



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 careful blend of “hindered” esters and modern additive technology. **AeroShell Turbine Oil 500** provides superior high temperature corrosion protection and excellent anti-wear protection. It is blended to have superior thermal and oxidation performance in critical turbine applications. **AeroShell Turbine Oil 500** meets all the requirements and is qualified under US Military specification MIL-PRF-23699F Class STD. It is also approved commercially 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

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

Approvals

- MIL-PRF-23699F Classification STD
- DEF STAN 91-101 Grade OX-27
- Allison – EMS-53, 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, PW4000, JT12, JT15, PT6A, PT6T, ST6, PW100, PW200
- 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)
- Textron Lycoming – ALF 502, ALF 507, LTS 101, LTP 101, T53, T55, AL5512
- Turbomeca – Arrouste, Larzac, Makila, Arriel, RTM322, TM391, TM333

Typical Properties of AeroShell Oil Turbine 500

| Product Code | 60072 | |
|--|-----------------|-----------------|
| Property | Requirements | Typicals |
| Oil Type | Synthetic ester | Synthetic ester |
| Viscosity | | |
| @ 100 °C, cSt | 4.9-5.4 | 5.4 |
| @ 37.8 °C, cSt | 25 min | 25.26 |
| @ -40.0 °C, cSt | 13,000 max | 8,996 |
| Flash Point, °C | 246 min | 256 |
| Pour Point, °C | -54 max | -75 |
| 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-% | 5 to 25 | Within Limits |
| SAE-AMS 3217/4, 72 hrs @ 204 °C swell-% | 5 to 25 | Within Limits |
| Standard Silicone Rubber 96 hrs @ 121 °C swell-% | 5 to 25 | Within Limits |
| Terminal Stability/Corrosivity 90 hrs @ 274 °C | | |
| Metal weight change –mg/cm ² | 4 max | 0.5 |
| Viscosity change - % | 5 max | 2.69 |
| Total Acid Number Change – mg KOH/g | 6 max | 2.03 |
| Corrosion and Oxidation Stability | | |
| 72 hrs @ 175 °C | Must pass | Pass |
| 72 hrs @ 204 °C | Must pass | Pass |
| 72 hrs @ 218 °C | Must pass | Pass |
| Ryder Gear Test, Relative Rating- Hercolube A | 102 min | 117 |
| Bearing Test Rig Type 1 1/2 Conditions | | |
| Overall deposit demerit rating | 80 max | 47 |
| Viscosity changer @ 37.8 °C -% | -5 to +30 | 19 |
| Total Acid Number Change-mg KOH/g | 2 max | 1.1 |
| Filter Deposits - g | 3 max | 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.equivashellmsds.com>. For more information and availability, call **1+800-782-7852** or visit the World Wide Web: <http://www.shell-lubricants.com/>.