

TECHNICAL UPDATE

INSULATED REVEALS TO REFURBISHED BUILDINGS



Insulated reveals to refurbished buildings

Introduction: This technical update provides additional guidance on insulated reveals to refurbished buildings. It is important that all workmanship carried out during construction is completed in accordance with the relevant tolerances.

Where insulation is missed around window reveals, condensation and unsightly mould can occur on the internal room side of the wall finish. Although condensation is not covered under the policy, the causation in this case is as a direct result of the (missing insulation) and therefore it is covered under the defect insurance period. This article is based on questions and answers in order to determine a satisfactory standard in buildings being converted or refurbished. Please also refer to BRE 262 Thermal Insulation: Avoiding the risks.

Why is insulation often missing to reveals?

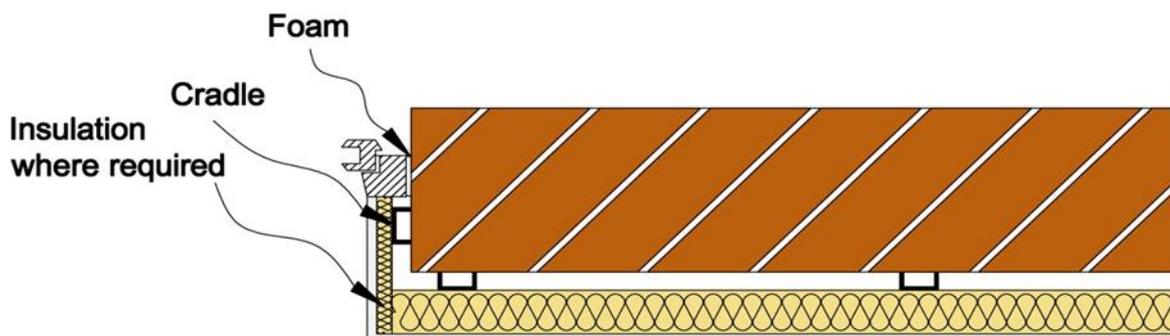
Insulation is often missing because the window frames are not wide enough. The provision of insulation would have fully covered the frame on the internal face and protrude onto the glass. The builder had omitted the insulation to allow sufficient area of window frame to be exposed.

What is an acceptable level of insulation to a reveal?

Part L1b of the Building Regulations recommends that the minimum performance of any insulated element should have a U value no worse than 0.7 w/m²K. This U value should be used as the minimum standard for a reveal.

What does that equate to in insulation thickness?

This article does not attempt to answer that question as it depends on the thermal performance of the existing structure and the quality of the insulation product but as an example with a 225mm solid brick wall and using a high performance insulation board, a typical insulation thickness would be 20-25mm Please see the detail below for information.



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What other considerations should be taken into account?

Vapour control: A vapour control provision should be continuous throughout the insulation layer.

Window frame thickness: The window frame jamb needs to be wide enough to support the reveal, an example of where this becomes difficult, is where 'Crittall' windows are intended to be retained, as the jambs are very narrow.

Fixing: Plaster on adhesive dabs should be avoided particularly where either the wall is of solid construction or where the reveals of a cavity wall are not separated by a DPC. Some insulation products can be directly applied to the wall, this would need to be proven by the third party agreement certificate (BBA or similar) or the independent lining must be continued around the reveal.

What if the existing windows are to be retained and the jambs are too narrow?

There are a number of products on the market including some multi foils that are thinner which may be used. Any product to be considered should have third party certification, which must be submitted to ourselves for appraisal. Where the jambs are too narrow and it is not practical to provide insulation, a condensation risk analysis could be provided by the developer to support the proposed solution, however the waterproofing detail around the frame still needs to be robust enough to prevent lateral damp penetration. Our Technical Services Department will pick this up during the course of the 'Refurbishment Assessment' and discuss our concerns with the Developer during the course of this process..

The existing construction is cavity and it has been insulated with blown insulation. Do I still need to insulate the reveal?

YES, unless the reveal incorporates an insulated cavity closer.

The walls are to be thermally upgraded externally; does the internal reveal need to be insulated?

No, but the external wall insulation must be continuous and finish at the junction with the window or door to prevent the cold bridge.

Every care was taken to ensure information in this article was correct at the time of writing (December 2020). Guidance provided does not replace the reader's professional judgement and any construction project should comply with the relevant Building Regulations or applicable technical standards. For the most up to date LABC Warranty technical guidance please refer to your Risk Management Surveyor and the latest version of the [LABC Warranty technical manual](#).