

Project Information

Building type Ground-floor flat

Reference

Date 29 August 2013

Client Vantage Homes
Vantage House
Mid Street
South Nutfield
Surrey
RH1 4JY

Project G8-03
Drayton Garden Village
UB7

Tel: 01737821205

Email: info@vantage-homes.co.uk

SAP 2009 worksheet for New dwelling as designed - calculation of energy ratings

1. Overall dwelling dimensions

	Area (m²)	Av. Storey height (m)	Volume (m³)	
Ground floor (1)	72.94	2.48	180.89	(3a)
Total floor area	72.94			(4)
Dwelling volume (m ³)			180.89	(5)

SAP 2009 worksheet for New dwelling as designed - calculation of energy ratings

3. Heat losses and heat loss parameter

Element	Gross area, m ²	Openings m ²	Net area A, m ²	U-value W/m ² K	A x U W/K	K-value kJ/m ² K	A x K kJ/K	
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (East) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03 - L/K/D, GFG80013			4.20	1.33 (1.40)	5.57			(27)
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (SouthEast) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03 - B2, GFG80015			2.63	1.33 (1.40)	3.49			(27)
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (West) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03, GFG80014			2.63	1.33 (1.40)	3.49			(27)
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (West) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03, GFG80014			0.79	1.33 (1.40)	1.05			(27)
Solid door wooden door, GF - G8 - 03, GFG80014			1.89	1.40	2.65			(26)
Walls External Wall, GF - G8 - 03 - L/K/D, GFG80013			0.40	0.19	0.08	0.00	0.00	(29)
Walls External Wall, GF - G8 - 03 - L/K/D, GFG80013			7.54	0.19	1.43	0.00	0.00	(29)
Walls External Wall, GF - G8 - 03 - L/K/D, GFG80013			3.73	0.19	0.71	0.00	0.00	(29)
Walls External Wall, GF - G8 - 03 - B2, GFG80015			3.46	0.19	0.66	0.00	0.00	(29)
Walls External Wall, GF - G8 - 03 - B2, GFG80015			2.48	0.19	0.47	0.00	0.00	(29)
Walls External Wall, GF - G8 - 03, GFG80014			2.53	0.19	0.48	0.00	0.00	(29)
Walls External Wall, GF - G8 - 03 - B2, GFG80015			6.20	0.19	1.18	0.00	0.00	(29)
Walls External Wall, GF - G8 - 03, GFG80014			8.19	0.19	1.56	0.00	0.00	(29)

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3. Heat losses and heat loss parameter

Element	Gross area, m ²	Openings m ²	Net area A, m ²	U-value W/m ² K	A x U W/K	K-value kJ/m ² K	A x K kJ/K						
Walls			11.75	0.18 (Ru=0.40)	2.07	0.00	0.00	(29)					
Semi-Exposed Wall, GF - G8 - 03, GFG80014													
Walls			5.50	0.18 (Ru=0.40)	0.97	0.00	0.00	(29)					
Semi-Exposed Wall, GF - G8 - 03 - B2, GFG80015													
Ground floors			32.68	0.25	8.17	0.00	0.00	(28)					
Ground Floor, GF - G8 - 03, GFG80014													
Ground floors			13.84	0.25	3.46	0.00	0.00	(28)					
Ground Floor, GF - G8 - 03 - B2, GFG80015													
Ground floors			26.43	0.25	6.61	0.00	0.00	(28)					
Ground Floor, GF - G8 - 03 - L/K/D, GFG80013													
Total area of external elements Sigma A, m ²							136.87	(31)					
Fabric heat loss, W/K							44.08	(33)					
Thermal mass parameter, kJ/m ² K (user-specified TMP)							250.00	(35)					
Effect of thermal bridges							20.53	(36)					
Total fabric heat loss							64.61	(37)					
Ventilation heat loss calculated monthly													
32.05	31.10	31.10	29.85	29.85	29.85	29.85	29.85	29.85	29.85	30.15	31.10	(38)	
Heat transfer coefficient, W/K													
96.66	95.71	95.71	94.46	94.46	94.46	94.46	94.46	94.46	94.46	94.76	95.71	94.98	(39)
Heat loss parameter (HLP), W/m ² K													
1.33	1.31	1.31	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.30	1.31	1.30	(40)
HLP (average)									1.30	(40)			
Number of days in month (Table 1a)													
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
31	28	31	30	31	30	31	31	30	31	30	31		

