



AECB CARBONLITE TRAINERS IN LOW ENERGY BUILDING DESIGN & PRACTICE



PASSIVHAUS CONTRACTOR TRAINING



## OVERVIEW

A unique 2-day course tailored to all contractors and builders who are involved in any level of low-energy building construction. The course centres on core Passivhaus (fabric-first) building techniques that are suitable for every level of new build and renovation project, and includes both theoretical & practical sessions.

In addition, there are optional revision & exam sessions available for those wanting to become qualified as a Certified Passivhaus Tradesperson, which is one of the highest international quality marks available to demonstrate competence in the field of low-energy construction.

## THEORETICAL SESSIONS

There are very few trainings available in the UK that cover all the essential aspects of low-energy construction, including what it means practically when implemented on site. This training aims to fill this gap, providing knowledge & expertise in these key aspects of fabric-first construction for both new build and retrofit:

- Insulation
- High-performance glazing
- Airtightness & windtightness
- Thermal bridging
- Building services, with a focus on ventilation with heat recovery

Theoretical issues are linked to real life field experiences of the facilitators throughout the course.



## PRACTICAL SESSIONS

This training has several practical aspects, which include the following:

- Insulation – installing flexible & rigid insulation (wood fibre) using thermally-broken fixings
- Airtightness – installing membranes to different substrates with a variety of tapes & adhesives
- Blower door test – understanding what to look for when a house is tested
- Various practical calculations & exercises as part of theoretical sessions on airtightness and thermal bridging

CERTIFIED  
PASSIVE HOUSE  
TRADESPERSON



For those wanting to gain the prestigious qualification of Certified Passive House Tradesperson, there is also the option to attend a half-day revision session, followed later by a 90 minute exam. Those that qualify are then allowed to use the Passive House Tradesperson logo and will be registered on the global database for a period of 5 years. After this time, renewal is done through submitting evidence of experience with low-energy construction, or through additional training.



# SCHEDULE

DAY	TIME	MAIN SUBJECTS	DETAILS
<b>Day 1</b>			
1	Morning 09.00 start	Introduction to Passivhaus	What Passivhaus means and its benefits, understanding energy terminology and heating balance.
		<b>Coffee break</b>	
2		Building services basics	Key building services for low-energy building (ventilation, heating & hot water), with a focus on Mechanical Ventilation with Heat Recovery (MVHR).
		<b>Lunch break</b>	
3	Afternoon 17.30 finish	Introduction to building fabric	Definition of U-values & thermal conductivity, understanding the impact of form.
4		Airtightness 1: overview	What is airtightness & windtightness, and why it is so important to low-energy construction.
		<b>Coffee break</b>	
5		Airtightness 2: blower door test	<b>Practical:</b> blower door test.
6		Airtightness 3: how to achieve it	Typical problem areas for air leakage, what materials are used for airtightness, the importance of correct sequencing & application on site.
<b>Day 2</b>			
7	Morning 08.00 start	Insulation 1	Types of insulation materials in floors/walls/roofs, the importance of quality on site to ensure actual performance is as designed, issues around moisture risk.
8		Insulation 2	<b>Practical:</b> a look at different insulation types & installation options.
		<b>Coffee break</b>	
9		Thermal bridging	Definition of thermal bridges, their effects on a building, how to deal with them, and typical problem areas.
		<b>Lunch break</b>	
10	Afternoon 17.30 finish	Windows & shading	Heat loss through window components and installation, heat gains and how to deal with them to maintain summer comfort.
11		Airtightness 4	<b>Practical:</b> using airtightness membranes / tapes / glues to various substrates.
		<b>Coffee break</b>	
12		Airtightness 5	<b>Practical:</b> airtightness details around windows & penetrations.
13		Wrap up	Information about online material, where to look for information. Evaluation of course.
14		Extra technical information for people taking the exam	Running through additional technical information useful for the exam. Information about exam dates & revision sessions.

## DATES

See website [www.passivhaustraining.co.uk](http://www.passivhaustraining.co.uk) for details.

## LOCATION & VENUE

Variable – please check website for details of upcoming locations for the training.

## COURSE FEES

AECB / Passivhaus Trust members:

- Early bird: **£200 + VAT**
- Full price: **£360 + VAT**

Non-members of AECB / Passivhaus Trust:

- Full price: **£400 + VAT**

The pricing strategy for the course exists to encourage membership of the Association for Environment Conscious Building (AECB), a network of individuals and companies with the common aim of promoting sustainable building. Annual membership costs are £50 + VAT for a supporting individual.

The course fee **includes**:

*Tuition, handouts, coffee breaks, lunch.*

## CERTIFICATION FEES (OPTIONAL)

The following fees apply for anyone wanting to take the subsequent revision session & exam to become qualified as a Certified Passivhaus Tradesperson:

- Full price: **£375 + VAT**

## CONTACT DETAILS

CarbonLite training is managed on behalf of CarbonLite trainers and the AECB by WARM Low Energy Building Practice in Plymouth – if you need any additional information, please make contact and we will try to answer your questions: