



IndianOil

**Soaring Towards
AatmaNirbhar Bharat**

AVGAS 100 LL

For the world





IndianOil



AVGAS 100 LL

Product Description and its features

AVGAS 100 LL is the principal grade of aviation gasoline. It is designed to use in turbocharged aircraft reciprocating piston engine. It can also be used in smaller, normally aspirated spark ignition engines. It is used by Indian Defense and flying schools across the country. In Aviation Gasoline 100 LL, 100 refers to 100 octane no. (Motor Octane Number) and LL stands for Low Level Tetra Ethyl Lead (TEL) which is doped in Aviation Gasoline to boost octane number.

AVGAS 100 LL is the most popular grade among aviation Gasoline. AVGAS 100 LL is a mixture of many different hydrocarbon streams and is produced by blending of different hydrocarbon streams in the refinery. Governing specifications for AVGAS 100 LL are IS-1604-2022 (5th revision), AVGAS 100 LL provides the balanced set of properties required for satisfactory performance in piston engine aircraft such as good anti-knock performance, tightly controlled volatility, resistance to oxidation and adequate low temperature flow characteristics.

AVGAS 100 LL is manufactured, stored, distributed and delivered under the most stringent quality assurance procedures to ensure that only clean, dry, on-specification fuel is supplied to the customer in barrels.

AVGAS 100 LL is not recommended for non-aviation spark ignition engine vehicles.

AVGAS 100 LL

AVGAS 100 LL Manufacturing

AVGAS 100 LL is a higher-octane aviation fuel. It is manufactured to stringent internationally agreed specification at the IndianOil's refinery.

It is optimized mixture of carefully selected refinery streams and additives. Tetra Ethyl Lead (TEL-B) is used in aviation gasoline for enhancing the octane number. Other additives such as Antioxidant (AO), Anti-static dissipater (ASA), blue dye, and Corrosion Inhibitor (CI) are also incorporated to give desired performance in aircraft spark ignition engines. These additives are being dosed after blending of the refinery streams.

The final blend is kept in storage tank and tested for full specification test as per governing specifications. Only after the product meets specifications, it is filled in Barrels through filters and is supplied to the customers.

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Quality Control

An integral part of AVGAS supply is to ensure the fuel reaches the aircraft in refinery fresh condition. This is achieved by stringent quality control procedures defined in line with the DGCA approved Aviation Quality Control and Assurance Manual.

Safety Details

The product is classified as hazardous and is Class- A product.

It is highly flammable in liquid and vapor form. May be fatal if swallowed and enters airways. Product is highly toxic in nature. It is toxic to aquatic life with long lasting effects.

Handling and Storage

The product has to be stored in a dry, cool and well-ventilated place. It should be kept away from heat, hot surfaces, sparks, open flames and other ignition sources.

For handling, personal protective equipment should be used to avoid any contact with skin, eyes and clothes. Contact with soil, surface or ground water is not allowed.

Explosion-proof machinery, apparatus, ventilation facilities, tools etc. to be used in the storage area. Only non-sparking tools to be used.

Typical properties against specification:

Property	Max value	Typical Value	Min Value
Lean mixture, Motor method, Octane No.	-	102	99.6
Performance Number, Rich mixture(Supercharge Method)	-	134	130
Freezing Point, °C	(-) 58	(-) 62	-
Final Boiling Point, °C	170	137	-
Reid vapor pressure ,37.8°C	49	46	38
Sulphur content, % m/m	0.05	<0.001	-
Tetraethyl lead content , gPb/l	0.56	0.5	-
Colour	Blue	Blue	-





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