Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
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Project Information:

Assessed By: Paul Byrne (STRO011431) **Building Type:** Flat

Dwelling Details:

NEW DWELLING AS BUILT Total Floor Area: 41m²

Site Reference : Greenwood Place **Plot Reference:** G09

Address : Flat 9, Gladeside House, 2 Gladeside Road, Wythenshawe, M22 9QH

Client Details:

Name: Challenger Building Services Ltd

Address :

This report covers items included within the SAP calculations.
It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Electricity (c)
Fuel factor: 1.55 (electricity (c))

Target Carbon Dioxide Emission Rate (TER)	29.28 kg/m²	
Dwelling Carbon Dioxide Emission Rate (DER)	14.18 kg/m²	**OK**

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	43.1 kWh/m²	
Dwelling Fabric Energy Efficiency (DFEE)	40.7 kWh/m²	
		OK

2 Fabric U-values

Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	**OK**
Party wall	0.00 (max. 0.20)	-	**OK**
Floor	0.24 (max. 0.25)	0.24 (max. 0.70)	**OK**
Roof	(no roof)		
Openings	1.40 (max. 2.00)	1.40 (max. 3.30)	**OK**

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	6.8m³/m²h (average for dwelling type)	
Maximum	10.0	**OK**

4 Heating efficiency

Main Heating system: Community heating schemes - Heat pump

Main Heating system 2:
Heat pumps with radiators or underfloor heating - electric
KERS Energy Recovery KERS MVHR-W160

Secondary heating system: None

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5 Cylinder insulation

Hot water Storage:	No cylinder	

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Space heating controls 2:	Not applicable (boiler provides DHW only)	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.55	
Maximum	1.5	OK
MVHR efficiency:	90%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (North West England):	Medium	OK

Based on:

Overshading:	Average or unknown
Windows facing: North West	7.4m²
Ventilation rate:	2.00

10 Key features

Thermal bridging	0.039 W/m²K
Party Walls U-value	0 W/m²K
Community heating, heat from electric heat pump	

SAP Input

Property Details: G09

Address:	Flat 9, Gladeside House, 2 Gladeside Road, Wythenshawe, M22 9QH
Located in:	England
Region:	North West England
UPRN:	
Date of assessment:	13 May 2025
Date of certificate:	14 May 2025
Assessment type:	New dwelling as built
Transaction type:	New dwelling
Tenure type:	Unknown
Related party disclosure:	No related party
Thermal Mass Parameter:	Indicative Value Low
Water use <= 125 litres/person/day:	True
PCDF Version:	512

Property description:

Dwelling type:	Flat
Detachment:	
Year Completed:	2025

Floor Location:	Floor area:	Storey height:
Floor 0	41 m²	2.4 m

Living area:	17.7 m² (fraction 0.432)
Front of dwelling faces:	East

Opening types:

Name:	Source:	Type:	Glazing:	Argon:	Frame:
North West	Manufacturer	Windows	low-E, En = 0.05, soft coat	Yes	PVC-U

Name:	**Gap:**	**Frame Factor:**	**g-value:**	**U-value:**	**Area:**	**No. of Openings:**
North West	16mm or more	0.7	0.63	1.4	7.4	1

Name:	Type-Name:	Location:	Orient:	Width:	Height:
North West		External wall	North West	0	0

Overshading:	Average or unknown

Opaque Elements:

Type:	Gross area:	Openings:	Net area:	U-value:	Ru value:	Curtain wall:	Kappa:
External Elements							
External wall	14.6	7.4	7.2	0.24	0	False	N/A
Exposed floor	41			0.24			N/A
Internal Elements							
Party Elements							
Party wall	32.4						N/A
Party ceiling	41						N/A

Thermal bridges:

Thermal bridges: User-defined (individual PSI-values) Y-Value = 0.0393

	Length	**Psi-value**		
[Approved]	3.5	0.3	E2	Other lintels (including other steel lintels)
[Approved]	8.4	0.05	E4	Jamb
[Approved]	0	0.16	E5	Ground floor (normal)
	6.1	0	E20	Exposed floor (normal)
[Approved]	6.1	0.07	E7	Party floor between dwellings (in blocks of flats)

