U-value calculation
by BRE U-value Calculator version 2.03
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Element type: Wall - Structural insulated panel
Calculation Method: BS EN ISO 6946

Wall Type 1 - 169mm SIP

Layer	d (mm)	λ layer	λ bridge	Fraction	R layer	R bridge	Description
					0.130		Rsi
1	12.5	0.210			0.060		Plasterboard
2	25	R-value¹	0.130	0.125	0.780	0.192	Cavity unventilated
3							Protect VC Foil Ultra Ins AVCL Membrane
4	11	0.130			0.085		SIP - OSB
5	147	0.030			4.800		SIP - Lambdatherm EPS
6	11	0.130			0.085		SIP - OSB
7							Protect TF200 Thermo Ins Breather Membrane
8	60	R-value²			0.770		Cavity unventilated
9	102.5	0.770			0.133		Brick outer leaf
					0.040		Rse
	366 mm (total wall thickness)				6.882		

¹Specified thermal resistance
²Specified thermal resistance
Total resistance: Upper limit: 6.802   Lower limit: 6.666   Ratio: 1.020   Average: 6.734 m²K/W
U-value   0.148
U-value (rounded)   0.15 W/m²K

The U value result has been determined as follows:

Bridging:

A thermal bridge percentage for the timber studs of 12.5% has been used in accordance with BR 443: 2006 Conventions for U values (section 4.5.1 (ii)).
Correction level:
A correction level of 0 has been used in accordance with Table F1 of BS EN ISO 6946: 2017 Building components and Building elements - Thermal transmittance - Calculation methods.
Please check to confirm and advise if any amendments are required.

Calculated by Protect Technical Services