SAP 2009 worksheet for New dwelling as designed - calculation of energy ratings

4. Water heating energy requirements

												kWh/year	
Assumed occupancy, N												2.32	(42)
Annual average hot water usage in litres per day Vd,average												89.19	(43)
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Hot water usage in litres per day for each month													
98.11	94.54	90.97	87.41	83.84	80.27	80.27	83.84	87.41	90.97	94.54	98.11	(44)	
Energy content of hot water used													
145.84	127.55	131.62	114.75	110.11	95.01	88.04	101.03	102.24	119.15	130.06	141.24		
Energy content (annual)												1406.65	(45)
Distribution loss													
21.88	19.13	19.74	17.21	16.52	14.25	13.21	15.15	15.34	17.87	19.51	21.19	(46)	
Hot water storage volume (litres)												110.00	(50)
Hot water cylinder loss factor (kWh/day)												0.0152	(51)
Volume factor												1.0294	(52)
Temperature factor												0.6000	(53)
Energy lost from hot water cylinder (kWh/day)												1.03	(55)
Storage loss													
32.01	28.92	32.01	30.98	32.01	30.98	32.01	32.01	30.98	32.01	30.98	32.01	(57)	
Primary circuit loss (annual)												360.00	(58)
30.58	27.62	30.58	29.59	30.58	29.59	30.58	30.58	29.59	30.58	29.59	30.58	(59)	
Total heat required for water heating calculated for each month													
208.43	184.08	194.21	175.32	172.70	155.58	150.63	163.62	162.81	181.74	190.63	203.83	(62)	
Output from water heater for each month, kWh/month													
208.43	184.08	194.21	175.32	172.70	155.58	150.63	163.62	162.81	181.74	190.63	203.83	(64)	
												2143.59	(64)
Heat gains from water heating, kWh/month													
98.56	87.64	93.84	86.61	86.68	80.05	79.35	83.66	82.45	89.69	91.70	97.03	(65)	

SAP 2009 worksheet for New dwelling as designed - calculation of energy ratings

5. Internal gains

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Metabolic gains, Watts												
138.92	138.92	138.92	138.92	138.92	138.92	138.92	138.92	138.92	138.92	138.92	138.92	(66)
Lighting gains												
60.94	54.13	44.02	33.32	24.91	21.03	22.72	29.54	39.65	50.34	58.75	62.63	(67)
Appliances gains												
304.57	307.73	299.76	282.81	261.40	241.29	227.85	224.69	232.66	249.61	271.01	291.13	(68)
Cooking gains												
51.21	51.21	51.21	51.21	51.21	51.21	51.21	51.21	51.21	51.21	51.21	51.21	(69)
Pumps and fans gains												
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	(70)
Losses e.g. evaporation (negative values)												
-92.61	-92.61	-92.61	-92.61	-92.61	-92.61	-92.61	-92.61	-92.61	-92.61	-92.61	-92.61	(71)
Water heating gains												
132.48	130.41	126.12	120.29	116.51	111.18	106.65	112.45	114.52	120.55	127.36	130.42	(72)
Total internal gains												
595.50	589.78	567.42	533.94	500.34	471.01	454.74	464.20	484.33	518.01	554.64	581.70	(73)

6. Solar gains (calculation for January)

	Area & Flux	g & FF	Shading	Gains								
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (East) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03 - L/K/D, GFG80013	0.9 x 4.2 19.87	0.72 x 0.70	0.77	29.15								
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (SouthEast) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03 - B2, GFG80015	0.9 x 2.6 37.39	0.72 x 0.70	0.77	34.34								
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (West) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03, GFG80014	0.9 x 2.6 19.87	0.72 x 0.70	0.77	18.25								
Window - Double-glazed, argon filled, low-E, En=0.2, hard coat (West) low-e double glazing (6mm+6mm) (2002 regs), GF - G8 - 03, GFG80014	0.9 x 0.8 19.87	0.72 x 0.70	0.77	5.48								
Solid door wooden door, GF - G8 - 03, GFG80014	0.9 x 1.9 0.00	0.00 x 0.70	0.77	0.00								
Total solar gains, January				87.23	(83-1)							
Solar gains												
87.23	161.06	241.21	338.35	400.12	414.54	403.40	357.68	281.23	191.32	106.93	72.98	(83)
Total gains												
682.73	750.84	808.63	872.29	900.45	885.56	858.14	821.87	765.56	709.33	661.58	654.67	(84)

