

## Project Information

Date 16 April 2020  
Client GW, OWLarchitecture.com Project Home Owners Guide  
25 Crescent View  
Leeds  
LS17 7QF  
Yorkshire

## Construction Type

Element : Flat roof - Cold - Insulation Between & Below Joists 400mm Joist Spacing  
Cold - Insulation Between & Below Joists 400mm Joist Spacing  
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	-	-	0.100		
Roofing membranes or coverings	-	-	-		
Plywood	-	-	0.000		
Ventilated Cavity	50.0	-	0.000		
Celotex GA4000 between joists @ 400 ctrs	100.0	-	4.545		11.750% Timber (100.0mm)
Celotex GA4000 under joists. Joints taped as VCL	75.0	-	3.409		
Cavity - 25 x 47mm fixing batten between plasterboard and under joists insulation	25.0	-	0.454		11.750% Timber (25.0mm)
Wallboard	12.5	-	0.066		
Inside surface resistance	-	-	0.100		

U-value = 0.13W/m<sup>2</sup>K

U-value, Combined Method : 0.134W/m<sup>2</sup>K (upper/lower limit 7.921 / 6.949m<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

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)

## Project Information

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## Construction Type

Element : Suspended ground floor - Ground Floor - Suspended Timber

Ground Floor - Suspended Timber

Internal surface emissivity	: High	External surface emissivity	: High	Thickness	Thermal Conductivity	Thermal Resistance	Pitch (°)	Bridge details Air gaps (Level, Delta U")
				(mm)	(W/mK)	(m²K/W)		
Inside surface				-	-	0.170		
Floor deck 18mm T+G Chipboard				-	-	0.126		
Celotex XR4000 between joists @ 400mm ctrs				120.0	-	5.455		11.750% Timber (120.0mm)
Void - ventilated				-	-	0.000		
Deck underside surface resistance						0.170		

## Ground Floor Details

Floor type	: Suspended floor		
Calculation method	: EN ISO 13370:2007		
P/A	: 0.650	Characteristic dimension, B'	: 3.077
Thermal conductivity of ground:	: 1.500 W/mK	Width of walls, w:	: 0.300 m
Height of floor above ground, h:	: 0.225 m	U-value of sub-floor walls, Uw:	: 1.700 W/m²K
Average wind speed, V:	: 5.000 m/s	Wind shielding factor, fw:	: 0.050
Ventilation opening area, E:	: 0.0015 m²/m	Subfloor ground resistance, Rs	: 0.170 m²K/W
Resistance of insulation on ground, Rg	: 0.000 m²K/W	External surface resistance, Rse	: 0.170 m²K/W
Deck resistance	: 0.126 m²K/W		
Description	: 18mm T+G Chipboard		
Edge insulation position	: None		

U-value = 0.20W/m²K

U-value, Combined Method : 0.201W/m²K (upper/lower limit 4.280 / 3.925m²K/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

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)

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## Construction Type

Element : Suspended ground floor - Merged in - 1 Ground Floor - Suspended Timber

Ground Floor - Suspended Timber

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")
Inside surface	-	-	0.170		
Floor deck 18mm T+G Chipboard	-	-	0.126		
Celotex XR4000 between joists @ 400mm ctrs	120.0	-	5.455		11.750% Timber (120.0mm)
Void - ventilated	-	-	0.000		
Deck underside surface resistance			0.170		

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Calculation method : EN ISO 13370:2007

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

Height of floor above ground, h: : 0.225 m U-value of sub-floor walls, Uw: : 1.700 W/m<sup>2</sup>K

Average wind speed, V: : 5.000 m/s Wind shielding factor, fw: : 0.050

Ventilation opening area, E: : 0.0015 m<sup>2</sup>/m Subfloor ground resistance, Rs : 0.170 m<sup>2</sup>K/W

Resistance of insulation on ground, Rg : 0.000 m<sup>2</sup>K/W External surface resistance, Rse : 0.170 m<sup>2</sup>K/W

Deck resistance : 0.126 m<sup>2</sup>K/W

Description : 18mm T+G Chipboard

Edge insulation position : None

U-value = 0.20 W/m<sup>2</sup>K

U-value, Combined Method : 0.201 W/m<sup>2</sup>K (upper/lower limit 4.280 / 3.925 m<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 = 0.000 W/m<sup>2</sup>K

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)