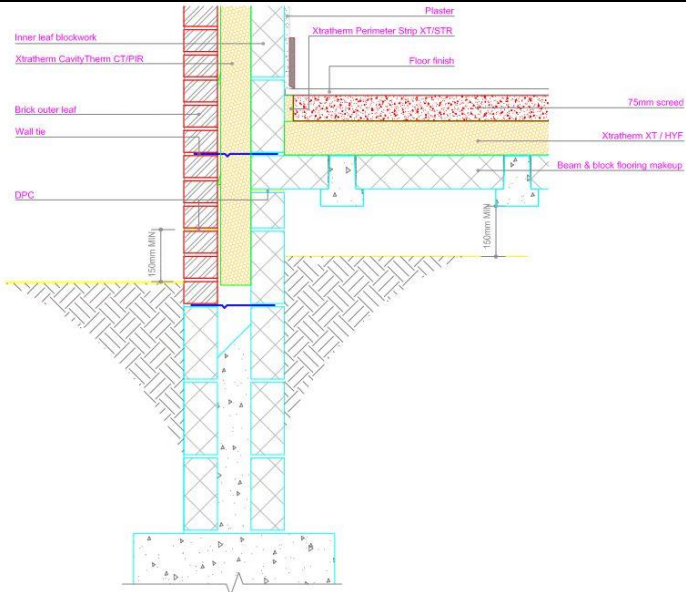
 <b>C B A</b> CONCRETE BLOCK ASSOCIATION	<b>Linear Thermal Transmittance (<math>\psi</math>-value) PSI Value</b> <b>Temperature Factor (f-value)</b>	<b>Technical Services</b> from <b>Xtratherm</b>
--	--	--

<b>Certificate No: CBA-XT-CT-020</b>	<b>Issued : August 2014</b>
<b>Issued by Concrete Block Association</b>	

<b>Suspended beam and block floor – Insulation below screed</b> <b>External wall</b> Table K.1 Ref E5 Approved $\psi$ -value = 0.16 W/mK	Inner leaf	100 mm Blockwork
	Cavity	CavityTherm by Xtratherm, see tables for options
	Outer leaf	102 mm Brick = 0.77
	Floor	125mm or 150mm of insulation = 0.022 below the floor screed

<p><b>Key Points</b></p> <ol style="list-style-type: none"> <li><b>The R value of the perimeter insulation should be a minimum of 0.80m<sup>2</sup> k/W</b></li> <li><b>Ensure the floor insulation is tightly butted against the external wall</b></li> <li><b>Continue the cavity insulation a minimum 225mm below floor level</b></li> </ol>	
---	---

The tables below show the calculated  $\psi$ -values and f-values for different cavity insulation systems, inner leaf blockwork with a beam and block floor system. The floor U-values quoted are representative of typical new dwellings. There is a small difference between the values calculated with the beams parallel and perpendicular to the wall; the values in the tables are the average of these two cases.

Page 2 has **125mm & 150mm** Floor Insulation above beam & block floor system

Page 3 has **the on-site checklist**

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

Calculation prepared by : Xtratherm UK Limited
--

Calculated  $\psi$ -values and f-values with Xtratherm **125mm** XT/HYF  
(Hyfloor -  $\lambda$  0.022) floor insulation, and **cavity Insulation** as  
highlighted


	Inner leaf blockwork					
	Ultra lightweight		Lightweight		Dense	
<b>Cavity Insulation</b> ↓	$\psi$ -value W/mK	f-value	$\psi$ -value W/mK	f-value	$\psi$ -value W/mK	f-value
100mm CT-PIR	<b>0.050</b>	0.838	<b>0.066</b>	0.821	<b>0.161</b>	0.798
125mm CT-PIR	<b>0.050</b>	0.842	<b>0.076</b>	0.831	<b>0.164</b>	0.800
150mm CT-PIR	<b>0.051</b>	0.855	<b>0.077</b>	0.839	<b>0.165</b>	0.801

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

Calculated  $\psi$ -values and f-values with Xtratherm **150mm** XT/HYF  
(Hyfloor -  $\lambda$  0.022) floor insulation, and **cavity Insulation** as  
highlighted

	Inner leaf blockwork					
	Ultra lightweight		Lightweight		Dense	
<b>Cavity Insulation</b> ↓	$\psi$ -value W/mK	f-value	$\psi$ -value W/mK	f-value	$\psi$ -value W/mK	f-value
100mm CT-PIR	<b>0.038</b>	0.840	<b>0.063</b>	0.822	<b>0.158</b>	0.802
125mm CT-PIR	<b>0.038</b>	0.845	<b>0.063</b>	0.833	<b>0.161</b>	0.802
150mm CT-PIR	<b>0.039</b>	0.858	<b>0.064</b>	0.842	<b>0.163</b>	0.804

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

	<p><b>Linear Thermal Transmittance (<math>\psi</math>-value) PSI Value</b></p> <p><b>Temperature Factor (f-value)</b></p>	<p>Technical Services from <b>Xtratherm</b></p>
---	---	---

## On-site Checklist

- Perimeter insulation with an R value of at least 0.80m<sup>2</sup> k/W installed
- Floor insulation is tightly butted against the external wall
- Cavity insulation continues a minimum of 225mm below floor level

**Site manager/supervisor**.....

**Site name**.....

**Plot number**.....

**Date**.....