

# PREDICTED ENERGY ASSESSMENT



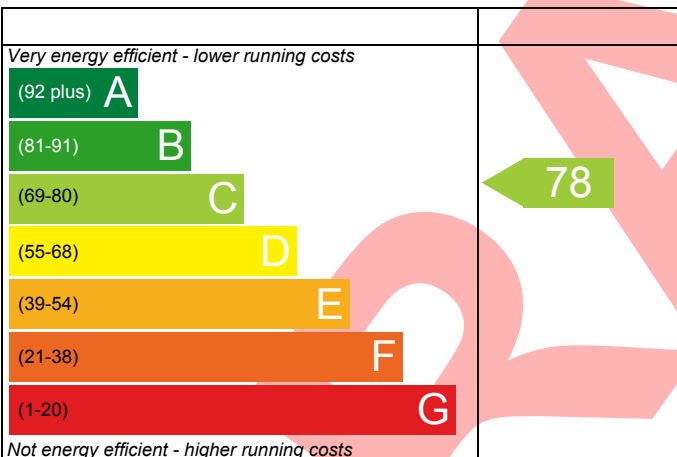
17, Matford Home Park,  
Exeter,  
Devon,  
EX1

Dwelling type: Flat, Semi-Detached  
Date of assessment: 03/10/2020  
Produced by: Stuart Milne  
Total floor area: 70 m<sup>2</sup>

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<sub>2</sub>) emissions.

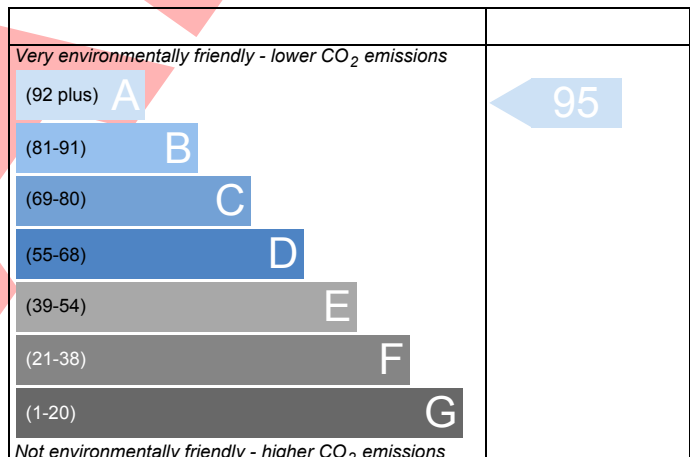
## Energy Efficiency Rating



**England** EU Directive 2002/91/EC

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 (CO<sub>2</sub>) Rating



**England** EU Directive 2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

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# BUILDING REGULATION COMPLIANCE

## Calculation Type: New Build (As Designed)



Property Reference	Matford 017	Issued on Date	03/10/2020
Assessment Reference	1	Prop Type Ref	Block B TFF
Property	17, Matford Home Park, Exeter, Devon, EX1		

SAP Rating	78 C	DER	6.95	TER	19.86
Environmental	95 A	% DER<TER	65.01		
CO <sub>2</sub> Emissions (t/year)	0.42	DFEE	55.86	TFEE	56.17
General Requirements Compliance	Pass	% DFEE<TFEE	0.55		

Assessor Details	Mr. Stuart Milne, Stuart Milne, Tel: 01934 742386, sap@mendipenergy.com	Assessor ID	L721-0001
Client	Cavanna Homes		

### SUMMARY FOR INPUT DATA FOR New Build (As Designed)

#### Criterion 1 – Achieving the TER and TFEE rate

##### 1a TER and DER

Fuel for main heating	Biomass (c)		
Fuel factor	1.00 (biomass)		
Target Carbon Dioxide Emission Rate (TER)	19.86	kgCO <sub>2</sub> /m <sup>2</sup>	
Dwelling Carbon Dioxide Emission Rate (DER)	6.95	kgCO <sub>2</sub> /m <sup>2</sup>	Pass
	-12.91 (-65.0%)	kgCO <sub>2</sub> /m <sup>2</sup>	

##### 1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	56.17	kWh/m <sup>2</sup> /yr	
Dwelling Fabric Energy Efficiency (DFEE)	55.86	kWh/m <sup>2</sup> /yr	
	-0.3 (-0.5%)	kWh/m <sup>2</sup> /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)	0.25 (max. 0.70)	Pass
Floor	0.20 (max. 0.25)	0.20 (max. 0.70)	Pass
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	Pass
Openings	1.20 (max. 2.00)	1.20 (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	7.00 (design value)	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	
Maximum	10.0	m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa	Pass

##### Limiting System Efficiencies

##### 4 Heating efficiency

Main heating system	Community heating scheme	-
Secondary heating system	None	

##### 5 Cylinder insulation

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Hot water storage

No cylinder

### 6 Controls

Space heating controls

Flat rate charging, programmer and TRVs

Pass

Hot water controls

No cylinder

### 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 (South West England)

Not significant

Pass

Based on:

Overshading

Average

Windows facing North

4.15 m<sup>2</sup>, No overhang

Windows facing South

3.75 m<sup>2</sup>, No overhang

Air change rate

0.00 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

7.00 (design value)

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Maximum

10.0

m<sup>3</sup>/(h.m<sup>2</sup>) @ 50 Pa

Pass

#### 10 Key features

Roof U-value

0.11

W/m<sup>2</sup>K

Thermal bridging y-value

0.037

W/m<sup>2</sup>K

Community heating, Biomass

N/A

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# RECOMMENDATIONS



	Typical cost	Typical savings per year	Energy efficiency	Environmenta l impact	Result
Low energy lights			0	0	Already installed
Solar water heating			0	0	Not applicable
Photovoltaic			0	0	Not applicable
Wind turbine			0	0	Not applicable
<b>Totals</b>	<b>£0</b>	<b>£0</b>	<b>C 78</b>	<b>A 95</b>	

**DRAFT**

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