



SAP Report Submission for Building Regulations Compliance

Client: Chris Walker MCIAT ICOB

Project: Unit 9, 109-113 , Hubert Road
Selly Oak, B296ET

Contact: Paul Wright
Greenhouse Energy Ratings
greenhouse.energyratings@yahoo.co.uk

Report Issue Date:

EXCELLENCE
IN ENERGY
ASSESSMENT

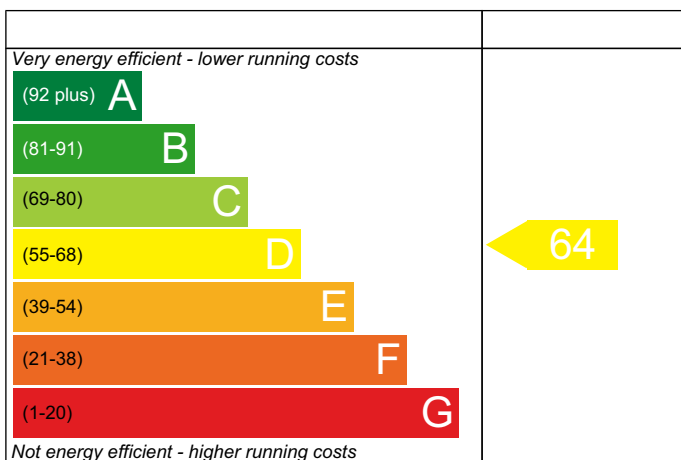
Unit 9, 109-113 , Hubert Road,
Selly Oak,
B296ET

Dwelling type: Flat, End-Terrace
Date of assessment:
Produced by: Greenhouse Energy Ratings
Total floor area: 30.3 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

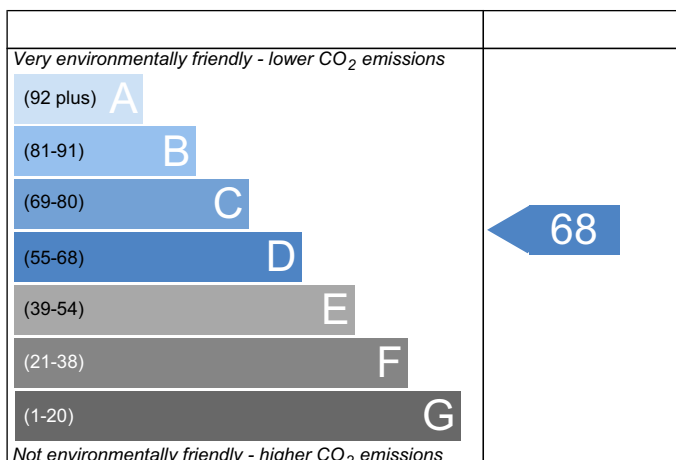


England

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.

U-VALUE CALCULATOR REPORT

Property Reference	GER/17/103/U9		Issued on Date	
Survey Reference	001	Prop Type Ref		
Project	Unit 9, 109-113 , Hubert Road, Selly Oak, B296ET			
Calculation Type	Conversion - new dwelling			

SAP Rating	64 D	DER	N/A	TER	N/A
Environmental	68 D	% DER<TER	N/A		
CO ₂ Emissions (t/year)	1.69	DFEE	N/A	TFEE	N/A
General Requirements Compliance	N/A	% DFEE<TFEE	N/A		

Surveyor	Paul Wright, Tel: 07964217667	Surveyor ID	7067-0001
Client	Chris Walker MCIAT ICOB, CID/32		

Building Elements

Wall 000001 - Masonry solid wall

Wall Type: Standard Wall

Layer	Description	Thickness (mm)	Conductivity (W/m ² K)	Resistance (m ² K/W)	Fraction (%)
Ext surface				0.0400	
Layer 1	Brick, outer leaf				
	Main construction	220	0.7700	0.2857	100.00
Layer 2	airspace/plaster dabs				
	Main construction	15	0.0882	0.1700	80.00
	Main construction	15	0.0882	0.1700	20.00
	Corrections - Cavity Unventilated, Emissivity: Normal				
Layer 3	Thermaline Plus (48mm)				
	Main construction	48	0.0384	1.2500	100.00
	Corrections - Air Gap: Level 1, Fasteners: None or plastic				
Layer 4	Plaster				
	Main construction	13	0.5700	0.0228	100.00
Int surface				0.1300	

Total resistance:	Upper limit = 1.899 m ² K/W	Lower limit = 1.899 m ² K/W	Average = 1.899 m ² K/W
	Total correction = 0.0043 m ² K/W	U-value (unrounded) = 0.53 W/m ² K	

Unheated space: None

Total thickness: 296 mm U-value: 0.53 W/m² K Kappa: n/a

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Building Elements

Floor 000002 - floor - slab-on-ground floor

Floor Type: Slab On Ground Floor

Area = 33.50 m², Perimeter = 4.30 m, Wall thickness = 300.00 mm, Soil: Clay

Horizontal edge insulation: none

Vertical edge insulation: none

Layer	Description	Thickness (mm)	Conductivity (W/m ² K)	Resistance (m ² K/W)	Fraction (%)
Ext surface				0.0400	
Layer 1	Compacted Hardcore				
	Main construction	150	1.3000	0.1154	100.00
Layer 2	Concrete, medium density				
	Main construction	100	1.3500	0.0741	100.00
Layer 3	Kooltherm K3 Floorboard (45mm +)				
	Main construction	75	0.0200	3.7500	100.00
	Corrections - Air Gap: Level 1, Fasteners: None or plastic				
Layer 4	T & G chipboard				
	Main construction	18	0.1300	0.1385	100.00
Int surface				0.1700	

Total resistance: Upper limit = 4.078 m² K/W Lower limit = 4.078 m² K/W Average = 4.078 m² K/W
Total correction = 0.0085 m² K/W U-value (unrounded) = 0.11 W/m² K

Unheated space: None

Total thickness: 343 mm U-value: 0.11 W/m² K Kappa: n/a

SUMMARY FOR INPUT DATA

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SUMMARY FOR INPUT DATA FOR: Conversion - new dwelling

Orientation	North West
Property Tenure	Rented (private)
Transaction Type	Rental
1.0 Property Type	Flat, End-Terrace
2.0 Number of Storeys	1
3.0 Date Built	2017
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground Floor:	11.50 m	30.30 m ²	2.60 m

7.0 Living Area	18.00	m ²
8.0 Thermal Mass Parameter	Simple calculation - Medium	
Thermal Mass	250.00	kJ/m ² K

9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
External Wall 1	Solid Wall	Other		0.53	29.90	28.30

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Party Wall 1	Solid Wall	Single plasterboard on dabs on both sides, dense blocks, cavity or cavity fill		0.00	30.00

10.1 Party Ceilings	Description	Construction	Area (m ²)
Party Ceilings 1	Timber I-joists, carpeted		30.30

11.0 Heat Loss Floors	Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Heat Loss Floor 1	Ground Floor - Solid	Slab on ground, screed over insulation		0.11	30.30

12.0 Opening Types	Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	Solar Trans	Frame Type	Frame Factor	U Value (W/m ² K)
Front	Manufacture r	Window	Double Low-E Soft 0.05				0.63		0.70	1.60

13.0 Openings

SUMMARY FOR INPUT DATA

Calculation Type: Conversion - new dwelling

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m ²)	Curtain Closed
Front	Window	[1] External Wall 1	North East	None	0.00					1.60	
14.0 Conservatory		None									
15.0 Draught Proofing		100 %									
16.0 Draught Lobby		Yes									
17.0 Thermal Bridging		Default									
Y-value		0.150 W/m ² K									
18.0 Pressure Testing		No									
19.0 Mechanical Ventilation											
Summer Overheating											
Windows open in hot weather		Trickle vents only									
Cross ventilation possible		No									
Night Ventilation		Yes									
Air change rate		0.10									
Mechanical Ventilation											
Mechanical Ventilation System Present		No									
20.0 Fans, Open Fireplaces, Flues											
		MHS	SHS	Other	Total						
Number of Chimneys		0	0	0	0						
Number of open flues		0	0	0	0						
Number of intermittent fans					2						
Number of passive vents					0						
Number of flueless gas fires					0						
21.0 Fixed Cooling System		No									
22.0 Lighting											
Internal											
Total number of light fittings		5									
Total number of L.E.L. fittings		5									
Percentage of L.E.L. fittings		100.00 %									
External											
External lights fitted		No									
23.0 Electricity Tariff		Standard									
24.0 Main Heating 1		Manufacturer									
Description		TBC									
Percentage of Heat		100 %									
Main Heating		SEB									
SAP Code		402									
Efficiency (Manufacturer)		100.0 %									
Model Name		TBC									
Manufacturer		TBC									
Controls		CSB Automatic charge control									
Sap Code		2402									
25.0 Main Heating 2		None									

SUMMARY FOR INPUT DATA

Calculation Type: Conversion - new dwelling

27.0 Secondary Heating

Secondary Heating	REA
Description	SAP table
SHS efficiency	Electricity REA Panel, convector or radiant heaters
SAP Code	100.00 %
	691

28.0 Water Heating

Water Heating	HES Instantaneous at point of use
Flue Gas Heat Recovery System	Independent
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
SAP Code	909

29.0 Hot Water Cylinder

None

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None