SAP 2009 worksheet for New dwelling as designed - calculation of energy ratings

7. Mean internal temperature

Temperature during heating periods in the living area, Th1 (°C) 21.00 (85)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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52.40	52.93	52.93	53.63	53.63	53.63	53.63	53.63	53.63	53.63	53.46	52.93
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alpha

4.49	4.53	4.53	4.58	4.58	4.58	4.58	4.58	4.58	4.58	4.56	4.53
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Utilisation factor for gains for living area

0.99	0.98	0.96	0.92	0.81	0.64	0.44	0.46	0.73	0.92	0.98	0.99
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 (86)

Mean internal temperature in living area T1

19.85	20.00	20.27	20.54	20.81	20.95	20.99	20.99	20.91	20.61	20.15	19.88
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 (87)

Temperature during heating periods in rest of dwelling Th2

19.82	19.83	19.83	19.85	19.85	19.85	19.85	19.85	19.85	19.85	19.84	19.83
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 (88)

Utilisation factor for gains for rest of dwelling

0.98	0.97	0.95	0.89	0.75	0.54	0.32	0.34	0.64	0.89	0.97	0.98
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 (89)

Mean internal temperature in the rest of dwelling T2

18.34	18.57	18.95	19.34	19.68	19.82	19.85	19.85	19.79	19.43	18.79	18.40
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 (90)

Living area fraction (26.43 / 72.94) 0.36 (91)

Mean internal temperature (for the whole dwelling)

18.89	19.09	19.43	19.77	20.09	20.23	20.26	20.26	20.19	19.86	19.28	18.93
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 (92)

Apply adjustment to the mean internal temperature, where appropriate

18.89	19.09	19.43	19.77	20.09	20.23	20.26	20.26	20.19	19.86	19.28	18.93
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 (93)

8. Space heating requirement

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Utilisation factor for gains

0.98	0.97	0.94	0.89	0.76	0.58	0.37	0.38	0.67	0.89	0.97	0.98
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 (94)

Useful gains

668.24	726.41	759.99	773.17	688.39	509.85	315.37	314.91	514.18	630.07	638.91	641.47
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 (95)

Monthly average external temperature

4.50	5.00	6.80	8.70	11.70	14.60	16.90	16.90	14.30	10.80	7.00	4.90
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 (96)

Heat loss rate for mean internal temperature

1390.91	1348.59	1208.62	1046.06	792.30	531.71	317.50	317.43	556.76	855.84	1163.75	1343.19
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 (97)

Space heating requirement for each month, kWh/month

537.66	418.10	333.78	196.48	77.31	-	-	-	-	167.97	377.88	522.08
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Total space heating requirement per year (kWh/year) (October to May) 2631.26 (98)

Space heating requirement per m² (kWh/m²/year) 36.07 (99)

8c. Space cooling requirement - not applicable

SAP 2009 worksheet for New dwelling as designed - calculation of energy ratings

9b. Energy requirements

		kWh/year	
Fraction of space heat from secondary system	0.00		(301)
Fraction of space heat from community system	1.00		(302)
Fraction of community heat from Boilers	0.28		(303a)
Fraction of community heat from CHP	0.72		(303b)
Fraction of total space heat from Boilers	0.28		(304a)
Fraction of total space heat from CHP	0.72		(304b)
Factor for control and charging method for community space heating	1.00		(305)
Factor for charging method for community water heating	1.00		(305a)
Distribution loss factor	1.05		(306)
Space heating:		kWh/year	
Annual space heating requirement		2631.26	(98)
Space heat from Boilers		773.59	(307a)
Space heat from CHP		1989.23	(307b)
Efficiency of secondary heating system		0.00	(308)
Space heating fuel for secondary system		0.00	(309)
Water heating:			
Annual water heating requirement		2143.59	(64)
Water heat from Boilers		630.22	(310a)
Water heat from CHP		1620.56	(310b)
Other energy:			
Electrical energy for heat distribution		50.14	(313)
Electricity for pumps and fans within dwelling:			
Electricity for pumps, fans and electric keep-hot			
mechanical ventilation - balanced, extract or positive input from outside (SFP=0.29)		63.12	(330a)
warm air heating system fans		0.00	(330b)
pump for solar water heating		0.00	(330g)
Total electricity for the above, kWh/year		63.12	(331)
Electricity for lighting (75.00% fixed LEL)		430.49	(332)
Energy saving/generation technologies			
Appendix Q -			
Energy saved or generated ():		0.000	(336a)
Energy used ():		0.000	(337a)

