



# Our Self-Build Column

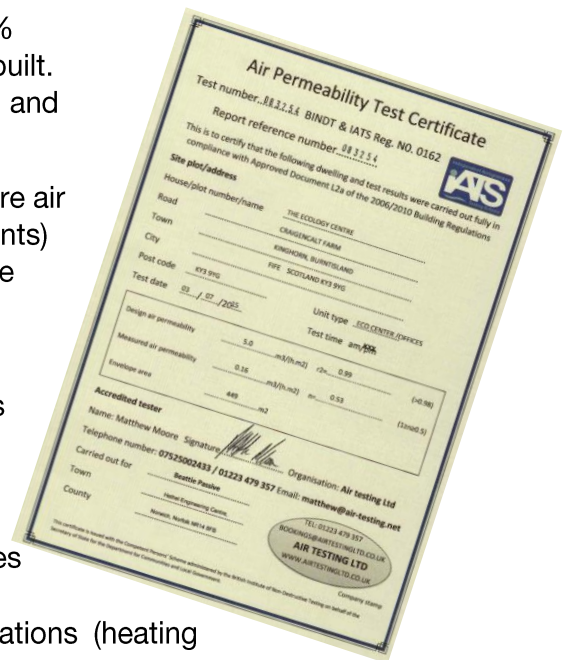
## Testing, Testing. Your self build MOT

When it comes to buying a car you are reliant on either a manufacturer's warranty or an MOT to confirm that it's in good working order and performing as it should. You would imagine that it's no different to building your own home and what lays out on the plan in front of you, showing build components, insulation materials and top of the range windows will indeed provide the energy efficiency and performance you are expecting from your design.

Sadly this is not always the case with the UK suffering from a 200% performance gap in terms of what is designed, to what is actually built. And the only way to ensure your self build is truly built as designed and therefore performing as it should, is through testing.

When looking at build options, standard build regulations will require air testing for each self build (50% for each house type for developments) but if you are looking at building to Passivhaus Standards, there are strict criteria in place to ensure each building is performing as it should:

- They must use 1/10th of the energy used by average houses
- They require less than 15kWh/(m2yr) for heating or cooling
- Must be airtight with air change rates limited to n50=0.6/hr n50 is 50 Pascal pressure
- During warmer months (25C), excessive temperatures (overheating) may not occur more than 10% of the time
- Does not exceed 120kWh/(m2yr) for all domestic applications (heating cooling, hot water and domestic electricity)



In addition, there are criteria for thermal insulation, heat recovery, air tightness, window/doors and absence of thermal bridging. All these elements would be tested before being signed off and approved as meeting the standards.

At Beattie Passive, we take testing to a whole new level. Our Build System goes beyond these Passivhaus standards through rigorous inspection of vital build elements. As part of every build, we carry out testing on air tightness, sound migration, cavity insulation, thermal imaging and U-values. These tests are performed at crucial stages of the build process, by independent engineers, to ensure construction methods are optimised, and any minor defaults can be rectified with minimal disruption and cost to the overall build. Through these ongoing and stringent testing procedures, each build assures the highest level of construction to meet the requirements for final Passivhaus certification. Only upon reaching the design standard, will we issue a quality assurance certificate; this ensures the buildings deliver the superior performance as designed. It's our gold standard MOT certificate, achieved every time.

To read the blog on the EDP property website [click here](#)