

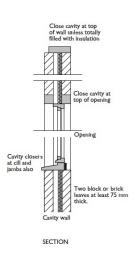
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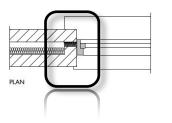
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FACT SHEET No. 13

Case Study 2: Cavity Closers (openings)

This Fact Sheet continues cavity closers and looks at what's required around window and door openings.





- (a) Timber lintel, window or door frame, or end of timber joists
- (b) Pipe, conduit or cable
- (c) DPC, flashing closer or wall tie
- (d) Domestic meter cupboard provided that

 there are not more than two cupboards to a dwelling
 the opening in the outer wall leafs not more than
 800 mm x 500 mm for each cupboard, and
 the inner leaf is not penetrated except by a sleeve not
 more than 80 mm x 80 mm which is firestopped
- (e) Thermal insulating material.

Again if partial fill insulation is used the **Building Regulations** (Part B) require that the cavity is closed at openings. With the requirement of substantially increased levels of wall insulation to reach Passivhaus standard, the cavity will usually be fully filled. The image below shows how the windows at Denby Dale were fixed within a plywood 'form' box:



TEACHPASSIV.COM IS AN

INITIATIVE OF:

MARK STEPHENS ARCHITECTS

OFFICE

Rooskey Foxford

Co. Mayo

Ireland

MOBIL F

085 159 4084

TEL

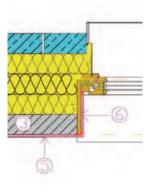
094 92 57621

EMAIL

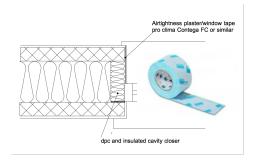
mdstephens@gmail.com

WEB

MarkStephensArchitects.com



The window is positioned in a thermally optimal location midway of the insulation. Locating the window in this location in Ireland requires reconciliation with the requirements for a vertical damp proof course which the window fits immediately behind and weatherproofing the external leaf. In the Denby Dale Passivhaus the window is centrally located and the external leaf is protected with a preformed, powder coated aluminium cavity closer; sealing a window in this way in Ireland against water ingress would require careful detailing.



The detail opposite shows a typical solution we have used on several projects where either a proprietary system is used or an 'on-site' method is applied. A critical Passivhaus detail is the airtight sealing of the window to the wall. We have used plaster-window airtight tape such as Pro clima Contega FC or SIGA Fentrim. Also, the way the window is installed is a critical Passivhaus detail as this

potential thermal bridge is factored into the PHPP calculations within the U-value for the 'whole-window' installation (Uw(installed)).

Special thanks to:

<u>Green Building Store</u> for Denby Dale image. <u>CLICK HERE</u> to register for Green Building Store Passivhaus information

Ecological Building Systems for the pro clima Contega FC image

All advice online is remote from the situation and cannot be relied upon as a defence or support – in and of itself – should legal action be taken. Competent legal and building professionals should be asked to advise in Real Life with rights to inspect and issue reports on the matters at hand.