

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: G10

Address : Flat 10, 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)

28.3 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.37 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

39.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

41.9 kWh/m²

Fail

Excess energy = 2.11 kg/m² (05.3 %)

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	7.4m ²	
Ventilation rate:	2.00	

10 Key features

Party Walls U-value	0 W/m ² K
Community heating, heat from electric heat pump	

SAP Input

Property Details: G10

Address: Flat 10, 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:
<u>External Elements</u>							
External wall	14.6	7.4	7.2	0.24	0	False	N/A
Ground floor	41			0.24			N/A
<u>Internal Elements</u>							
<u>Party Elements</u>							
Party wall	32.4						N/A
Party ceiling	41						N/A

Thermal bridges:

Thermal bridges: User-defined (individual PSI-values) Y-Value = 0.0569

	Length	Psi-value	
[Approved]	3.5	0.3	E2 Other lintels (including other steel lintels)
[Approved]	8.4	0.05	E4 Jamb
[Approved]	6.1	0.16	E5 Ground floor (normal)
	0	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
	13.5	0	P1	Ground floor
	0	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
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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: G10

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:	24.5	
Summer heat loss coefficient:	89.48	(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	6.51	6.23	5.67	(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	21.01	22.43	21.77	(P7)
Likelihood of high internal temperature	Slight	Medium	Slight	

Assessment of likelihood of high internal temperature: Medium