PREDICTED ENERGY ASSESSMENT

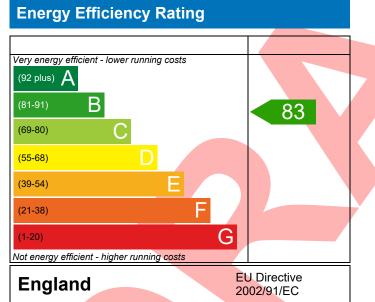


Plot 16, 15, School View, Askam in Furness, Cumbria, LA16 7FN Dwelling type: Date of assessment: Produced by: Total floor area:

Bungalow, Semi-Detached 09/08/2023 BREW Compliance Ltd 69.29 m²

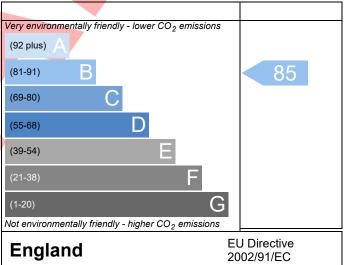
This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO_2) emissions.



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

Environmental Impact (CO₂) Rating



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO_2) emissions. The higher the rating the less impact it has on the environment.

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



Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r19

BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)



Property Reference		Plot 16						Issued on Date	09/08/2023
Assessment		As Built		Prop Type Ref Bungalow					
Reference		Plot 16, 15, School View, Askam in Furness, Cumbria, LA16 7FN							
Property		Plot 16, 15, School	View, As	kam in Furr	ness, Cumbria, L	A16 7FN			
SAP Rating				83 B	DER	19.2	9	TER	20.34
Environmental				85 B	% DER <ter< td=""><td></td><td></td><td>5.18</td><td>_</td></ter<>			5.18	_
CO ₂ Emissions (t/ye				1.25	DFEE	52.2	9	TFEE	57.47
General Requireme	nts	Compliance		Pass	% DFEE <tfe< td=""><td></td><td></td><td>9.00</td><td></td></tfe<>			9.00	
Assessor Details		. Kieran Abadie, BR ran@brewcompliar		liance Ltd,	Tel: 07943 063	981,		Assessor ID	AX84-0001
Client	Mo	orsolve Limited, M	oorsolve						
SUMARY FOR INPUT	DA	TA FOR New Build	(As Desig	ned)					
Criterion 1 – Achievi	ing t	he TER and TFEE ra	te						
1a TER and DER									
Fuel for main hea	ating			Mains g	as				
Fuel factor				1.00 (ma	ains gas)				
Target Carbon Di	oxid	e Emission Rate (TE	ER)	20.34 kgCO ₂ /m ²					
Dwelling Carbon	Diox	ide Emission Rate (DER)	19.29 kgCO ₂ /m ²					Pass
				-1.05 (-5	5.2%)			kgCO ₂ /m ²	
1b TFEE and DFEE									
Target Fabric Ene				57.47				kWh/m²/yr	
Dwelling Fabric E	nerg	gy Efficiency (DFEE)		52.29				kWh/m²/yr	
	_			-5.2 (-9.	0%)			kWh/m²/yr	Pass
Criterion 2 – Limits o					_				
Limiting Fabric S	tand	ards							
2 Fabric U-values	5								
Element			Average	e		Highest			
External w				ax. 0.30)		0.20 (max. ().70))	Pass
Party wall				ax. 0.20)		-			Pass
Floor				ax. 0.25)		0.12 (max. (Pass
Roof		0.11 (max. 0.20) 0.11 (max. 0.35)						Pass	
Openings 1.43 (max				ax. 2.00)		1.44 (max. 3	3.30))	Pass
2a Thermal bridg									
		calculated from line	ear therm	al transmit	tances for each	junction			
<u>3 Air permeabilit</u>	:y								
Air permeabil	ity a	t 50 pasc <mark>als</mark>			sign value)			m³/(h.m²) @ 50 Pa	
Maximum				10.0				m³/(h.m²) @ 50 Pa	Pass
Limiting System	Effic	iencies							
4 Heating efficie	ncy								

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Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r19

BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)



· •			
Main heating system	Boiler system with radiators or Data from database Ideal LOGIC COMBI ESP1 30 Combi boiler Efficiency: 89.6% SEDBUK2009 Minimum: 88.0%	underfloor - Mains gas	Pass
Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	No cylinder		
<u>6 Controls</u>			
Space heating controls	Time and temperature zone co	ntrol	Pass
Hot water controls	No cylinder		
Boiler interlock	Yes		Pass
7 Low energy lights			1 [
Percentage of fixed lights with low-energy	100	%	
fittings Minimum	75	%	Dace
8 Mechanical ventilation	75	70	Pass
Not applicable			
riterion 3 – Limiting the effects of heat gains in su	mmer		
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature			
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England)	mmer Not significant		Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on:	Not significant		Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading	Not significant Average		Pass
riterion 3 – Limiting the effects of heat gains in sur <u>Summertime temperature</u> Overheating risk (North West England) ased on: Overshading Windows facing North East	Not significant Average 0.73 m ² , No overhang		Pass
riterion 3 – Limiting the effects of heat gains in sur <u>Summertime temperature</u> Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East	Not significant Average 0.73 m ² , No overhang 2.79 m ² , No overhang		Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West	Not significant Average 0.73 m², No overhang 2.79 m², No overhang 5.27 m², No overhang		Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate	Not significant Average 0.73 m ² , No overhang 2.79 m ² , No overhang		Pass
riterion 3 – Limiting the effects of heat gains in sur <u>Summertime temperature</u> Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains	Not significant Average 0.73 m ² , No overhang 2.79 m ² , No overhang 5.27 m ² , No overhang 8.00 ach None		Pass
riterion 3 – Limiting the effects of heat gains in sur <u>Summertime temperature</u> Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with	Not significant Average 0.73 m ² , No overhang 2.79 m ² , No overhang 5.27 m ² , No overhang 8.00 ach None		Pass
riterion 3 – Limiting the effects of heat gains in sur <u>Summertime temperature</u> Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls	Not significant Average 0.73 m², No overhang 2.79 m², No overhang 5.27 m², No overhang 8.00 ach None DER and DFEE rate		Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type	Not significant Average 0.73 m ² , No overhang 2.79 m ² , No overhang 5.27 m ² , No overhang 8.00 ach None DER and DFEE rate U-value		
riterion 3 – Limiting the effects of heat gains in sur <u>Summertime temperature</u> Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing	Not significant Average 0.73 m², No overhang 2.79 m², No overhang 5.27 m², No overhang 8.00 ach None DER and DFEE rate		Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing	Not significant Average 0.73 m ² , No overhang 2.79 m ² , No overhang 5.27 m ² , No overhang 8.00 ach None DER and DFEE rate U-value		
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability	Not significant Average 0.73 m², No overhang 2.79 m², No overhang 5.27 m², No overhang 8.00 ach None DER and DFEE rate U-value 0.00		
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals	Not significantAverage0.73 m², No overhang2.79 m², No overhang5.27 m², No overhang8.00 achNoneDER and DFEE rateU-value0.005.10 (design value)	m³/(h.m²) @ 50 Pa	Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum	Not significant Average 0.73 m², No overhang 2.79 m², No overhang 5.27 m², No overhang 8.00 ach None DER and DFEE rate U-value 0.00		
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum O Key features	Not significantAverage0.73 m², No overhang2.79 m², No overhang5.27 m², No overhang8.00 achNoneDER and DFEE rateU-value0.005.10 (design value)10.0	m³/(h.m²) @ 50 Pa m³/(h.m²) @ 50 Pa	Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum 0 Key features Party wall U-value	Not significantAverage0.73 m², No overhang2.79 m², No overhang5.27 m², No overhang8.00 achNoneDER and DFEE rateU-value0.005.10 (design value)10.00.00	m³/(h.m²) @ 50 Pa m³/(h.m²) @ 50 Pa W/m²K	Pass
riterion 3 – Limiting the effects of heat gains in sur Summertime temperature Overheating risk (North West England) ased on: Overshading Windows facing North East Windows facing South East Windows facing North West Air change rate Blinds/curtains riterion 4 – Building performance consistent with Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability Air permeability at 50 pascals Maximum 0 Key features	Not significantAverage0.73 m², No overhang2.79 m², No overhang5.27 m², No overhang8.00 achNoneDER and DFEE rateU-value0.005.10 (design value)10.0	m³/(h.m²) @ 50 Pa m³/(h.m²) @ 50 Pa	Pass

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Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r19

THERMAL BRIDGING Calculation Type: New Build (As Designed)



