



AEROSHELL[®] TURBINE OIL 500

Synthetic turbine engine oil

Product Description

AeroShell[®] Turbine Oil 500 is a 5 centiStoke synthetic lubricating oil for gas turbine engines. It is a blend of “hindered” esters incorporating a carefully selected and balanced combination of additives to provide superior thermal and oxidation performance in critical turbine applications. **AeroShell[®] Turbine Oil 500** meets all the requirements of and is qualified under US Military specification MIL-PRF-23699F Class STD and is entirely suitable for most civil and military engines requiring this class of lubricant. **AeroShell[®] Turbine Oil 500** is approved for use in a wide range of turbine engines as well as the majority of accessories. Always check with the manufacturer for the exact recommendation for each application.

Applications

- Jet aircraft turbine engines
- Helicopter turbine engines
- Helicopter gear boxes and transmissions
- Industrial gas turbine engines

Features/Benefits

- Premium thermal and oxidation performance
- Provides high temperature corrosion protection
- Excellent load carrying capabilities

Approvals and Recommendations

- MIL-PRF-23699F Classification STD
- DEF STAN 91-101 Grade OX-27
- Allison (RR) – 250 Series, 501 D13, T56, GMA 2100, GMA 3007
- General Electric – (D-50 TF 1), GE90, CF6, CT58, CF700, CJ610, CJ805, CF34, CT7, CT64
- Pratt & Whitney – (521C Type II), JT3, JT4, JT8, JT9, JT12, PW4000, PW6000,
- P&W Canada - JT15, PT6A, PT6T, ST6, PW100, PW200, PW300, PW500
- Rolls-Royce – RB211-22B, -524, -535, Trent, Tay, Gnome, Spey, RB183, Adour, M45H, Viper (Series Mk 301, 521, 522, 526, 535, 540, 601, 623 and 632), BR710, BR715
- Honeywell – TFE 731, TPE 331, ALF 502, ALF 507, LTS 101, LTP 101, T53, T55, AL5512, most APUs
- Turbomeca – Astazou, Larzac, Makila, Arriel, Arrius, RTM322, TM391

Typical Properties of AeroShell® Oil Turbine 500

Product Code		60072
Property	REQUIREMENTS	TYPICALS
Oil Type	Synthetic ester	Synthetic ester
Viscosity @ 100 °C, cSt @ 40 °C, cSt @ -40.0 °C, cSt	4.9-5.4 23.0 min 13,000 max	5.17 25.26 8,996
Flash Point, °C	246 min	256
Pour Point, °C	-54 max	<-54 max
Total Acidity – Mg KOH/g	1 max	0.01
Evaporation Loss 6.5 hrs @ 204°C, %m	10.0 max	2.52
Foaming	Must pass	Pass
Swelling of Standard Synthetic Rubber SAE-AMS 3217/1 72 hrs @ 70 °C swell-% SAE-AMS 3217/4, 72 hrs @ 204 °C swell-% Standard Silicone Rubber 96 hrs @ 121 °C swell-%	5 to 25 5 to 25 5 to 25	Within Limits Within Limits Within Limits
Thermal Stability/Corrosivity 90 hrs @ 274 °C Metal weight change –mg/cm ² Viscosity change - % Total Acid Number Change – mg KOH/g	4 max 5 max 6 max	0.5 2.69 2.03
Corrosion and Oxidation Stability 72 hrs @ 175 °C 72 hrs @ 204 °C 72 hrs @ 218 °C	Must pass Must pass Must pass	Pass Pass Pass
Ryder Gear Test, Relative Rating - Hercolube A	102 min	117
Bearing Test Rig Type 1½ Conditions Overall deposit demerit rating Viscosity changer @ 37.8 °C -% Total Acid Number Change-mg KOH/g Filter Deposits - g	80 max -5 to +30 2 max 3 max	47 19 1.1 0.4
Sonic shear stability Viscosity Change @ 40 °C - %	4 max	Nil
Trace Metal Content	Must pass	Pass
Sediment – mg/1	10 max	2.6
Ash – mg 1	1 max	0.05

Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.