10b. Fuel costs

	kWh/year	Fuel price p/kWh	£/year	
Space heating from Boilers	773.59	3.780	29.24	(340a)
Space heating from CHP	1989.23	2.650	52.71	(340b)
Space heating (secondary)	0.00	0.000	0.00	(341)
Water heating from Boilers	630.22	3.780	23.82	(342a)
Water heating from CHP	1620.56	2.650	42.94	(342b)
Mech vent fans	63.12	11.460	7.23	(349)
Warm air heating system fans	0.00	0.000	0.00	(349)
Pump for solar water heating	0.00	0.000	0.00	(349)
Electricity for lighting	430.487	11.460	49.33	(350)
Additional standing charges			106.00	(351)
Electricity generated - PVs	0.000	0.000	0.00	(352)
Appendix Q -				
Energy saved or generated ():	0.000	0.000	0.00	(353)
Energy used ():	0.000	0.000	0.00	(354)
Total energy cost			311.29	(355)

SAP 2009 worksheet for New dwelling as designed - calculation of energy ratings

11b. SAP rating

Energy cost deflator	0.47	(356)
Energy cost factor (ECF)	1.24	(357)
SAP value	82.69	(358)
SAP rating	83.00	(358)
SAP band	B	

12b. Carbon dioxide emissions

	Energy kWh/year	Emission factor kg CO2/kWh	Emissions kg CO2/year	
Electrical efficiency of CHP unit - 37.98%				(361)
Heat efficiency of CHP unit - 41.02%				(362)
Space heating from CHP	4849.51	0.1980	960.20	(363)
less credit emissions for electricity	-1841.89	0.5290	-974.36	(364)
Water heating from CHP	3950.73	0.1980	782.24	(365)
less credit emissions for electricity	-1500.52	0.5290	-793.77	(366)
Efficiency of Boilers - 90.00%				(367a)
CO2 emissions from Boilers	1559.79	0.1980	308.84	(368)
Electrical energy for heat distribution	50.14	0.5170	25.92	(372)
Total CO2 associated with community systems			309.07	(373)
Total CO2 associated with space and water heating			309.07	(376)
Electricity for pumps and fans	63.12	0.517	32.63	(378)
Electricity for lighting	430.49	0.517	222.56	(379)
Electricity generated - PVs	0.00	0.529	0.00	(380)
Electricity generated - µCHP	0.00	0.000	0.00	(380)
Appendix Q -				
Energy saved ():	0.00	0.000	0.00	(381)
Energy used ():	0.00	0.000	0.00	(382)
Total CO2, kg/year			564.27	(383)

kg/m²/year

CO2 emissions per m²	7.74	(384)
EI value	93.59	(384a)
EI rating	94	(385)
EI band	A	

13b. Primary energy

	Energy kWh/year	Primary factor	P. Energy (kWh/year)	
Electrical efficiency of CHP unit - 37.98%				(361)
Heat efficiency of CHP unit - 41.02%				(362)
Space heating from CHP	4849.51	1.0200	4946.50	(363)
less credit emissions for electricity	-1841.89	2.9200	-5378.31	(364)
Water heating from CHP	3950.73	1.0200	4029.74	(365)
less credit emissions for electricity	-1500.52	0.5290	-4381.51	(366)
Efficiency of Boilers - 90.00%				(367a)
CO2 emissions from Boilers	1559.79	1.0200	1590.98	(368)
Electrical energy for heat distribution	50.14	2.9200	146.40	(372)
Total primary energy associated with community systems			953.81	(373)
Total primary energy associated with space and water heating			953.81	(376)
Total CO2 associated with space and water heating			564.27	(376)

