

## 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 (m <sup>2</sup> K/W)	Pitch (°)	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	40.0	0.038	1.050		L:0 0.000W/m <sup>2</sup> K
Baumit RK70N	5.0	0.900	0.006		
Inside surface resistance	-	-	0.130		
<b>Total thickness</b>	<b>265.0mm</b>				

### U-value = 0.64W/m<sup>2</sup>K

U-value, Combined Method : 0.640W/m<sup>2</sup>K (upper/lower limit 1.562 / 1.562m<sup>2</sup>K/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 m<sup>2</sup>

Delta Uf for UdiTHERM : 0.0060

nf = fasteners per m<sup>2</sup> Af = fasteners cross-sectional area

Air gaps, Delta Ug = 0.000W/m<sup>2</sup>K

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**Thermal Mass Details**

	Thickness assessed (actual) (mm)	Density (kg/m <sup>3</sup> )	Specific heat capacity (J/kgK)	Heat capacity (kJ/m <sup>2</sup> K)
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 (40.0)	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 : 1.13 W/m<sup>2</sup>K    Decrement : 0.27 factor    Decrement delay : -9.17 hours