Back to Earth SW Ltd
7 Tuns Lane
Silverton
Exeter
EX5 4HY

Project Information
Reference
Date 4 December 2023

Construction Type
Element : Wall - Wall-masonry-solid-internal-lime plaster
Internal surface emissivity : High External surface emissivity : High

	Thickness (mm)	Thermal Conductivity (W/mK)	Thermal Resistance (m²K/W)	Pitch (º)	Bridge details Air gaps (Level, Delta U")
Outside surface resistance	-	-	0.040		
Brick outer leaf	105.0	0.770	0.136		
Brick inner leaf	105.0	0.560	0.188		
Clay Plaster	10.0	0.800	0.013		
UdiTHERM	120.0	0.038	3.150		L:0 0.000W/m²K
Baumit RK70N	5.0	0.900	0.006		
Inside surface resistance	-	-	0.130		
Total thickness	**345.0mm**				

U-value = 0.27W/m²K

U-value, Combined Method : 0.273W/m²K (upper/lower limit 3.662 / 3.662m²K/W, dUf 0.0060, dUg 0.0000, dUp0.0000, dUr0.0000, dUrc1 0.0000, dUrc2 0.0000)

Correction factors
Mechanical fasteners :-
Insulation Fixings
Point thermal transmittance : 0.0010W/K nf : 6.000 per m²
Delta Uf for UdiTHERM : 0.0060
nf = fasteners per m² Af = fasteners cross-sectional area
Air gaps, Delta Ug = 0.000W/m²K

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Thermal Mass Details

	Thickness assessed (actual) (mm)	Density (kg/m³)	Specific heat capacity (J/kgK)	Heat capacity (kJ/m²K)
Brick outer leaf	0.0 (105.0)	1700.0	840.0	0.0
Brick inner leaf	0.0 (105.0)	1700.0	840.0	0.0
Clay Plaster	0.0 (10.0)	1700.0	1000.0	0.0
UdiTHERM	0.0 (120.0)	160.0	2100.0	0.0
Baumit RK70N	5.0 (5.0)	1300.0	1000.0	6500000.0
Total				6500000.0
kappa value				6.5000

Limiting condition: insulation

Admittance : 1.21 W/m²K Decrement : 0.16 factor Decrement delay : -14.03 hours