Everything you need to know about SAP

A Build Aviator Self-build Guide

Build Aviator
Land your project

SAP is critical to any new build, but it can be difficult to get your head around all of the ins and outs.

Build Aviator has put together this guide to help give self-builders a better understanding of SAP.

What is SAP?

SAP is an assessment of how much energy a home is likely to consume. SAP assesses the energy efficiency of a home in relation to a defined level of comfort and service. A SAP assessment assesses the Carbon Emissions and Energy Demand per m^2 of floor area, and provides a fuel-cost based energy efficiency rating (the SAP rating) and emissions of CO_2 (the environmental impact).

These factors are based on estimates of yearly energy use and the requirement of the space you need to heat.
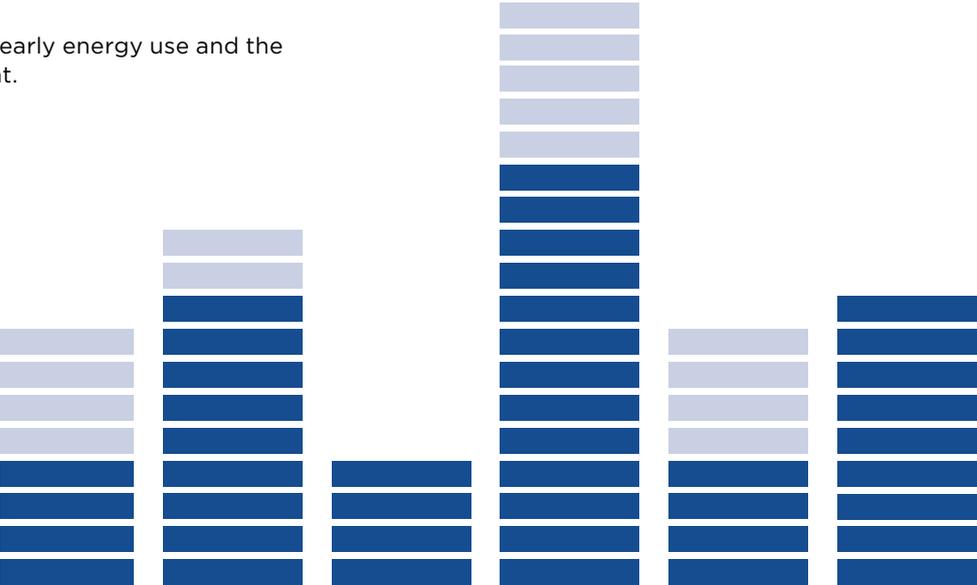
Why do you need a SAP assessment?

Part L of the Building Regulations requires SAP assessments for all newly built dwellings. Without it, Building Control will not sign off the dwelling, and **you cannot get an Energy Performance Certificate (EPC), which is required for selling or letting.**

At what stage do you need to start thinking about SAP?

SAP should be thought about carefully throughout the entire build. At the design stage a calculation must take place, which will advise you on the specification of materials you need during the build. At the end of the build, building control needs to ensure that you have fulfilled SAP requirements.

When should you arrange your SAP assessment?

As soon as possible. The calculations need to be submitted to building control before construction can commence. However, waiting until your design drawings are complete could mean you have to rethink aspects of your proposed building fabric or technologies. Small alterations such as the size of your cavity wall insulation could reduce your internal space or increase the price of your build.

So, considering SAP when you begin to liaise with your architect or designer can streamline the entire process and allow ample time for the materials you require to be ordered reducing the risk of product deviation, whilst saving you time and potentially reducing your costs.

Who should complete your SAP assessment?

Only a registered SAP assessor can complete a SAP.

FACT:

Part L of the building regulations requires SAP for all newly built dwellings

What's the difference between a SAP and an EPC?

An 'as-built' SAP calculation determines the A-G performance ratings that are shown as an EPC.

What happens if I fail my SAP?

If you fail you need to find out why the build is not meeting the required energy performance, and make measures to rectify before completion of the build.

