

Information for the Architect

Golden Rules to Ensure Part L is Met

Designing airtight buildings is the only means of ensuring long term, low air leakage performance. Build tight – ventilate right. The objective is to minimise uncontrolled air leakage whilst maintaining controlled ventilation. Ensure the air barrier is based on structural elements, wherever possible. Condensation risk will be minimised if the air barrier or seal envelope is correctly positioned, which depends on the make up of the construction element itself. Generally, it should be placed on the warm side of the insulation layer. It is also important for the insulation layer to be continuous and to bear in mind that excessive cold air moving around loose or misplaced insulation can lead to interstitial condensation.

Ensure that the air tightness test is carried out by a member of the ATTMA – Air Tightness Test Measurement Association. The DCLG recognises members as being ‘suitably qualified’ and ‘competent’ companies to carry out air tests.

Answers to the Most Frequently Asked Questions

What needs air sealing on site?

Careful consideration is needed on all structural elements. For instance pre-cast concrete floors may look airtight, but consider air leakage along open voids through the slab into cavities in external walls! Also think about non-structural elements such as roof liner sheets or T and G boarding. A 1mm gap along each joint adds up to a considerable area for air to leak through.

Where can I access reference to standard details?

The Stationery Office – Dwellings
MCRMA
SEDA
BRE Good Building Guides
Kingspan

When to Get Worried

Any supplier of materials or components who can not state the air leakage rate (permeability) of their product per metre square, as tested to BS / EN standards. Beware material suppliers who states their components are air tight. NO materials are perfectly airtight, particularly after installation on site!

Using dry lining or vapour barrier as the air barrier is possible with good detailing. However, a high level of site supervision is required to ensure all junctions are air tight and that the lining is not damaged.

Perforated liner sheets are NOT suitable as an air seal line.

If you have any concerns, request that the material or component under goes an air leakage test. NOTE HRS Services can undertake tests on components on or off site, to the relevant BS or EN.

