Building Regulations England Part L (BREL) Compliance Report

Approved Document L1 2021 Edition, England assessed using Kaizen SAP 10.2 SAP 10 program, 1.0.1

Date: Fri 15 Nov 2024 12:11:31

Project Information			
Assessed By	Chris Nicholls	Building Type	Flat, Semi-detached
OCDEA Registration	KAZN000001	Assessment Date	2024-11-15

Dwelling Details			
Assessment Type	As built	Total Floor Area	75 m^2
Site Reference	Plot 08	Plot Reference	008
Address	16 Oxley Road, HUDDERSFIELD, HD2 1NX		

Client Details	
Name	Not Given
Company	Not Given
Address	Not Provided, Not Provided, AL9 5HZ

This report covers items included within the SAP calculations. It is not a complete report of regulations compliance.

1a Target emission rate and dwelling emission rate		
Fuel for main heating system	Electricity	
Target carbon dioxide emission rate	*11.49 $kgCO_2/m^2$*	
Dwelling carbon dioxide emission rate	5.60 $kgCO_2/m^2$	OK
1b Target primary energy rate and dwelling primary energy		
Target primary energy	*60.55 kWh_{PE}/m^2*	
Dwelling primary energy	64.12 kWh_{PE}/m^2	FAIL
1c Target fabric energy efficiency and dwelling fabric energy efficiency		
Target fabric energy efficiency	*29.46 kWh/m^2*	
Dwelling fabric energy efficiency	28.15 kWh/m^2	OK

2a Fabric U-values				
Element	***Maximum permitted average U-Value [W/m^2K]***	**Dwelling average U-Value [W/m^2K]**	**Element with highest individual U-Value**	
External walls	*0.26*	0.16	Render (0.17)	OK
Party walls	*0.2*	0	Party Wall (0)	**N/A**
Curtain walls	*1.6*	0	Corridor (0.22)	OK
Floors	*0.18*	N/A	N/A	**N/A**
Roofs	*0.16*	0.12	Rf - Ins Rafter (0.14)	OK
Windows, doors, and roof windows	*1.6*	1.11	L Side (1.4)	OK
Rooflights	*2.2*	N/A	N/A	**N/A**

2b Envelope elements (better than typically expected values are flagged with a subsequent (!))		
Name	**Net area [m^2]**	**U-Value [W/m^2K]**
Exposed wall: Render	9.123	0.17
Exposed wall: Corridor	22.098	0.22
Exposed wall: Wl - Stud Ashlar	23.24	0.16
Party wall: Party Wall	12.708	0 **(!)**
Exposed roof: Rf - Ins Rafter	52.402	0.14
Exposed roof: Rf - Flat Roof	32.256	0.09 **(!)**

2c Openings (better than typically expected values are flagged with a subsequent (!))				
Name	**Area [m^2]**	**Orientation**	**Frame factor**	**U-Value [W/m^2K]**
L Side, Door (1)	1.9	West	0.7	1.4
R Side, RoofLights (1)	3.528	East	0.7	1 **(!)**
Rear, RoofLights (2)	1.764	North	0.7	1 **(!)**

2d Thermal bridging (better than typically expected values are flagged with a subsequent (!))

Building part **1 - Main Dwelling**: Thermal bridging calculated from linear thermal transmittances for each junction

Main element	Junction detail	Source	Psi value [W/mK]	Drawing / reference
External wall	E2: Other lintels (including other steel lintels)	Government-approved scheme	0.324	Not Provided

