

# Use of the BRE Excess Cold Calculator - Case Examples

## Are healthy temperatures possible?

### Background

A complaint was received from a private tenant advising that her heating was insufficient to heat her flat and that she was suffering from condensation mould as a result.

The flat is on the ground floor of a purpose-built two-storey development built in the late 1960s and is in a mid-terraced position. It has un-insulated cavity walls, post-2002 double-glazed windows throughout (original single-glazed timber windows being replaced in 2006) and an un-insulated concrete slab floor. It comprises of a lounge, kitchen, bedroom and a bathroom. Neither the bathroom or kitchen has an extractor fan but both have a suitably-sized opening window and all windows have trickle vents provided. The lounge is heated by a manual-control night storage heater, the kitchen has no heating, the bedroom is provided with a manual-control night storage heater and the bathroom has an electric on-demand down-flow fan heater. Mould growth is evident around the window reveals and above skirting board level on the outside wall in both the lounge and bedroom.

### Initial Impressions

Upon first inspection there was some concern about the ability of the heating provided to not only adequately heat the flat but, in addition, to sufficiently heat the home with appropriate use of ventilation to avoid condensation dampness and mould growth.

A full assessment of the dwelling was carried out using the XCC.

### Outcomes

- 1) Despite initial impressions, use of the XCC was able to demonstrate that healthy lounge and overall dwelling temperatures over the winter months were capable of being achieved using a typical heating pattern for the household. A comparison was made using the calculator to assess the difference the double-glazed replacement windows had made and it was found that it was this replacement from single glazing that had enabled adequate heating to be provided.
- 2) As a secondary outcome it was established that with appropriate ventilation of the flat it would be entirely possible for the occupier to avoid a situation where condensation mould growth was inevitable and, thus, that the risk of ill-health in this flat would be no different to that of a similarly-aged flat in a "typical condition for this age and type" as modelled in the Housing Health and Safety Rating System Operating Guidance.

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