

SAP 2012 Overheating Assessment

Calculated by Stroma FSAP 2012 program, produced and printed on 23 November 2021

Property Details: Plot 2

Dwelling type:	Mid-terrace House
Located in:	England
Region:	West Pennines
Cross ventilation possible:	Yes
Number of storeys:	3
Front of dwelling faces:	North
Overshading:	Average or unknown
Overhangs:	None
Thermal mass parameter:	Calculated 331.61
Night ventilation:	False
Blinds, curtains, shutters:	
Ventilation rate during hot weather (ach):	4 (Windows open half the time)

Overheating Details:

Summer ventilation heat loss coefficient:	413.22	(P1)
Transmission heat loss coefficient:	73.5	
Summer heat loss coefficient:	486.68	(P2)

Overhangs:

Orientation:	Ratio:	Z_overhangs:
North (Front Windows)	0	1
South (Rear)	0	1
South (Oriel)	0	1
South (RL)	0	1

Solar shading:

Orientation:	Z blinds:	Solar access:	Overhangs:	Z summer:	
North (Front Windows)	1	0.9	1	0.9	(P8)
South (Rear)	1	0.9	1	0.9	(P8)
South (Oriel)	1	0.9	1	0.9	(P8)
South (RL)	1	1	1	1	(P8)

Solar gains:

Orientation		Area	Flux	g_	FF	Shading	Gains
North (Front Windows)	0.9 x	9.38	73.49	0.63	0.8	0.9	281.42
South (Rear)	0.9 x	6.1	106.3	0.63	0.8	0.9	264.71
South (Oriel)	0.9 x	6	106.3	0.63	0.8	0.9	260.37
	1 x	3.17	172.15	0.63	0.8	1	247.54
Total							1054.03 (P3/P4)

Internal gains:

	June	July	August
Internal gains	518.9	496.83	506.13
Total summer gains	1649.55	1550.86	1447.09 (P5)
Summer gain/loss ratio	3.39	3.19	2.97 (P6)
Mean summer external temperature (West Pennines)	14.7	16.4	16.3
Thermal mass temperature increment	0	0	0
Threshold temperature	18.09	19.59	19.27 (P7)
Likelihood of high internal temperature	Not significant	Not significant	Not significant

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Assessment of likelihood of high internal temperature: Not significant