

U-VALUE CALCULATOR REPORT

Property Reference	7358-0001-GF-80MP	Issued on Date	04/09/2024
Assessment Reference	Proposed	Prop Type Ref	
Project	Proposed dwelling adjacent, 80 Mount Pleasant, Reading, RG1 2DT		
Calculation Type	New Build (As Designed)		

SAP Rating	0	DER	N/A	TER	N/A
Environmental	0	% DER<TER	N/A		
CO ₂ Emissions (t/year)	0.00	DFEE	N/A	TFEE	N/A
General Requirements Compliance	N/A	% DFEE<TFEE	N/A		

Assessor Details	Mr. James Turner, J E Turner, Tel: 01437710954, jim.thinkinggreen@gmail.com	Assessor ID	7358-0001
Client	Greg Farrell, 052		

Building Elements

Wall Basement cavity wall

Wall Type: Standard Wall

Layer	Description	Thickness (mm)	Conductivity (W/m ² K)	Resistance (m ² K/W)	Fraction (%)	Density (kg/m ³)	Heat Cap. (J/kgK)
Ext surface				0.0400			
Layer 1	Brick, outer leaf						
	Main construction	102	0.7700	0.1325	82.81		
	Main construction	102	0.9407	0.1084	17.19		
Layer 2	Standard cavity						
	Main construction	10	0.0350	0.2859	100.00		
	Corrections - Cavity Unventilated, Emissivity: Normal						
Layer 3	Celotex thermaclass 21						
	Main construction	90	0.0210	4.2857	100.00		
	Corrections - Air Gap: Level 1, Fasteners: Wall ties, Cross sectional area: 12.50 mm ² , Lambda: 17.000 W/m.K, per m ² : 2.500						
Layer 4	Blockwork, light						
	Main construction	100	0.1800	0.5556	93.43	680	1050
	Main construction	100	0.8803	0.1136	6.57	680	1050
Layer 5	PIR between studs						
	Main construction	100	0.0220	4.5455	85.31		
	Main construction	100	0.1300	0.7692	14.69		
	Corrections - Air Gap: Level 1, Fasteners: None or plastic						
Layer 6	Plasterboard, standard						
	Main construction	12.5	0.2100	0.0595	100.00	950	840
Int surface				0.1300			

Total resistance:	Upper limit = 9.182 m ² K/W	Lower limit = 8.012 m ² K/W	Average = 8.597 m ² K/W
	Total correction = 0.0034 m ² K/W	U-value (unrounded) = 0.12 W/m ² K	

Unheated space: None

Total thickness: 415 mm

U-value: 0.12 W/m² K

Kappa: 10.37 kJ/m² K