SAP 2009 Overheating Assessment

Calculated by Stroma FSAP 2009 program, produced and printed on 28 March 2012

Property Details: 1980s flat, worst case

Dwelling type:	Semi-detached Flat
Located in:	England
Region:	Midlands
Cross ventilation possible:	Yes
Number of storeys:	1
Front of dwelling faces:	South
Overshading:	Average or unknown
Overhangs:	None
Thermal mass parameter:	0
Night ventilation:	False
Blinds, curtains, shutters:	None
Ventilation rate during hot weather (ach):	0.8 (Windows slightly open (50 mm))

Overheating Details:

Summer ventilation heat loss coefficient:	34.65	**(P1)**
Transmission heat loss coefficient:	133.6	
Summer heat loss coefficient:	168.27	**(P2)**

Overhangs:

Orientation:	**Ratio:**	**Z_overhangs:**
South (South Window)	0	1
East (East Windows)	0	1

Solar shading:

Orientation:	**Z blinds:**	**Solar access:**	**Overhangs:**	**Z summer:**	
South (South Window)	1	0.9	1	0.9	**(P8)**
East (East Windows)	1	0.9	1	0.9	**(P8)**

Solar gains:

Orientation		**Area**	**Flux**	**g_**	**FF**	**Shading**	**Gains**	
South (South Window)	0.9 x	4.18	106.3	0.76	0.76	0.9	207.88	
East (East Windows)	0.9 x	1.2	112.4	0.76	0.76	0.9	63.1	
						Total	270.98	**(P3/P4)**

Internal gains:

	June	**July**	**August**	
Internal gains	353.35	340.5	348.74	
Total summer gains	634.37	611.49	609.68	**(P5)**
Summer gain/loss ratio	3.77	3.63	3.62	**(P6)**
Mean summer external temperature (Midlands)	14.9	17.2	17.1	
Thermal mass temperature increment	0.56	0.56	0.56	
Threshold temperature	19.23	21.4	21.29	**(P7)**
Likelihood of high internal temperature	**Not significant**	**Slight**	**Slight**	

Assessment of likelihood of high internal temperature: Slight