



BRINGING OUR NEW EBOOK ON

AIR TIGHTNESS TESTING (NEW BUILDS)

We work with clients to achieve the best possible rating

ASSESSMENT HIVE

192 Lancaster Road, Enfield, Middlesex, EN2 0JH

Tel: 020 3734 1093

Info@assessmenthive.co.uk - www.assessmenthive.co.uk



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What is an Air Tightness Test?

Air Tightness Testing is a method for measuring the amount of conditioned air that is unintentionally lost from the inside of a building. In straightforward terms, the procedure can be viewed as a way of measuring how 'draughty' a property is.

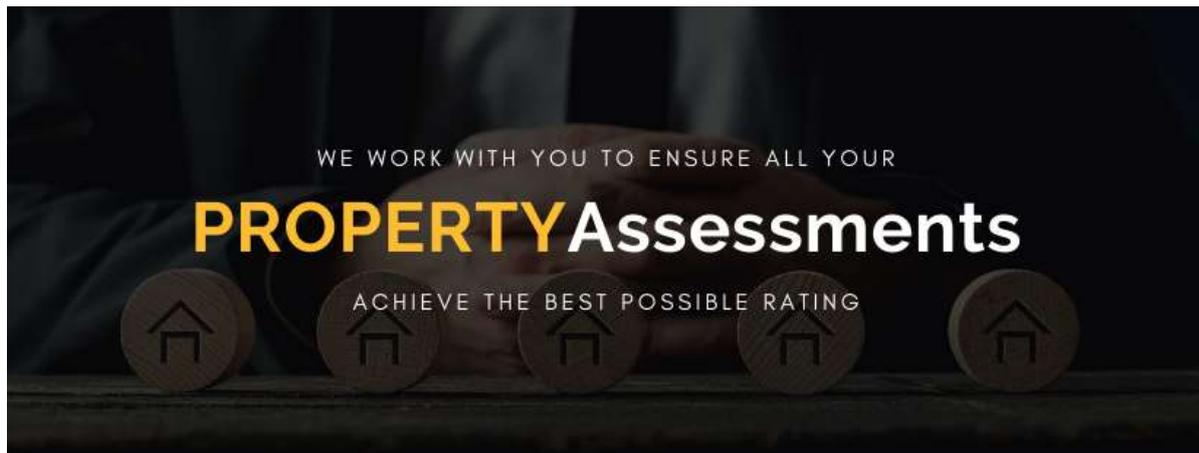
Apart from causing discomfort to occupiers, excessive air leakage increases the energy demand of buildings. Therefore, the levels of carbon dioxide (CO₂) emissions arising from occupation.

Air Tightness Testing was introduced to Part L1A of the Building Regulations in 2006. This was due to the Government's drive for improved energy efficiency and for reducing carbon dioxide emissions.

When should a test be conducted?

An Air Tightness Test must be carried out when a new build or converted property has been fully completed.

ATTMA, the Air Tightness Testing and Measurement Association, has stated that many buildings – around 70 percent – fail because a test is carried out too early, i.e. before the building is fully complete. This can increase costs because re-tests are often required.



What information do you need to carry out a test?

A copy of scaled drawings (floor and elevation) to work out the envelope of the building;
Design air permeability – these are found off the SAP calculations.

How soon should a test be carried out?

ATTMA, the Air Tightness Testing and Measurement Association, has stated that many buildings – around 70 percent – fail because a test is carried out too early, i.e. before the building is fully complete. This can increase costs because re-tests are often required.

Should the test be carried out after the SAP calculations have been completed?

Yes, the SAP calculations should have been carried out and you should have a record of the target result figure for each building that needs to be tested. This number can be found on your SAP calculations report. It may be detailed as an Air Permeability Figure, 50 or DAP.



What preparations are required for a test?

All **windows and doors** should be fully fitted and working. Make extra sure they are well sealed prior to any test.

- **Access doors**, including internal garage doors, cannot be sealed temporarily in advance of the test and should be airtight. Close trickle vents.
- **Bathrooms** are often where air leaks are found, so these should be fitted and complete. Before fitting bath panels, extractors, vanity unit covers and any boxing in, make sure air leakage paths are fully sealed.
- **Skirting boards** should be sealed with silicone sealant. For best results, skirting boards should be sealed above and below, since floor furnishings such as carpets will not stop air leaks.
- **Lights, power and appliances** – Light fittings, switches, power outlets and appliances should be fitted prior to testing. Temporary seals are not allowed. Ensure these areas are well sealed.
- **Kitchens** – Leaks are often found around pipework in kitchens. Kitchens should therefore be fully completed, with appliances, extractor fans and boxing-in all in place. Cavities behind cupboards are common leakage areas.
- **Loft hatches/storage doors** leading to roof voids must be fitted with draft excluders.
- **Rad pipes and manifolds** – double check these are sealed.



Temporary seals - which are permitted?

Temporary seals may be applied to:

- Mechanical ventilation systems e.g. extractor fans in kitchens and bathrooms
- Air conditioning grilles
- Trickle vents
- Chimney flues
- Passive ventilation including sub floor ventilation systems, passive stacks and air bricks.
- Supply and waste pipework – make sure all pipework for waste and supply is completely sealed where it enters walls and floors.

What if the building does not pass the test?

If it does fail, our engineer will keep the house on test (depressurisation), locate any leaks then seal them up. We will do everything on the day to get the property to pass.

What other steps can be taken to prevent a test fail?

Make sure all your trades understand the importance of air tightness and precisely how they can ensure it is optimal. Carry out regular inspections of the building as work continues – ensure workmanship is of a high standard throughout. Leakage problems often arise because cavity walls are breached during construction – frequently around floor joists. Use the right hangars and fixings to prevent this.



What does the future hold?

Prices start from £200 for a single test; prices from £50 for additional tests carried out on the same day and site.

How can Assessment Hive help?

If you want to work with a company that will work with you to achieve the best possible rating using the most cost-effective measures increasing the value of your asset, then Assessment Hive is for you.

We offer a range of energy services from just an EPC through to a complete energy consultation service. Whatever service you choose, you will always benefit from our extensive knowledge of the residential, commercial and new build market.



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