

# SAP 2012 Overheating Assessment

Calculated by Stroma FSAP 2012 program, produced and printed on 11 June 2020

## Property Details: Flat 1

<b>Dwelling type:</b>	Flat
<b>Located in:</b>	England
<b>Region:</b>	Thames valley
<b>Cross ventilation possible:</b>	Yes
<b>Number of storeys:</b>	1
<b>Front of dwelling faces:</b>	South East
<b>Overshading:</b>	Average or unknown
<b>Overhangs:</b>	None
<b>Thermal mass parameter:</b>	Indicative Value Medium
<b>Night ventilation:</b>	True
<b>Blinds, curtains, shutters:</b>	
<b>Ventilation rate during hot weather (ach):</b>	4 ( Windows open half the time)

## Overheating Details:

<b>Summer ventilation heat loss coefficient:</b>	268.73	<b>(P1)</b>
<b>Transmission heat loss coefficient:</b>	67.9	
<b>Summer heat loss coefficient:</b>	336.65	<b>(P2)</b>

## Overhangs:

<b>Orientation:</b>	<b>Ratio:</b>	<b>Z_overhangs:</b>
North East (NE x2)	0	1
North East (NE x2)	0	1
South West (SW)	0	1
South West (SW)	0	1

## Solar shading:

<b>Orientation:</b>	<b>Z blinds:</b>	<b>Solar access:</b>	<b>Overhangs:</b>	<b>Z summer:</b>	
North East (NE x2)	1	0.9	1	0.9	<b>(P8)</b>
North East (NE x2)	1	0.9	1	0.9	<b>(P8)</b>
South West (SW)	1	0.9	1	0.9	<b>(P8)</b>
South West (SW)	1	0.9	1	0.9	<b>(P8)</b>

## Solar gains:

<b>Orientation</b>		<b>Area</b>	<b>Flux</b>	<b>g_</b>	<b>FF</b>	<b>Shading</b>	<b>Gains</b>
North East (NE x2)	0.9 x	12.58	98.85	0.76	0.7	0.9	535.84
North East (NE x2)	0.9 x	8.32	98.85	0.76	0.7	0.9	354.39
South West (SW)	0.9 x	3.15	119.92	0.76	0.7	0.9	162.78
South West (SW)	0.9 x	4.31	119.92	0.76	0.7	0.9	222.73
<b>Total</b>							1275.73 <b>(P3/P4)</b>

## Internal gains:

	<b>June</b>	<b>July</b>	<b>August</b>
Internal gains	460.56	443.07	451.05
Total summer gains	1826.29	1718.8	1539 <b>(P5)</b>
Summer gain/loss ratio	5.42	5.11	4.57 <b>(P6)</b>
Mean summer external temperature (Thames valley)	16	17.9	17.8
Thermal mass temperature increment	0.25	0.25	0.25
Threshold temperature	21.67	23.26	22.62 <b>(P7)</b>
<b>Likelihood of high internal temperature</b>	<b>Slight</b>	<b>Medium</b>	<b>Medium</b>

# SAP 2012 Overheating Assessment

Assessment of likelihood of high internal temperature: Medium