

Information for Material, Plant and Component Suppliers

Golden Rules To Ensure Part L Is Met

Set out clearly in all documentation the level of air tightness that can be achieved and how it is to be practically achieved on site. Be specific about whose responsibility it is to seal components and also adjacent elements, including works on site. Show these details clearly on all contract and site drawings and ensure that specified materials and components are fit for purpose.

Ensure all site staff and operatives fully understand the concepts of air tightness and the details of how it is to be achieved on site. Ensure training is carried out for all the parties involved, including site operatives.

Answers To The Most Frequently Asked Questions

How can we state air tightness figures for individual components?

Components could be tested in laboratories or tested on site in specially built enclosures as specified in BS EN 12114:2000. The test method allows the air leakage through individual joints to be derived. From this information the building air leakage rate can be estimated by totalling up the leakage rates for all the joints in the building envelope.

What can gaps and joints be sealed with?

As with all gaps and joints, there are many BS EN Standards which specify in detail, how they can be bridged effectively. Materials not to use include materials permeable to air (eg mineral fibre) or flimsy sheets, thin gaffer tapes or similar. Sealant, expanding foam and tapes can be used, if specified and applied correctly. Ensure that all materials and components are fit for purpose and installed to current standards.

When to Get Worried

If there is no information on air leakage rates for materials or components, there can be no confidence with the final performance on site. Obtain a component air leakage test – contact HRS for details. Many modern construction systems and designs rely on gaskets or sealants within the joint to seal the system. If these are not installed correctly during installation, the air leakage could be considerable.

A typical example is with block work. Well designed, specified and constructed block work can achieve a very good standard with air leakage $< 2 \text{ m}^3/\text{h}/\text{m}^2$. However, without taking due regard can lead some block work walls to have high leakage rates - for a variety of reasons. Sometimes blocks are not specified with an air leakage rate and also the composition and leakage rates of identical blocks, manufactured in different plants, can vary significantly.

On site problems with quality of block work and mortar joints can lead to significant leakage. For example, where block work is concealed above suspended ceilings, vertical mortar joints – perps – may not be filled completely but ‘faced up’, which leak.

Note, HRS Services offer consultancy services to ensure that materials and components making up building elements comply with U and phi value regulations and air permeability constraints. HRS have the necessary experience, knowledge and testing equipment and software to provide answers to any technical queries you might have.

