

Summary for Input Data



Property Reference	Flat 9	Issued on Date	29/03/2023
Assessment Reference	Design V1	Prop Type Ref	Flat 2022
Property	Flat 1, Milton Mount Hill, Gravesend, DA12 1NQ		

SAP Rating	84 B	DER	3.71	TER	10.95
Environmental	97 A	% DER < TER			66.12
CO ₂ Emissions (t/year)	0.29	DFEE	33.73	TFEE	31.71
Compliance Check	See BREL	% DFEE < TFEE			-6.35
% DPER < TPER	29.58	DPER	40.40	TPER	57.37

Assessor Details		Assessor ID	Y314-0001
Client			

SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

Orientation	Northeast	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Suburban	
1.0 Property Type	Flat, Semi-Detached	
Position of Flat	Mid-floor flat	
Which Floor	2	
2.0 Number of Storeys	2	
3.0 Date Built	2023	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Precise calculation	
Thermal Mass	N/A	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Basement:	0.00 m	0.00 m ²	0.00 m
Ground floor:	1.51 m	7.20 m ²	2.50 m
1st Storey:	28.74 m	82.47 m ²	2.56 m
2nd Storey:	0.00 m	0.00 m ²	0.00 m
3rd Storey:	0.00 m	0.00 m ²	0.00 m
4th Storey:	0.00 m	0.00 m ²	0.00 m
5th Storey:	0.00 m	0.00 m ²	0.00 m
6th Storey:	0.00 m	0.00 m ²	0.00 m
7th Storey:	0.00 m	0.00 m ²	0.00 m

8.0 Living Area	33.41	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
	External Wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	62.21	49.31	0.00	None	12.90	Enter Gross Area
	Separating Wall	Cavity Wall	Cavity wall; dense plaster, lightweight aggregate block, filled cavity, any outside structure	0.25	140.00	3.79	3.79	0.50	Stairwell Access Corridor 1	0.00	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
	Party Wall 1	Filled Cavity with Edge Sealing	Dense plaster both sides. lightweight aggregate blocks, cavity or cavity fill	0.00	140.00	50.43	0.00	None

9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
	Studwork	Plasterboard on timber frame	9.00	159.08

10.0 External Roofs	
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Summary for Input Data



Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Sloped Roof	External Slope Roof	Plasterboard, insulated slope	0.13	9.00	20.80	1.40	None	0.00	Enter Gross Area	1.40
Insulated Ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.09	9.00	74.06	0.00	None	0.00	Enter Gross Area	0.00

11.1 Party Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete planks floor, screed, carpeted	30.00	89.68

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Window	Manufacturer	Window	Double Low-E Soft 0.1		Air Filled	0.63	Wood	0.70	1.20
Glazed Door	Manufacturer	Window	Double Low-E Soft 0.1		Air Filled	0.63	Wood	0.70	1.20
Solid Door	Manufacturer	Solid Door			Air Filled	0.00	Wood	0.70	1.20
Roof Window	Manufacturer	Roof Window	Double Low-E Soft 0.1		Air Filled	0.63	Wood	0.70	1.50

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
FW	Window	External Wall	North East	3.38	0
RGD	Glazed Door	External Wall	South West	7.56	0
FSD	Solid Door	External Wall	North East	1.96	0
RSR	Roof Window	Sloped Roof	North West	1.40	35

