

Properties of Typical Fuels

FUELS	Gravity relative to air or relative to water	Calorific value Btu per cu ft or Btu/gal		Gross Btu per cu ft std air	Cu ft air req'd per cu ft gas or per gal	Combustion products, cu ft per cu ft gas or cu ft per gal				Ultimate %CO ₂ in dry flue gas
		Gross	Net			CO ₂	H ₂ O	N ₂	Total	
a Natural gas, Typical of U.S. cities ---	0.60	1 002	904	106.2	9.44	1.00	1.95	7.52	10.47	11.7
Natural gas, Check with local supplier.	0.635	1 059	959	106.2	9.97	1.08	2.03	7.93	11.04	12.0
Natural gas, local supplier.	0.63	974	879	106.3	9.16	0.98	1.88	7.33	10.20	11.8
Natural gas, LNG, Algerian, Carvey	0.61	1 129	1 021	106.3	10.62	1.15	2.14	8.40	11.69	12.0
b Natural gas, British	0.64	1 122	1 014	104.3	10.76	1.17	2.17	8.52	11.86	12.1
Blast furnace gas	1.02	92	92	135.3	0.68	0.39	0.01	1.14	1.54	25.5
Producer gas, Wellman, bituminous	0.86	168	158	129.2	1.30	0.35	0.20	1.58	2.13	18.5
c Coke oven gas, by-product	0.40	569	509	105.0	5.42	0.53	1.32	4.34	6.18	10.8
Sewage gas, Decatur	0.79	690	621	105.2	6.55	0.90	1.38	5.24	6.52	14.7
Towne gas, British	0.49	449	403	117.3	3.83	0.47	0.92	3.13	4.51	12.9
d Commercial propane, natural gas	1.55	2 558	2 374	107.5	23.8	2.98	3.98	18.80	25.76	13.7
Commercial propane, refinery gas	1.77	2 504	2 316	108.0	23.2	2.99	3.74	18.35	25.08	14.0
Commercial butane, natural gas	2.04	3 210	2 961	104.9	30.6	3.94	4.94	24.23	33.11	14.0
Commercial butane, refinery gas	2.00	3 184	2 935	106.1	30.0	3.95	4.67	23.75	32.37	14.3
e #1 Fuel Oil, 6.79#/gal (13.3% H)	0.814	131 900	123 600	101.4	1301	186	171	1029	1386	15.4
#2 Fuel Oil, 7.22#/gal (12.5% H)	0.865	137 100	128 900	100.4	1365	199	171	1079	1449	15.7
#4 Fuel Oil, 7.59#/gal (11.6% H)	0.910	143 000	135 000	102.1	1401	207	167	1108	1482	15.8
#5 Fuel Oil, 7.93#/gal (10.7% H)	0.951	149 950	142 200	103.2	1453	222	161	1149	1532	16.3
f #6 Fuel Oil, 8.45#/gal (9.3% H)	1.013	153 200	146 000	103.0	1487	236	149	1176	1561	16.8