

**FUEL SPECIFICATIONS**

Characteristics	Unit	Test Method	Unleaded Super	Avgas
Density	kg/L	D1298 or D4052	Typical 0.72 – 0.76 2 stroke typical 0.72 – 0.763	Typical 0.69 – 0.71 2 stroke typical 0.69 – 0.713
Research Octane No		D2699	Min 95.0 Max 99.0	Min 103 <b>Max 112</b>
Motor Octane No		D2700	Min 85.0 Max 91.0	Min 100 <b>Max 108</b>
Lead Content Unleaded	gmPb/L	D3116, IP352, Or UOP350	Max 0.013	
Lead Content Leaded	gmPb/L	IP270 or D3341 or D5059		Max 0.85
Distillation		D86		
% evap @ 70 deg C	% volume		Min 25 Max 45	
% evap @ 100 deg C	% volume		Min 45 Max 65	
% evap @ 180 deg C	% volume		Min 90	
End Point	deg C		Max 215	
Residue	% volume		Max 2	
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 2
Reid Vapour Pressure At 37.8 deg C	kPa	D323	Max 95	Min 38.0 Max 49.0
Flexible Volatility Index		D323/D86	Max 115	
Existent Gum	mg/100 ml	D381	Max 4	Max 3
Induction Period	Mins	IP40	Min 360	
Sulphur	% mass	D1266 or D2622	Max 0.05	Max 0.05

Colour			Yellow	Green
Oxygenates	% mass	D1815	Max 0.1	Max 0.1
Aromatic Content	% volume	D5580 or D5443	Min 26 Max 48	
Benzene	% mass	D3606 or D5580	Max 5.0	

<b>METHANOL</b>			
<b>Characteristics</b>	<b>Unit</b>	<b>Test Method</b>	<b>Methanol</b>
Density	kg/L	D 1298 or D 4052	0.796 – 0.797 0.796 – 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

<b>UNLEADED FIM PETROL</b>			
Density at 15 deg C	Kg/L	ASTM D 4052	Typical 0.72-0.78 2 stroke typical 0.72-0.81
Research Octane No		ISO 5164	Min 95.0 Max 102.0
Motor Octane No		ISO 5163	Min 85.0 Max 90.0
Lead Content	gmPb/L	EN237 (2)	Max 0.005
Distillation			
% evap @ 70 deg C	% volume	ISO 3405	Min 15 Max 50
% evap @ 100 deg C	% volume	ISO 3405	Min 46 Max 71
<b>UNLEADED FIM PETROL (Continued)</b>			
% evap @ 150 deg C	% volume	ISO 3405	Min 75
Final Boiling Point	Deg C	ISO 3405	Max 215
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 150
Colour		Visual Inspection	Clear
Oxygenates	% mass	ASTM D 5622 ASTM D 4815 (1)	Max 2.7
Aromatic Content	% volume	ASTM D 1319 (3)	Max 42
Benzene	% volume	EN 238	Max 1.0