

Datasheet for Engineers

a. Calorific Value of Common Fuels

Fuel	Higher heat value (MJ kg ⁻¹)	Lower heat value (MJ kg ⁻¹)	Higher values heat of combustion (MJ kg ⁻¹)	Lower values heat of combustion (MJ kg ⁻¹) (25°C)
Hydrogen	141.8	121.00	141.90	
Methane	55.50	50.00	-	50.009
Ethane	51.90	47.80	-	47.794
Propane	50.35	46.35	49.90	46.357
Butane	49.50	45.75	49.20	45.752
Pentane	-	45.35	-	45.357
Gasolene	47.3	44.40	47.00	-
Paraffin	46.00	-	-	-
Kerosene	46.20	43.00	-	-
Diesel	44.80	-	45.00	-
Coal (lignite)	27.00	-	-	-
Coal (anthracite)	15.00	-	-	-
Wood	15.00	-	15.00	-
Peat (damp)	6.00	-	15.00	-
Peat (dry)	15.00	-	27.00	-
Natural gas	-	-	54.00	-
Hexane				44.752

b. kWhr Equivalent of Heat Content in Fuel (values may differ for different sources of fuel)

Type of fuel	Fuel	KJ kg ⁻¹	kWhr kg ⁻¹
Solid fuel	Charcoal	33	10.7
	Coal (average)	25.33	8.1
	Wood	17	4.9 - 5.5
	Dung cake	6 - 8	2 - 2.6
Liquid fuel	Kerosene	46 - 48	15 - 15.5
	Petrol	47 - 50	-
	Diesel	45	15.5
	Ethanol	30	9.7
Gaseous	Biogas	35 - 40	11.3 - 20.9
	Butane (LPG)	50	-
	Methane	55	17.8
	Hydrogen	142 - 150	46 - 48.5