Project Information

Building type Ground-floorflat

Reference

Date 29 August 2013

Client Vantage Homes
Vantage House
Mid Street
South Nutfield
Surrey
RH1 4JY

Project G8-03
Drayton Garden Village
UB7

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REGULATION COMPLIANCE REPORT - Approved Document L1A, 2010 Edition

assessed by program JPA Designer version 5.04a3, printed on 2/9/2013 at 11:55:17

DWELLING AS DESIGNED

1 TER and DER

Fuel for main heating system: Heat from boilers - mains gas (fuel factor = 1.00)

Target Carbon Dioxide Emission Rate TER = 18.68

Dwelling Carbon Dioxide Emission Rate DER = 8.30 OK

2 Fabric U-values

<u>Element</u>	<u>Average</u>	<u>Highest</u>	
Wall	0.19 (max. 0.30)	0.19 (max. 0.70)	OK
Floor	0.25 (max. 0.25)	0.25 (max. 0.70)	OK
Roof	0.00 (max. 0.20)	0.00 (max. 0.35)	OK
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	OK

3 Design air permeability

Air permeability at 50 pascals: 5.00 OK
Maximum : 10.00

4 Heating efficiency

Main heating system:

Community scheme

Source of efficiency: n/a

Secondary heating system:

None -

5 Cylinder insulation

Hot water storage No cylinder

6 Controls

(Also refer to "The Domestic Heating Compliance Guide" by the DCLG)

Space heating controls Charging system linked to community heating use, programmer and TRVs OK
Cylinderstat - Yes OK
Independent timer for DHW - Yes OK

7 Low energy lights

Percentage of fixed lights with low-energy fittings: 75.0%
Minimum: 75.0%

OK

8 Mechanical ventilation

Specific fan power : 0.22
Maximum : 0.7W/(litre/sec)

OK

9 Summertime temperature

Overheating risk (Thames Valley):

Slight

OK

OK

Based on:

Thermal mass parameter : 250.00
Overshading : Average or unknown (20-60 % sky blocked)
Orientation : NorthEast
Ventilation rate : 3.00
Blinds/curtains :
None with blinds/shutters closed 0.00% of daylight hours

10 Key features

Double-glazed, argon filled, low-E, En=0.2, hard coat U-value 1.40 W/m²K
Solid door U-value 1.40 W/m²K
Walls U-value 0.18 W/m²K
Walls U-value 0.19 W/m²K
CHP community heating

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Client Vantage Homes

Project G8-03

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Drayton Garden Village

Mid Street

UB7

South Nutfield

Surrey

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SAP 2009 input data Printed on 2 Sep 2013 at 11:55 AM**G8-03 in 107 units.mit SAP 9.90 Dwelling**

G8-03

Drayton Garden Village

UB7

Located in: England or Wales

Region: Thames Valley

UPRN:

Date of assessment: 2012-04-09

Date of certificate: 2013-09-02

Assessment type: New dwelling as designed

Related party disclosure: No related party

Property description

Dwelling type: Ground-floorflat

Ground floor (1) area = 72.94m² storey height = 2.48m

Living area: 26.43 (fraction 0.362)

Front of dwelling faces: NorthEast

Doors

Solid door area = 1.89 U = 1.40

Windows

Window area = 4.20 U = 1.40 - Double-glazed, argon filled, low-E, En=0.2, hard coat (East)

Overshading: Average or unknown (20-60 % sky blocked)

Window area = 2.63 U = 1.40 - Double-glazed, argon filled, low-E, En=0.2, hard coat (SouthEast)

Overshading: Average or unknown (20-60 % sky blocked)

Window area = 0.79 U = 1.40 - Double-glazed, argon filled, low-E, En=0.2, hard coat (West)

Overshading: Average or unknown (20-60 % sky blocked)

Window area = 2.63 U = 1.40 - Double-glazed, argon filled, low-E, En=0.2, hard coat (West)

Overshading: Average or unknown (20-60 % sky blocked)