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted	Reference:	Imported
E2 Other lintels (including other steel lintels)	Non Gov Approved Schemes	6.79	0.04	0.04	E2 - LABC	No
E3 Sill	Non Gov Approved Schemes	2.26	0.03	0.03	E3 - LABC	No
E4 Jamb	Non Gov Approved Schemes	14.40	0.04	0.04	E4 - LABC	No
R1 Head of roof window	Table K1 - Default	1.80	0.24	0.24	R1 - Default	No
R2 Sill of roof window	Table K1 - Default	1.80	0.24	0.24	R2 - Default	No
R3 Jamb of roof window	Table K1 - Default	3.12	0.24	0.24	R3 - Default	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	20.03	0.00	0.00	P3 - Default	No
E18 Party wall between dwellings	Non Gov Approved Schemes	6.30	0.04	0.04	E18 - LABC	No
E16 Corner (normal)	Non Gov Approved Schemes	7.60	0.04	0.04	E16 - LABC	No
E17 Corner (inverted – internal area greater than external area)	Non Gov Approved Schemes	3.80	-0.08	-0.08	E17 - LABC	No
E11 Eaves (insulation at rafter level)	Non Gov Approved Schemes	16.74	0.04	0.04	E11 - LABC	No
E13 Gable (insulation at rafter level)	Non Gov Approved Schemes	4.07	0.05	0.05	E13 - LABC	No
R5 Ridge (inverted)	Table K1 - Default	3.30	0.12	0.12	R5 - Default	No
E12 Gable (insulation at ceiling level)	Non Gov Approved Schemes	9.12	0.05	0.05	E12 - LABC	No
R9 Roof to wall (flat ceiling)	Table K1 - Default	20.77	0.32	0.32	R9 - Default	No
P4 Party wall - Roof (insulation at ceiling level)	Non Gov Approved Schemes	8.21	0.02	0.02	P4 - LABC	No
P5 Party wall - Roof (insulation at rafter level)	Non Gov Approved Schemes	2.97	0.03	0.03	P5 - LABC	No
P2 Party wall - Intermediate floor within a dwelling	Table K1 - Default	2.77	0.00	0.00	P2 - LABC	No
E7 Party floor between dwellings (in blocks of flats)	Non Gov Approved Schemes	27.57	0.03	0.03	E7 - LABC	No

Y-value W/m²K

18.0 Pressure Testing

Designed AP₅₀ m³/(h.m²) @ 50 Pa

Property Tested?

Test Method

As Built AP₅₀ m³/(h.m²) @ 50 Pa

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

22.0 Lighting

No Fixed Lighting

Name	Efficacy	Power	Capacity	Count
Lighting 1	80.00	5	400	20

Summary for Input Data



24.0 Main Heating 1

SAP table		
Percentage of Heat	100.00	%
Database Ref. No.	0	
Fuel Type	Electricity	
SAP Code	224	
In Winter	170.00	
In Summer	170.00	
Model Name	R32 8KW	
Manufacturer	Samsung	
Controls SAP Code	2207	
Delayed Start Stat	No	
HETAS approved System	No	
Oil Pump Inside	No	
Fan Assisted Flue	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Flow Temperature	Enter value	
Flow Temperature Value	45.00	
Boiler Interlock	No	

25.0 Main Heating 2

None

26.0 Heat Networks

None

	Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1	None									
Heat source 2	None									
Heat source 3	None									
Heat source 4	None									
Heat source 5	None									

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
Waste Water Heat Recovery Instantaneous System 1	No
Waste Water Heat Recovery Instantaneous System 2	No
Waste Water Heat Recovery Storage System	No
Solar Panel	No
Water use <= 125 litres/person/day	Yes
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

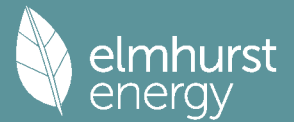
Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Bathroom	Unknown	8.00		No	
E/S	Unknown	8.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder

Summary for Input Data



Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	2.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

32.0 Photovoltaic Unit

1.0 Photovoltaic Unit	Multiple Dwellings – Connected
Export Capable Meter?	Yes
Connected To Dwelling	Yes
Diverter	No
Battery Capacity [kWh]	0.00

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
0.73	South	30°	None Or Little	No	No	1.00		

34.0 Small-scale Hydro

0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

	Typical Cost	Typical savings per year	Ratings after improvement	
			SAP rating	Environmental Impact
Solar water heating			0	0
			0	0
			0	0

