

Send us the items below and we can get started. Don't have everything yet? That's fine — send what you have and we'll tell you what's missing.

## 1 Architectural Drawings

The foundation of every SAP calculation.

- Floor plans for each storey**  
Dimensioned, showing internal room dimensions and wall thicknesses
- Elevations (all sides)**
- Cross sections**  
Showing floor, wall and roof build-ups
- Site plan with north orientation**  
Orientation affects solar gains and overheating
- Window and door schedule**  
Frame material, opening sizes, glazing spec

PDF format is ideal. Send what you have — we can model draft specs and update later.

## 2 Construction Specification

How the building is put together — walls, roof and floor.

- External wall build-up and insulation**  
e.g. Cavity wall: brick / 100mm PIR / 100mm block / plasterboard
- Roof construction and insulation**  
e.g. Pitched roof with 300mm mineral wool
- Ground floor construction and insulation**  
e.g. 100mm PIR below slab, or suspended timber
- U-values if already calculated**  
If not, we calculate them — no extra charge

Don't know exact insulation thicknesses? Tell us target U-values and we'll work backwards.

## 3 Windows and Doors

Glazing spec affects heat loss, solar gain and overheating risk.

- Frame material**  
uPVC, aluminium, timber or composite
- Glazing type**  
Double or triple glazed
- Whole window U-value (U<sub>w</sub>) if known**  
If not, we use standard values
- Door types**  
Solid, partially glazed or fully glazed
- Part O calculation required?**  
Overheating assessment — glazing, orientation and shading

## 4 Heating and Hot Water

One of the biggest factors in your SAP score.

- Heating system type and model**  
e.g. Gas combi boiler, ASHP, electric panel heaters
- Hot water system**  
Combi / unvented cylinder / immersion / instantaneous
- Heating controls**  
Programmer, room thermostat, TRVs, smart controls
- Underfloor heating**  
Wet or electric, and which rooms

Heat pumps and modern controls score well. If undecided, we can model options to compare.

## 5 Ventilation

How fresh air gets in and stale air gets out.

- Ventilation strategy**  
Natural ventilation / MEV (extract fans) / MVHR
- MVHR unit make and model if applicable**  
We need the heat recovery efficiency — check SAP PCDB
- Extract fan locations**  
Kitchen, bathrooms, utility

## 6 Renewables

If applicable — can significantly improve your SAP result.

- Solar PV**  
System size in kWp, roof orientation and pitch
- Solar thermal panels if fitted**
- Battery storage**  
Make and model if known
- Wastewater heat recovery if fitted**

Even a small PV array can significantly improve a marginal SAP result.

## 7 Airtightness

How well sealed the building envelope is.

- Design air permeability target**  
e.g. 5 m<sup>3</sup>/h.m<sup>2</sup> @ 50Pa
- Air test planned at completion?**  
A tested result almost always produces a better SAP score

## 8 Lighting and Water Efficiency

Quick wins that are easy to get right.

- Lighting design**  
Number of fixed lighting outlets per room, or confirm LED / low energy throughout
- Water efficiency measures (Part G)**  
Low-flow taps and showers, dual flush WCs

## 9 Thermal Bridging

Junction details — often the difference between a pass and a fail.

- Accredited Construction Details (ACDs) being used?**
- Calculated psi values available?**  
From a thermal modelling report
- If neither, SAP uses the default Y-value (0.15 W/m<sup>2</sup>K)**
- Need thermal bridging calculations?**  
We can do these for you for an additional charge

If marginal, calculated psi values often provide the 2-5 points needed to pass.

## ✓ Don't Have Everything? No Problem.

Most clients don't have every item at first. The essentials to get started are:

1. **Floor plans and elevations** (even draft)
2. A rough **construction specification** (wall, floor, roof build-ups)
3. **Heating system type**

Everything else can be confirmed as the design develops. We flag anything missing before we start.