

U-value calculation

by BRE U-value Calculator version 2.04a

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Filename: C:\Users\Ecohome\Documents\YBS DATA\0.15 U-Value - TyvaQuilt Min 125mm Deep Rafters.uva (File saved: 05 Apr 2016 12:30)

Element type: Roof - Pitched roof - insulated slope, sloping ceiling

Calculation Method: BS EN ISO 6946

Batten & Counter Batten - 125mm Deep Rafters

BreatherQuilt LG Spec TyvaQuilt System.

100mm Mineral wool (0.032)

SuperQuilt LG Spec

Layer	d (mm)	λ layer	λ bridge	Fraction	R layer	R bridge	Description
					0.100		Rsi
1	12.5	0.190			0.066		12.5mm Plasterboard
2	25	R-value	0.130	0.0630	0.740	0.192	25mm Batten
3	12	R-value	R-value	0.0120	1.520	0.670	SuperQuilt
4	100	0.032	0.130	0.125	3.125	0.769	100mm Rafters / Mineral wool
(0.032)							
5	25	R-value	0.130	0.125	0.650	0.192	25mm Rafters
6	13	R-value			1.166		BreatherQuilt
7	19	R-value					Tile Batten (19 or 25)
8	15	1.000					Tiles (Clay)
					<u>0.100 #</u>		Rse
	<u>222 mm</u>	(total roof thickness)			<u>7.467</u>		

this resistance substitutes for Rse and the resistance of layers 7-8 because of the ventilated air layer (layer 7)

Total resistance: Upper limit: 6.891 Lower limit: 6.317 Ratio: 1.091 Average: 6.604 m²K/W

U-value (uncorrected) 0.151

U-value corrections

Air gaps in layer 4 $\Delta U = 0.000$ (Level 0)

No fixings in layer 4

Total ΔU 0.000

U-value (corrected) 0.151

U-value (rounded) 0.15 W/m²K

Calculated by: