

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

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 ²
Site Reference	dummyxuwC3Ew	Plot Reference	dummyVvrSm1A
Address	BD8 7LL		

Client Details	
Name	Dr mCFSA8w
Company	26whV3R6-g inc
Address	11 Test Street, d8tzGggville, wX61Oc4shire, 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 ₂ /m ²		
Dwelling carbon dioxide emission rate	13.22 kgCO ₂ /m ²		FAIL
1b Target primary energy rate and dwelling primary energy			
Target primary energy	71.82 kWh _{PE} /m ²		
Dwelling primary energy	79.48 kWh _{PE} /m ²		FAIL
1c Target fabric energy efficiency and dwelling fabric energy efficiency			
Target fabric energy efficiency	43.4 kWh/m ²		
Dwelling fabric energy efficiency	43.2 kWh/m ²		OK

2a Fabric U-values				
Element	Maximum permitted average U-Value [W/m ² K]	Dwelling average U-Value [W/m ² 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	dummyqwEdMTg (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 ²]	U-Value [W/m ² K]
Exposed wall: Walls (1)	172.23	0.15
Ground floor: dummyqwEdMTg	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 ²]	Orientation	Frame factor	U-Value [W/m ² 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
14, Windows (1)	0.63	North	0.7	1.2

Name	Area [m ²]	Orientation	Frame factor	U-Value [W/m ² K]
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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	testpsirefW-GOXjQ
External wall	E3: Sill	Not government-approved scheme	0.038 (!)	testpsirefDszuLkk
External wall	E4: Jamb	Not government-approved scheme	0.038 (!)	testpsirefMgBcQPc
External wall	E5: Ground floor (normal)	Not government-approved scheme	0.062	testpsirefJrRbuFU
External wall	E6: Intermediate floor within a dwelling	Not government-approved scheme	0.052	testpsirefFSzIFVQ
External wall	E10: Eaves (insulation at ceiling level)	Not government-approved scheme	0.041	testpsirefXPBNmkY
External wall	E12: Gable (insulation at ceiling level)	Not government-approved scheme	0.11	testpsiref7aluG4l
External wall	E16: Corner (normal)	Not government-approved scheme	0.04	testpsirefZ6CKYEg
External wall	E17: Corner (inverted - internal area greater than external area)	Not government-approved scheme	-0.14	testpsirefDkisY YE

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	dummyOWI52IY	

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	dummyX05ATr0
Manufacturer	dummybuFiVWY
Model	dummypailPmU
Commissioning	dummyFz_wqCM / dummyGfqavrl

Secondary heating system: Closed room heater

Fuel	Wood logs
Efficiency	65.0%
Commissioning	dummytiBhd1E

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	dummy_eB2kpQ
Ecodesign class	dummyVwggP1U
Manufacturer	dummyl8ut6tc
Model	dummyDRjOlsc

Water heating - type: Cylinder thermostat

Manufacturer	dummy_81tuek
Model	dummyO3UjWbl

7 Lighting		
Minimum permitted light source efficacy	75 lm/W	
Lowest light source efficacy	11.2 lm/W	FAIL
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		
N/A		
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 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. Client Declaration		
N/A		