What difference will it make to how I live in my home?

It's important not to just try to meet minimum U-values – how efficient your home is will also affect how comfortable you are in it. If you're concerned about your carbon footprint, a detailed SAP assessment will help you to plan for this much further in advance.

## What is the difference between a SAP assessment and a SAP rating?

A SAP rating is part of each SAP assessment and is calculated through evaluating the expected energy costs of the ventilation, space heating, water heating and lighting within the property. Each SAP score is rated between one to 100. The higher the number the more energy efficient the property is.

FACT:

Only a registered SAP assessor can complete a SAP

Each SAP score is rated between one to 100. **The higher the number the better the energy consumption.**
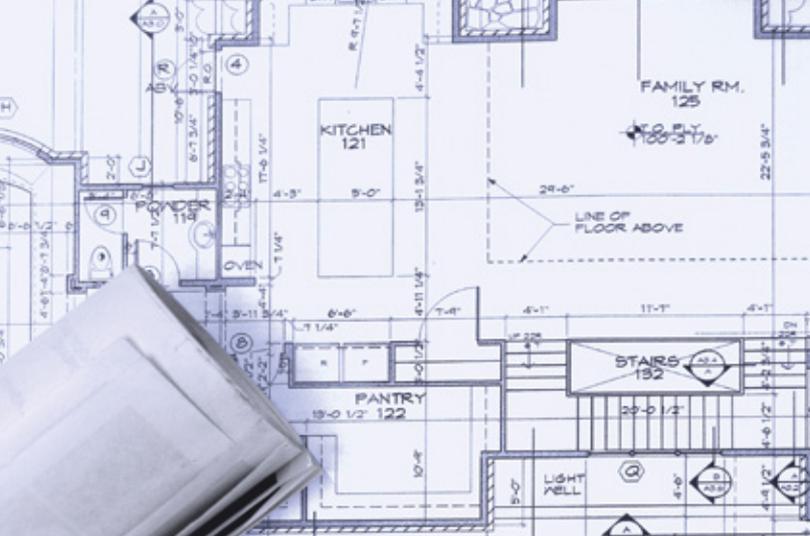
How is SAP assessed?

Scaled architectural drawings, construction details, fabric specifications and HVAC specifications are used to create a model within the SAP software. From this, products are selected from databases, generating options / solutions from manufacturers, which will ensure you meet SAP requirements. The thermal components are also added, along with calculations for thermal bridges. Renewable technologies and any requirements for cooling are also included here.

After all this data is collated, the SAP calculation is completed and generates a range of reports with regards to site form, heat loss, energy demand and renewable contributions, along with other relevant documents.

Is a SAP assessment only required for new builds?

Not necessarily, all new build dwellings require a SAP assessment but also change of use and some extensions will also require a SAP assessment.

FACT:
Taking energy efficiency into consideration at the design stage means more opportunity for energy savings and helps ensure compliance is easily achieved

Glossary

SAP
Standard Assessment Procedure

HVAC
Heating Ventilation & Air Conditioning

DFEE/TFEE
Dwelling Fabric Energy Efficiency/Target Fabric Energy Efficiency

BRE
Building Research Establishment

DER/TER
The Dwelling Emission Rate/ Target Emission Rate

EPC
Energy Performance Certificate

Reducing risk with Build Aviator SAP Services

The Build Aviator SAP service is designed to reduce risk of non-compliance, so you don't have worry about whether the energy performance of your property meets Government targets. By integrating product solutions into the SAP assessment, we've taken the hassle out of material selection, offering you security that your as built SAP calculation will meet your as-designed assessment.

But compliance doesn't have to mean compromise. At Build Aviator we understand that your self build project is your vision, so whether you're after an eco home or you envisage a kitchen with a wall of glass doors, our SAP assessment service, takes away the risk of non-compliance by aligning design to material selection, offering you security from design stage through to completion.

To enquire about a SAP assessment click here.

FACT:
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Contact us.

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