SAP 2009 Overheating Assessment

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

Property Details: 1930's Large Semi worst case

Dwelling type:	Semi-detached House
Located in:	England
Region:	Midlands
Cross ventilation possible:	Yes
Number of storeys:	2
Front of dwelling faces:	South
Overshading:	Average or unknown
Overhangs:	None
Thermal mass parameter:	0
Night ventilation:	False
Blinds, curtains, shutters:	Net curtain (covering whole window)
Ventilation rate during hot weather (ach):	1 (Windows slightly open (50 mm))

Overheating Details:

Summer ventilation heat loss coefficient:	208.67	**(P1)**
Transmission heat loss coefficient:	520.4	
Summer heat loss coefficient:	729.08	**(P2)**

Overhangs:

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

Solar shading:

Orientation:	**Z blinds:**	**Solar access:**	**Overhangs:**	**Z summer:**	
North (North Windows)	0.8	0.9	1	0.72	**(P8)**
South (South Windows)	0.8	0.9	1	0.72	**(P8)**
East (East Windows)	0.8	0.9	1	0.72	**(P8)**

Solar gains:

Orientation		**Area**	**Flux**	**g_**	**FF**	**Shading**	**Gains**	
North (North Windows)	0.9 x	11.47	79.85	0.76	0.76	0.72	342.8	
South (South Windows)	0.9 x	11.28	106.3	0.76	0.76	0.72	448.78	
East (East Windows)	0.9 x	2.1	112.4	0.76	0.76	0.72	88.35	
						Total	879.92	**(P3/P4)**

Internal gains:

	June	**July**	**August**	
Internal gains	816.65	786.84	802.94	
Total summer gains	1743.22	1666.76	1596.11	**(P5)**
Summer gain/loss ratio	2.39	2.29	2.19	**(P6)**
Mean summer external temperature (Midlands)	14.9	17.2	17.1	
Thermal mass temperature increment	1.59	1.59	1.59	
Threshold temperature	18.88	21.08	20.88	**(P7)**
Likelihood of high internal temperature	**Not significant**	**Slight**	**Slight**	

Assessment of likelihood of high internal temperature: Slight