Linear Thermal Transmittance (Ψ) and Temperature Factor (ƒ)

Certificate No:	WRTM – 000095 vs. 0 PHPP	Issued:	15 August 2019

Issued to: Jean-Marc Bouvier **Nudura Corporation** International Sales & Field Support Tel: Mob +44 (0) 7766 118711 Email: jmb@nudura.com www.nudura.com	**General Construction Specification:** (see detail below for full construction)	Main/Load-bearing:	152mm (nominal) Dense Concrete Core, λ <= 2.50
		Insulation:	2x 102mm layers of EPS, λ = 0.036
		Timber Floor:	Steel joist hangers embedded in conc @ 400mm centres
		Cladding:	9mm of Render OR 102mm Brick OR other Cladding

Description:	ICF Wall, Int_Timber_Fl, Within a Dwelling (Houses)	
Reference:	E6	**Intermediate Timber Floor, Standard Wall**
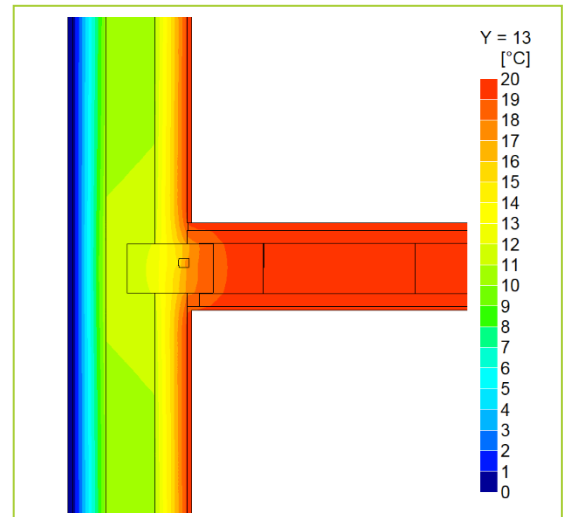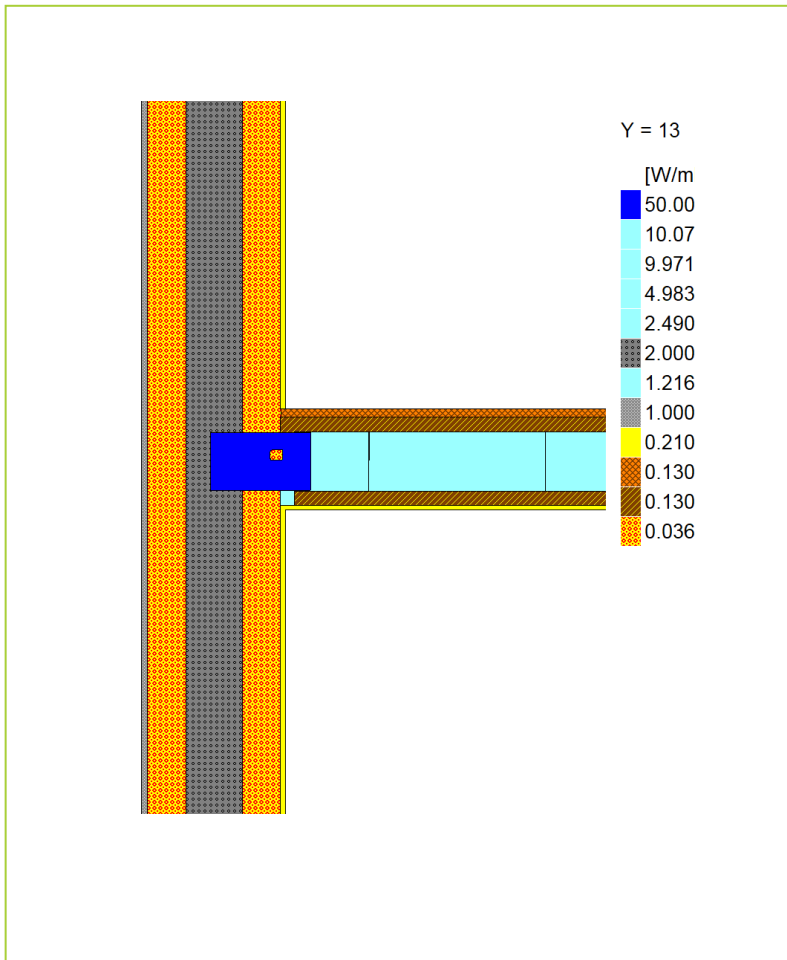
Temperature Distribution

Linear Thermal Transmittance W/m.K	
Ψ =	**0.038**

Temperature Factor[3] for Humidity and Mould	
ƒ =	**0.948**

Calculation Prepared By:	Trefor Jones

Notes: Calculated only for the calculations of passive houses (PassivHaus, PHPP), not to be used with the UK construction regulations and SAP calculations. Party values are per dwelling, that is, they have already been halved.

1. Ψ and f are only valid for the detail drawn and described above.

2. The Ψ and f quoted are considered valid for U-value(s) Wall U = 0.16 W/m².K +/- 10% (external brick with cavity U = 0.159, thin render U = 0.167), (allowance of +/- 20%, following the present guidance from B. Anderson, BRE, correspondence dated 24/02/2012, for the UK market). The use of different claddings may affect the U-value slightly, but will have no material impact on the calculated values used here, in this case.

3. In dwellings, UK regulations stipulate that a temperature factor, f, that is >0.75 would avoid the risk of mould growth.
For other nations, jurisdictions and climates, please consult the local building regulations that apply for avoiding mould and condensation. (For example, typical requirements may be: Netherlands: 0.65; Switzerland: 0.75; Belgium: 0.7; Germany: 0.7; Finland: 0.87. French, German and other standards often do not indicate a single number for acceptable risk, but are dependent on circumstances.)

4. Calculations have been performed in accordance with: EN ISO 10211_2007 (British Standards), IP 1/06 & BR497 (BRE Press) and with