

BASIC COMPLIANCE REPORT

Calculation Type: New Build (As Built)



Property Reference	UB9 6AL - 36a Broadwater Grdns		Issued on Date	13/11/2023	
Assessment Reference	002	Prop Type Ref			
Property	36a Broadwater Gardens, Harefield, UXBRIDGE, UB9 6AL				
SAP Rating	86 B	DER	16.89	TER	18.47
Environmental	86 B	% DER<TER	8.54		
CO₂ Emissions (t/year)	1.23	DFEE	58.67	TFEE	59.12
General Requirements Compliance	Pass	% DFEE<TFEE	0.76		
Assessor Details	Mr. Samuel Green, Samuel Green, Tel: 07944 018 791, sam@merlinpropertyservices.com			Assessor ID	P744-0001
Client					

SUMMARY FOR INPUT DATA FOR New Build (As Built)

Criterion 1 – Achieving the TER and TFEE rate

1a TER and DER

Fuel for main heating	Mains gas		
Fuel factor	1.00 (mains gas)		
Target Carbon Dioxide Emission Rate (TER)	18.47	kgCO ₂ /m ²	
Dwelling Carbon Dioxide Emission Rate (DER)	16.89	kgCO ₂ /m ²	Pass
	-1.58 (-8.6%)	kgCO ₂ /m ²	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	59.12	kWh/m ² /yr	
Dwelling Fabric Energy Efficiency (DFEE)	58.67	kWh/m ² /yr	
	-0.4 (-0.7%)	kWh/m ² /yr	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.25 (max. 0.30)	0.26 (max. 0.70)	Pass
Floor	0.12 (max. 0.25)	0.12 (max. 0.70)	Pass
Roof	0.13 (max. 0.20)	0.18 (max. 0.35)	Pass
Openings	1.37 (max. 2.00)	3.00 (max. 3.30)	Pass

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	6.48 (measured in this dwelling)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database Vaillant ecoTEC plus 612 VU 126/5-5 (H-GB) R6 Efficiency: 89.3% SEDBUK2009 Minimum: 88.0%	Pass
---------------------	---	------

BASIC COMPLIANCE REPORT

Calculation Type: New Build (As Built)



Secondary heating system

None

5 Cylinder insulation

Hot water storage

Measured cylinder loss: 1.42 kWh/day
Permitted by DBSCG 2.03

Pass

Primary pipework insulated

Yes

Pass

6 Controls

Space heating controls

Programmer, room thermostat and TRVs

Pass

Hot water controls

Cylinderstat

Pass

Independent timer for DHW

Pass

Boiler interlock

Yes

Pass

7 Low energy lights

Percentage of fixed lights with low-energy fittings

100

%

Minimum

75

%

Pass

8 Mechanical ventilation

Not applicable

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (Thames Valley)

Not significant

Pass

Based on:

Overshading

Average

Windows facing North

1.20 m², No overhang

Windows facing East

7.45 m², No overhang

Windows facing South

10.20 m², No overhang

Windows facing West

2.83 m², No overhang

Air change rate

8.00 ach

Blinds/curtains

None

Criterion 4 – Building performance consistent with DER and DFEE rate

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals

6.48 (measured in this dwelling)

Maximum

10.0

Pass

10 Key features

Roof U-value

0.10

W/m²K

Floor U-value

0.12

W/m²K

Photovoltaic array

1.00

kW

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.