

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Built)

Property Reference	CPUK Clarks 42			Issued on Date	15/02/2021
Assessment Reference	1	Prop Type Ref			
Property	73 SADDLECOTE CLOSE, MANCHESTER, MANCHESTER, M8 5QE				
SAP Rating	83 B	DER	18.02	TER	18.61
Environmental	85 B	% DER<TER	3.16		
CO ₂ Emissions (t/year)	1.40	DFEE	50.80	TFEE	53.63
General Requirements Compliance	Pass	% DFEE<TFEE	5.28		
Assessor Details	Mr. Laurie Wills, Element Sustainability Limited, Tel: 01829 733444, laurie@elementsustainability.co.uk			Assessor ID	H367-0001
Client					

SUMMARY FOR INPUT DATA FOR: New Build (As Built)

Orientation	South West
Property Tenure	Unknown
Transaction Type	New dwelling
Terrain Type	Suburban
1.0 Property Type	House, Semi-Detached
2.0 Number of Storeys	2
3.0 Date Built	2021
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown

6.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground Floor:	1.00 m	42.95 m ²	2.40 m
1st Storey:	1.00 m	42.95 m ²	2.70 m

7.0 Living Area	42.95	m ²
-----------------	-------	----------------

8.0 Thermal Mass Parameter	Simple calculation - Low	
Thermal Mass	100.00	kJ/m ² K

9.0 External Walls

Description	Type	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Wall 1	Timber Frame	0.23	94.45	79.69

9.1 Party Walls

Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Wall 2	Filled Cavity with Edge Sealing		0.00	42.94

10.0 External Roofs

Description	Type	U-Value (W/m ² K)	Gross Area (m ²)	Nett Area (m ²)
Roof 1	External Plane Roof	0.11	42.94	42.94

11.0 Heat Loss Floors

Description	Type	Construction	U-Value (W/m ² K)	Area (m ²)
Floor 1	Ground Floor - Solid		0.12	42.95

12.0 Opening Types

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Built)

Description	Data Source	Type	Glazing	Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Opening Type 1	Manufacturer	Window	Double Low-E Hard 0.2			0.72		0.70	1.40
Opening Type 7	Manufacturer	Solid Door							1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Height (m)	Count	Area (m²)	Curtain Closed
W11	Window	[1] Wall 1	South West	None	0.00					2.55	
W09	Window	[1] Wall 1	South West	None	0.00					1.51	
W04	Window	[1] Wall 1	South West	None	0.00					0.59	
W04	Window	[1] Wall 1	South West	None	0.00					0.60	
W07	Window	[1] Wall 1	North East	None	0.00					1.31	
W09	Window	[1] Wall 1	North East	None	0.00					1.51	
ED01	Solid Door	[1] Wall 1	North							1.89	
W09	Window	[1] Wall 1	North East	None	0.00					1.51	
ED04	Window	[1] Wall 1	North East	None	0.00					3.29	

14.0 Conservatory

None

15.0 Draught Proofing

100

%

16.0 Draught Lobby

No

17.0 Thermal Bridging

Calculate Bridges

17.1 List of Bridges

Source Type	Bridge Type	Length	Psi	Imported
Table K1 - Approved	E2 Other lintels (including other steel lintels)	10.30	0.300	No
Table K1 - Approved	E3 Sill	9.40	0.040	No
Table K1 - Approved	E4 Jamb	24.96	0.050	No
Table K1 - Approved	E5 Ground floor (normal)	18.52	0.160	No
Table K1 - Approved	E6 Intermediate floor within a dwelling	18.52	0.070	No
Table K1 - Approved	E10 Eaves (insulation at ceiling level)	10.10	0.060	No
Table K1 - Approved	E12 Gable (insulation at ceiling level)	8.42	0.240	No
Table K1 - Approved	E16 Corner (normal)	10.20	0.090	No
Table K1 - Approved	E18 Party wall between dwellings	10.20	0.060	No
Table K1 - Default	P1 Party wall - Ground floor	8.42	0.160	No
Table K1 - Default	P2 Party wall - Intermediate floor within a dwelling	8.42	0.000	No
Independently assessed	P4 Party wall - Roof (insulation at ceiling level)	8.42	0.120	No

Y-value

0.086

W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

7.00

m³/(h.m²) @ 50 Pa

Property Tested ?

No

As Built AP₅₀

4.51

m³/(h.m²) @ 50 Pa

19.0 Mechanical Ventilation

Summer Overheating

Windows open in hot weather

Windows fully open

Cross ventilation possible

Yes

Night Ventilation

No

Air change rate

8.00

Mechanical Ventilation

Mechanical Ventilation System Present

No

20.0 Fans, Open Fireplaces, Flues

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Built)

	MHS	SHS	Other	Total
Number of Chimneys	0		0	0
Number of open flues	0		0	0
Number of intermittent fans				2
Number of passive vents				0
Number of flueless gas fires				0

21.0 Fixed Cooling System

22.0 Lighting

Internal

Total number of light fittings

Total number of L.E.L. fittings

Percentage of L.E.L. fittings %

External

External lights fitted

23.0 Electricity Tariff

24.0 Main Heating 1

Percentage of Heat %

Database Ref. No.

Fuel Type

Main Heating

SAP Code

In Winter

In Summer

Controls

PCDF Controls

Delayed Start Stat

Sap Code

Flue Type

Fan Assisted Flue

Is MHS Pumped

Heat Emitter

Flow Temperature

Combi boiler type

Combi keep hot type

25.0 Main Heating 2

Community Heating

28.0 Water Heating

Water Heating

Flue Gas Heat Recovery System

Waste Water Heat Recovery Instantaneous System 1

Waste Water Heat Recovery Instantaneous System 2

Waste Water Heat Recovery Storage System

SUMMARY FOR INPUT DATA

Calculation Type: New Build (As Built)

Solar Panel	No
Water use <= 125 litres/person/day	Yes
SAP Code	901
29.0 Hot Water Cylinder	None

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

	Typical Cost	Typical savings per year	Ratings after improvement	
			SAP rating	Environmental Impact
Solar water heating	£4,000 - £6,000	£31	B 85	
	Typical Cost	Typical savings per year	Ratings after improvement	
			SAP rating	Environmental Impact
Solar photovoltaic panels, 2.5 kWp	£3,500 - £5,500	£304	A 95	