

Back to Earth SW Ltd

7 Tuns Lane
Silverton, Exeter
Devon. EX5 4HY

Project Information

Reference

Date 14 September 2018

Construction Type

Element : Solid ground floor - 0 Spec generator copies

Internal surface emissivity : High External surface emissivity : High

	Thickness (mm)	Thermal Conductivity (W/mK)	Thermal Resistance (m ² K/W)	Pitch (°)	Bridge details Air gaps (Level, Delta U")
Inside surface	-	-	0.170		
Particleboard (600 mg/m ³)	22.0	0.140	0.157		
Ampatex Sinco	-	-	-		
Beltermo Ultra	50.0	0.042	1.150		L:0 0.000W/m ² K
Beltermo Kombi	160.0	0.038	4.200		L:0 0.000W/m ² K
Polyethylene/polythene, low density	1.0	0.330	0.003		
Medium density (2000 kg/m ³) concrete	100.0	1.350	0.074		
Sand and gravel	150.0	2.000	0.075		
Ground	-	-	0.040		
Total thickness	483.0mm				

Ground Floor Details

Floor type : Solid floor

Calculation method : EN ISO 13370:2007

Perimeter : 42.00 m Area : 104.00 m²

P/A : 0.404 Characteristic dimension, B' : 4.952

Thermal conductivity of ground: : 1.500 W/mK Width of walls, w: : 0.300 m

Edge insulation position : None

U-value = 0.13W/m²K

U-value, Combined Method : 0.132W/m²K (upper/lower limit 5.869 / 5.869m²K/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/m²K

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Thermal Mass Details

	Thickness assessed (actual) (mm)	Density (kg/m ³)	Specific heat capacity (J/kgK)	Heat capacity (kJ/m ² K)
Particleboard (600 mg/m ³)	22.0 (22.0)	600.0	1700.0	22440000.0
Ampatex Sinco	0.0 (-)	280.0	850.0	0.0
Beltermo Ultra	0.0 (50.0)	180.0	2100.0	0.0
Beltermo Kombi	0.0 (160.0)	110.0	2100.0	0.0
Polyethylene/polythene, low density	0.0 (1.0)	920.0	2200.0	0.0
Medium density (2000 kg/m ³) concrete	0.0 (100.0)	2000.0	1000.0	0.0
Sand and gravel	0.0 (150.0)	1950.0	1045.0	0.0
Total				22440000.0
kappa value				22.4400
Limiting condition:	insulation			

Admittance : 11.54 W/m²K Decrement : 0.00 factor Decrement delay : 0.00 hours