

## Technical competency

The PSI value analysis has been undertaken by fully accredited BRE competent persons to EN 10211: 2007 and BR497. Our Xtratherm Technical team are qualified under the BBA calculation competency scheme CS/1006 to produce thermal and condensation calculations.



**Certificate No**                      **Date**  
 XT-FF-E10-MCI-RE-01-0046      01-Aug-13

**Calculation prepared by** Xtratherm Technical Services  
**Source** [www.xtratherm.com](http://www.xtratherm.com)

## General Construction Specification

### Wall

Plasterboard on dabs  
 Medium block inner leaf (0.46)  
 Xtratherm CT/PIR (CavityTherm)  
 Brick outer leaf

## General Construction Specification

### Ceiling

300mm fibreglass  
 Plasterboard

## U value Range

Wall 0.13 W/m<sup>2</sup> K to 0.20 W/m<sup>2</sup> K  
 Ceiling 0.15 W/m<sup>2</sup> K

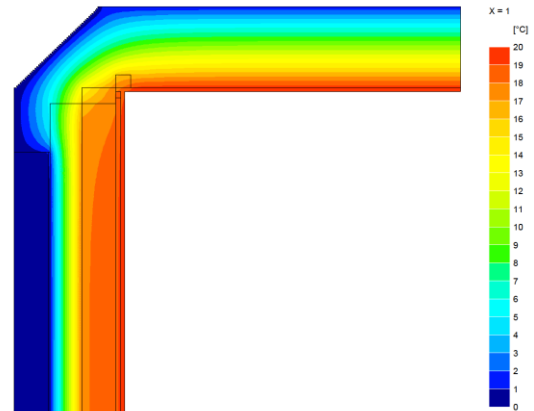
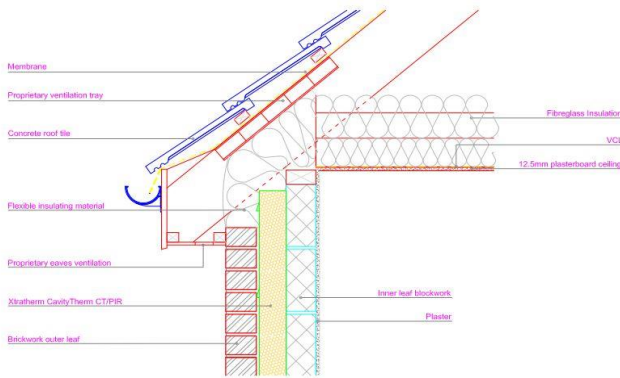
## Junction Detail

## Description

Wall ceiling junction Eaves (Insulation at ceiling level)

## Reference

MCI-RE-01



## Linear Thermal Transmittance W.m.K

$\Psi =$                       **0.05**

Table K1 (Accredited)  
 0.06

## Temperature Factor (for humidity and mould)

$f =$                       **0.94**

IP1/06 (Default)  
 0.75

## Notes

Calculations are based on accredited construction detail MCI-RE-01

Notes:

- $\Psi$  and  $f$  are only valid for the detail drawn and described above
- Calculations have been carried out in accordance with the following standards and guidance documents where relevant
- EN ISO 10211 2007

- EN ISO 13370 2007
- EN ISO 6846 2007
- BR 497
- BR 443
- BRE IP1/06

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Specification Clauses

Thin-R CT/PIR Full Fill Cavity-Wall

The built in full fill cavity wall insulation shall be Xtratherm Thin-R CT/PIR manufactured to BS EN 13165:2008 by Xtratherm, comprising a CFC/HCFC free rigid Polyisocyanurate (PIR) core between low emissivity foil facings with engineered HIPS outer skin. The CT/PIR \_\_\_mm with a BBA certified Lambda value of 0.021 W/mK to achieve a U value of \_\_\_ W/m<sup>2</sup>K for the wall element. To be installed in accordance with instructions issued by Xtratherm. Xtratherm PIR achieves an A+ rating under the BRE Green Guide. Refer to NBS clause F30 151, F30 12

**Insulation**

Polyisocyanurate Rigid foam

**Standard**

BS EN 13165:2008

**Certification**

BBA Certification No. 10/4786.

