

Summary for Input Data



Property Reference	Flat 6	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	85 B	DER	3.37	TER	10.42
Environmental	97 A	% DER < TER			67.66
CO ₂ Emissions (t/year)	0.26	DFEE	28.90	TFEE	29.34
Compliance Check	See BREL	% DFEE < TFEE			1.48
% DPER < TPER	32.17	DPER	36.99	TPER	54.53

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:	20.71 m	82.47 m ²	2.54 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	33.59	m ²
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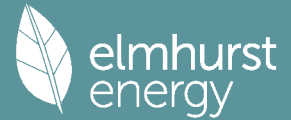
9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
	External Wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	39.40	28.46	0.00	None	10.94	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	1.83	0.50	Stairwell Access Corridor 1	1.96	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	77.80	0.00	None

9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
	Studwork	Plasterboard on timber frame	9.00	160.70

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	15.00	1.40	None	0.00	Enter Gross Area	1.40
Insulated Ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.09	9.00	71.33	0.00	None	0.00	Enter Gross Area	0.00
Flat Roof	External Flat Roof	Plasterboard, insulated flat roof	0.13	9.00	5.76	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings

Description	Storey	Construction	Area (m²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	7.20

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

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	7.20

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	Separating Wall	North East	1.96	0
RSR	Roof Window	Sloped Roof	North West	1.40	35

14.0 Conservatory

None

15.0 Draught Proofing

100

%

16.0 Draught Lobby

No

17.0 Thermal Bridging

Calculate Bridges

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
E16 Corner (normal)	Non Gov Approved Schemes	10.87	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
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	28.05	0.00	0.00	P3 - Default	No
E25 Staggered party wall between dwellings	Table K1 - Default	8.01	0.24	0.24		No
E11 Eaves (insulation at rafter level)	Non Gov Approved Schemes	4.74	0.04	0.04	E11 - LABC	No
E13 Gable (insulation at rafter level)	Non Gov Approved Schemes	2.04	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
P4 Party wall - Roof (insulation at ceiling level)	Non Gov Approved Schemes	16.42	0.02	0.02	P4 - LABC	No
P5 Party wall - Roof (insulation at rafter level)	Non Gov Approved Schemes	5.52	0.03	0.03	P5 - LABC	No
R7 Flat ceiling (inverted)	Table K1 - Default	6.00	0.12	0.12	R7 - Default	No
R6 Flat ceiling	Table K1 - Default	14.77	0.12	0.12	R6 - Default	No
E14 Flat roof	Table K1 - Default	7.92	0.16	0.16	E14 - Default	No
R8 Roof to wall (rafter)	Table K1 - Default	0.41	0.12	0.12		No
E7 Party floor between dwellings (in blocks of flats)	Non Gov Approved Schemes	19.45	0.03	0.03	E7 - LABC	No

Y-value

0.07

W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

5.01

m³/(h.m²) @ 50 Pa

Property Tested?

Yes

Test Method

Blower Door

As Built AP₅₀

0.10

m³/(h.m²) @ 50 Pa

19.0 Mechanical Ventilation

Mechanical Ventilation

Summary for Input Data



Mechanical Ventilation System Present

No

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

No

22.0 Lighting

No Fixed Lighting

No

Name
Lighting 1

Efficacy
80.00

Power
5

Capacity
400

Count
20

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

Summary for Input Data



28.1 Showers

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

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

29.0 Hot Water Cylinder	Hot Water Cylinder	
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

32.0 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

34.0 Small-scale Hydro	None	kWh/Year
Electricity Generated	0.00	
Apportioned	0.00	
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	SAP rating	Ratings after improvement	Environmental Impact
Solar water heating			0		0
			0		0
			0		0