Property Reference	Plot 16	Plot 16			Issued on Date	09/08/2023		
Assessment	As Built			Prop Type Ref	Type Ref Bungalow			
Reference								
Property	Plot 16, 15, School View,	Askam in Furn	ess, Cumbria,	LA16 7FN				
SAP Rating		83 B	DER	19.29	TER	20.34		
Environmental		85 B	% DER <ter< th=""><th></th><th colspan="3">5.18</th></ter<>		5.18			
CO ₂ Emissions (t/ye	ear)	1.25	DFEE	52.29	TFEE	57.47		
General Requireme	ents Compliance	Pass	% DFEE <tfe< th=""><th>E</th><th colspan="3">9.00</th></tfe<>	E	9.00			
Assessor Details		Ar. Kieran Abadie, BREW Compliance Ltd, Tel: 07943 063 981, Assessor ID AX84-000 ieran@brewcompliance.co.uk						
Client	Noorsolve Limited, Moorsolve							

	Junction detail	Source Type	Psi (W/mK)	Length (m)	Result	Reference
External wall	E2 Other lintels (including other steel lintels)	Table K1 - Approved	0.300	7.14	2.14	
External wall	E3 Sill	Table K1 - Approved	0.040	4.35	0.17	
External wall	E4 Jamb	Table K1 - Approved	0.050	17.52	0.88	
External wall	E5 Ground floor (normal)	Table K1 - Approved	0.160	25.79	4.13	
External wall	E10 Eaves (insulation at ceiling level)	Table K1 - Approved	0.060	14.40	0.86	
External wall	E12 Gable (insulation at ceiling level)	Table K1 - Approved	0.240	19.96	4.79	
External wall	E16 Corner (normal)	Table K1 - Approved	0.090	7.20	0.65	
External wall	E17 Corner (inverted – internal area greater than external area)	Table K1 - Approved	-0.090	2.40	-0.22	
External wall	E18 Party wall between dwellings	Table K1 - Approved	0.060	4.80	0.29	
Party wall	P1 Party wall - Ground floor	Table K1 - Default	0.160	8.57	1.37	
Party wall	P4 Party wall - Roof (insulation at ceiling level)	Table K1 - Default	0.240	8.57	2.06	

Total:	17.12	W/mK:
Y-Value:	0.085	W/m²K:



BASIC COMPLIANCE		signed)		Design S elmhurst ene			
Property Reference Plot 16			Is	sued on Date	09/08/2023		
Assessment As Built		Prop	Type Ref Bu	ngalow			
Reference		0 1 1 14467	-				
Property Plot 16, 15, Sch	ool View, Askam in Furne	ss, Cumbria, LA16 /	FN				
SAP Rating	83 B	DER	19.29	TER	20.34		
Environmental		% DER <ter< td=""><td></td><td>5.18</td><td></td></ter<>		5.18			
CO ₂ Emissions (t/year)		DFEE	52.29	TFEE	57.47		
General Requirements Compliance	Pass	% DFEE <tfee< td=""><td></td><td>9.00</td><td></td></tfee<>		9.00			
	BREW Compliance Ltd, Te	el: 07943 063 981,		Assessor ID	AX84-0001		
kieran@brewcomp Client Moorsolve Limited							
	,						
SUMARY FOR INPUT DATA FOR New Bu							
Criterion 1 – Achieving the TER and TFE	E rate						
La TER and DER							
Fuel for main heating	Mains gas	Mains gas					
Fuel factor	1.00 (mair	1.00 (mains gas)					
Target Carbon Dioxide Emission Rate	(TER) 20.34		kgCO ₂ /m ²				
Dwelling Carbon Dioxide Emission Ra			kgCO ₂ /m ²	Pass			
	-1.05 (-5.2	2%)		kgCO ₂ /m ²			
Lb TFEE and DFEE	\ \						
Target Fabric Energy Efficiency (TFEE				kWh/m²/yr			
Dwelling Fabric Energy Efficiency (DF	-	/)		kWh/m²/yr	Daga		
Cuitorian 2 Lineite en design flouibility	-5.2 (-9.0%	́о)		kWh/m²/yr	Pass		
Criterion 2 – Limits on design flexibility							
Limiting Fabric Standards							
2 Fabric U-values							
Element	Average	High					
External wall	0.20 (max. 0.30)	0.20	(max. 0.70)		Pass		
Party wall	0.00 (max. 0.20)	-	(Pass		
Floor	0.12 (max. 0.25)		(max. 0.70)		Pass		
Roof	0.11 (max. 0.20)		(max. 0.35)		Pass		
Openings	1.43 (max. 2.00)	1.44	(max. 3.30)		Pass		
2a Thermal bridging	10 11 L	6					
Thermal bridging calculated from	linear thermal transmitta	nces for each junct	on				
<u>3 Air permeability</u>							
Air permeability at 50 pascals	5.10 (desi	gn value)					
Maximum	10.0				Pass		
Limiting System Efficiencies							



BASIC COMPLIANCE REPORT
Calculation Type: New Build (As Designed)



Main heating system	Boiler system with radiators or underfloor - Data from database Ideal LOGIC COMBI ESP1 30 Combi boiler Efficiency: 89.6% SEDBUK2009 Minimum: 88.0%	Mains gas	Pass
Secondary heating system	None		
5 Cylinder insulation			
Hot water storage	No cylinder		
6 Controls	· · · ·		
Space heating controls	Time and temperature zone control		Pass
Hot water controls	No cylinder		
Boiler interlock	Yes		Pass
<u>7 Low energy lights</u>	100		
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 su	mmer		
9 Summertime temperature			
Overheating risk (North West England)	Not significant		Pass
Based on:			
Overshading	Average		
Windows facing North East	0.73 m ² , No overhang		7
Windows facing South East	2.79 m ² , No overhang		
Windows facing North West	5.27 m ² , No overhang		-
Air change rate	8.00 ach		
Blinds/curtains	None		
Criterion 4 – Building performance consistent with			
Party Walls	11		
Type	U-value	14/1-21/	Dese
Filled Cavity with Edge Sealing	0.00	W/m²K	Pass
Air permeability and pressure testing <u>3 Air permeability</u>			
Air permeability at 50 pascals	5.10 (design value)		7
Maximum	10.0		Pass
<u>10 Key features</u>	10.0		F d33
Party wall U-value	0.00	W/m²K	
Roof U-value	0.11	W/m ⁻ K	
Floor U-value	0.12	W/m²K	
	0.12	V/111 K	

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SUMMARY FOR INPUT DATA Calculation Type: New Build (As Designed)

Design SAP elmhurst energy

Property Reference	Plot 16					1	ssued on Date	e 09/08/2023
Assessment	As Built	As Built Pr				e Ref B	ungalow	
Reference								
Property	Plot 16, 15,	School View,	Askam in Furn	ess, Cumbria,	LA16 7FN			
SAP Rating			83 B	DER	1	.9.29	TER	20.34
Environmental			85 B	% DER <ter< th=""><th></th><th></th><th>5.18</th><th></th></ter<>			5.18	
CO ₂ Emissions (t/yea	ar)		1.25	DFEE	5	2.29	TFEE	57.47
General Requiremen	nts Compliance		Pass	% DFEE <tfe< th=""><th>E</th><th></th><th>9.00</th><th></th></tfe<>	E		9.00	
	Mr. Kieran Abac			Tel: 07943 063	981,		Assessor ID	AX84-0001
	kieran@brewco							
	Moorsolve Limit							
SUMMARY FOR INPL	JT DATA FOR: N	ew Build (As	Designed)					
Orientation		South East						
Property Tenure		Owner-occup						
Transaction Type		New dwelling	5					
Terrain Type		Suburban						
1.0 Property Type		-	emi-Detached		_ 			
2.0 Number of Storeys		1						
3.0 Date Built		2023						
4.0 Sheltered Sides		2						
5.0 Sunlight/Shade		Average or u	nknown					
6.0 Measurements				Lead Lead Device		termed at a		and a first state of the first state of the
		Gr	ound Floor:	l eat Loss Perime 25.79 m	eter in	ternal Flo 69.29		erage Storey Height 2.40 m
7.0 Living Area		17.55			m²			
8.0 Thermal Mass Para	meter	Simple calcul	ation - Low					
Thermal Mass		100.00			kJ/m²K			
9.0 External Walls								
Description	Туре						ie Gross Area K) (m²)	
External Wall	Timber Fra	ime				0.20	61.91	51.06
9.1 Party Walls								
Description	Туре	Cons	truction				U-Value	Area
Party Wall	Filled Cavit	wwith					(W/m²K) 0.00	(m²) 20.56
	Edge Sealir	1					0.00	20.50
10.0 External Roofs								
Description	Туре					U-Valu		Nett Area
External Roof	External Pl	ane Roof				(W/m² 0.11	K) (m²) 69.29	(m²) 69.29
11.0 Heat Loss Floors								
Description	Туре	Cons	truction				U-Value	Area
Ground Floor	Ground Flo	oor - Solid					(W/m²K) 0.12	(m²) 69.29
	JIOUNUTIC						0.12	00.20

12.0 Opening Types



SUMMARY FOR INPUT DATA Calculation Type: New Build (As Designed)



