

Piston Engine Aircraft Fuel

Description

Avgas 100 LL is a gasoline fuel for reciprocating piston engined aircraft. Avgas 100LL has lean mixture octane rating of better than 100, whilst its rich mixture octane rating exceeds 130 that allows high performance engines to operate safely.

Avgas 100LL is manufactured to stringent internationally agreed specifications and has been produced at the Viva Energy Geelong refinery for over 50 years. The composition, aromatics content and formulation of the fuel has remained unchanged for over 10 years.

From refinery to aircraft tank, the fuel is checked by sampling and laboratory analysis to ensure high cleanliness of fuel, freedom from contamination and conformance to specification when delivered to aircraft.

Avgas 100LL is dyed blue for ease of identification from other grades of Avgas and other non aviation fuels.

Avgas 100LL is manufactured at our Geelong Refinery and supplied to airports from supply chains that are regularly quality assured and audited against the ISO 9001 and Energy Institute EI/JIG 1530 guidelines.

Performance Features

Avgas 100LL is manufactured in compliance with the requirements as defined in:

- DEF STAN 91-090 Latest Issue
- ASTM D910 Latest Issue
- NATO Code: F-18

Applications

Aviation Gasoline, is used in piston engines used in fixed and rotary wing aircraft. This grade of fuel is designed to deliver safe and reliable operation in aviation spark ignition piston engines.

Aviation gasoline is not recommended for non aviation spark ignition engine vehicles.

Health, Safety and Environment

Viva Energy Avgas 100LL is a highly flammable clear blue liquid. Classified as a Dangerous Goods Class 3 PG II for transportation purposes. Avgas contains tetraethyl lead, avoid contact with the skin and eyes, and breathing vapours or mist. After working with Avgas, wash hands with soap and water before eating, drinking or smoking cigarettes.

Guidance on health and safety is available on the appropriate Material Safety Data Sheet which can be obtained from the Viva Energy Technical Help Desk or from www.Vivaenergy.com.au

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Storage

Storage and handling of aviation fuel in accordance with recommendations defined in EI/JIG1530, JIG guidelines 1, 2 & 4 and AS1940 standards is recommended to ensure preservation of fuel quality and observation of safety / regulatory requirements.

Avgas 100LL is a volatile fuel and drummed fuel must be stored in tightly sealed metal containers in sheltered locations protected from rain or direct sunlight. Poor storage can result in changes to fuel composition which may make it unfit for aviation use.

Specifications / Approvals / Recommendations

Viva Energy Avgas 100LL is manufactured to meet the specifications of:

British Specification (UK MoD)	DEF STAN 91-090 Latest Issue
USA Specification (ASTM)	ASTM D910 Latest Issue
NATO Code	F-18

Typical Physical Characteristics

Properties	Methods	Typical
Appearance	Visual	Clear & Bright
Density @ 15°C	ASTM D4052	717 kg/m ³
Colour	Observed / IP 569	Blue
Knock Rating Lean Mixture Rich Mixture	ASTM D2700 ASTM D909	102 132
Tetraethyl Lead	ASTM D5059	0.35 gPb/L
Total Aromatics	ASTM D1319	16%
Benzene	ASTM D1319	0.7%
Specific Energy	ASTM D3338	43.7 MJ/kg
Vapour Pressure	ASTM D5191	45 kPa
Freeze Point	ASTM D2386	< -58.0 °C

Technical Help Desk

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