



TEACH Passiv

REGISTERED
PRACTICE

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**CERTIFIED
PASSIVE HOUSE
DESIGNER**

TEACHPASSIV.COM IS AN
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FACT SHEET No. 4

Passivhaus Design

This Fact Sheet (No. 4) outlines some of the design considerations that go towards a Passivhaus design. It does not include the Passivhaus principles that have been outlined in previous fact sheets.

1. Compact Design

The design should be compact in that the surface area to volume ratio should be minimised. The greater the surface area, the greater the level of insulation required to meet the Passivhaus standard.

2. Orientate South

Orientate the house so that the majority of habitable rooms are facing south. Adopting this approach maximises solar gain. Rooms such as bathrooms and utility rooms (ie those where availability of sunlight is less critical) can be orientated to the north.

3. More glazing to the south

As a result of No.2 you should bias the amount of glazing towards the south in order to maximise solar gain and limit the amount of glazing to the north in order to minimise heat loss.

4. Shade

Carefully consider how to implement shading devices such as brise-soleil, balconies (without cold bridging) or overhangs in order to protect against the risk of overheating.

These are key guiding points and you are not forced into any specific design; the examples below show that you can achieve the Passivhaus standard in a good design and respect the local vernacular. You are not restricted in your design.



3 dwellings at Burnham Overy Staithe for Hastoe by Parsons + Whittle Architects

<http://www.parsonswhittle.co.uk>



Clauson House Co. Wexford, Winkens Architecture

<http://www.winkens.ie>



Rural House one-off house, County Longford (under construction)

<http://www.markstephensarchitects.com>