

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.53
Printed on 09 August 2022 at 09:14:51

Project Information:

Assessed By: Leanne Brooksbank (STRO004241) **Building Type:** Semi-detached House

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 84.68m²

Site Reference : New Project

Plot Reference: Plot 24 - TF

Address : Plot 24, Land off Mill Lane, Woodhall Spa

Client Details:

Name: Manorcrest Homes Ltd

Address : The Circus, Belton Park Road, Skegness, PE25 1GU

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas

Fuel factor: 1.00 (mains gas)

Target Carbon Dioxide Emission Rate (TER) 18.1 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER) 17.85 kg/m² **OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE) 52.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE) 48.3 kWh/m² **OK**

2 Fabric U-values

Element	Average	Highest	
External wall	0.28 (max. 0.30)	0.28 (max. 0.70)	OK
Party wall	0.00 (max. 0.20)	-	OK
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	OK
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	OK
Openings	1.41 (max. 2.00)	1.50 (max. 3.30)	OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	4.50 (design value)	
Maximum	10.0	OK

4 Heating efficiency

Main Heating system:	Database: (rev 503, product index 017930): Boiler systems with radiators or underfloor heating - mains gas Brand name: Viessmann Model: Vitodens 100-W Model qualifier: B1KC-35 (Combi) Efficiency 89.1 % SEDBUK2009 Minimum 88.0 %	OK
Secondary heating system:	None	

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5 Cylinder insulation

Hot water Storage: No cylinder

6 Controls

Space heating controls TTZC by plumbing and electrical services **OK**
 Hot water controls: No cylinder thermostat

No cylinder
 Boiler interlock: Yes **OK**

7 Low energy lights

Percentage of fixed lights with low-energy fittings 100.0%
 Minimum 75.0% **OK**

8 Mechanical ventilation

Not applicable

9 Summertime temperature

Overheating risk (East Pennines): Not significant **OK**

Based on:

Overshading: Average or unknown
 Windows facing: North East 5.65m²
 Windows facing: North West 1.44m²
 Windows facing: South West 7.4m²
 Ventilation rate: 8.00
 Blinds/curtains: None

