

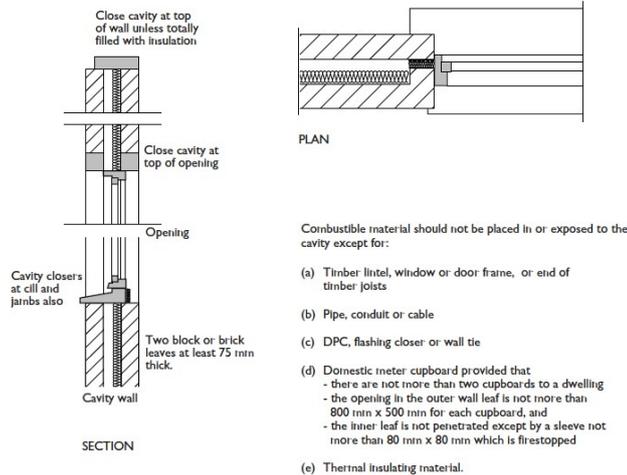


FACT SHEET No. 12

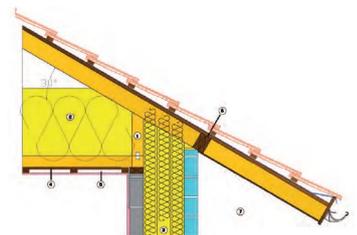
Case Study 2: Cavity Closers (roof)

This case study fact sheet looks at cavity closers in a Passivhaus and Building Regulations context. Part B of the Building Regulations requires that blockwork cavity walls are closed at eaves and openings where the cavity is only partially filled with insulation (below is extract from TGD). Even with 'full-fill' insulation such as [AeroFulfill Platinum from Kingspan](#) the drainage channel was deemed by a Building Control Officer still to be a cavity and a cavity closer was required.

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Life is straightforward if the insulation is continuous from the roof to the cavity walls and it is this detail that is used in the Passivhaus at Denby Dale (below):



Denby Dale Eaves detail

1. 'Bobtail' timber roof trusses
2. 500mm fibreglass quilt
3. 300mm fibreglass wall batts
4. 18mm OSB airtightness layer and support for insulation
5. Service void
6. Noggins for wind tightness
7. 900mm overhang for summer shading

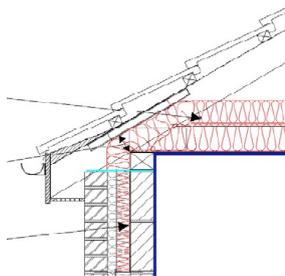
This only accounts for Part B (Fire); a critical component is also Part A (Structure) where increased cavity widths to achieve Passivhaus, the length, strength and spacing of the wall ties is critical which is why the



Basalt Teplo wall ties are chosen as a low conductivity solution that can go up to a 300mm cavity.

Traditionally in Ireland the cavity is closed at the eaves with a block 'closer'. It was thought that this has a structural component however it is

the internal leaf that is taking the loading from the roof and closing the cavity in this way is simply creating a [cold bridge](#) across the cavity. We then saw Acceptable Construction details showing the cavity closed with a slate (below); we have used this successfully on a few projects but in my opinion is not necessary where the cavity is fully filled and a warm roof is implemented (a further consideration is to prevent vermin from entering/nesting in the cavity/roof). It should also be noted that proprietary cavity closers/socks are also available.



Special thanks to:

[Green Building Store](#) for Denby Dale image

[Paul Cuddy](#), Chartered Engineer for structural advice

[David Sharpe](#) UK Chartered Engineer & Passivhaus Consultant for structural & Passivhaus advice.

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.



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