

AEROSHELL TURBINE OIL 529

AeroShell Turbine Oil 529 is a 5 mm²/s synthetic ester oil incorporating additives to improve thermal and oxidation stability.

APPLICATIONS

AeroShell Turbine Oil 529 was developed specifically for use in those applications for which a MIL-PRF-23699 (previously MIL-L-23699) oil is required but where engine/equipment manufacturers brand name approval is not required. Typical use would be in military operated aircraft.

Where a MIL-PRF-23699 oil with engine/equipment manufacturers brand name approval is required then AeroShell Turbine Oils 500 and 560 are recommended.

AeroShell Turbine Oil 529 contains a synthetic ester oil and should not be used in contact with incompatible seal materials, it also affects some paints and plastics. Refer to the General Notes at the front of this section for further information.

SPECIFICATIONS

U.S.	Approved MIL-PRF-23699F Grade STD
British	Equivalent DEF STAN 91-101
French	Equivalent DCSEA 299/A
Russian	–
NATO Code	O-156
Joint Service Designation	Equivalent OX-27

EQUIPMENT MANUFACTURERS' APPROVALS

AeroShell Turbine Oil 529 is not approved by brand name by engine/equipment manufacturers.

PROPERTIES	MIL-PRF-23699F Grade STD	TYPICAL
Oil Type	Synthetic ester	Synthetic ester
Kinematic Viscosity @ 100°C @ 40°C @ -40°C	mm ² /s 4.90 to 5.40 23.0 min 13000 max	5.2 27.4 11950
Flashpoint, Cleveland Open Cup	°C 246 min	252
Pourpoint	°C -54 max	-60
Total Acidity	mgKOH/g 1 max	0.075
Evaporation Loss 6.5 hrs @ 204°C	% m 10.0 max	2.7
Foaming	Must pass	Passes
Swelling of Standard Synthetic Rubber SAE-AMS 3217/1, 72 hrs @ 70°C	swell % 5 to 25	14.1
SAE-AMS 3217/4, 72 hrs @ 204°C	swell % 5 to 25	8.6
standard silicone rubber 96 hrs @ 121°C	5 to 25	Within limits
Thermal Stability/Corrosivity 96 hrs @ 274°C		
– metal weight change	mg/cm ² 4 max	-0.5
– viscosity change	% 5 max	-1.2
– Total Acid Number Change	mgKOH/g 6 max	3.86

Table continued

NOTES

Table continued

PROPERTIES	MIL-PRF-23699F Grade STD	TYPICAL
Corrosion & Oxidation Stability 72 hrs @ 175°C 72 hrs @ 204°C 72 hrs @ 218°C	Must pass Must pass Must pass	Passes Passes Passes
Ryder Gear Test, Relative Rating Hercolube A %	102	123.7
Bearing Test Rig Type 1½ conditions – Overall deposit demerit rating – viscosity change @ 40°C % – Total Acid Number change mgKOH/g – filter deposits g	80.0 max –5 to +30 2 max 3 max	32.2 +13.3 1.04 0.235
Sonic shear stability – viscosity change @ 40°C %	4 max	0.6
Trace metal content	Must pass	Pass
Sediment mg/l	10 max	0
Ash mg/l	1 max	0