

SAP and Appendix Q

The Definition of SAP

SAP is the Government's Standard Assessment Procedure for Energy Rating of Dwellings. SAP 2005 is adopted by government as part of the UK national methodology for calculation of the energy performance of buildings. It is used to demonstrate compliance for dwellings with Part L of the Building Regulations (England and Wales) and to provide energy ratings for dwellings.

SAP Rating

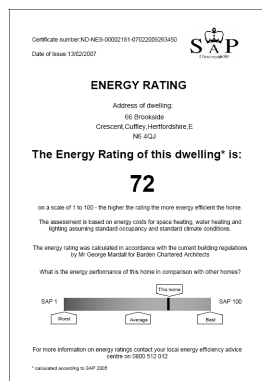
The SAP energy rating is a number between 1 and 100+ based on the annual space heating, water heating and internal lighting costs per square metre for the property, calculated using standard occupancy and location assumptions and deflated three year average fuel prices.

What does the SAP do?

The SAP calculates a rating for the energy cost due to the built structure of the home and its heating system, internal lighting and any renewable energy technologies used in the home. It does not include energy used for cooking or appliances. It also uses 'middle of England' location for calculating the level of heating throughout the year.

What does the Rating mean

100 would represent a zero cost of running the home (excluding cooking and other appliances). Anything over could be achieved if power was fed back into the national grid by use of a Micro Combined Heat and Power (MCHP) unit. The average energy performance of all homes is 50



Compliance with Approved Document L

In order to demonstrate compliance with Approved Document L1A it has to be shown that the Dwelling CO₂ Emissions Rate (DER) is less than the Target CO₂ Emissions Rate (TER).

Target Emissions Rate (TER)

The TER is calculated based on a notional building of the same size and shape but in accordance with 2001 regulations and then deducting 20% from the CO₂ quantity which would have emitted from that building.

Dwelling Emissions Rate (DER)

The DER is then calculated from the information fed into the SAP programme, such as floor, wall and roof areas with their associated U values, window and door openings, type of heating system, ventilation and lighting system.

Other Factors

Compliance with ADL is dependent upon not only DER but whether or not U values of all materials are a certain maximum value, a certain percentage of light fittings are the energy saving type, etc.

APPENDIX Q

SAP 2005 Appendix Q is an addendum to the SAP and allows the energy performance of new products to be specified within SAP. Products can be tested and listed in appendix Q and the resulting test figures used in the SAP procedure to improve upon the default SAP figures.

A substantial energy saving can be made by the use of an appendix Q eligible ventilation or MVHR unit such as the MVHR.90 as opposed to non compliant units.

Starkey Systems have staff qualified to carry out SAP calculations for submission to building control.