

# Building Regulations England Part L (BREL) Compliance Report

Approved Document L1 2021 Edition, England assessed by BRE SAP 10.2 SAP 10 program, 1.0.1-alpha

Date: Tue 14 Jun 2022 08:15:10

**This report forms part of a multiple dwelling assessment using a floor area-weighted average calculation**

Project Information			
Assessed By	John Smith	Building Type	House, Detached
OCDEA Registration	AAA_123456	Assessment Date	2013-11-09

Dwelling Details			
Assessment Type	As designed	Total Floor Area	149 m <sup>2</sup>
Site Reference	dummygXXrulc	Plot Reference	dummyXJcHha0
Address	BD8 7LL		

Client Details	
Name	Dr yCuh6Co
Company	Z7uRdZJriw inc
Address	99 Test Street, tznBUbEville, OB3IIJEsire, Avant Town, AB1 2CD

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	Mains gas		
Target carbon dioxide emission rate	13.07 kgCO <sub>2</sub> /m <sup>2</sup>		
Dwelling carbon dioxide emission rate	13.22 kgCO <sub>2</sub> /m <sup>2</sup>		FAIL
1b Target primary energy rate and dwelling primary energy			
Target primary energy	71.82 kWh <sub>PE</sub> /m <sup>2</sup>		
Dwelling primary energy	79.48 kWh <sub>PE</sub> /m <sup>2</sup>		FAIL
1c Target fabric energy efficiency and dwelling fabric energy efficiency			
Target fabric energy efficiency	43.4 kWh/m <sup>2</sup>		
Dwelling fabric energy efficiency	43.2 kWh/m <sup>2</sup>		OK

2a Fabric U-values				
Element	Maximum permitted average U-Value [W/m <sup>2</sup> K]	Dwelling average U-Value [W/m <sup>2</sup> K]	Element with highest individual U-Value	
External walls	0.26	0.15	Walls (1) (0.15)	OK
Party walls	0.2	N/A	N/A	N/A
Curtain walls	1.6	N/A	N/A	N/A
Floors	0.18	0.16	dummy7XSUVYg (0.16)	OK
Roofs	0.16	0.12	Roof (1) (0.12)	OK
Windows, doors, and roof windows	1.6	1.26	12 (1.5)	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 <sup>2</sup> ]	U-Value [W/m <sup>2</sup> K]	
Exposed wall: Walls (1)	172.23	0.15	
Ground floor: dummy7XSUVYg	74.3	0.16	
Exposed roof: Roof (1)	74.3	0.12	

2c Openings (better than typically expected values are flagged with a subsequent (!))				
Name	Area [m <sup>2</sup> ]	Orientation	Frame factor	U-Value [W/m <sup>2</sup> K]
1, Windows (1)	2.16	East	0.7	1.2
2, Windows (1)	2.43	East	0.7	1.2
3, Windows (1)	1.08	East	0.7	1.2
4, Windows (1)	2.16	East	0.7	1.2
5, Windows (1)	2.16	East	0.7	1.2
6, Windows (1)	1.44	East	0.7	1.2
7, Windows (1)	1.26	East	0.7	1.2
8, Windows (1)	2.16	East	0.7	1.2
9, Windows (1)	1.26	East	0.7	1.2
10, Windows (1)	1.89	East	0.7	1.2
11, Windows (2)	5.04	East	0.7	1.3
12, Doors	1.89	East	N/A	1.5
13, Doors	1.89	East	N/A	1.5

Name	Area [m <sup>2</sup> ]	Orientation	Frame factor	U-Value [W/m <sup>2</sup> K]
14, Windows (1)	0.63	North	0.7	1.2
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)	Not government-approved scheme	0.2	testpsirefUFbRnEQ
External wall	E3: Sill	Not government-approved scheme	0.038 (!)	testpsirefGfRrXx8
External wall	E4: Jamb	Not government-approved scheme	0.038 (!)	testpsirefHwLJ8fw
External wall	E5: Ground floor (normal)	Not government-approved scheme	0.062	testpsirefO-4M55A
External wall	E6: Intermediate floor within a dwelling	Not government-approved scheme	0.052	testpsirefUp5v1m8
External wall	E10: Eaves (insulation at ceiling level)	Not government-approved scheme	0.041	testpsirefVjBd90o
External wall	E12: Gable (insulation at ceiling level)	Not government-approved scheme	0.11	testpsirefYYNfqkM
External wall	E16: Corner (normal)	Not government-approved scheme	0.04	testpsiref9AENsok
External wall	E17: Corner (inverted - internal area greater than external area)	Not government-approved scheme	-0.14	testpsiref_qgH33M
3 Air permeability (better than typically expected values are flagged with a subsequent (!))				
Maximum permitted air permeability at 50Pa		8 m <sup>3</sup> /hm <sup>2</sup>		
Dwelling air permeability at 50Pa		4 m <sup>3</sup> /hm <sup>2</sup> , Design value		OK
Air permeability test certificate reference		dummyswapv2Q		
4 Space heating				
Main heating system 1: Boiler with radiators or underfloor heating - Mains gas				
Efficiency		89.9%		
Emitter type		Radiators		
Flow temperature		55°C		
System type		dummyOz69Qik		
Manufacturer		dummyhZSmM1E		
Model		dummyDVk7XGY		
Commissioning		dummyl4NldAw / dummyOkr9C68		
Secondary heating system: Closed room heater				
Fuel		Wood logs		
Efficiency		65.0%		
Commissioning		dummy2Evpl-s		
5 Hot water				
Cylinder/store - type: N/A				
Capacity		N/A		
Declared heat loss		N/A		
Primary pipework insulated		N/A		
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		dummyUDopg90		
Ecodesign class		dummyrHd249g		
Manufacturer		dummyPjvdLY8		
Model		dummyhtizsdE		

<b>Water heating</b> - type: Cylinder thermostat		
Manufacturer	dummyKV64Zuw	
Model	dummyaoqaSI4	
<b>7 Lighting</b>		
Minimum permitted light source efficacy	75 lm/W	
Lowest light source efficacy	11.2 lm/W	<b>FAIL</b>
External lights control	N/A	
<b>8 Mechanical ventilation</b>		
<b>System type:</b> N/A		
Maximum permitted specific fan power	N/A	
Specific fan power	N/A	<b>N/A</b>
Minimum permitted heat recovery efficiency	N/A	
Heat recovery efficiency	N/A	<b>N/A</b>
Manufacturer/Model		
Commissioning		
<b>9 Local generation</b>		
N/A		
<b>10 Heat networks</b>		
N/A		
<b>11 Supporting documentary evidence</b>		
N/A		
<b>12 Declarations</b>		
<b>a. Assessor Declaration</b>		
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 information submitted for this dwelling for the purpose of carrying out the "As designed" assessment, and that the supporting documentary evidence (SAP Conventions, Appendix 1 (documentary evidence) schedules the minimum documentary evidence required) has been reviewed in the course of preparing this BREL Compliance Report.		
Signed:	Assessor ID:	
Name:	Date:	
<b>b. Client Declaration</b>		
N/A		