PRIMAGAZ

Specification Propan 95

(LPG)

Chemical composition

	Unit	Requirements	Typical	Test methods
Methane C H_4	mol %	Max 0,5	<0,01	ASTM D-2163
Ethane C_2H_6	”	Max 2,0	0,9	”
Propane C_3H_8	”	Min 95,0	97	”
Butane C_4H_{10}	”	Max 5,0	1,5	”
Pentane and heavier	”	Max 0,5	<0,1	”
Olefines C_nH_{2n}	”	Max 3,0	0,5	”
Sulphur (exd. mercaptan sulphur)	ppm (wt)	Max 15	7	ASTM D-5453 MOD
Residue on evaporation	mg/kg	Max 20	5	EN-ISO 13757
Copper strip corrosion		Max 1	1A	ASTM D-1838

Required quantity methanol and odorant supplied.

Physical properties

Liquid phase		**Unit**	**Typical**	**Test methods**
Density at 15°C		kg/m^3	507	ISO 8973
Boiling point at 101 kPa (= 1 bar)		°C	-42	
Vapour pressure overpressure at	-40°C	MPa (=0,1 x bar)	0,01	ISO 8973
	-20°C	MPa	0,14	
	0°C	MPa	0,38	
	+20°C	MPa	0,73	
	+40°C	MPa	1,3	
Gas phase				
Relative density at 101 kPa and 15°C (air = 1,00)				
			1,55	
Density 101 kPa and 0°C		kg/m^3	2,03	ISO 6976
Dew point at	50 kPa	°C	-33	
	100 kPa	°C	-25	
	200 kPa	°C	-14	
	300 kPa	°C	-0,6	
	400 kPa	°C	0	

Combustion properties

	Unit	Typical	Test methods
Gross calorific value at 101 kPa and 0°C	MJ/kg	50,3	ISO 6976
	kWh/kg	14,0	
vid 101 kPa and 0°C	MJ/kg	101,6	ISO 6976
	kWh/m³	28,2	
Net calorific value at 101 kPa and 0°C	MJ/kg	46,3	
	kWh/kg	12,8	
	MJ/m³	93,5	ISO 6976
	kWh/m³	26,0	
Flammability in air	vol % gas	1,5 - 11,7	

Vapour pressure Propane 95