Predicted Energy Assessment



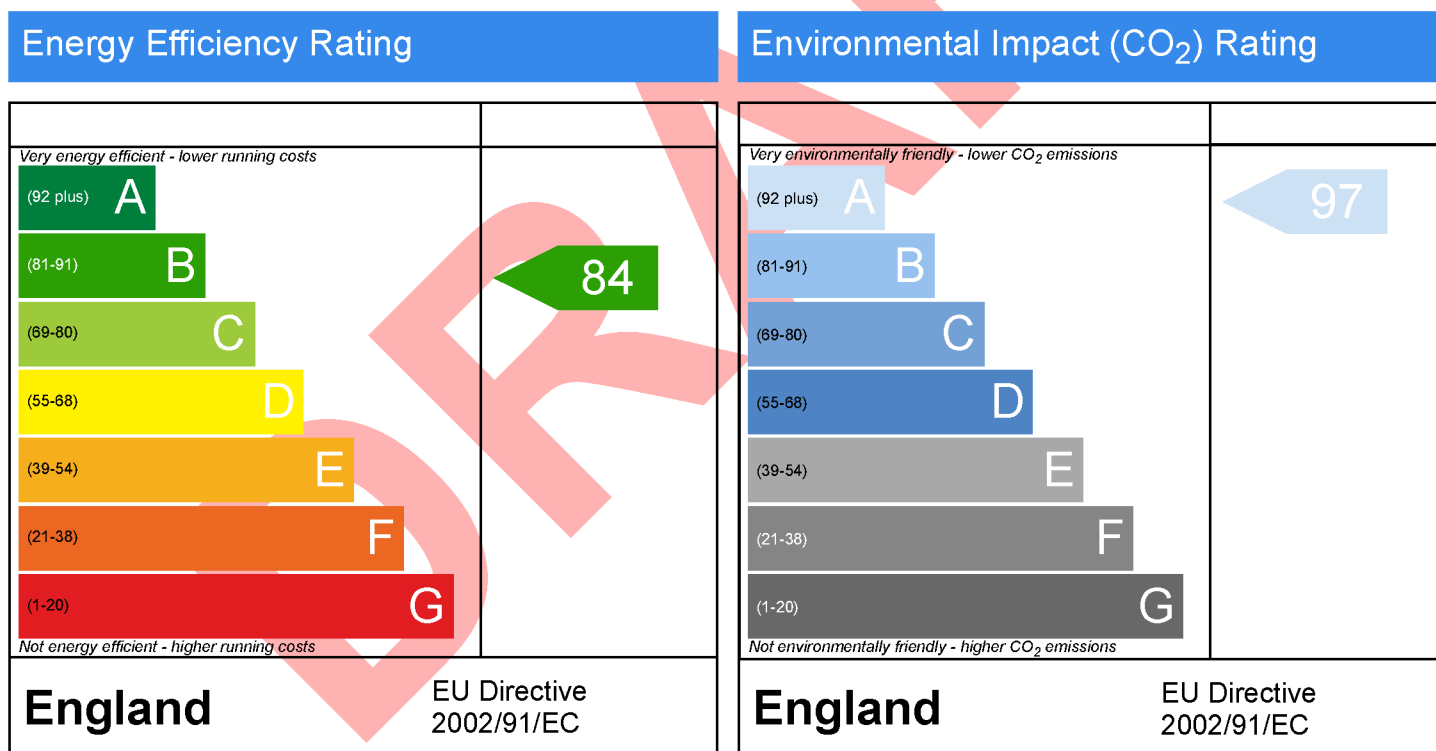
Flat 1, Milton Mount Hill, Gravesend, DA12 1NQ

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

Flat, Semi-Detached
29/03/2023
Paul Whiffin
89.67 m²

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

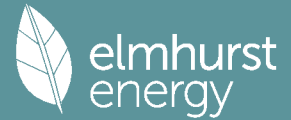
The energy performance has been assessed using the Government approved SAP 10 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.



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.

Thermal Bridging



Property Reference	Flat 9	Issued on Date	29/03/2023
Assessment Reference	Design V1	Prop Type Ref	Semi-Detached Flat
Property	Flat 1, Milton Mount Hill, Gravesend, DA12 1NQ		

SAP Rating	84 B	DER	3.71	TER	10.95
Environmental	97 A	% DER < TER			66.12
CO ₂ Emissions (t/year)	0.29	DFEE	33.73	TFEE	31.71
Compliance Check	See BREL	% DFEE < TFEE			-6.35
% DPER < TPER	29.58	DPER	40.40	TPER	57.37

