

**Certificate No: CBA-E24-3-C-B**

**Issued : January 2016**

**Issued by Concrete Block Association**

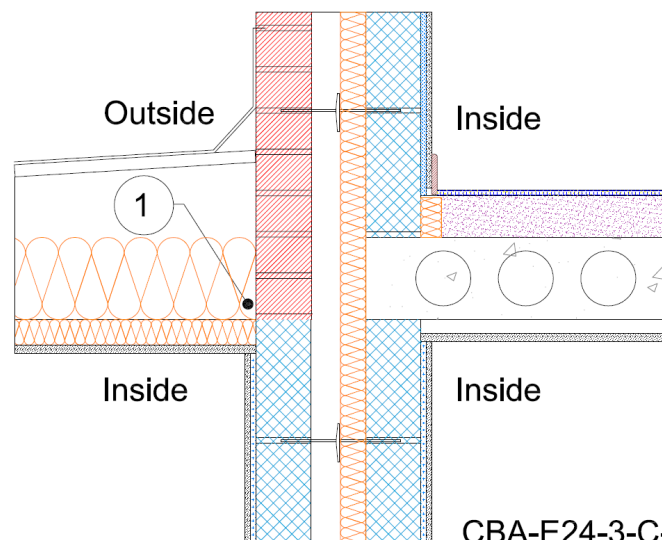
**Eaves (Insulation  
at ceiling level -  
inverted)**

Table K.1 Ref E24  
Default  $\psi$ -value =  
0.24 W/mK

Inner leaf	100 mm blockwork
Cavity	Partial cavity fill with low-e facing and 50mm cavity
Outer leaf	102 mm brick $\lambda = 0.77$
Dividing 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  $\psi$ -values and f-values for eaves (insulation at ceiling level – inverted) and **cavity insulation** as highlighted

\*The  $\psi$ -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	
	$\psi$ -value W/mK*	f-value	$\psi$ -value W/mK*	f-value	$\psi$ -value W/mK*	f-value
50mm $\lambda=0.022$	0.203	0.878	0.203	0.878	0.204	0.878
100mm $\lambda=0.022$	0.194	0.872	0.194	0.872	0.194	0.872

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

Cavity Insulation	Inner leaf blockwork					
	Ultra lightweight		Lightweight		Dense	
	$\psi$ -value W/mK*	f-value	$\psi$ -value W/mK*	f-value	$\psi$ -value W/mK*	f-value
50mm $\lambda=0.022$	0.224	0.896	0.224	0.896	0.224	0.896
100mm $\lambda=0.022$	0.216	0.890	0.216	0.890	0.217	0.890

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**.....