10 Key features

Roofs U-value 0.11 W/m²K
 Party Walls U-value 0 W/m²K
 Floors U-value 0.12 W/m²K

Predicted Energy Assessment



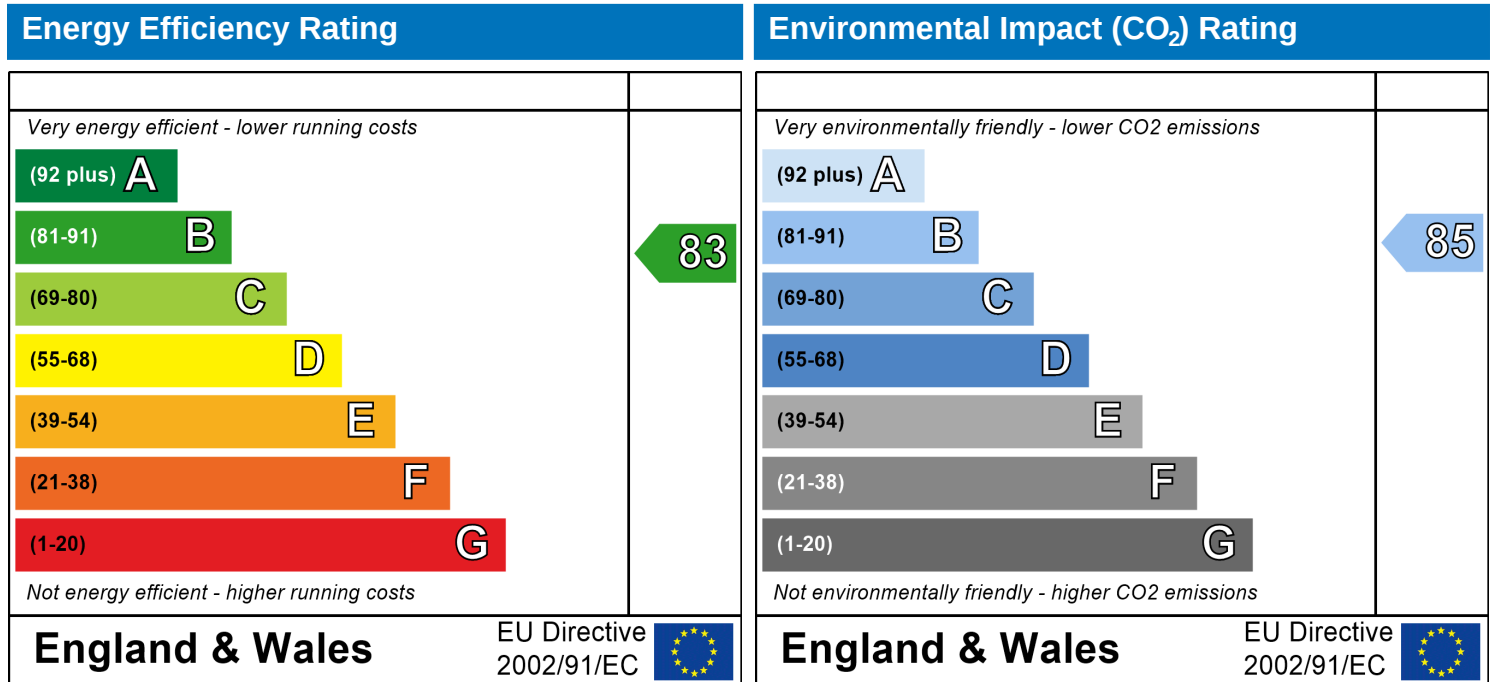
Plot 24
Land off Mill Lane
Woodhall Spa

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

Semi-detached House
12 July 2022
Leanne Brooksbank
84.68 m²

This is a Predicted Energy Assessment for a property which is not yet complete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, an Energy Performance Certificate is required providing information about the energy performance of the completed property.

Energy performance has been assessed using the SAP 2012 methodology and is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact 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.

SAP 2012 Overheating Assessment

Calculated by Stroma FSAP 2012 program, produced and printed on 09 August 2022

Property Details: Plot 24 - TF

Dwelling type:	Semi-detached House
Located in:	England
Region:	East Pennines
Cross ventilation possible:	Yes
Number of storeys:	2
Front of dwelling faces:	North East
Overshading:	Average or unknown
Overhangs:	None
Thermal mass parameter:	Indicative Value Low
Night ventilation:	False
Blinds, curtains, shutters:	None
Ventilation rate during hot weather (ach):	8 (Windows fully open)

Overheating Details:

Summer ventilation heat loss coefficient:	558.89	(P1)
Transmission heat loss coefficient:	64.9	
Summer heat loss coefficient:	623.79	(P2)

Overhangs:

Orientation:	Ratio:	Z_overhangs:
North East (Front windows)	1	1
North West (Side windows)	1	1
South West (Rear windows)	1	1

Solar shading:

Orientation:	Z blinds:	Solar access:	Overhangs:	Z summer:	
North East (Front windows)	0.9	1	0.9		(P8)
North West (Side windows)	0.9	1	0.9		(P8)
South West (Rear windows)	0.9	1	0.9		(P8)

Solar gains:

Orientation	Area	Flux	g_	FF	Shading	Gains
North East (Front windows) 6.9 x	5.65	91.1	0.63	0.7	0.9	183.99
North West (Side windows) 3.9 x	1.44	91.1	0.63	0.7	0.9	46.81
South West (Rear windows) 0.9 x	7.4	113.91	0.63	0.7	0.9	301.06
Total						531.86 (P3/P4)

Internal gains:

	June	July	August	
Internal gains	449.67	431.23	439.6	
Total summer gains	1008.66	963.1	899.5	(P5)
Summer gain/loss ratio	1.62	1.54	1.44	(P6)
Mean summer external temperature (East Pennines)	14.6	16.6	16.4	
Thermal mass temperature increment	1.3	1.3	1.3	
Threshold temperature	17.52	19.44	19.14	(P7)
Likelihood of high internal temperature	Not significant	Not significant	Not significant	

Assessment of likelihood of high internal temperature: Not significant