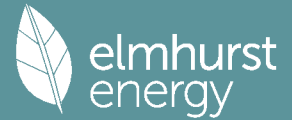


Summary for Input Data



Property Reference	Flat 2	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	87 B	DER	3.18	TER	10.73
Environmental	97 A	% DER < TER			70.36
CO ₂ Emissions (t/year)	0.21	DFEE	25.45	TFEE	27.59
Compliance Check	See BREL	% DFEE < TFEE			7.76
% DPER < TPER	36.72	DPER	35.57	TPER	56.21

Assessor Details		Assessor ID	Y314-0001
Client			

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

Orientation	Northwest	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Suburban	
1.0 Property Type	Flat, Semi-Detached	
Position of Flat	Mid-floor flat	
Which Floor	1	
2.0 Number of Storeys	1	
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:	28.84 m	76.27 m ²	2.50 m
1st Storey:	0.00 m	0.00 m ²	0.00 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	32.82	m ²
-----------------	-------	----------------

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	59.10	43.54	0.00	None	15.56 Enter Gross Area
Separating Wall	Cavity Wall	Cavity wall; dense plaster, lightweight aggregate block, filled cavity, any outside structure	0.25	140.00	13.00	13.00	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	32.38	0.00	None		

9.2 Internal Walls									
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)						
Studwork	Plasterboard on timber frame	9.00	118.76						

10.1 Party Ceilings									
---------------------	--	--	--	--	--	--	--	--	--

Summary for Input Data



Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling	Precast concrete planks floor, screed, carpeted	30.00	76.27

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	76.27

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

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
FW	Window	External Wall	North West	1.33	0
LSW	Window	External Wall	North East	3.38	0
RW	Window	External Wall	South East	1.33	0
RSGD	Glazed Door	External Wall	South West	7.56	0
FSD	Solid Door	External Wall	North West	1.96	0

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	8.27	0.04	0.04 E2 - LABC	No
E3 Sill	Non Gov Approved Schemes	3.74	0.03	0.03 E3 - LABC	No
E4 Jamb	Non Gov Approved Schemes	21.60	0.04	0.04 E4 - LABC	No
E16 Corner (normal)	Non Gov Approved Schemes	12.50	0.04	0.04 E16 - LABC	No
E17 Corner (inverted – internal area greater than external area)	Non Gov Approved Schemes	2.50	-0.80	-0.80 E17 - LABC	No
E18 Party wall between dwellings	Non Gov Approved Schemes	2.50	0.04	0.04 E18 - LABC	No
E7 Party floor between dwellings (in blocks of flats)	Non Gov Approved Schemes	57.68	0.03	0.03 E7 - LABC	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	25.91	0.00	0.00 P3 - Default	No
E25 Staggered party wall between dwellings	Table K1 - Default	7.50	0.24	0.24	No

Y-value 0.04 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 System Present No

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

No

22.0 Lighting

No Fixed Lighting No

Name	Efficacy	Power	Capacity	Count
Lighting 1	80.00	5	400	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

Summary for Input Data



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

26.0 Heat Networks

	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 E/S	Unknown	8.00		No	No
	Unknown	8.00		No	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

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	

Summary for Input Data



31.0 Thermal Store

None

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

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost

Typical savings per year

Ratings after improvement
SAP rating
0
0
0
Environmental Impact
0
0
0

Solar water heating

Predicted Energy Assessment



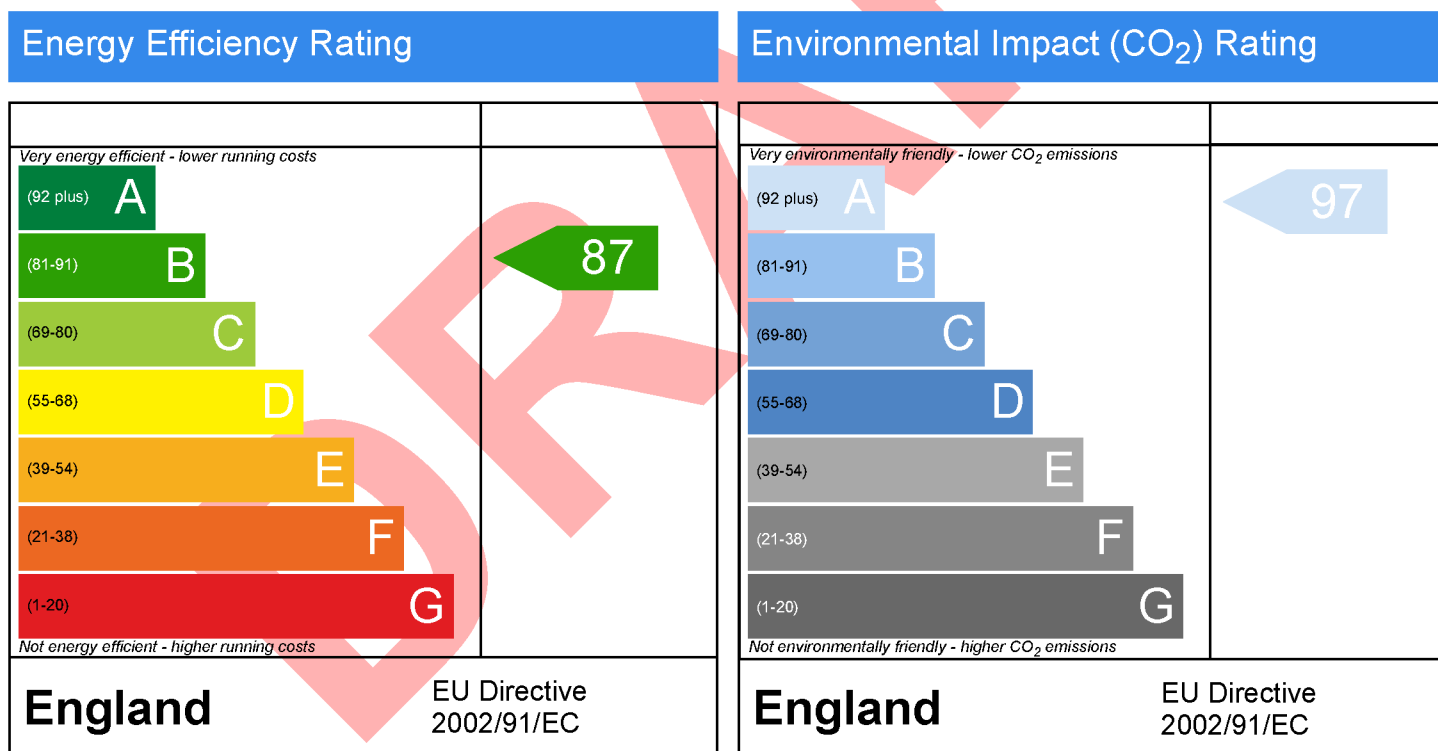
Flat 1, Milton Mount Hill, Gravesend, DA12 1NQ

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

Flat, Semi-Detached
29/03/2023
Paul Whiffin
76.27 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.

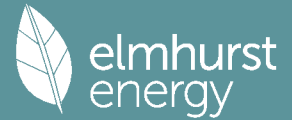
The energy performance has been assessed using the Government approved SAP 10 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.



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 2	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	87 B	DER	3.18	TER	10.73
Environmental	97 A	% DER < TER			70.36
CO ₂ Emissions (t/year)	0.21	DFEE	25.45	TFEE	27.59
Compliance Check	See BREL	% DFEE < TFEE			7.76
% DPER < TPER	36.72	DPER	35.57	TPER	56.21

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	8.27	0.35	E2 - LABC
External wall	E3 Sill	Non Gov Approved Schemes	0.032	3.74	0.12	E3 - LABC
External wall	E4 Jamb	Non Gov Approved Schemes	0.035	21.60	0.76	E4 - LABC
External wall	E16 Corner (normal)	Non Gov Approved Schemes	0.042	12.50	0.53	E16 - LABC
External wall	E17 Corner (inverted – internal area greater than external area)	Non Gov Approved Schemes	-0.800	2.50	-2.00	E17 - LABC
External wall	E18 Party wall between dwellings	Non Gov Approved Schemes	0.035	2.50	0.09	E18 - LABC
External wall	E7 Party floor between dwellings (in blocks of flats)	Non Gov Approved Schemes	0.027	57.68	1.56	E7 - LABC
Party wall	P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Table K1 - Default	0.000	25.91	0.00	P3 - Default
External wall	E25 Staggered party wall between dwellings	Table K1 - Default	0.240	7.50	1.80	

Total: 142.20 W/mK:
Y-Value: 0.04 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]	76

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

87

87

Least energy efficient - higher running costs

Breakdown of property's energy performance

Each feature is assessed as one of the following:

Very Poor	Poor	Average	Good	Very Good
-----------	------	---------	------	-----------

Feature	Description	Energy Performance
Walls	Average thermal transmittance 0.19 W/m ² K	Very Good
Windows	High performance glazing	Very 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 31 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: **0.2** per year

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

Recommendations

Overview Report

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
---------------------	-----------------------	--	-------------------------------	-----------------------------

Estimated energy use and potential savings

Estimated energy cost for this property over a year

£280

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