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: Mon 24 Feb 2025 13:10:47

Project Information			
Assessed By	Joanna Povey	Building Type	House, Semi-detached
OCDEA Registration	KAZN000004	Assessment Date	2025-02-24

Dwelling Details			
Assessment Type	As built	Total Floor Area	71 m^2
Site Reference	Coppin Street	Plot Reference	Coppin Street
Address	Land between 15-16, Coppin Street, Deal, CT14 6JL		

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	*14.79 $kgCO_2/m^2$*	
Dwelling carbon dioxide emission rate	8.93 $kgCO_2/m^2$	OK
1b Target primary energy rate and dwelling primary energy		
Target primary energy	*79.25 kWh_{PE}/m^2*	
Dwelling primary energy	93.72 kWh_{PE}/m^2	FAIL
1c Target fabric energy efficiency and dwelling fabric energy efficiency		
Target fabric energy efficiency	*66.99 kWh/m^2*	
Dwelling fabric energy efficiency	64.38 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*	0.2	Wl - Rooflight Stud (0.29)	OK
Party walls	*0.2*	0	Party Wall 1 (0)	**N/A**
Curtain walls	*1.6*	0	N/A	**N/A**
Floors	*0.18*	0.12	Flr - Ground (0.12)	OK
Roofs	*0.16*	0.12	Rf - Flat Roof (0.14)	OK
Windows, doors, and roof windows	*1.6*	1.03	Front (1.2)	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: Wl - Brick EW01	27.27	0.21
Exposed wall: Wl - Brick EW02	47.04	0.2
Exposed wall: Wl - Brick EW05	13.12	0.16
Exposed wall: Wl - Rooflight Stud	2.95	0.29
Exposed wall: Wl - Clad EW04	9.975	0.19
Party wall: Party Wall 1	16.67	0 **(!)**
Ground floor: Flr - Ground	70.87	0.12
Exposed roof: Rf - Ins Rafter	54.7	0.11
Exposed roof: Rf - Flat Roof	14.477	0.14

2c Openings (better than typically expected values are flagged with a subsequent (!))				
Name	**Area [m^2]**	**Orientation**	**Frame factor**	**U-Value [W/m^2K]**
Front, Door (1)	1.894	North	0.7	1.2
R Side, Windows (1)	7.659	West	0.8	1 **(!)**
R Side, Windows (2)	11.305	West	0.8	1 **(!)**
Front, Windows (3)	4.313	North	0.8	1 **(!)**
Rear, Windows (4)	3.944	South	0.8	1 **(!)**
Horizontal, RoofLights (1)	3.913	East	0.8	1.1 **(!)**
Horizontal, RoofLights (2)	1.95	East	0.8	1.1 **(!)**

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)	Calculated by person with suitable expertise	0.105	Not Provided
External wall	E4: Jamb	Calculated by person with suitable expertise	0.058	Not Provided
External wall	E3: Sill	Calculated by person with suitable expertise	0.092	Not Provided
External wall	E5: Ground floor (normal)	Calculated by person with suitable expertise	0.133	Not Provided
External wall	E24: Eaves (insulation at ceiling level - inverted)	Calculated by person with suitable expertise	0.058	Not Provided
External wall	E11: Eaves (insulation at rafter level)	Calculated by person with suitable expertise	0.036 **(!)**	Not Provided
External wall	E13: Gable (insulation at rafter level)	Calculated by person with suitable expertise	0.074	Not Provided
External wall	E14: Flat roof	Calculated by person with suitable expertise	0.051	Not Provided
External wall	E15: Flat roof with parapet	Calculated by person with suitable expertise	0.243	Not Provided
External wall	E16: Corner (normal)	Calculated by person with suitable expertise	0.09	Not Provided
External wall	E17: Corner (inverted - internal area greater than external area)	SAP table default	0 **(!)**	Not Provided
Roof	R4: Ridge (vaulted ceiling)	Calculated by person with suitable expertise	0.022 **(!)**	Not Provided
External wall	E2: Other lintels (including other steel lintels)	Calculated by person with suitable expertise	0.298	Not Provided
External wall	E5: Ground floor (normal)	Calculated by person with suitable expertise	0.086	Not Provided
Party wall	P1: Ground floor	Calculated by person with suitable expertise	0.16	Not Provided
External wall	E25: Staggered party wall between dwellings	Calculated by person with suitable expertise	0.12	Not Provided
External wall	E24: Eaves (insulation at ceiling level - inverted)	SAP table default	0.15	Not Provided
Party wall	P5: Roof (insulation at rafter level)	Calculated by person with suitable expertise	0.24	Not Provided
Roof	R11: Upstands or kerbs of rooflights	SAP table default	0.24	Not Provided
Roof	R3: Jamb of roof window	Calculated by person with suitable expertise	0.011 **(!)**	Not Provided
Roof	R8: Roof to wall (rafter)	SAP table default	0.12	Not Provided
External wall	E5: Ground floor (normal)	Calculated by person with suitable expertise	0.099	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	3.21 m^3/hm^2, Measured value **(!)**	OK
Air permeability test certificate reference		

4 Space heating	
Main heating system 1: Heat pump with radiators or underfloor heating - Electricity	
Efficiency	170%
Emitter type	Fan coil units
Flow temperature	
System type	HeatPumpsWet
Manufacturer	
Model	
Commissioning	

Main heating system 2: Heat pump with radiators or underfloor heating - Electricity		
Efficiency	230.96585827655963%	
Emitter type	Radiators	
Flow temperature		
System type	HeatPumpsWet	
Manufacturer	Samsung Electronics	
Model	AE050JXYDEH	
Commissioning		
Secondary heating system: N/A		
Fuel	N/A	
Efficiency	N/A	
Commissioning		

5 Hot water		
Cylinder/store - type: N/A		
Capacity	210 litres	
Declared heat loss	1.89 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: Time and temperature zone control by arrangement of plumbing and electrical services		
Function		
Ecodesign class		
Manufacturer		
Model		
Main heating 2 - type: Not applicable		
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	N/A	**N/A**
Manufacturer/Model		
Commissioning		

9 Local generation
N/A

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:	Assessor ID: KAZN000004
Name: Joanna Povey	Date: 24 Feb 2025

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:	Organisation: Not Given
Name: Not Given	Date: