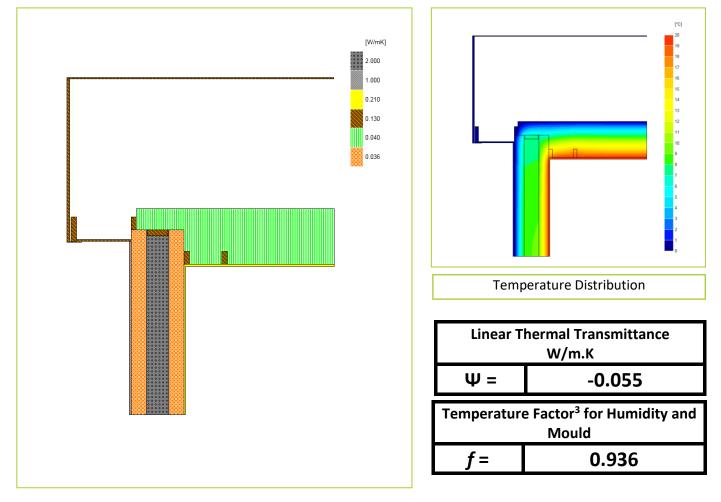


Certificate No:	WRTM – 000102 vs. 0 PHPP			Issued:	15 August 2019
Issued to: Jean-Marc Bouvier	General	Main/Load-bearing:		152mm (nominal) Dense Concrete Core, $\lambda \le 2.50$	
	Construction Specification:	Insulation:		2x 102mm layers of EPS, λ = 0.036	
Nudura Corporation	(see detail below for	Roof:		75mm MW @ joists	
International Sales & Field Suppo	rt full construction)	Cladding:		9mm of Render OR 102mm Brick OR other Cladding	
Tel: Mob +44 (0) 7766 1187	11 Description:	ICF Wall, Gable @ Rafters, Minimum Roof U-value 0.1			
Email: jmb@nudura.com www.nudura.com	Reference:	E13	Gable @ Rafters, Standard Wall		



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. $\boldsymbol{\Psi}$ and \boldsymbol{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 reference to the following publications: EN ISO 6946 (British Standards) BR443 (BRE Press)