Predicted Energy Assessment



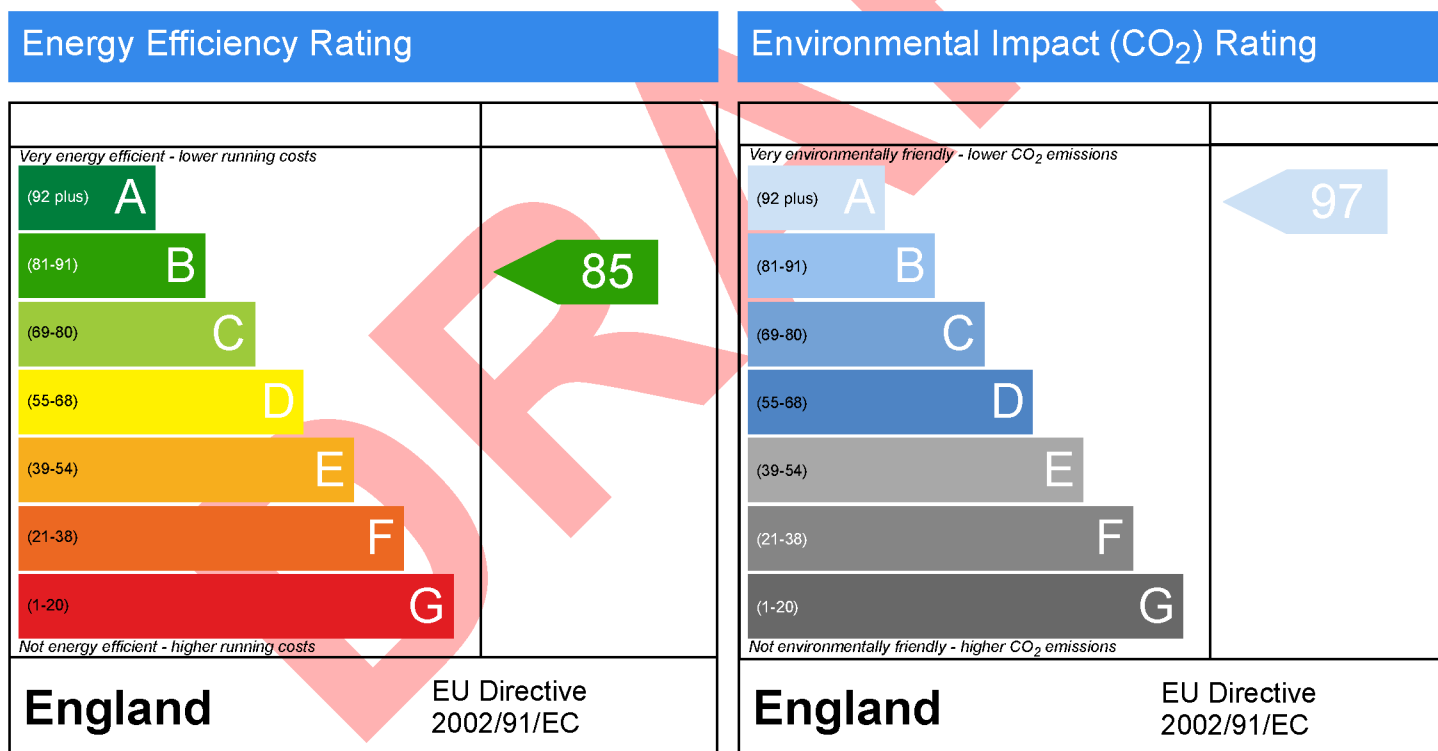
Flat 1, Milton Mount Hill, Gravesend, DA12 1NQ

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.

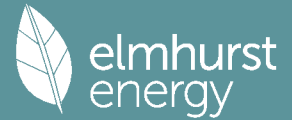
The energy performance has been assessed using the Government approved SAP 10 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.



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 6	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	85 B	DER	3.37	TER	10.42
Environmental	97 A	% DER < TER			67.66
CO ₂ Emissions (t/year)	0.26	DFEE	28.90	TFEE	29.34
Compliance Check	See BREL	% DFEE < TFEE			1.48
% DPER < TPER	32.17	DPER	36.99	TPER	54.53

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 wall	E16 Corner (normal)	Non Gov Approved Schemes	0.042	10.87	0.46	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
Party wall	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	0.000	28.05	0.00	P3 - Default
External wall	E25 Staggered party wall between dwellings	Table K1 - Default	0.240	8.01	1.92	
External wall	E11 Eaves (insulation at rafter level)	Non Gov Approved Schemes	0.039	4.74	0.18	E11 - LABC
External wall	E13 Gable (insulation at rafter level)	Non Gov Approved Schemes	0.052	2.04	0.11	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
Party wall	P4 Party wall - Roof (insulation at ceiling level)	Non Gov Approved Schemes	0.018	16.42	0.30	P4 - LABC
Party wall	P5 Party wall - Roof (insulation at rafter level)	Non Gov Approved Schemes	0.026	5.52	0.14	P5 - LABC
External roof	R7 Flat ceiling (inverted)	Table K1 - Default	0.120	6.00	0.72	R7 - Default
External roof	R6 Flat ceiling	Table K1 - Default	0.120	14.77	1.77	R6 - Default
External wall	E14 Flat roof	Table K1 - Default	0.160	7.92	1.27	E14 - Default
External roof	R8 Roof to wall (rafter)	Table K1 - Default	0.120	0.41	0.05	
External wall	E7 Party floor between dwellings (in blocks of flats)	Non Gov Approved Schemes	0.027	19.45	0.53	E7 - LABC

Total: 163.87 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

85

85

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/m ² K	Very Good
Roof	Average thermal transmittance 0.1 W/m ² K	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 m ³ /h.m ² (assumed)	Good

Primary Energy use

The primary energy use for this property per year is 32 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

£343

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	
Telephone	
Email Address	

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