

# Certificate

## Passive House Tradesperson



Dr. Wolfgang Feist  
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Germany  
[www.passivehouse.com](http://www.passivehouse.com)

Valid until 26th April 2022

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**Manuel Daniel Camero Hernanz**

Date of birth: 22nd April 1978

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is hereby granted to use the seal depicted below until the expiration of this certificate in five years' time. During the validity period the recipient will be listed as a Certified Passive House Tradesperson online at [www.passivehouse-trades.org](http://www.passivehouse-trades.org). The awarded title and seal are to be used only in conjunction with the recipient's name.

The qualification was obtained in accordance with the examination regulations from 1st April 2012 and awarded upon successful completion of the Certified Passive House Tradesperson examination.

The examination was held on 18th February 2017 in Madrid, Spain, by Energiehaus Arquitectos - Diseño y Formación de Edificios Pasivos S.L..

In addition to Passive House Basics, the examination had the following specialisation:

**Building Envelope**       **Building Services**



Darmstadt,  
26th April 2017

A handwritten signature in blue ink that reads 'Wolfgang Feist'.

Prof. Dr. Wolfgang Feist

This certificate does not replace any required professional qualification.

A Passive House is a building, in which thermal comfort [ISO 7730] can be provided solely by post-heating or post-cooling of the fresh airflow which is required for good indoor air quality [DIN 1946] - without using additional recirculated air.

{Definition}

## **Certified Passive House Tradesperson - Specialisation Building Envelope and Building Services**

### **General principles / Passive House Basics**

- Passive House criteria
- The 5 basic Passive Houses principles
- Building physics and ecology
- Airtightness
- Construction process and quality assurance
- Economic aspects

### **Specialisation - Building Envelope**

- Insulated constructions
- Thermal bridge free construction
- Windows and other transparent building components
- Summer comfort
- Retrofits with Passive House components
- Implementation details

### **Specialisation - Building Services**

#### **Ventilation**

- Basic principles
- Controlled ventilation with heat recovery
- Supply air heating in Passive House buildings
- Commissioning

#### **Heat Supply**

- Heat generation and distribution in Passive House buildings
- Implementation details
- Special aspects of refurbishments

The full version of the catalogue of learning objectives and further information about the course can be found at [www.passivehouse-trades.org](http://www.passivehouse-trades.org).