DrachenGas
Dragan Group since 1948

CHARACTERISTICS	COMMERCIAL BUTANE	COMMERCIAL PROPANE
• Chemical formula • Physical state at suitable environmental conditions (760 mm.Hg., atm. pressure at 15°C amb. temperature).	• C_4H_{10} • Gaseous	• C_3H_8 • Gaseous
Average density: at Liquid state at 15°C at gaseous state at 15°C and 1013 mbar	0.58 kg/dm^3 2.44 kg/m^3	0.51 kg/dm^3 1.87 kg/m^3
Density ratio to air	2.07	1.54
Boiling temperature at 1013 mbar	0°C	-44°C
Freezing point (pure product)	-138.5°C	-187.7°C
Critical point: Temperature Pressure	150.8°C 3.88 MPa - 38.8 bar	97.5°C 4.56 MPa - 45.6 bar
Relative vapour pressure: • at + 5°C • at + 15°C	0.08 MPa (0.8 bar) 0.17 MPa (1.7 bar)	0.52 MPa (5.2 bar) 0.75 MPa (7.5 bar)
Latent heat of vaporization at + 15°C per kg	362 kJ or 100.5 Wh (86.5 Cal)	356 kJ or 98.8 Wh (85 Cal)
Higher calorific value: • each kg • per m^3 at 15°C and 1013 mbar	13.7 kWh (11.800 Cal) 33.5 kWh (28.800 Cal)	13.8 kWh (11.900 Cal) 24.9 kWh (22.300 Cal)
Lower calorific value: • each kg • per m^3 at 15°C and 1013 mbar	12.66 kWh (10.900 Cal) 30.45 kWh (26.200 Cal)	12.78 kWh (11.000 Cal) 23.70 kWh (20.400 Cal)
Calorific energy	29.5 m^3/m^3	23 m^3/m^3
Smoke energy	31.8 m^3/m^3	24.8 m^3/m^3
Flammability limit in air: • lower • upper	1.8% 8.8%	2.4% 9.3%
Theoretical composition of the products of a neutral combustion (condensed water) • CO2 • N2	14% 86%	13.7% 86.3%
Self-ignition temperature in the air (mixture corresponding to a complete combustion).	490°C	515°C
Flame propagation speed in cm/second	33	32

Maximum temperature, so called flame in air	1915°C	1920°C
• Litres of gas at 1013 mbar (760 mmHg) and 15°C • from 1 L of Liquid are obtained about • from 1 kg of liquid are obtained about	 235 l 435 l	 270 l 535 l