

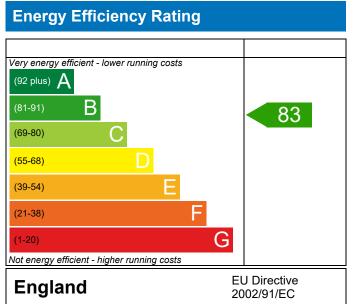
Dwelling type:FlaDate of assessment:04Produced by:HaTotal floor area:50DRRN:11

Flat, Semi-Detached 04/11/2024 Hazel Black 50.35 m<sup>2</sup> 1177-2705-2774

ENVIRONMENTAL ECONOMICS

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  $(CO_2)$  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.

## Very environmentally friendly - lower CO<sub>2</sub> emissions (92 plus) A (81-91) B (69-80) C (55-68) D (39-54) E (21-38) F (1-20) G Not environmentally friendly - higher CO<sub>2</sub> emissions EU Directive 2002/91/EC

Environmental Impact (CO<sub>2</sub>) Rating

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide  $(CO_2)$  emissions. The higher the rating the less impact it has on the environment.

This report has been produced by an accredited Elmhurst member whose work is subject to quality assurance audits. The data used to produce the report has been verified by the Elmhurst members' portal.

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Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r19

## **BUILDING REGULATION COMPLIANCE** Calculation Type: New Build (As Designed)



Property Reference	Plot B2-091 T6B GF v2		Issued on Date 04/11/2024				
Assessment	bb		Prop Type Ref				
Reference							
Property	Plot B2-091, Banbury Ro	ad, Lighthorne	e, Warwick, CV35				
SAP Rating		83 B	DER	19.28	TER	20.36	
Environmental		88 B	% DER <ter< th=""><th></th><th>5.32</th><th></th></ter<>		5.32		
CO <sub>2</sub> Emissions (t/year)		0.85	DFEE	45.40	TFEE	49.54	
General Requirements Compliance		Pass	% DFEE <tfee< th=""><th></th><th>8.34</th><th></th></tfee<>		8.34		
	Ir. Thomas Ferrett, Thoma d.co.uk	s Ferrett, Tel: (	)1582 544250, tom	.ferrett@ee-	Assessor ID	M003-0001	
Client							
SUMARY FOR INPUT D	ATA FOR New Build (As De	esigned)					
Criterion 1 – Achieving	the TER and TFEE rate						
1a TER and DER							
Fuel for main heatir	Mains g	Mains gas					
Fuel factor		1.00 (m	1.00 (mains gas)				
Target Carbon Dioxide Emission Rate (TER)		20.36			kgCO <sub>2</sub> /m <sup>2</sup>		
Dwelling Carbon Dioxide Emission Rate (DER)		19.28			kgCO <sub>2</sub> /m <sup>2</sup>	Pass	
		-1.08 (-5	5.3%)		kgCO <sub>2</sub> /m <sup>2</sup>		
1b TFEE and DFEE							
Target Fabric Energy Efficiency (TFEE)		49.54			kWh/m²/yr		
Dwelling Fabric Energy Efficiency (DFEE)		45.40			kWh/m²/yr		
		-4.1 (-8.	3%)	kWh/m²/yr	Pass		
Criterion 2 – Limits on	design flexibility						
Limiting Fabric Star	ndards						
2 Fabric U-values							
Element	Element Average		Hi	ighest			
External wall	0.27	7 (max. 0.30)	0.30) 0.29 (max. 0.70		))	Pass	
Party wall	0.00	) (max. 0.20)	20) -			Pass	
Floor	0.14	4 (max. 0.25)	0.25) 0.14 (max. 0.7		))	Pass	
Openings	Openings 1.44 (max		1.	56 (max. 3.30	))	Pass	
2a Thermal bridging	B.						
Thermal bridgin	g calculated from linear th	ermal transmit	ttances for each jur	nction			
<u>3 Air permeability</u>							
Air permeability at 50 pascals		5.01 (de	esign value)		m³/(h.m²) @ 50 Pa		
Maximum		10.0			m³/(h.m²) @ 50 P	a Pass	
Limiting System Eff	iciencies						
4 Heating efficiency							
	_						

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Main heating system	Boiler system with radiators or underfloor - Data from database Ideal LOGIC COMBI ESP1 35 Combi boiler Efficiency: 89.6% SEDBUK2009	Mains gas	Pass
	Minimum: 88.0%		
Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	No cylinder		
<u>6 Controls</u>			
Space heating controls	Time and temperature zone control		Pass
Hot water controls	No cylinder		
Boiler interlock	Yes		Pass
7 Low energy lights			
Percentage of fixed lights with low-energy fittings	100	%	
Minimum	75	%	Pass
8 Mechanical ventilation		-	
Not applicable			
Criterion 3 – Limiting the effects of heat gains in sur	nmer		
9 Summertime temperature			
Overheating risk (Midlands)	Slight		Pass
Based on:			
Overshading	Average		
Windows facing South East	3.30 m <sup>2</sup> , No overhang		
Windows facing North West	3.30 m <sup>2</sup> , No overhang		
Air change rate	3.00 ach		
Blinds/curtains	Dark-coloured curtain or roller blind, closed hours	100% of daylight	
Criterion 4 – Building performance consistent with	DER and DFEE rate		
Party Walls			
Туре	U-value		
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass
Air permeability and pressure testing			
<u>3 Air permeability</u>			
Air permeability at 50 pascals	5.01 (design value) m <sup>3</sup> /	(h.m²) @ 50 Pa	
Maximum	10.0 m <sup>3</sup> /	(h.m²) @ 50 Pa	Pass
10 Key features			
Party wall U-value	0.00	W/m²K	

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