Issue date: 31 March 2011

BS EN ISO 9001 Quality Management System

BS EN ISO 14001 Environmental Management System

BS OHSAS 18001 Health and Safety Management System

**Manufacturer UK**

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**Product reference**

Thin-R CT/PIR Full Fill Cavity-Wall

**Face size**

1200 x 450 mm

**Edge profile**

Rebated all four edges

**Thickness**

75 mm / 90 mm / 100 mm / 125 mm / 150mm

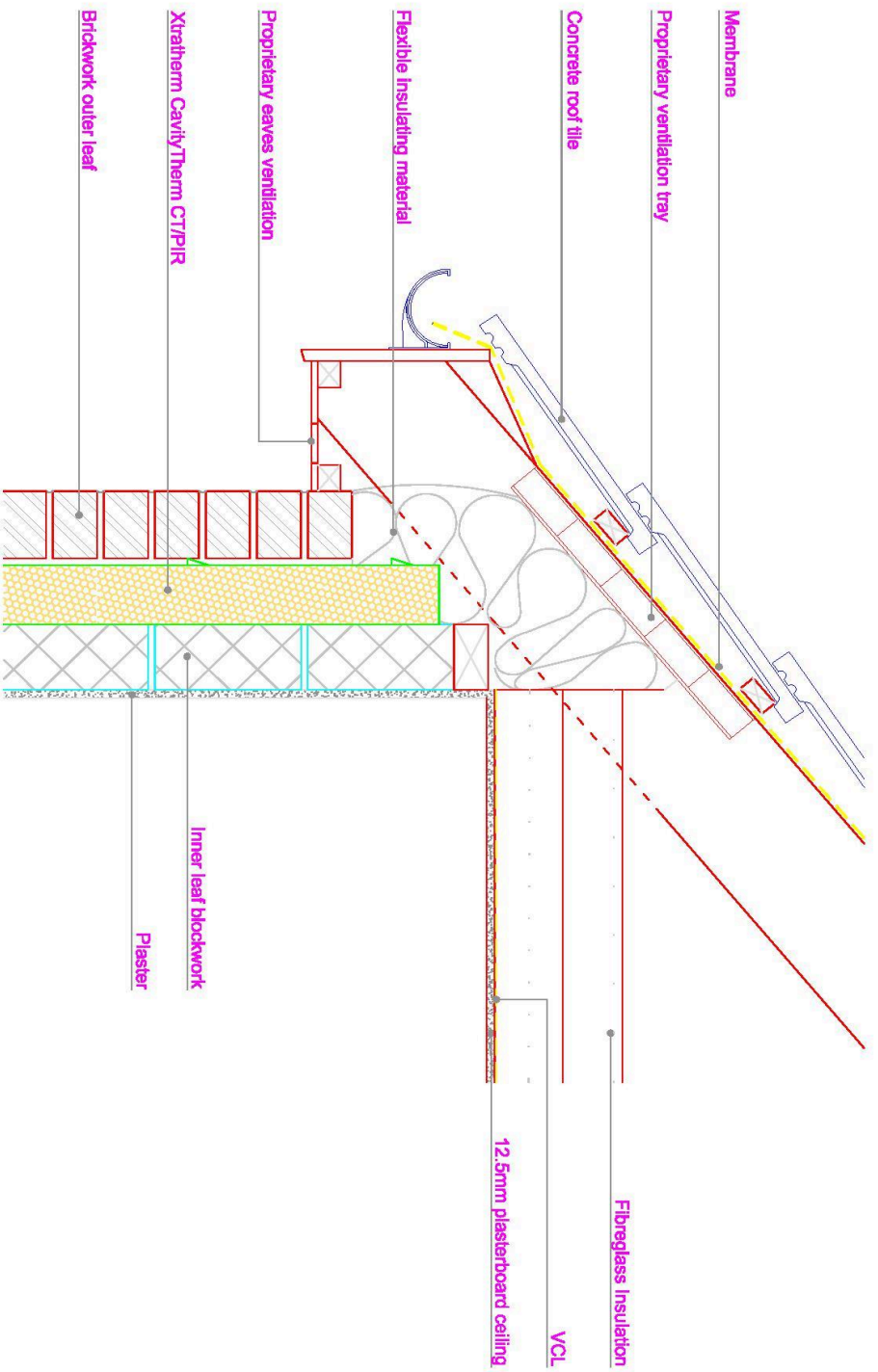
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The above calculations relate to the use of specific Xtratherm materials and specification only, any deviation from performances or jointing methods will effect the result.



Wall ceiling junction - Eaves (insulation at ceiling level)  
 SCALE 1:10

ACD REF	XT-FF-E10-MCI-RE-01
REFERENCE	As noted at A4
SCALE	-
REVISION	-
DATE	JUNE 2013

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