PREDICTED ENERGY ASSESSMENT



Plot 071, Rogerson Gardens, Dwelling type: House, Semi-Detached

Preston, Date of assessment: 29/04/2022
PR3 Produced by: Hazel Black
Total floor area: 69.7 m²

DRRN: 3826-1472-2022

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.

Very energy efficient - lower running costs (92 plus) A (81-91) B (69-80) C (55-68) D (39-54) E (21-38) F (1-20) G Not energy efficient - higher running costs 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.

Very environmental Impact (CO₂) Rating Very environmentally friendly - lower CO₂ emissions (92 plus) A (81-91) B (69-80) C (55-68) D (39-54) E (1-20) G Not environmentally friendly - higher CO₂ emissions 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)



Environmental 86 B % DER <ter %="" (t="" 1.19="" 3.79="" 48.50="" 51.="" co2="" compliance="" dfee="" dfee<="" emissions="" general="" pass="" requirements="" td="" tfee="" year)=""></ter>	Property Reference	Plot 071 T50 SD			Issued on Date	29/04/2022	
Property Plot 071, Rogerson Gardens, Preston, PR3		Prop Type Ref					
SAP Rating Environmental 86 B Co_2 Emissions (t/year) 1.19 DFEE 48.50 TFEE 51. General Requirements Compliance Pass MS. Hazel Black, Hazel Black, Tel: 01582 544250, hazelb@ee-ltd.co.uk Assessor ID M003-C Client SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 — Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DEE) SAB B DER 18.52 TER 3.79 Assessor ID M003-C TFEE 51.65 kgCO ₂ /m² kgCO ₂ /m² Paget Fabric Energy Efficiency (DFEE) Assessor ID M003-C TFEE 51.65 kWh/m²/yr kWh/m²/yr							
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CO2 Emissions (t/year) General Requirements Compliance Pass MS. Hazel Black, Hazel Black, Tel: 01582 544250, hazelb@ee-ltd.co.uk MS. Hazel Black, Hazel Black, Tel: 01582 544250, hazelb@ee-ltd.co.uk SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) Dress 48.50 TFEE 48.50 M003-C Assessor ID M003-C M003-C Assessor ID M003-C Assessor ID M003-C Dwelling earling Co.uk Assessor ID M003-C Assessor ID M003-C Dwelling earling Co.uk Assessor ID M003-C Assessor ID M003-C E. C. O.9 FEE 51.65 RegCo ₂ /m ² Passessor ID M003-C FEE 51.65 RegCo ₂ /m ² Passes 48.50	SAP Rating		83 B	DER	18.52	TER	19.25
Assessor Details Ms. Hazel Black, Hazel Black, Tel: 01582 544250, hazelb@ee-ltd.co.uk Assessor ID M003-CC Client SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Mains gas Fuel factor 1.00 (mains gas) Target Carbon Dioxide Emission Rate (TER) 19.25 kgCO ₂ /m² Dwelling Carbon Dioxide Emission Rate (DER) 18.52 kgCO ₂ /m² Powelling Carbon Dioxide Emission Rate (DER) 18.52 kgCO ₂ /m² Target Fabric Energy Efficiency (TFEE) 51.65 kWh/m²/yr Dwelling Fabric Energy Efficiency (DFEE) 48.50 kWh/m²/yr	Environmental		86 B	% DER <ter< th=""><td></td><td></td></ter<>			
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Dwelling Fabric Energy Efficiency (DFEE) 48.50 kWh/m²/yr	Target Fabric Energy Efficiency (TFEE)		51.65		kWh/m²/yr		
-3.1 (-6.0%) kWh/m²/yr Pa			48.50	48.50			
			-3.1 (-6.0	1%)			
Criterion 2 – Limits on design flexibility	Criterion 2 – Limits on	design flexibility					

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.27 (max. 0.30)	0.27 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.15 (max. 0.25)	0.15 (max. 0.70)	Pass
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	Pass
Openings	1.28 (max. 2.00)	1.41 (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	5.01 (design value)	m³/(h.m²) @ 50 Pa	
Maximum	10.0	m³/(h.m²) @ 50 Pa	Pass

Limiting System Efficiencies

4 Heating efficiency

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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)



Main heating system	Boiler system with radiators or underfloor - Ma Data from database	ins gas Pass		
	Ideal LOGIC COMBI ESP1 35			
	Combi boiler			
	Efficiency: 89.6% SEDBUK2009			
	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	100	%		
fittings				
Minimum	75	% Pass		
8 Mechanical ventilation				
Not applicable				
Criterion 3 – Limiting the effects of heat gains in su	mmer			
9 Summertime temperature				
Overheating risk (West Pennines (England))	Not significant	Pass		
Based on:				
Overshading	Average			
Windows facing South East	4.32 m ² , No overhang			
Windows facing South West	1.32 m ² , No overhang			
Windows facing North West	3.84 m ² , No overhang			
Air change rate	4.00 ach			
Blinds/curtains	Dark-coloured curtain or roller blind, closed 100% of daylight			
	hours			
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				
3 Air permeability				
Air permeability at 50 pascals	5.01 (design value) m³/(h.i	m²) @ 50 Pa		
Maximum	10.0 m ³ /(h.1	m²) @ 50 Pa Pass		
10 Key features				
Party wall U-value	0.00	W/m²K		
Roof U-value	0.11	W/m²K		
Door U-value 1.00 W/m²K				

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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	£4,000 - £6,000	£23	B 84	B 88	Recommended
Photovoltaic	£3,500 - £5,500	£332	A 96	A 99	Recommended
Wind turbine			0	0	Not applicable
Totals	£7.500 - £11.500	£355	A 96	A 99	

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