

Project ID : 93 Fitzjohns Avenue, NW3 6NX
 Structure element : Wall
 Description : Timber framed wall
 File reference : 1S17695C31.FCF

Calculated 'U' value = 0.24W/m²K (Calculated in accordance with BS EN ISO 6946:2017)

Dormer cheek

Element Description	Element Thickness (mm)	Thermal Conductivity (W/mK)	Thermal Resistance (m²K/W)	Vapour Resistivity (MNs/gm)	Vapour Resistance (MNs/g)	Mean T (K)	Delta T (K)
Outside surface resistance	-	-	0.141	-	-	80.86	0.31
LEAD SHEETING on appropriate underlay in line with lead roofing association guidance	2.0	34.760	0.000	-	10.00	81.02	0.00
VERTICAL BATTEN CAVITY - VENTILATED	25.0	-	0.000	-	0.00	81.02	0.00
BREATHABLE MEMBRANE	0.5	-	0.006	-	0.20	81.02	0.01
OSB SHEATHING	9.0	0.130	0.069	500.00	4.50	81.11	0.15
KOOLTHERM K112 - between timber studs 15.0% wall timber - timber frame (75.0mm)	75.0	0.018	4.167	-	22.90	85.74	9.11
KOOLTHERM K118 (12.5mm plasterboard internal finish)	32.5	-	1.177	-	94.70	91.58	2.57
Inside surface resistance	-	-	0.130	-	-	93.01	0.28

Detailed U-value Calculation Results

Construction includes 1 bridged layer.

Non-bridged layers

Outside surface resistance
 BREATHABLE MEMBRANE
 OSB SHEATHING
 KOOLTHERM K118 (12.5mm plasterboard internal finish)
 Inside surface resistance
 Resistance of non-bridged layers, R_{nb} =

0.141 m²K/W
 0.006 m²K/W
 0.069 m²K/W
 1.177 m²K/W
 0.130 m²K/W
 1.523 m²K/W

Building Regulations

Element	U-value required W/m².K
Dwarf wall	0.28
Pitched roof, sloping ceiling	0.18
Flat roof dormer	0.18
Dormer cheek	0.28

