

Project ID : P-1035667 17 Boscastle Road NW5 1EE  
 Structure element : Pitched or mansard roof, ceiling at line of pitch  
 Description : Pitched roof - Ventilated  
 File reference : 1Z1581426F.FCF

**Calculated 'U' value = 0.18W/m<sup>2</sup>K (Calculated in accordance with BS EN ISO 6946:2017)**

RT03

Element Description	Element Thickness (mm)	Thermal Conductivity (W/mK)	Thermal Resistance (m <sup>2</sup> K/W)	Vapour Resistivity (MNs/gm)	Vapour Resistance (MNs/g)	Mean T (K)	Delta T (K)
Outside surface resistance	-	-	0.172	-	-	80.84	0.26
TILES / SLATES ON BATTENS ; PITCHED ROOF.	30.0	0.000	0.000	0.00	0.00	80.97	0.00
COUNTERBATTENCAVITY	38.0	-	0.000	-	0.00	80.97	0.00
BREATHABLE MEMBRANE	0.5	-	0.000	-	0.20	80.97	0.00
VENTILATEDRAFTER CAVITY	50.0	-	0.000	-	0.00	80.97	0.00
<a href="#">KOOLTHERM K107 - Between rafters 12.7% roof timber - 47mm @ 400mm ctrs + 1% for noggins + loft hatches (120.0mm)</a>	120.0	0.018	6.667	-	37.70	86.07	0.20
<a href="#">KOOLTHERM K118 (12.5mm plasterboard internal finish)</a>	32.5	-	1.177	-	94.70	92.07	1.80
PLASTER SKIM	3.0	0.180	0.017	60.00	0.18	92.98	0.03
Inside surface resistance	-	-	0.100	-	-	93.07	0.15

**Detailed U-value Calculation Results**

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Whilst the information and/or specification contained herein is to the best of our knowledge true and accurate we specifically exclude any liability for errors, omissions or otherwise arising therefrom. Details, practices, principles, values and calculations should be verified as to accuracy and suitability for the required purpose for use.

**Detailed U-value Calculation Results**

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 Humidity Class: 3 - Dwellings with low occupancy  
 Location: 5a England SE & Central South

Condensation calculations performed in accordance with BS5250: 2011

RT03

Month	Int (°C)	Int (%RH)	Ext (°C)	Ext (%RH)
Jan	20.0	61.5	1.5	90.0
Feb	20.0	60.4	1.8	86.5
Mar	20.0	59.7	3.7	84.0
Apr	20.0	59.1	6.0	81.0
May	20.0	61.0	9.3	81.0
Jun	20.0	63.8	12.4	80.0
Jul	20.0	67.3	14.5	80.5
Aug	20.0	68.0	14.1	82.5
Sep	20.0	66.2	11.8	85.5
Oct	20.0	63.9	8.7	88.0
Nov	20.0	61.8	4.4	89.5
Dec	20.0	61.7	2.5	90.5

Gc = Monthly moisture accumulation per area at an interface

Ma = Accumulated moisture content per area at an interface

**Peak accumulated moisture content per area at interface (Ma) = 0.00 Kg/m<sup>2</sup>**

**Annual moisture accumulation (Ma) = 0.00 Kg/m<sup>2</sup>**

