

## 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-cavity-internal-multipor

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	-	-	0.130		
Brick outer leaf	105.0	0.770	0.000		
Airspace, heat flow horizontal, 50 mm thick	50.0	-	0.000		
Brick inner leaf	105.0	0.560	0.188		
Render, cement-sand	20.0	1.000	0.020		
Multipor Adhesive	5.0	0.180	0.028		
Multipor	100.0	0.042	2.350		L:0 0.000W/m <sup>2</sup> K
Multipor Adhesive	5.0	0.180	0.028		
Inside surface resistance	-	-	0.130		
<b>Total thickness</b>	<b>390.0mm</b>				

### U-value = 0.35W/m<sup>2</sup>K

U-value, Combined Method : 0.348W/m<sup>2</sup>K (upper/lower limit 2.874 / 2.874m<sup>2</sup>K/W, dUf 0.0000, dUg 0.0000, dUp0.0000, dUr0.0000, dUrc1 0.0000, dUrc2 0.0000)

### Correction factors

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

**Project Information**

Reference

Date 4 December 2023

**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
Airspace, heat flow horizontal, 50 mm thick	0.0 (50.0)	1.2	1008.0	0.0
Brick inner leaf	0.0 (105.0)	1700.0	840.0	0.0
Render, cement-sand	0.0 (20.0)	1800.0	1000.0	0.0
Multipor Adhesive	0.0 (5.0)	800.0	1000.0	0.0
Multipor	0.0 (100.0)	220.0	1000.0	0.0
Multipor Adhesive	5.0 (5.0)	800.0	1000.0	4000000.0
Total				4000000.0
kappa value				4.0000
Limiting condition:	insulation			

Admittance : 0.89 W/m<sup>2</sup>K    Decrement : 0.12 factor    Decrement delay : -12.48 hours