

Aviation Turbine Fuel Testing



Aviation Turbine Fuel (ATF) is a specialized type of petroleum-based fuel used to power aircrafts. It is generally of higher quality than fuels used in less critical applications, such as heating or road transport. ATF contains additives to enhance or maintain properties important to fuel performance or handling.

Other significant performance properties of the product are stability, lubricity, fluidity, volatility and cleanliness beside providing a source of energy. Fuel is also used as hydraulic fluid in engine control system and as a coolant for certain fuel system components.

There are two types of aviation fuel in use today:

- Conventional Hydrocarbon Aviation turbine fuel (Avtur, Jet A, Jet A-1, JP8) refined direct from crude oil, also called Jet fuel.
- Newer innovative fuels such as the SASOL semi and fully synthetic fuels now included in Defstan 91-91 and AFQRJOS specifications. These will soon be joined by a plethora of fuels based on innovative source materials such as gas to liquid fuels, coal to liquid fuels, biomass to liquid fuels and even fuels from algal growth.

TUV India offer fuel quality analysis services in accordance to ASTM, IP, MIL, DEFSTAN and other jet aviation industry standards

Our Analysis Includes Below Test Parameters:

- Appearance – Visual
- MSEP With SDA Rating – ASTM D 3948:2020
- MSEP without SDA – ASTM D3948
- Acidity mg KOH/gm – ASTM D 3242, IP 354, IS1448 (P:13)
- Aromatics Content % Wt.- ASTM D 1319, IP 156, IS 1448 (P:23)/ ISO 3837
- Aniline Point- ASTM D 611, IP 2/ISO 2977
- Bromine Number – IP 129. ASTM D 1159/ISO 3839
- Bromine Index- ASTM D 1492
- Color (Saybolt) – ASTM D 156
- Copper Corrosion Test Rating – ASTM D 130, IP 154, IS 1448 (P:15) / ISO2160
- Density Kg/L- ASTM D 1298, IP 160 IS 1448 (IP:16) ISO 3675
- Density kg/L- ASTM D 4052 / IP 365/ISO 12185
- Distillation °C- ASTM D 86, IP 123, IS 1448 (P:18) / ISO 3405
- Doctor Test – ASTM D 4952, IP 30 IS 1448 (P:19)
- Existent Gum on air mg/100ml – ASTM D 381 IP 131 IS 1448 (P:29)
- Flash Point (Abel) deg C – IP 170 IS 1448 (P:20 method B)
- Naphthalene Content % Vol.-ASTM D1840, S1448 (P:118)
- Particulate Matter mg/ltr- ASTM D 2276, IP 216, D5452
- R.V.P. @ 100 Deg Farade Psig- ASTM D 323, IP 69



- Sulfur Content % Wt.- ASTM D 4294, D -5453
- Water Content ppm-ASTM D 6304
- Water Reaction Test Rating - ASTM D 1094, IP 289
- Olefins Content - D 1319 IS 1448 (P:23)
- Kinematic Viscosity @ -20Deg Celcius - ASTM D 445, IS 1448(P:25)/ ISO 310
- Electrical Conductivity - ASTM D2624
- Mercaptan Sulfur Content ppm- ASTM D 3227, IP 342, IS 1448 (P:109)

About Us:

TUV India Pvt. Ltd. (TÜV NORD GROUP) is a customer-focused, innovative, and independent, technical, quality & safety services organization, dedicated to providing future-proof solutions through technological excellence for the success of its customers with the highest level of integrity. With a presence at over 40 strategic locations in India; a branch office in Sri Lanka and Bangladesh; state-of-the-art laboratories at Pune, Bengaluru, Noida and Jamnagar; 100 important countries worldwide and through digital means, we are always connected to you, our esteemed customer,

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Over 1400 competent and experienced TUV India experts spread across India and over 14000 TÜV NORD experts all over the world, enthusiastically support our clients by providing value-added services in Industry Inspection, European / International Approvals, Management System & IT Certification, Sustainability, Energy Audit, Water Audit, Carbon Services, Building Infrastructure & PMC, Renewable Energy, Food & Packaging Testing, Food Certification & Inspection; Testing of restricted and banned chemicals in Automotive and Electrical & Electronics components and other regulated industries, Product Testing – Electricals, Electronics and Industrial Machinery; Product Certification; Petroleum, Chemicals & Gas Cargo Inspection; Petroleum, Chemicals & Gas Testing; Railway Technology; Engineering, Safety Studies, and knowledge enhancing training programs under TUV India Training Academy.

Testing Laboratory Presence at Other Locations

- Hazira
- Gandhidham
- Mumbai