Project Information

Building type Ground-floorflat

Reference

Date 29 August 2013

Client Vantage Homes
Vantage House
Mid Street
South Nutfield
Surrey
RH1 4JYProject G8-03
Drayton Garden Village
UB7

Tel: 01737821205

Email: info@vantage-homes.co.uk

SAP 2009 input data Printed on 2 Sep 2013 at 11:55 AM**G8-03 in 107 units.mit SAP 9.90 Dwelling**

Rooflights

Opaque Elements

Walls	area = 0.40	U = 0.19, k = 0.0	External Wall, GF - G8 - 03 - L/K/D, GFG80013
Walls	area = 7.54	U = 0.19, k = 0.0	External Wall, GF - G8 - 03 - L/K/D, GFG80013
Walls	area = 3.73	U = 0.19, k = 0.0	External Wall, GF - G8 - 03 - L/K/D, GFG80013
Walls	area = 3.46	U = 0.19, k = 0.0	External Wall, GF - G8 - 03 - B2, GFG80015
Walls	area = 2.48	U = 0.19, k = 0.0	External Wall, GF - G8 - 03 - B2, GFG80015
Walls	area = 2.53	U = 0.19, k = 0.0	External Wall, GF - G8 - 03, GFG80014
Walls	area = 6.20	U = 0.19, k = 0.0	External Wall, GF - G8 - 03 - B2, GFG80015
Walls	area = 8.19	U = 0.19, k = 0.0	External Wall, GF - G8 - 03, GFG80014
Walls	area = 11.75	U = 0.18 (Ru=0.40), k = 0.0	Seal-Exposed Wall, GF - G8 - 03, GFG80014
Walls	area = 5.50	U = 0.18 (Ru=0.40), k = 0.0	Seal-Exposed Wall, GF - G8 - 03 - B2, GFG80015
Ground floors	area = 32.68	U = 0.25, k = 0.0	Ground Floor, GF - G8 - 03, GFG80014
Ground floors	area = 13.84	U = 0.25, k = 0.0	Ground Floor, GF - G8 - 03 - B2, GFG80015
Ground floors	area = 26.43	U = 0.25, k = 0.0	Ground Floor, GF - G8 - 03 - L/K/D, GFG80013

Thermal bridges: NOT Accredited Construction Details ($\gamma = 0.1500$)

Thermal mass: User defined - 250.00

Pressure test: Yes (q50 - 5.00) : measured in this dwelling : Yes

Ventilation: Mechanical whole house extract ventilation

Approved Installer: Yes

From database:

Database revision: 341

Duct type: Rigid

Wet room count: 2 (ex. kitchens)

Number of chimneys: 0

Number of open flues: 0

Number of intermittent fans: 0

Number of passive stacks: 0

JPA Designer Version 5.04a3 014, SAP Version 9.90

Licensed to Metropolis Green (London)

B:\A - MET GREEN PROJECTS\001. Live Projects\5216 - DGV Blocks G1-G8, 107 Units, Hillingdon\001. Energy Strategy\JPA SAP\5216 - DGV - 107 units.JDP

Approval of JPA Designer by BRE applies only to the software, data is not subject to quality control procedures, users are themselves responsible for the accuracy of the data. The results of the calculation should not be accepted without first checking the input data.

Project Information

Building type Ground-floorflat

Reference

Date 29 August 2013

Client Vantage Homes

Project G8-03

Vantage House

Drayton Garden Village

Mid Street

UB7

South Nutfield

Surrey

RH1 4JY

Tel: 01737821205

Email: info@vantage-homes.co.uk

SAP 2009 input data Printed on 2 Sep 2013 at 11:55 AM**G8-03 in 107 units.mit SAP 9.90 Dwelling**

Number of sides sheltered: 2.00

Measured/design q50: 5.00

Main heating system: Community Heating Scheme

CHP Heat distribution system Piping >= 1991, pre-insulated, low temp, variable flow system

