

## HETAS APPROVED APPLIANCES MINIMUM GROSS EFFICIENCY STANDARDS

The minimum appliance efficiencies quoted below are measured at normal rated output and are on a Gross CV basis. They are not seasonal efficiencies. The majority of appliances listed in the HETAS Guide have efficiencies well above these minimum, pass mark, values. There is also evidence to show that with solid fuel appliances efficiency does not fall off greatly as the output of the appliance reduces. Additional useful heat, which is not included in these minimum values, can be available from the chimney and fireplace particularly if the chimney is centrally placed and enclosed in the building structure.

Testing has, until recently, been carried out to British Standards (BSS) using an appropriate standard test fuel. It is against these earlier BSS that most of the appliances listed in this Guide have been tested. After 1st January 2003 Type Testing is now carried out to the relevant BS ENs. These new European Standards now adopted as British Standards are as follows:- Independent boilers BS EN 12809; or when wood pellets fired to BS EN 14785 or BS EN 303-5; Cookers BS EN 12815; Roomheaters BS EN 13240; or when wood pellets fired to BS EN 14785; Open Fires BS EN 13229.

The standard test fuels used are representative of those DEFRA Authorised Fuels which can be used in Smoke Control Areas (SCAs). Bituminous Housecoal, Wood Logs and Wood Pellets are not permitted to be used in SCAs unless they are burned in specially designed, smoke reducing, DEFRA Exempted Appliances. The minimum efficiency pass values that are listed below are under review with the intent of raising them further.

### OPEN FIRES

Simple Open Fire – 37% (Radiation only)

Open Fire Freestanding Convector – 47%

Open Fire Inset Convector – 45% mineral fuel, 43% wood

Open Fire with domestic hot water boiler - 50%

Open Fire with high output boiler – Trapezium or rectangular grate – 63%

**Notes.** The standard test fuel used for open fires is a reactive smokeless fuel and/or wood logs as specified in the appropriate BS EN.

Additionally, heat is given out from the appliance by convection and conduction which provides added heat to that measured in the earlier BS tests on which these minimum figures are based.

### ROOMHEATERS/STOVES

Roomheater without boiler – 65%

Roomheater with boiler – 67%

**Note.** The standard test fuel for Roomheaters is an anthracite based briquette and/or wood logs.

Pellet Fired Stoves without boiler – 70% (at nominal load), 65% (at part load).

Pellet Fired Stove with boiler – 75% (at nominal load), 70% (at part load)

**Note.** The standard test fuel for Pellet Fired Stoves is a low ash content high quality wood pellet as specified in the appropriate BS EN.

## **COOKERS**

Cooker with integral oven and boiler – 65% mineral fuel, 55% wood logs.

**Notes.** The test fuel for cookers is an anthracite based briquette as specified in the appropriate BS EN.

## **INDEPENDENT BOILERS**

Hand Fired Batch Fed – 65%

**Note.** The test fuel for hand fired independent boilers is an anthracite based briquette and/or wood logs.

Gravity Feed (up to 20.5 kW) – 70%  
Gravity Feed (above 20.5 kW) – 75%

**Note.** The test fuel for Gravity Feed boilers is a grain or bean sized low ash content anthracite as specified in the appropriate BS EN.

Automatic Feed fired by wood pellets/chips – 75% (at nominal load), 70% (at part load).

**Note.** The standard test fuel for Pellet Fired Boilers is a low ash content high quality wood pellet/chips as specified in the appropriate BS EN.