Mainer Associates
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SAP 2009 Overheating Assessment

Calculated by Stroma FSAP 2009 program, produced and printed on 21 September 2016

Property Details: 21 ASHP

Dwelling type:	Flat
Located in:	England
Region:	Thames valley
Cross ventilation possible:	Yes
Number of storeys:	1
Front of dwelling faces:	North East
Overshading:	Average or unknown
Overhangs:	None
Thermal mass parameter:	Indicative Value Low
Night ventilation:	False
Blinds, curtains, shutters:	Light-coloured curtain or roller blind
Ventilation rate during hot weather (ach):	6 (Windows fully open)

Overheating Details:

Summer ventilation heat loss coefficient:	793.61	**(P1)**
Transmission heat loss coefficient:	232.2	
Summer heat loss coefficient:	1025.78	**(P2)**

Overhangs:

Orientation:	**Ratio:**	**Z_overhangs:**
North East (FRONT curtain wall)	0	1
North East (FRONT bi fold)	0.57	0.82
North West (SIDE A Curtain wall)	0	1
South West (BACK Curtain)	0	1
South East (SIDE B Curtain Wall)	0	1
Horizontal (Roof light)	0	1

Solar shading:

Orientation:	**Z blinds:**	**Solar access:**	**Overhangs:**	**Z summer:**	
North East (FRONT curtain wall)	0.8	0.9	1	0.72	**(P8)**
North East (FRONT bi fold)	0.8	0.9	0.82	0.57	**(P8)**
North West (SIDE A Curtain wall)	0.8	0.9	1	0.72	**(P8)**
South West (BACK Curtain)	0.8	0.9	1	0.72	**(P8)**
South East (SIDE B Curtain Wall)	0.8	0.9	1	0.72	**(P8)**
Horizontal (Roof light)	1	1	1	1	**(P8)**

Solar gains:

Orientation	**Area**	**Flux**	**g_**	**FF**	**Shading**	**Gains**	
North East (FRONT curtain wall)	0.9 x 20.99	98.96	0.63	0.8	0.72	678.37	
North East (FRONT bi fold)	0.9 x 16.23	98.96	0.63	0.8	0.57	417	
North West (SIDE A Curtain wall)	0.9 x 2.23	98.96	0.63	0.8	0.72	72.07	
South West (BACK Curtain)	0.9 x 53.37	116.76	0.63	0.8	0.72	2035.17	
South East (SIDE B Curtain Wall)	0.9 x 2.23	116.76	0.63	0.8	0.72	85.04	
	1 x 4.32	204	0.63	0.8	1	399.75	
					Total	3687.39	**(P3/P4)**

Internal gains:

	June	**July**	**August**	
Internal gains	648.53	623.35	633.28	
Total summer gains	4507.17	4310.74	3952.15	**(P5)**

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Summer gain/loss ratio	4.39	4.2	3.85	**(P6)**
Mean summer external temperature (Thames valley)	15.4	17.8	17.8	
Thermal mass temperature increment	1.3	1.3	1.3	
Threshold temperature	21.09	23.3	22.95	**(P7)**
Likelihood of high internal temperature	**Slight**	**Medium**	**Medium**	

Assessment of likelihood of high internal temperature: Medium