Cylinder In Dwelling No

Source: Boilers

Fuel: Heat from boilers - mains gas

Heat fraction: 0.2800

Efficiency: 90.0000%

Source: CHP

Fuel: Heat from boilers - mains gas

Heat fraction: 0.7200

Efficiency: 79.0000%

CHP heat to power ratio: 1.0800

Heat from boilers - mains gas

Charging system linked to community heating use, programmer and TRVs

Secondary heating system: None

Water heating: Community heating scheme

Cylinder volume : 110.00

Insulation type : Factory

Insulation thickness : 50.00

Cylinder heater : Boiler feed

Cylinder in heated space: Yes

Insulated primary: Yes

Cylinder thermostat: Yes

Separate timer for domestic hot water: Yes

Solar panel: no

Low energy lights: 75.0% of fixed lighting outlets

Project Information

Building type Ground-floorflat

Reference

Date 29 August 2013

Client Vantage Homes
Vantage House
Mid Street
South Nutfield
Surrey
RH1 4JY

Project G8-03
Drayton Garden Village
UB7

Tel: 01737821205

Email: info@vantage-homes.co.uk

SAP 2009 input data Printed on 2 Sep 2013 at 11:55 AM

G8-03 in 107 units.mit SAP 9.90 Dwelling

Total fixed lighting outlets: 20
Electricity tariff: Standard tariff
Photovoltaics 1: Peak kW: 0.00
Photovoltaics 2: Peak kW: 0.00
Conservatory: No
Fixed air conditioning: No
Smoke Control Area: Not specified
Additional allowable electricity generation :
0.00kg/m²/year

Predicted Energy Assessment

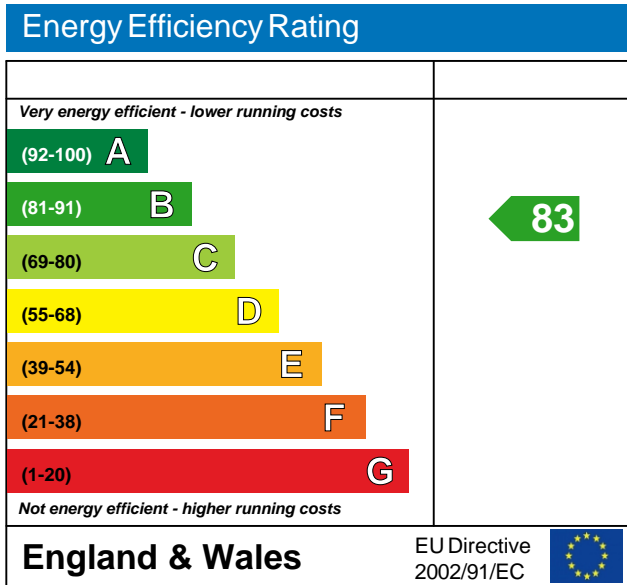
G8-03
Drayton Garden Village
UB7

Dwelling type:
Date of assessment:
Produced by
Total floor area:

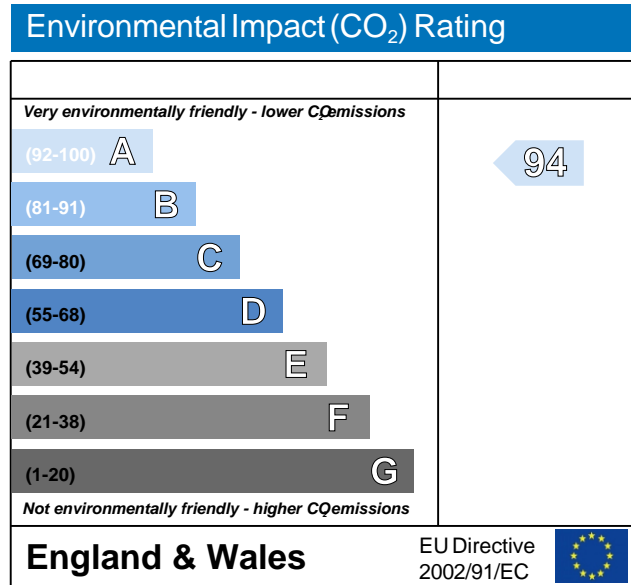
Ground-floor flat
2 September 2013
Metropolis Green (London)
73 m²

This is a Predicted Energy Assessment for a property which is not yet complete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, an Energy Performance Certificate is required providing information about the energy performance of the completed property.

Energy performance has been assessed using the SAP 2009 methodology and is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO₂) emissions.



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment.