

PREDICTED ENERGY ASSESSMENT

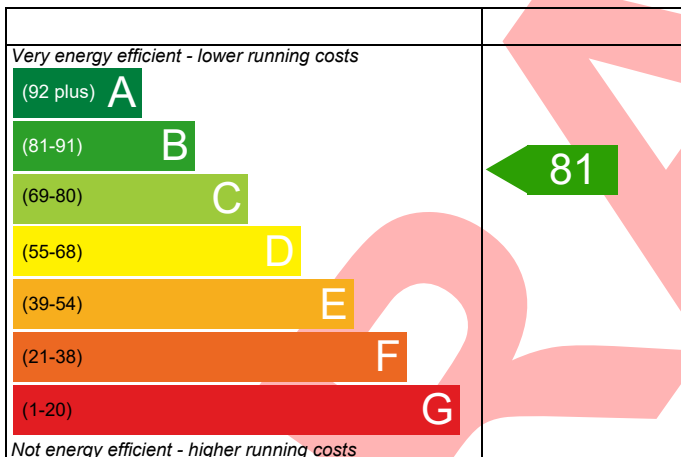
Plot 377, 2 bed,
K, B, ES,
2

Dwelling type: Flat, Mid-Terrace
Date of assessment: 12/05/2023
Produced by: Eloise Utley
Total floor area: 71.21 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 SAP2012 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.

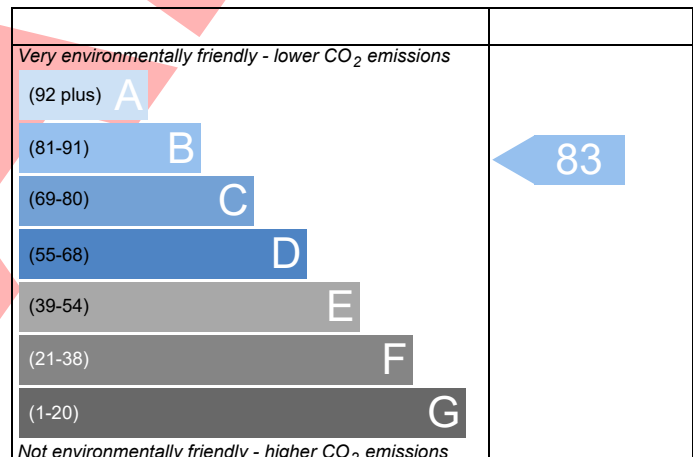
Energy Efficiency Rating



England EU Directive 2002/91/EC

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.

Environmental Impact (CO₂) Rating



England EU Directive 2002/91/EC

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.

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BUILDING REGULATION COMPLIANCE

Calculation Type: New Build (As Designed)



Property Reference	4907-0015-4290-377	Issued on Date	12/05/2023
Assessment Reference	Plot 377	Prop Type Ref	C 2F 2A (Mid)
Property	Plot 377, 2 bed, K, B, ES, 2		

SAP Rating	81 B	DER	24.11	TER	20.78
Environmental	83 B	% DER<TER	-16.03		
CO ₂ Emissions (t/year)	1.39	DFEE	34.32	TREE	31.80
General Requirements Compliance	Fail	% DFEE<TFEE	-7.92		

Assessor Details	Ms. Eloise Utley, Eloise Utley , Tel: 01884 242 050, Eloise.Utley@aessc.co.uk	Assessor ID	T714-0001
Client	Keepmoat, 4290		

SUMMARY FOR INPUT DATA FOR New Build (As Designed)

Criterion 1 – Achieving the TER and TFE rate

1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	20.78	kgCO ₂ /m ²	
Dwelling Carbon Dioxide Emission Rate (DER)	24.11	kgCO ₂ /m ²	
Excess emissions	3.33 (16.0%)	kgCO ₂ /m ²	Fail

1b TFE and DFEE

Target Fabric Energy Efficiency (TFEE)	31.80	kWh/m ² /yr	
Dwelling Fabric Energy Efficiency (DFEE)	34.32	kWh/m ² /yr	
Excess energy	2.5 (7.9%)	kWh/m ² /yr	Fail

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.18 (max. 0.30)	0.20 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Openings and curtain wall	1.40 (max. 2.00)	1.40 (max. 3.30)	Pass

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	4.00 (design value)	m ³ /(h.m ²) @ 50 Pa	
Maximum	10.0	m ³ /(h.m ²) @ 50 Pa	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Room heaters - Electric Panel, convector or radiant heaters	
Secondary heating system	None	

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5 Cylinder insulation

Hot water storage	Measured cylinder loss: 1.18 kWh/day Permitted by DBSCG 1.85	Pass
Primary pipework insulated	No primary pipework	

6 Controls

Space heating controls	Programmer and appliance thermostats	Pass
Hot water controls	Cylinderstat	Pass

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100	%	
Minimum	75	%	Pass

8 Mechanical ventilation

Continuous supply and extract system			
Specific fan power	0.61		
Maximum	1.5		Pass
MVHR efficiency	93	%	
Minimum	70	%	Pass

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (Thames Valley)	Medium	Pass
Based on:		
Overshading	Average	
Windows facing South	8.23 m ² , No overhang	
Windows facing West	16.51 m ² , No overhang	
Air change rate	4.00 ach	
Blinds/curtains	None	

Criterion 4 – Building performance consistent with DER and DFEE rate

Party Walls

Type	U-value		
Filled Cavity with Edge Sealing	0.00	W/m ² K	Pass
Filled Cavity with Edge Sealing	0.00	W/m ² K	Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.00 (design value)	m ³ /(h.m ²) @ 50 Pa	
Maximum	10.0	m ³ /(h.m ²) @ 50 Pa	Pass

10 Key features

External wall U-value	0.14	W/m ² K
Party wall U-value	0.00	W/m ² K
Party wall U-value	0.00	W/m ² K
Door U-value	1.10	W/m ² K
Door U-value	1.09	W/m ² K

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RECOMMENDATIONS

	Typical cost	Typical savings per year	Energy efficiency	Environmental impact	Result
Low energy lights			0	0	Already installed
Solar water heating			0	0	Not applicable
Photovoltaic			0	0	Not applicable
Wind turbine			0	0	Not applicable
Totals	£0	£0	B 81	B 83	

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