

# Aviation Oil Elite 20W-50

Superior Quality Ashless Dispersant Oil for Aircraft Piston Engines

Aviation Oil Elite 20W-50 is a super premium quality ashless-dispersant aviation piston engine oil. It is formulated from select, highly refined mineral base oils, a polyalphaolefin synthetic base oil, and ashless performance additives providing outstanding engine cleanliness, wear protection, and corrosion protection. Aviation Oil Elite 20W-50 is designed to satisfy the requirements of all opposed piston engine manufacturer's requirements under a wide range of climactic conditions. It is recommended for all Teledyne Continental and Textron Lycoming engines. It contains the anti-wear/anti-scuffing additives required for some Lycoming engines and it is recommended for all Lycoming engines.

## Features & Advantages:

- Semi-synthetic SAE 20W-50 multi-grade engine lubricant
- U.S. Military approved against SAE J1899 which replaced MIL-L-22851D
- Contains the Lycoming anti-wear/anti-scuffing additive
- FAA approved fluid for alternate method of compliance to AD 80-04-03-R2 par. b.1 (For additional information see FAA Special Airworthiness Information Bulletin, No. NE-00-22)
- Compatible with all commercial aviation piston engine oils – both non-dispersant and ashless dispersant type
- Provides excellent engine cleanliness and protection against wear and corrosion

## Performance

Aviation Oil Elite 20W-50 has been designed to provide a high level of rust and corrosion protection. The powerful dispersant utilized keeps the engine parts, the turbocharger bearings, the propeller hub and dome, etc... clean of harmful sludge and varnish deposits. As a multi-viscosity grade, the oil will provide easy starting and fast lubrication of critical engine parts under low temperature conditions, while

offering high lubricant film strength and low wear under high temperature conditions. Extensive laboratory, engine rig, and flight evaluation tests have demonstrated the excellent performance of Aviation Oil Elite 20W-50.

## Compatibility

Aviation Oil Elite 20W-50 is compatible with non-dispersant mineral oils as well as with other ashless-dispersant oils that meet the requirements of MIL-L-22851D/SAE J1899. It can also be used in high-time engines that have previously used a straight mineral oil. If this is done, however, it is advisable to carry out the oil-screen inspection recommended by the engine manufacturer.

## Run-In Procedure

New or newly overhauled aircraft engines should be broken in according to the engine builder's recommended procedure. Many engine manufacturers advise running in on straight mineral oil for the first 25 to 50 hours of operation. In all cases, however, the engine manufacturer's recommendations should be followed, since the run in procedure can vary from engine to engine.



## Health and Safety

Based on available toxicological information, it has been determined that this product poses no significant health risk when used and handled properly. Information on use and handling, as well as health and safety information, can be found in the Material Safety Data Sheet which can be obtained from your local distributor; via the Internet on [www.exxonmobil.com](http://www.exxonmobil.com); or by calling 1-800-662-4525 and selecting prompt 2.

For additional technical information or to identify the nearest U.S. ExxonMobil supply source, call 1-800-662-4525.

### Typical Characteristics\*

Kinematic Viscosity at 100°C, cSt	20.3
Kinematic Viscosity at 40°C, cSt	182
Viscosity Index	130
Cold Cranking Simulator (CCS) Viscosity	
at -15°C, cP	6900
High Temperature High Shear (HTHS) Viscosity	
at 150°C, cP	5.4
Pour Point, °C (°F)	-27 (-17)
COC Flash Point, °C (°F)	250 (482)
ASTM D 892 Foam	
Seq I, ml/ml	0/0
Seq II, ml/ml	0/0
Seq III, ml/ml	0/0
Gravity, °API	30.0
Density at 15.6°C, Kg/l (lb/g)	0.88 (7.3)
Acid Number, mg KOH/g	0.35
ASTM D 130 Copper Corrosion	
3 hours at 100°C	1a
3 hours at 204°C	2c
Ash Content, mass %	nil
Sulfur Content, mass %	0.40

\* Physical properties are listed in the table. Values not identified as maximum or minimum are typical and may vary within modest ranges.

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