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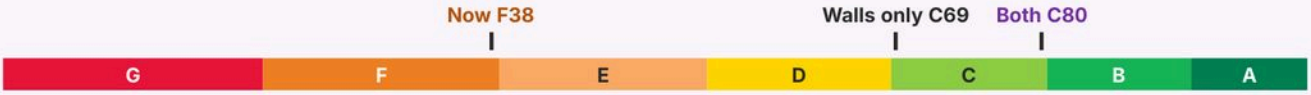
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What to do about your rating

· Mid-floor flat · 77 m²

Prepared by AzRated using the RdSAP assessment data for this property. The assessment was carried out on (report reference . Read it alongside the Energy Report sent with this plan.

CURRENT		MODELLED POTENTIAL
F 38	+42 modelled points available on this property	C 80



Band C starts at 69. Modelled positions from the assessment software, not guaranteed results.

The short answer

The single biggest factor holding this flat back is the main heating. The assessment records electric room heaters, which are the least efficient way to heat a home under RdSAP, and the heating is rated Very poor. Heating makes up £1,833 of the modelled £2,074 a year, close to nine pounds in every ten.

There are two routes to band C on this property, and either one can get there on its own in the modelling:

- gas central heating with radiators, a room thermostat, TRVs and a programmer
- internal wall insulation at a minimum of 310 mm, which on its own is modelled at C69

The order I would use: change the heating first, then add wall insulation if you want to go further. With both in place the modelled potential is C80, with a modelled saving of £1,498 a year.

The figures behind the rating

METRIC	NOW	MODELLED POTENTIAL
EPC score	38	80
Modelled annual energy cost	£2,074	£576
Modelled saving	n/a	£1,498 a year
Primary energy use	183 kWh/m²	96 kWh/m²
Carbon emissions	1.7 tonnes a year	1.3 tonnes a year
Heat transfer coefficient, the rate heat escapes	202 W/K	114 W/K

Ratings run A (best) to G (worst). The England and Wales average score is 60, and band C starts at 69. All figures are standard-occupancy estimates from the assessment software, so your actual bills will differ.

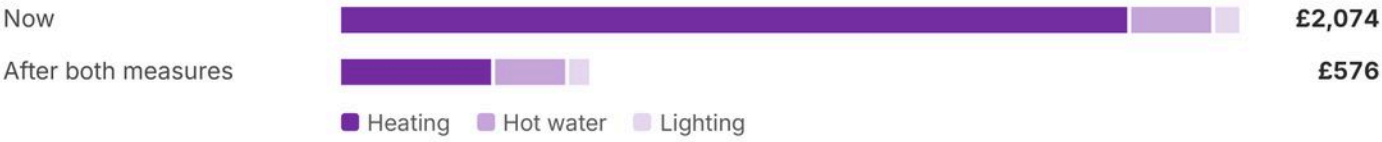
Why the property scored F38

The flat has another dwelling above and another below, so neither the roof nor the floor loses heat to the outside, and the lighting and heating controls already rate Good. The score is held down by two things: how the flat is heated, and the uninsulated solid brick walls.

ELEMENT	WHAT THE ASSESSMENT RECORDS	EPC RATING	WHAT IT MEANS
Main heating	Electric room heaters	**Very poor**	The main reason for the F rating
Walls	Solid brick, as built, no insulation (assumed)	**Poor**	The main fabric weakness
Windows	Fully double glazed	Average	No window upgrade is recommended by this assessment
Heating controls	Appliance thermostats	**Good**	Would be replaced by full controls as part of a new heating system
Hot water	Gas multipoint	Average	Shows a gas supply is already recorded at the property
Lighting	Good lighting efficiency	**Good**	Nothing to do
Roof and floor	Another dwelling above and another below	N/A	Neither loses heat to the outside
Secondary heating	None	N/A	No other heat source recorded

Ratings describe energy efficiency only. They are not based on how well a feature works or on its condition.

Where the modelled cost goes



USE	NOW	SHARE	AFTER IMPROVEMENTS
Heating	£1,833	88%	£361
Hot water	£189	9%	£163
Lighting	£52	3%	£52
Total	**£2,074**		**£576**

Why this matters: heating alone is £1,833 of the £2,074, and it drops to £361 in the improved scenario. Almost all of the modelled £1,498 saving comes out of that one line. The modelled heat transfer coefficient falls from 202 W/K to 114 W/K, so the flat loses heat at a little over half its current rate once the walls are insulated.

What I would do, in order

The Energy Report lists wall insulation first and the heating second. That is the order the software stacks them in for the cumulative figures, not the order I would install them in. As the report says, installing measures individually or in a different order may change the result.

