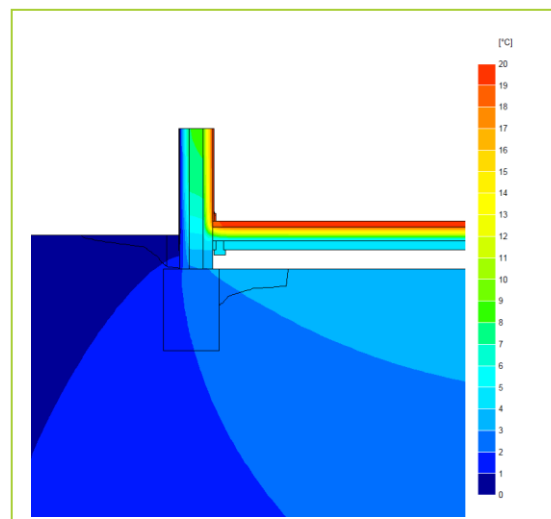
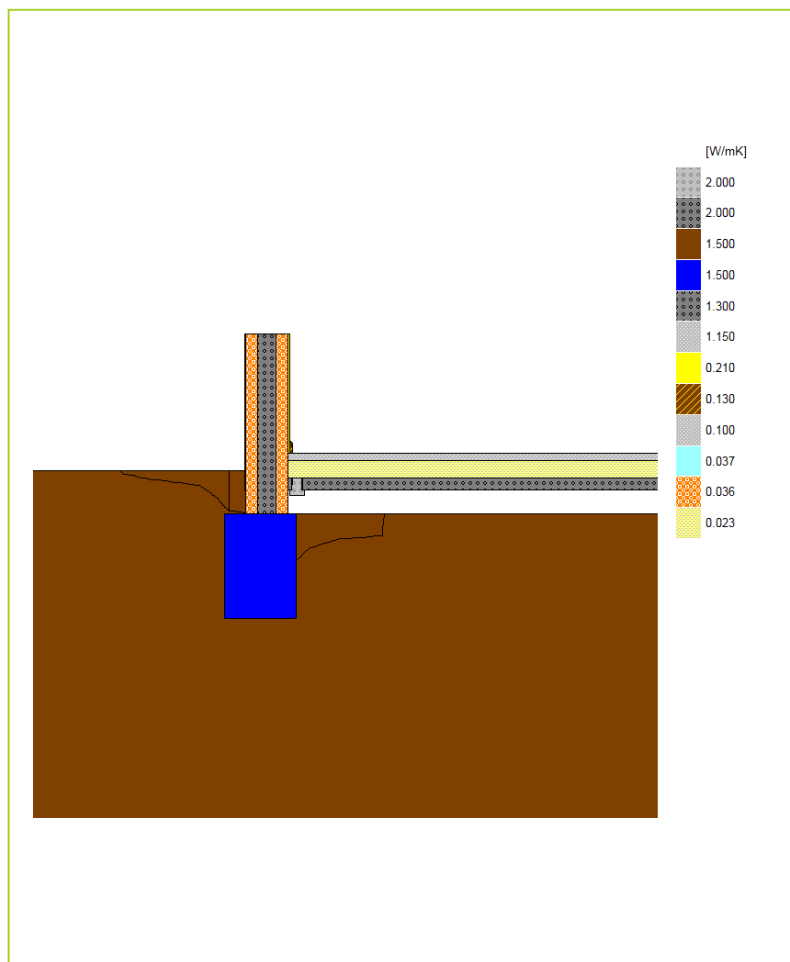


Certificate No:		WRTM – 000068 vs. 0		Issued:	29 August 2019
<div>Issued to: Jean-Marc Bouvier</div> <div>Nudura Corporation</div> <div>International Sales & Field Support</div> <div>Tel: Mob +44 (0) 7766 118711</div> <div>Email: jmb@nudura.com</div> <div>www.nudura.com</div>		General Construction Specification: (see detail below for full construction)	Main/Load-bearing:	152mm (nominal) Dense Concrete Core, $\lambda \leq 2.50$	
			Insulation:	2x 102mm layers of EPS, $\lambda = 0.036$	
			Ground Floor:	Beam and Block, 150mm PUR/PIR	
			Cladding:	9mm of Render OR 102mm Brick OR other Cladding	
		Description:	ICF Wall, Gnd Floor, Beam and Block or Ground Bearing		
		Reference:	E5	Ground Floor, Standard Wall	



Temperature Distribution

Linear Thermal Transmittance
W/m.K

$\Psi =$ 0.080

Temperature Factor³ for Humidity and Mould

$f =$ 0.941

Calculation Prepared By: Trefor Jones

Notes: Calculation based upon internal heat loss areas, applicable in UK Building Regulations and SAP calculations.

- Ψ and f are only valid for the detail drawn and described above.
- 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), Ground Floor >= 0.13 W/m².K, (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.
- 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, other standards may apply. E.g. 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.
- 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)