

LPG Specification



(C3: Propane 70% / C4: Butane 30%)

SPECIFICATIONS			
Properties	Propane	Butane	LPG (C3:70% & C4:30%)
GENERAL			
Physical state at 15°C and 1 ATM	Gas	Gas	Gas
Molecular weight (gm/mole)	44.09	58.12	51-54
Boiling Point at 1 ATM (°C)	(-) 42.1	(-) 0.5	(-) 13
Freezing point (°C)	(-) 187.7	(-) 138.4	(-) 153
Critical Temperature (°C)	96.67	305.6	243
Critical Pressure (PSIA)	616.25	551	570
Auto-Ignition temperature in air at 1 ATM (°C)	470	500	490
Colour (appearance)	Colourless	Colourless	Colourless
Odour	Odourless	Odourless	Odourless
Toxicity	Non-toxic	Non-toxic	Non-toxic
LIQUID			
Reid Vapor Pressure (RVP) at 15.6°C (bars)	12	3.6	5-7
Gross Calorific Value at 15°C (kcal/kg)	11900	11800	11830
Net Calorific Value at 15°C (kcal/kg)	10999	10845	10896
Liquid density at 15°C (kg/litre)	0.51	0.575	0.5550
Specific volume of liquid per Kg at 15 C (litre)	1.96	1.73	1.7990
Specific gravity of liquid at 15°C (w.r.t water1)	0.51	0.575	&0.5555
VAPOR			
Specific density at 15 C & 1 ATM (kg/m3)	1.55	2.48	2.20
Specific Volume of Gas per kg at 15 C, 1 ATM (m3)	0.5	0.38	0.42
Explosive limit (Vol% of vapor in air gas mixture)	2.4 to 9.3	1.8 to 8.8	2 to 9.5
Gross Calorific Value at 15°C, (kcal/Nm3)	24000	30700	25226.67
Net Calorific Value at 15°C, (kcal/Nm3)	22600	29000	10896.36
Air required for combustion m ³ /m ³	24	30	28