Assessor Details	Mr. Paul Whiffin	Assessor ID	Y314-0001
Client			

	Junction details	Source Type	Psi (W/mK)	Length (m)	Result	Reference
External wall	E2 Other lintels (including other steel lintels)	Non Gov Approved Schemes	0.042	6.79	0.29	E2 - LABC
External wall	E3 Sill	Non Gov Approved Schemes	0.032	2.26	0.07	E3 - LABC
External wall	E4 Jamb	Non Gov Approved Schemes	0.035	14.40	0.50	E4 - LABC
External roof	R1 Head of roof window	Table K1 - Default	0.240	1.80	0.43	R1 - Default
External roof	R2 Sill of roof window	Table K1 - Default	0.240	1.80	0.43	R2 - Default
External roof	R3 Jamb of roof window	Table K1 - Default	0.240	3.12	0.75	R3 - Default
Party wall	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	0.000	20.03	0.00	P3 - Default
External wall	E18 Party wall between dwellings	Non Gov Approved Schemes	0.035	6.30	0.22	E18 - LABC
External wall	E16 Corner (normal)	Non Gov Approved Schemes	0.042	7.60	0.32	E16 - LABC
External wall	E17 Corner (inverted – internal area greater than external area)	Non Gov Approved Schemes	-0.080	3.80	-0.30	E17 - LABC
External wall	E11 Eaves (insulation at rafter level)	Non Gov Approved Schemes	0.039	16.74	0.65	E11 - LABC
External wall	E13 Gable (insulation at rafter level)	Non Gov Approved Schemes	0.052	4.07	0.21	E13 - LABC
External roof	R5 Ridge (inverted)	Table K1 - Default	0.120	3.30	0.40	R5 - Default
External wall	E12 Gable (insulation at ceiling level)	Non Gov Approved Schemes	0.049	9.12	0.45	E12 - LABC
External roof	R9 Roof to wall (flat ceiling)	Table K1 - Default	0.320	20.77	6.65	R9 - Default
Party wall	P4 Party wall - Roof (insulation at ceiling level)	Non Gov Approved Schemes	0.018	8.21	0.15	P4 - LABC
Party wall	P5 Party wall - Roof (insulation at rafter level)	Non Gov Approved Schemes	0.026	2.97	0.08	P5 - LABC
Party wall	P2 Party wall - Intermediate floor within a dwelling	Table K1 - Default	0.000	2.77	0.00	P2 - Default
External wall	E7 Party floor between dwellings (in blocks of flats)	Non Gov Approved Schemes	0.027	27.57	0.74	E7 - LABC

Total: 163.42 W/mK:
Y-Value: 0.07 W/m²K:

Overview Report

Dwelling Address	Flat 1, Milton Mount Hill, Gravesend, DA12 1NQ
Report Date	29/03/2023
Property Type	Flat, Semi-Detached
Floor Area [m ²]	90

This document is not an Energy Performance Certificate (EPC) as required by the Energy Performance of Buildings Regulations

Energy Rating

The current energy rating represents the overall energy efficiency of the dwelling. The potential energy rating is the overall energy rating of the dwelling after all of the recommend measures provided on the next page have been installed. A higher score represents a more energy efficient dwelling with lower fuel bills.

Most energy efficient - lower running costs

CURRENT

POTENTIAL

(92 plus)

A

(81-91)

B

(69-80)

C

(55-68)

D

(39-54)

E

(21-38)

F

(1-20)

G

84

84

Least energy efficient - higher running costs

Breakdown of property's energy performance

Each feature is assessed as one of the following:



Feature	Description	Energy Performance
Walls	Average thermal transmittance 0.18 W/m²K	Very Good
Roof	Average thermal transmittance 0.1 W/m²K	Very Good
Windows	High performance glazing	Good
Main heating	Air source heat pump, radiators, electric	Average
Main heating controls	Time and temperature zone control	Very Good
Secondary heating	None	
Hot water	From main system	Average
Lighting	Good lighting efficiency	Good
Air tightness	Air permeability [AP50] = 5.0 m³/h.m² (assumed)	Good

Primary Energy use

The primary energy use for this property per year is 35 kilowatt hour (kWh) per square metre

Estimated CO₂ emissions of the dwelling

The estimated CO rating provides an indication of the dwelling's impact on the environment in terms of carbon dioxide emissions; the higher the rating the less impact it has on the environment.

The estimated CO emissions for this dwellings is: **0.3** per year

With the recommended measures the potential CO emissions could be: **0** per year

Recommendations

The recommended measures provided below will help to improve the energy efficiency of the dwelling. To reach the dwelling's potential energy rating all of the recommended measures shown below would need to be installed. Having these measures installed individually or in any other order may give a different result when compared with the cumulative potential rating.

Recommended measure	Typical Yearly Saving	Potential Rating after measure installed	Cumulative savings (per year)	Cumulative Potential Rating
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Estimated energy use and potential savings

Estimated energy cost for this property over a year

£375

Over a year you could save

£0

The estimated cost and savings show how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

Contacting the assessor and the accreditation scheme

Assessor contact details		
Assessor name		
Assessor's accreditation number		
Email Address		

Accreditation scheme contact details

Accreditation scheme	Elmhurst Energy Systems Ltd
Telephone	01763 268685
Email Address	energy@atspaceltd.com

Assessment details

Related party disclosure	No related party
Date of assessment	28/03/2023
Date of certificate	28/03/2023
Type of assessment	SAP, new dwelling