

Certificate No: CBA-E24-3-C-A

Issued : January 2016

Issued by Concrete Block Association

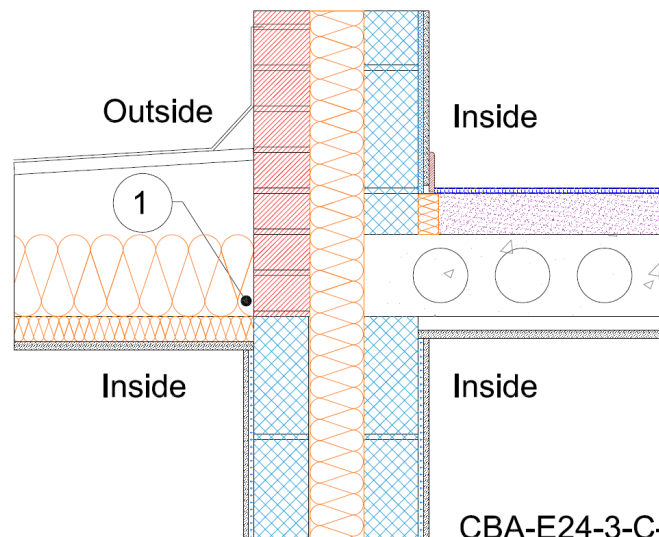
Eaves (Insulation at ceiling level - inverted)

Table K.1 Ref E24
Default ψ -value =
0.24 W/mK

Inner leaf	100 mm blockwork
Cavity	Full fill insulation
Outer leaf	102 mm brick $\lambda = 0.77$
Separating floor	Hollow core concrete
Roof	Flat roof 150mm of insulation with $\lambda = 0.037$ between 45mm wide joists. 50 mm of insulation with $\lambda = 0.022$ below joists

Key Point

1. Ensure the roof insulation is tightly butted to the wall



Calculations have been performed in accordance with:
BS EN ISO 10211:2007, BR497 and BS EN ISO 13370:2007

Calculation prepared by : Chris Sanders B.Sc, M.Sc. GCU, Cowcaddens Rd, Glasgow G4 0BA
For more information contact 0116 232 5165 (CBA).

Calculated ψ -values and f-values for eaves (insulation at ceiling level – inverted) and cavity insulation as highlighted

*The ψ -value applied to each dwelling around the junction should be allocated as follows:

- 2 dwellings – 2/3 of tabulated value to dwelling occupying 2 segments around junction and 1/3 of tabulated value to dwelling occupying 1 segment around junction
- 3 dwellings – 1/3 of tabulated value to each dwelling

1. With lightweight blocks in the separating wall $\lambda = 0.6$ W/mK

Cavity Insulation	Inner leaf blockwork					
	Ultra lightweight		Lightweight		Dense	
	ψ -value W/mK*	f-value	ψ -value W/mK*	f-value	ψ -value W/mK*	f-value
100mm $\lambda=0.037$	0.199	0.879	0.198	0.879	0.199	0.879
100mm $\lambda=0.032$	0.195	0.878	0.195	0.878	0.196	0.878
150mm $\lambda=0.037$	0.192	0.875	0.192	0.875	0.192	0.875
150mm $\lambda=0.032$	0.189	0.873	0.189	0.873	0.189	0.873

2. With dense blocks in the separating wall $\lambda = 1.33$ W/mK

Cavity Insulation	Inner leaf blockwork					
	Ultra lightweight		Lightweight		Dense	
	ψ -value W/mK*	f-value	ψ -value W/mK*	f-value	ψ -value W/mK*	f-value
100mm $\lambda=0.037$	0.219	0.897	0.219	0.897	0.219	0.897
100mm $\lambda=0.032$	0.216	0.896	0.216	0.896	0.217	0.896
150mm $\lambda=0.037$	0.214	0.893	0.213	0.893	0.214	0.893
150mm $\lambda=0.032$	0.211	0.892	0.211	0.892	0.211	0.892

The f-value should be above 0.75 to minimise the risk of mould in dwellings.

On-site Checklist

1. Roof insulation is tightly butted to the wall

Signed:

Site manager/supervisor.....

Site name.....

Plot Number.....

Date.....