

FULL SAP CALCULATION PRINTOUT

Calculation Type: New Build (As Designed)

Property Reference	P2 Riley	Issued on Date	12/09/2022
Assessment Reference	P2 Riley	Prop Type Ref	
Property	Plot 2, Riley Road, Reading		
SAP Rating	88 B	DER	13.39
Environmental	90 B	TER	16.93
CO ₂ Emissions (t/year)	0.93	% DER<TER	20.90
General Requirements Compliance	Pass	DFEE	44.48
		TFEE	49.08
		% DFEE<TFEE	9.38
Assessor Details	Mr. Alan Ironmonger, Forum Energy Consultants, Tel: 01303 260656, forumenergy@btinternet.com		Assessor ID
			L609-0001
Client			

SAP 2012 OVERHEATING ASSESSMENT FOR New Build (As Designed) 9.92

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Overheating Calculation Input Data

Dwelling type	SemiDetached House
Number of storeys	2
Cross ventilation possible	Yes
SAP Region	Thames Valley
Front of dwelling faces	North
Overshading	Average or unknown
Thermal mass parameter	250.4 (calculated from construction elements)
Night ventilation	Yes
Ventilation rate during hot weather (ach)	4.00 (Windows half open)

Overheating Calculation

Summer ventilation heat loss coefficient	303.94 (P1)
Transmission heat loss coefficient	65.95 (37)
Summer heat loss coefficient	369.89 (P2)

Overhangs	Ratio	Z_overhangs	Overhang type
Orientation			
North	0.050	0.985	Normal overhang
South	0.050	0.948	Normal overhang
West	0.050	0.973	Normal overhang

Solar shading	Z blinds	Solar access	Z overhangs	Z summer
Orientation				
North	1.000	0.90	0.985	0.885 (P8)
South	1.000	0.90	0.948	0.848 (P8)
West	1.000	0.90	0.973	0.873 (P8)

[Jul]	Area m2	Solar flux Table 6a W/m2	Specific data g or Table 6b	FF Specific data or Table 6c	Shading	Gains W
North	5.3500	81.1852	0.7200	0.7000	0.8850	174.3600
South	5.0400	112.2060	0.7200	0.7000	0.8475	217.3999
West	2.0800	117.5071	0.7200	0.7000	0.8725	96.7310
South	3.7800	112.2060	0.7200	0.7000	0.8475	163.0499
total:						651.5409

	Jun	Jul	Aug	
Solar gains	686	652	602	(P3)
Internal gains	524	504	513	
Total summer gains	1209	1156	1115	(P5)
Summer gain/loss ratio	3.27	3.12	3.01	(P6)
Summer external temperature	16.00	17.90	17.80	
Thermal mass temperature increment (TMP = 250.4)	0.25	0.25	0.25	
Threshold temperature	19.52	21.27	21.06	(P7)
Likelihood of high internal temperature	Not significant	Slight	Slight	
Assessment of likelihood of high internal temperature:	Slight			