1 **Change the heating to a gas condensing boiler with radiators** BIGGEST SINGLE MOVE

£3,500 to £10,000 · modelled to reach band C on its own · £601 a year modelled saving when added after the walls

This is the measure that moves the rating the most. Specify it as a full central heating system: a gas condensing boiler, radiators, a room thermostat, TRVs on the radiators and a programmer. Done that way, the separate modelling for this plan puts the flat in band C on the heating change alone.

The assessment already records a gas multipoint for hot water, so a gas supply is present. A combination boiler can take over the hot water as well, which is why the model's hot water line also falls, from £189 to £163 a year.

Before you get quotes, check your lease and whether the freeholder has to agree to a new flue and pipework, and confirm with a Gas Safe registered engineer where the boiler and flue can go. Those practical points decide the real cost more than the national range above.

2 Internal wall insulation, minimum 310 mm C ON ITS OWN AT 310 MM

£7,500 to £11,000 · £897 a year modelled saving · C69 at a minimum of 310 mm (D62 at the Energy Report's default)

Separately to the attached Energy Report, we modelled internal wall insulation at a minimum thickness of 310 mm. On its own, that brings the property to C69, just over the band C threshold of 69. Anything thinner than 310 mm was not modelled to reach C, and the Energy Report's standard internal wall insulation recommendation stops at D62.

That makes it a real alternative route to C if the heating cannot be changed, and it compounds well with the heating change if both are done. Two practical points to weigh up: insulation that thick takes floor area from every room with an external wall, and solid brick walls need a system designed for them, with moisture, ventilation and the detailing around window reveals all considered rather than boards simply fixed to the wall.

If you do both, put the heating in first and size it with the insulation in mind, so the radiators are not oversized for a flat that will later lose heat more slowly.

MEASURE	MODELLED RATING	MODELLED SAVING	TYPICAL COST	PRIORITY
Gas condensing boiler, radiators and full controls	Band C on its own	£601 a year*	£3,500 to £10,000	**1.** Do first
Internal wall insulation, minimum 310 mm	C69 on its own	£897 a year	£7,500 to £11,000	**2.** To go further, or if gas is not possible
Both together	**C80**	**£1,498 a year**	**£11,000 to £21,000**	

*The £601 is the heating change's saving once the walls are already insulated, as the Energy Report stacks it. On its own, with uninsulated walls, it would be expected to save more, but the report does not give that figure. EPC costs and savings are standardised national estimates from the assessment software, not quotations or guaranteed household savings.

What I would not prioritise

MEASURE	WHY NOT, FOR THIS PROPERTY
Storage heaters on a dual-rate meter	If the goal is a genuine C, this is not a like-for-like alternative to gas. Electric storage heating still scores well below a gas system under RdSAP, even with off-peak tariff benefits factored in. Realistically that route would be expected to lift the flat from F into the D band at best, not C.
Windows	The assessment records the flat as fully double glazed and no window upgrade is recommended. The rating is lost in the heating and the walls, not the glazing.
Lighting	Nothing to do. Lighting efficiency is already rated Good.
Solar panels	Not one of the measures needed for the modelled potential. On a mid-floor flat it would also depend on roof ownership and the freeholder's arrangements for the building.

AzRated recommendation

F38 looks a long way from C, but on this flat the gap comes almost entirely from one thing, the electric room heaters. My recommended order:

1. Replace the room heaters with a gas condensing boiler, radiators, a room thermostat, TRVs and a programmer. This is the change modelled to reach C.
2. Add internal wall insulation at a minimum of 310 mm if you want to go further, or as the route to C if gas central heating is not possible.

With both measures installed as modelled, the assessment indicates a potential of C80, with running costs modelled at £576 a year against £2,074 now. Band B starts at 81, so these measures alone would leave the property in band C.

AzRated guides

Free guides on our website that go further into the points in this plan.

How to improve your EPC rating

Heating, insulation and the other measures, and what decides how much each one helps.

azrated.co.uk/guides/how-to-improve-your-epc-rating

EPC ratings explained

What each band from A to G means and the score ranges behind them.

azrated.co.uk/guides/epc-ratings-explained

The 2030 rented home standard

If the flat is let, what the higher standard for rented homes means for landlords.

azrated.co.uk/guides/epc-c-by-2030

Please read. This Improvement Plan is based on the RdSAP assessment carried out for this property and is intended as general guidance only. **It is not an Energy Performance Certificate** and must not be used where an EPC is required. The ratings and savings referenced are modelled estimates generated by RdSAP software and are not a guarantee of the result of any specific installation. Actual outcomes depend on the exact specification, installation quality and products used, and can only be confirmed by a new EPC assessment once works are complete. This plan is not a condition survey, and does not constitute design, installation or compliance advice. Installation costs are typical national ranges, not quotations. Obtain quotations and guidance from qualified heating engineers and installers, and check whether Building Control approval is needed, before proceeding. AzRated accepts no liability for the outcome of any works carried out on the basis of this document.

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