where there is too much furniture or stored goods preventing heat and air circulation. Often occurs in the outer corner of a room.
- Plumbing appliances which store cold water such as sinks, toilet pans, flush units, tanks in cupboards and water feed pipes.

Some ideas to help to prevent condensation occurring in a centrally heated building are:-

- 1) Prevent large fluctuations in temperature and humidity inside the building. Heating which is turned off for long periods causes the building to cool down. Heating turned on too high causes the hot air to hold more water vapour and then when the building cools down too much, the extra water vapour released by the cold air may condense into water.
- 2) The number of radiators and the size need to suit the building. The same can apply to a modern well designed wet underfloor heating system. Set radiator valves at the correct temperature for the room. Use a wall mounted thermostat to control the temperature. Energy cost/efficiency is not directly linked to how long the heating is turned off or on. Radiator heating with a large hot water volume will tend to cool down slower than instant forms of heat such as gas fires, electric heating, warm air systems etc. Heat released gently can help to maintain more even temperatures in the building. Radiators are best positioned in a room towards the outer walls/corners of a building. If the outside walls are kept warm, heat will gently travel to the inside to assist in maintaining an even temperature within the building.
- 3) Encourage gentle ventilation in a room to let out excess humidity but do not allow the room to become too cold otherwise colder surfaces will simply attract more condensation. Trickle slot air vents on windows are a good idea.
- 4) Bathrooms, kitchens, utility rooms and toilets should have an extractor fan linked to the light which also operates on a timer after the room has been vacated. Humidity controlled fans can be used.
- 5) High humidity levels from the home can get up into the loft. Moisture can migrate into the loft via recessed ceiling lights and loft hatches. Increasing air ventilation in the loft can lead to cold surfaces or cold bridging by the edges of the ceilings in the bedrooms. It can also lead to frozen plumbing pipes, tanks etc. Do not increase insulation under water tanks. If condensation is noted in the loft especially during cold weather first of all investigate any dampness in the home but you may need to fit extra loft air vents.

Condensation and lack of ventilation inside the home can lead to unhealthy conditions. A small amount of condensation water vapour deposited each day gradually builds up so porous surfaces and materials in the building become moist damp. In the case of a tenanted dwelling the landlord will have a duty of care to the tenant but dampness may be caused by the occupiers. **If you consider a risk to your health please seek advice.** 04/10/2016