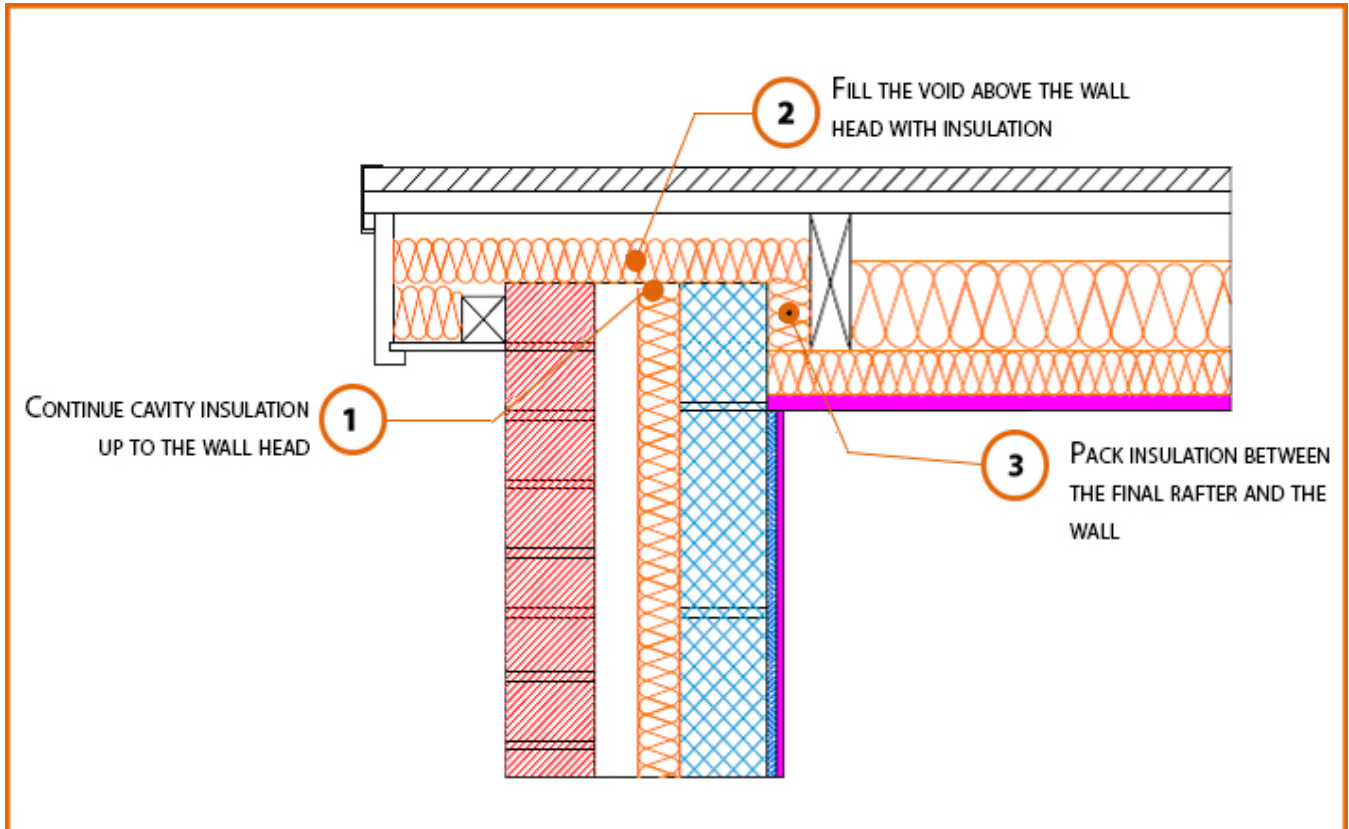


Registration Number: E13MCPF2



Build Up

External Masonry Cavity Wall

Masonry Outer Leaf ($\lambda = 0.77$)

Lightweight Concrete Block Inner Leaf $\lambda \leq 0.60$ W/mK

Partial Fill Insulation

Pitched Roof Gable

150mm insulation (0.022W/mK) between rafters

50mm insulation (0.022W/mK) beneath rafters

Calculated ψ -values

Inner leaf blockwork	
Lightweight Concrete Block $\lambda \leq 0.60$ W/mK	
Cavity Insulation	ψ -value W/mK
50mm $\lambda=0.022$	0.072
100mm $\lambda=0.022$	0.073

Points to Watch

- Ensure cavities are kept clean of mortar snots and other debris during construction
- Any vapour permeable roof underlay should be used in accordance with manufacturer's recommendations where it may be in contact with the insulation.
- Consider whether a vapour control plasterboard or separate vapour control barrier is required.
- Fix ceiling plasterboard first and seal all gaps between ceiling and masonry then seal all penetrations through air barrier with flexible sealant.
- Ensure that the insulation between the rafters is tightly cut and packed and in contact with the under rafter insulation.
- Cavity barriers may require an additional vertical DPC and/or cavity tray.
- Cavity must be closed at head of wall (insulation is often omitted here, or poorly fitted) Recommend calcium silicate or cement board closer so detail is not relying on compressed insulation
- Note that a cavity barrier should, wherever possible, be tightly fitted to a rigid construction and mechanically fixed in position. ADBV2 Para 9.14 identifies conditions where this may not be possible, for instance at a wall/roof junction with slates or tiles. In this case the junction should be fire-stopped.
- Close the cavity below the timber verge ladder with a compressed closer