Description	Data Source	Туре	Glazing		Glazing Gap	Argon Filled			rame Type	Frame Factor	U Value (W/m²K
Glazing	Manufacture	e Window	Double Low-E	Soft 0.05	P*		0.63			0.70	1.44
Doors	r Manufacture	e Solid Door					5.00			🥑	
	r		Deublet =	Coft 0 0-							1.40
1/2 Doors	Manufacture r	e Half Glazed Doo	r Double Low-E	soπ 0.05			0.63			0.70	1.40
L3.0 Openings											
Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhan		Height (m)	Count	Area (m²)	Curtain Closed
Front	Window	[1] External Wall	South East	None	0.00	e : e	5 ()	(,		2.79	0.0000
Rear	Window	[1] External Wall	North West	None	0.00					5.27	
	Solid Door	[1] External Wall	South East							2.06	
Side	Window	[1] External Wall	North East	None	0.00					0.73	
4.0 Conservatory		None									
L5.0 Draught Proof	ing	100				%					
L6.0 Draught Lobby	у	No									
L7.0 Thermal Bridg	ing	Calculate	Bridges								
17.0 Thermal Bridges	-	Calculate	STICKES								
Source Type	Bridge	е Туре		1	Length	Psi	Imported				
Table K1 - Approv	-	ner lintels (including	g other steel lintels		7.14	0.300	No				
Table K1 - Approv	ved E3 Sill				4.35	0.040	No				
Table K1 - Approv					17.52	0.050	No				
Table K1 - Approv		ound floor (normal)	oiling level)		25.79	0.160	No				
Table K1 - Approv		aves (insulation at one of the second s			14.40	0.060	No				
Table K1 - Approved E12 Gable (insulation of the second			ening level)		19.96 7.20	0.240 0.090	No No				
Table K1 - Approv		orner (inverted – in	ternal area greate	r than		-0.090	No				
	extern	nal area)	_		4.80	0.000	N				
Table K1 - Approv Table K1 - Defauli		arty wall between d ty wall - Ground flo	-		4.80 8.57	0.060 0.160	No No				
Table K1 - Defaul		rty wall - Ground no rty wall - Roof (insu		vel)	8.57	0.100	No				
Y-value		0.085				W/m²K					
18.0 Pressure Testi	ng	Yes									
Designed AP₅₀	-	5.10				m³/(h.m²	²) @ 50 Pa				
Property Tested	d ?					, (, _ ,				
As Built AP ₅₀						m³/(h.m²	²) @ 50 Pa				
19.0 Mechanical Ve	entilation	L]		, _ = = = = = =				
Summer Overh											
	pen in hot weathe	er Windo	ws fully open								
	ation possible	Yes				=					
Night Venti		No				=					
Air change		8.00				\exists					
Mechanical Ve		0.00				1					
	/entilation System P	Present No									
20.0 Fans, Open Fir	epiaces, Filles	MHS	SHS	(Other	Total					
Number of Chir	nneys	0	5115		0	0					
Number of ope		0			0	0					
						2					
Number of inte	rmittent fans					2					



SUMMARY FOR INPUT DATA Calculation Type: New Build (As Designed)



Number of flueless gas fires		0
21.0 Fixed Cooling System	No	
22.0 Lighting		
Internal		
Total number of light fittings	10	
Total number of L.E.L. fittings	10	
Percentage of L.E.L. fittings	100.00	%
External		
External lights fitted	No	
23.0 Electricity Tariff	Standard	
24.0 Main Heating 1	Database	
Description	Combination Boiler	
Percentage of Heat	100	%
Database Ref. No.	17956	
Fuel Type	Mains gas	
Main Heating	BGW	
SAP Code	104	
In Winter	90.5	
In Summer	87.3	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	No	
Sap Code	2110	
Flue Type	Balanced	
Fan Assisted Flue	Yes	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Radiators	
Flow Temperature	Normal (> 45°C)	
Combi boiler type	Standard Combi	
Combi keep hot type	None	
25.0 Main Heating 2	None	

Community Heating	None
28.0 Water Heating	HWP From main heating 1
Water Heating	Main Heating 1
Flue Gas Heat Recovery System	No
Waste Water Heat Recovery	No
Instantaneous System 1	
Waste Water Heat Recovery	No
Instantaneous System 2	
Waste Water Heat Recovery	No
Storage System	
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	£76	B 84	
	Typical Cost	Typical savings	Ratings after improvement	
		per year	SAP rating	Environmental Impact
Solar photovoltaic panels, 2.5 kWp	£3,500 - £5,500	£679	A 96	

