

Building Regulations England Part L (BREL) Compliance Report

Approved Document L1 2021 Edition, England assessed by Array SAP 10 program, Array

Date: Wed 08 Jul 2026 22:08:22

Project Information			
Assessed By	Ondrej Gajdos	Building Type	Flat, Semi-detached
OCDEA Registration	EES/027207	Assessment Date	2026-07-08

Dwelling Details			
Assessment Type	As designed	Total Floor Area	54 m ²
Site Reference	UNIT 12	Plot Reference	001
Address	Stoney Wood Quarter UNIT 12 34 The Fairway, LONDON, NW7 3HS		

Client Details	
Name	Client
Company	Client
Address	AddressLine1, Town, Postcode

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	Heat network		
Target carbon dioxide emission rate	16.35 kgCO ₂ /m ²		
Dwelling carbon dioxide emission rate	4.31 kgCO ₂ /m ²		OK

1b Target primary energy rate and dwelling primary energy			
Target primary energy	87.54 kWh _{PE} /m ²		
Dwelling primary energy	46.08 kWh _{PE} /m ²		OK

1c Target fabric energy efficiency and dwelling fabric energy efficiency			
Target fabric energy efficiency	39.6 kWh/m ²		
Dwelling fabric energy efficiency	35.9 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	0.17	Walls (2) (0.25)	OK
Party walls	0.2	0	Party Wall (1) (0)	N/A
Curtain walls	1.6	0	N/A	N/A
Floors	0.18	N/A	N/A	N/A
Roofs	0.16	0.1	Roof (1) (0.1)	OK
Windows, doors, and roof windows	1.6	0.83	d1 (1)	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)	19.0285	0.15	
Exposed wall: Walls (2)	3.58	0.25	
Party wall: Party Wall (1)	28.6	0 (!)	
Exposed roof: Roof (1)	53.900001525878906	0.1 (!)	

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]
d1, d1	2.1	North West	N/A	1 (!)
1, 1	1.944	South West	0.7	0.82 (!)
2, 1	1.04	South West	0.7	0.82 (!)
3, 1	4.125	South West	0.7	0.82 (!)
4, 1	4.7575	South East	0.7	0.82 (!)
5, 1	8.195	South	0.7	0.82 (!)
6, 1	1.17	South East	0.7	0.82 (!)
7, 1	4.94	South East	0.7	0.82 (!)

2d Thermal bridging (better than typically expected values are flagged with a subsequent (!))	
Building part 1: 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	0.05000000074505806	
External wall	E3: Sill	Calculated by person with suitable expertise	0.05	
External wall	E4: Jamb	Calculated by person with suitable expertise	0.05	
External wall	E7: Party floor between dwellings (in blocks of flats)	Calculated by person with suitable expertise	0.07	
External wall	E9: Balcony between dwellings - wall insulation continuous	Calculated by person with suitable expertise	0.02 (!)	
External wall	E23: Balcony within or between dwellings - balcony support penetrates wall insulation	Calculated by person with suitable expertise	0.02 (!)	
External wall	E24: Eaves (insulation at ceiling level - inverted)	Calculated by person with suitable expertise	0.08	
External wall	E14: Flat roof	SAP table default	0.16	
External wall	E15: Flat roof with parapet	Calculated by person with suitable expertise	0.56	
External wall	E16: Corner (normal)	Calculated by person with suitable expertise	0.09	
External wall	E17: Corner (inverted - internal area greater than external area)	Calculated by person with suitable expertise	-0.09	
External wall	E18: Party wall between dwellings	Calculated by person with suitable expertise	0.06	

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 m ³ /hm ² , Design value (!)	OK
Air permeability test certificate reference		

4 Space heating

Main heating system 1: Heat network - Heat network

Efficiency	
Emitter type	
Flow temperature	
System type	
Manufacturer	
Model	
Commissioning	

Secondary heating system: N/A

Fuel	N/A
Efficiency	N/A
Commissioning	

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: Charging system linked to use of heating, programmer, 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	80 lm/W	OK
External lights control	N/A	
8 Mechanical ventilation		
System type: Balanced whole-house mechanical ventilation with heat recovery		
Maximum permitted specific fan power	1.5 W/(l/s)	
Specific fan power	0.63 W/(l/s)	OK
Minimum permitted heat recovery efficiency	73%	
Heat recovery efficiency	90%	OK
Manufacturer/Model	MRXBOXAB-ECO5	
Commissioning		
9 Local generation		
Technology type: Photovoltaic system (1)		
Peak power	0.17 kWp	
Orientation	Horizontal	
Pitch	Horizontal	
Overshading	None or very little	
Manufacturer		
MCS certificate		
10 Heat networks		
Network name: Array		
Service provision	Space and water heating	
Status	New heat network	
Carbon dioxide emission factor for delivered heat	0.045 kgCO ₂ /kWh	
Primary energy factor for delivered heat	0.48 kWh _{PE} /kWh	
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		