U Value Calculation

Software: Stroma U-value Calculator - Version 0.92

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Construction Type: Floor - Ground Floor

Calculation Method: BS EN ISO 6946 / BS EN ISO 13370

Floor Construction

No	Description	Main Element			Bridging Element		
		Thickness	λ	R-value	λ	R-value	Fraction
-	Internal Surface Resistance	-	-	0.17	-	-	-
1	Screed (1200)	75	0.41	0.182927	-	-	-
2	Celotex XR4000	150	0.022	6.818182	-	-	-
3	Concrete Block (High Density 2400) (100 mm)	100	1.93	0.051813	1.13	0.088	0.2222
4	Underfloor Resistance	0	-	0.17	-	-	-
		Σ=325mm		Σ=7.392922			

Resistances

Lower Limit	Upper Limit	Average
7.398	7.401	7.4 m²K/W

Soil Properties

Perimeter	20.56m
Area	50.66m²
Wall Thickness	300mm
Ground Type - Default λ=	2W/mK
Rse	0.04
Resistance on solum Rg	0m²K/W
The height of the floor above external ground level	0.2m
Depth of underfloor space below ground	0.2m
U-value of walls	1.5W/m²K
Mean wind speed	5m/s
Wind shielding factor	0.05
Ventilation openings per metre length	0.0015m²/m

Floor U-value Corrections

Corrective Description	Correction Value
Vertical Edge Insulation	-0.016
	Σ=-0.016

Average Temperature - Underfloor Space

Internal Temperature	18°C
External Temperature	6°C
Average Temperature in Underfloor Space	7.45°C

Floor U-value

Ug - U-value of the Ground	0.769
Total U-value Corrections - Applied to Ug	-0.016
Uf - U-value of the Floor Corrected	0.753
Uf - U-value of the Floor	0.135
Ux - U-value for Ventilation Equivalent	0.232
U-value	0.119
U-value rounded	0.12 W/m²K