

Characteristics	Unit	Test Method	Avgas LL
Density @15°C	kg/L	D1298 or D4052	Typical 0.69 – 0.76 2 stroke typical 0.69 – 0.763
Research Octane No		D2699	Min 103 Max 112
Motor Octane No		D2700	Min 100 Max 108
Lead Content Unleaded	gmPb/L	D5059 or D3341	
Lead Content Leaded	gmPb/L	D5059 or D3341	Max 0.56
Distillation		D86	
% evap @ 70 deg C	% volume		
% evap @ 100 deg C	% volume		
% evap @ 180 deg C	% volume		
End Point	deg C		
Residue	% volume		
10% Evaporated	deg C		Max 75
40% Evaporated	deg C		Min 75
50% Evaporated	deg C		Max 105
90% Evaporated	deg C		Max 135
End Point	deg C		Max 170
Sum of 10% and 50% Evaporated	deg C		Max 135
Residue	% volume		Max 1.5
Reid Vapour Pressure at 37.8 deg C	kPa	D323	Min 38.0 Max 49.0
Flexible Volatility Index		D323/D86	
Existent Gum	mg/100ml	D381	Max 3
Induction Period	Mins	IP40	
Sulphur	% mass	D1266 or D2622	Max 0.05
Colour			Blue
Oxygenates	% mass	D4815	Max 0.1
Aromatic Content	% volume	D5580 or D5443	
Benzene	% mass	D3606 or D5580	

Property	Test Method	Unleaded Pump Gas
Density	ASTM D1298 or ASTM D4052	Not a specification
Research Octane Number (RON)	ASTM D2699	
Motor Octane Number (MON)	ASTM D2700	
Cetane Index		
Percentage Volume evaporated at 70°C (E70)	ASTM D86	22% Minimum 50% Maximum
Percentage Volume evaporated at 100°C	ASTM D86	45% Minimum 71% Maximum
Percentage Volume evaporated at 150°C (E150)	ASTM D86	75% Minimum
End Point (°C)	ASTM D86	210°C Maximum
Lead (mass of lead per litre of gasoline)	D5059 or D3341	0.5 Maximum
Benzene (% volume)	D5580	1% Maximum
Ethanol (% volume)	D4815	10% maximum
Other Oxygenates (% volume)	D4815	3.7% Maximum
Olefins (% volume)	D1319	18% Maximum
Manganese (mg/L)	D3831	2mg/L Maximum
Phosphorus (mg/L)	D3231	1.3mg/L Maximum

Characteristics	Unit	Test Method	Methanol
Density	kg/L	D 1298 or D 4052	0.791 – 0.793 0.791 – 0.800 for 2 strokes
Distillation		D 86	
Initial Boiling point	deg C		55.6 – 64.5
40% Evaporated	deg C		Max 64.5
50% Evaporated	deg C		Max 64.5
90% Evaporated	deg C		Max 64.5
Residue	% volume		Max 1.5 3.0 for 2 strokes
Colour			Water white

Characteristics	Unit	Test Method	Unleaded FIM Petrol
Density at 15°C	Kg/L	ASTM D 4052	Typical 0.72-0.78 2 stroke typical 0.72-0.81
Research Octane No		D2699	Min 95.0 Max 102.0
Motor Octane No		D2700	Min 85.0 Max 90.0
Lead Content	gmPb/L	D5185 mod B	Max 0.005
Distillation		D86	
% evap @ 70°C	% volume	ISO 3405	Min 22 Max 50
% evap @ 100°C	% volume	ISO 3405	Min 46 Max 72
% evap @ 150°C	% volume	ISO 3405	Min 75
Final Boiling Point	Deg C	ISO 3405	Max 210
Residue	% volume	ISO 3405	Max 2
Reid Vapour Pressure	kPa	EN12	Max 90
Existent Gum	Mg/100ml	EN ISO 6246	Max 5.0
Sulphur	Mg/kg	ASTM D 5453	Max 1
Colour		Visual Inspection	Clear
Oxygenates	% mass	ISO22854	Max 3.7
Aromatic Content	% volume	D5580	Max 42
Benzene	% volume	D5580	Max 1.0