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Calculation of interstitial condensation
by ICond Calculator version 2.03
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Element type: Wall
Calculation Method: BS EN ISO 13788
Wall Type 3 - 169m SIP
Construction Details

Layer	d	λ	rv	R layer	Rv layer	Description
	mm	W/m·K	MN·s/g·m	m²K/W	MN·s/g	
				0.130		Rsi
1	12.5	0.210	60.0	0.060	0.75	Vapour Check Plasterboard
2			Rv-value		689	Protect VC Foil Ultra Insulating AVCL Membrane
3	25	R-value	Rv-value	0.780	0.050	Cavity unventilated
4	11	0.130	50.0	0.085	0.55	SIP - OSB
5	147	0.030	5.00	4.800	0.72	SIP - Lambdatherm EPS
6	11	0.130	50.0	0.085	0.55	SIP - OSB
7			Rv-value		1.0	Protect TF200 Breather Membrane
8	50	R-value	Rv-value		##	Cavity ventilated
9	18	0.125			##	Timber Cladding
				0.130 #		Rse
	272 mm (total wall thickness)			6.069	693	

this resistance substitutes for Rse and the resistance of layers 8-9 because of the ventilated air layer (layer 8)
set to zero because of the ventilated air layer

Boundary conditions Manchester (Edinburgh.hgt)
Return period 2 years (mean external temperature and RH)
Internal Humidity: BS 5250 Class 3

Results
No condensation

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