

# Information for the Main Contractor

## Golden Rules to Ensure Part L Is Met

Ensure that good, sound building practice is delivered so that the building is airtight. If the building is not airtight, the air permeability target of  $10 \text{ m}^3/\text{h}/\text{m}^2$  will be exceeded. The end user (– client) may also find that ventilation is inadequate and may complain of drafts at times of the year when the building is difficult to heat or cool.

State clearly in all pricing enquiries the air tightness specification and ask for details of compliance including specifications, method statements, quality audits, etc, etc. Ensure a person on site is nominated to control and audit all aspects of air tightness works, through out the contract period on site. Do not enclose or cover cavities or gaps before the air tightness works have been quality assured.

## Answers to the Most Frequently Asked Questions

### How can a large number of suppliers and sub contractors be controlled to ensure air leakage issues are addressed?

Use similar methods to those used at present to control all aspects of contracts specification, method statements, quality management systems, etc. Problems generally occur when responsibilities for each element or package of work are not clearly defined and agreed, prior to site work starting.

### If the air leakage test fails, how can air leakage paths be found?

A variety of techniques can be used to identify leakage paths – these include;

- Feeling for drafts adjacent to the air barrier, whilst the building is being air leakage pressure tested. It is useful if the air test fan unit can pressurise and de-pressurise buildings so that drafts can be felt for on both the internal and external faces of the air barrier
- Running localised smoke tests using a hand held smoke generator
- Running a smoke test on the whole building and recording the results on video.
- Carrying out a thermographic survey
- Physically checking over the risk areas looking for holes, gaps, etc

### Which building components are particularly prone to air leakage?

Apart from the obvious - unsealed block work, hollow concrete beams or floor planks, joints/junctions in curtain walling and dry lining systems, hollow frames/mullions/transoms, hollow steel sections penetrating the roof or walls, lap joints on roof liner sheets or T & G boarding - to name a few!

### What area of leakage holes am I looking for?

Dividing Q50 by 5.5 gives an approximate figure for the total leakage area in metres square. For example; if Q50 =  $37 \text{ m}^3/\text{s}$  the total leakage area =  $6.7 \text{ m}^2$ .

Treat this figure with respect and care as the visual hole seen on the air seal line is not always the actual area that air is ultimately leaking from – the final leakage hole could be a lot smaller.

## When to Get Worried

Any sub contract package is proposing to use gaffer tape or plastic sheeting to air seal works. Can we do the air leakage test next Tuesday, if the roof plant comes tomorrow and the fitters come in on Sunday to install it? NO! Plan ahead and ensure the building is ready for the test. Ensure the size – flow rate of the fan is adequate for the job. Ask for calculations to back this up.