SAP Input

	0	0	E15	Flat roof with parapet
[Approved]	0	0.09	E16	Corner (normal)
[Approved]	0	-0.09	E17	Corner (inverted internal area greater than external area)
[Approved]	4.8	0.06	E18	Party wall between dwellings
	0	0	P1	Ground floor
	13.5	0	P7	Exposed floor (normal)
	13.5	0	P3	Intermediate floor between dwellings (in blocks of flats)
	0	0	P4	Roof (insulation at ceiling level)

Ventilation:

Pressure test: Yes (As built)
Ventilation: Balanced with heat recovery
Number of wet rooms: Kitchen + 1
Ductwork: Insulation, rigid
Approved Installation Scheme: False
Number of chimneys: 0
Number of open flues: 0
Number of fans: 0
Number of passive stacks: 0
Number of sides sheltered: 3
Pressure test: 4.77 (Average permeability of dwellings of that type was used)

Main heating system:

Main heating system: Community heating schemes
Heat source: Community heat pump
heat from electric heat pump, heat fraction 1, efficiency 370
Piping>=1991, pre-insulated, medium temp, variable flow
Fraction of main heat: 1

Main heating Control:

Main heating Control: Charging system linked to use of community heating, programmer and TRVs
Control code: 2306

Secondary Main heating system:

Secondary Main heating system: Heat pumps with radiators or underfloor heating
Electric heat pumps
Fuel: Electricity
Info Source: Boiler Database
Database: (rev 512, product index 104957, SEDBUK 0%):
Band name: KERS Energy Recovery
Model: KERS MVHR-W160
Model qualifier:
(provides DHW all year)

Secondary Main heating Control:

Secondary Main heating Control: Not applicable (boiler provides DHW only)
Control code: 2100

Secondary heating system:

Secondary heating system: None

Water heating:

Water heating: From main heating system
Water code: 901
Fuel :heat from electric heat pump
No hot water cylinder
Solar panel: False

Others:

Electricity tariff: Standard Tariff
In Smoke Control Area: Unknown

SAP Input

Conservatory:	No conservatory
Low energy lights:	100%
Terrain type:	Low rise urban / suburban
EPC language:	English
Wind turbine:	No
Photovoltaics:	None
Assess Zero Carbon Home:	No

SAP 2012 Overheating Assessment

Calculated by Stroma FSAP 2012 program, produced and printed on 14 May 2025

Property Details: G09

Dwelling type:	Flat
Located in:	England
Region:	North West England
Cross ventilation possible:	No
Number of storeys:	1
Front of dwelling faces:	East
Overshading:	Average or unknown
Overhangs:	None
Thermal mass parameter:	Indicative Value Low
Night ventilation:	False
Blinds, curtains, shutters:	
Ventilation rate during hot weather (ach):	2 (Windows open half the time)

Overheating Details:

Summer ventilation heat loss coefficient:	64.94	**(P1)**
Transmission heat loss coefficient:	23.6	
Summer heat loss coefficient:	88.51	**(P2)**

Overhangs:

Orientation:	**Ratio:**	**Z_overhangs:**
North West (North West)	0	1

Solar shading:

Orientation:	**Z blinds:**	**Solar access:**	**Overhangs:**	**Z summer:**	
North West (North West)	1	0.9	1	0.9	**(P8)**

Solar gains:

Orientation	**Area**	**Flux**	**g_**	**FF**	**Shading**	**Gains**	
North West (North West)	0.9 x 7.4	92.96	0.63	0.7	0.9	245.71	
					Total	245.71	**(P3/P4)**

Internal gains:

	June	**July**	**August**	
Internal gains	323.06	312.21	317.88	
Total summer gains	582.82	557.93	507.5	**(P5)**
Summer gain/loss ratio	6.58	6.3	5.73	**(P6)**
Mean summer external temperature (North West England)	13.2	14.9	14.8	
Thermal mass temperature increment	1.3	1.3	1.3	
Threshold temperature	21.08	22.5	21.83	**(P7)**
Likelihood of high internal temperature	**Slight**	**Medium**	**Slight**	

Assessment of likelihood of high internal temperature: Medium