Main element	Junction detail	Source	Psi value [W/mK]	Drawing / reference
External wall	E3: Sill	Government-approved scheme	0.019 **(!)**	Not Provided
External wall	E7: Party floor between dwellings (in blocks of flats)	Government-approved scheme	0.032 **(!)**	Not Provided
External wall	E11: Eaves (insulation at rafter level)	Government-approved scheme	0.021 **(!)**	Not Provided
External wall	E13: Gable (insulation at rafter level)	Government-approved scheme	0.06	Not Provided
External wall	E14: Flat roof	Government-approved scheme	0.04	Not Provided
External wall	E16: Corner (normal)	Government-approved scheme	0.041	Not Provided
External wall	E17: Corner (inverted - internal area greater than external area)	SAP table default	-0.084	Not Provided
External wall	E18: Party wall between dwellings	Government-approved scheme	0.06	Not Provided
Party wall	P2: Intermediate floor within a dwelling	SAP table default	0 **(!)**	Not Provided
Party wall	P4: Roof (insulation at ceiling level)	Government-approved scheme	0.12	Not Provided
Party wall	P5: Roof (insulation at rafter level)	Government-approved scheme	0.04	Not Provided
Roof	R1: Head of roof window	Government-approved scheme	0.08	Not Provided
Roof	R2: Sill of roof window	Government-approved scheme	0.06	Not Provided
Roof	R3: Jamb of roof window	Government-approved scheme	0.08	Not Provided
Roof	R4: Ridge (vaulted ceiling)	Government-approved scheme	0.08	Not Provided
Roof	R8: Roof to wall (rafter)	Government-approved scheme	0.04	Not Provided
Roof	R6: Flat ceiling	Government-approved scheme	0.06	Not Provided

3 Air permeability (better than typically expected values are flagged with a subsequent (!))		
Maximum permitted air permeability at 50Pa	*8 m^3/hm^2*	
Dwelling air permeability at 50Pa	4 m^3/hm^2, Design value	OK
Air permeability test certificate reference		

4 Space heating	
Main heating system 1: Boiler with radiators or underfloor heating - Electricity	
Efficiency	200%
Emitter type	Radiators
Flow temperature	
System type	Gas1998OrLater
Manufacturer	
Model	
Commissioning	
Secondary heating system: N/A	
Fuel	N/A
Efficiency	N/A
Commissioning	

5 Hot water	
Cylinder/store - type: Cylinder	
Capacity	200 litres
Declared heat loss	1.61 kWh/day
Primary pipework insulated	Yes
Manufacturer	
Model	
Commissioning	
Waste water heat recovery system 1 - type: N/A	
Efficiency	
Manufacturer	
Model	

6 Controls	
Main heating 1 - type: Programmer, room thermostat, and TRVs	
Function	
Ecodesign class	
Manufacturer	
Model	

Water heating - type: Cylinder thermostat and HW separately timed	
Manufacturer	
Model	

7 Lighting		
Minimum permitted light source efficacy	*75 lm/W*	
Lowest light source efficacy	101.25 lm/W	**OK**
External lights control	N/A	

8 Mechanical ventilation		
System type: N/A		
Maximum permitted specific fan power	*N/A*	
Specific fan power	N/A	**N/A**
Minimum permitted heat recovery efficiency	*N/A*	
Heat recovery efficiency	1%	**N/A**
Manufacturer/Model		
Commissioning		

9 Local generation	
Technology type: **Photovoltaic system (1)**	
Peak power	2.006 kWp
Orientation	North East
Pitch	45°
Overshading	None or very little
Manufacturer	Not Provided
MCS certificate	

10 Heat networks
N/A

11 Supporting documentary evidence	
Documentary evidence identified in 11.1 and 11.2 is needed to confirm the data values used for any calculations undertaken, manufacturer declarations made, and tests performed as reflected in this "As built" BREL Compliance Report are correct. 11.1 SAP Conventions, Appendix 1 (documentary evidence) schedules the minimum documentary evidence required. 11.2 Indicative photographic evidence of key stages during construction (guidance within Approved Document L, Volume 1 – Appendix B) that confirms the products identified in this BREL Compliance Report are used in this dwelling, and workmanship is of sufficient quality to support the calculated values claimed in 2a to 2d.	

12 Declarations	
a. Assessor Declaration	
This declaration by the assessor is confirmation that the contents of this BREL Compliance Report are a true and accurate reflection based upon the design and construction information submitted for this dwelling for the purpose of carrying out the assessment, and that the supporting documentary evidence (identified in 11.1 and 11.2) pursuant to Part L of the Building Regulations 2010 (as amended) has been reviewed in the course of preparing this BREL Compliance Report.	
Signed: Name: Chris Nicholls	Assessor ID: KAZN000001 Date: 15 Nov 2024
b. Client Declaration	
This declaration by the client is confirmation that the dwelling has been constructed and completed according to the specifications set out in this BREL Compliance Report, and that photographic evidence of key stages, as described in 11.2, has been provided to the Assessor for this dwelling.	
Signed: Name: Not Given	Organisation: Not Given Date: