



# Lubricants Report



## Product Data Sheet from Shell Lubricants

PDS# 5.13.08

## AEROSHELL\* TURBINE OILS

100% SYNTHETIC TURBINE OILS

### PRODUCT LINE

- **AEROSHELL Turbine Oil 500** is approved for MIL-PRF-23699F STD Grade for many turbine engines as well as the majority of accessory applications.
- **AEROSHELL Turbine Oil 555** meets MIL-PRF-23699F requirements and it is DOD-L-85734 approved for high temperature/high load applications including Bell helicopter transmissions.
- **AEROSHELL Turbine Oil 560** is a third generation "low coking" turbine oil fully approved for MIL-PRF-23699F HTS Grade for high thermal stability applications including high by-pass turbofan engines.
- **AEROSHELL Turbine Oil 750** is a 7.5 centistoke turbine oil approved for DEFSTAN 91 – 98 for older turbojet engines and Skirosky S-61N transmissions.

### PERFORMANCE BENEFITS

- **AEROSHELL Turbine Oils** are manufactured from very high quality synthetic basestocks that provide exceptional thermal stability and excellent lubrication at sustained high temperatures in modern turbine engines.
- **AEROSHELL Turbine Oil 500** contains a carefully selected and balanced combination of additives to improve thermal stability as well as oxidation stability.
- **AEROSHELL Turbine Oil 560** is a third generation turbine engine oil that provides low coking and improved thermal and oxidation stability in today's high powered, high compression engines. **AEROSHELL Turbine Oil 560** provides much less "coking" resulting in cleaner engines, reduced maintenance costs and prolonged bearing life.
- **AEROSHELL Turbine Oil 750** is a higher viscosity aviation turbine oil designed for use in older gas turbine engines and in heavy duty helicopter transmissions applications

**Note:** All **AEROSHELL Turbine Oils** contain synthetic esters and they should not come into contact with incompatible seals/gasket materials or alloys containing lead.

### APPROVALS

- Pratt & Whitney 521C Type ii (all grades)
- GE D-50TF (all grades)
- Allison EMS-53 (obsolete) (all grades)
- MIL-PRF 23699FSTD (AeroShell Turbine Oil 500 and 555)
- MIL-PRF 23699F HTS (AeroShell Turbine Oil 560)
- DEF STAN 91 – 98 (AeroShell Turbine Oil 750)

## EQUIPMENT MANUFACTURER'S APPROVALS

MANUFACTURER	AEROSHELL TURBINE OIL 500	AEROSHELL TURBINE OIL 555	AEROSHELL TURBINE OIL 560	AEROSHELL TURBINE OIL 750
Allied Signal (Garrett)	TFE 731, TPE 331, GTCP 30, 36, 85, 331, 660 & 700 series APUs	GTCP 30, 36, 85, 331, 660 & 700 series APU's	TFE 731, TPE 331, & most models of APUs	--
Allison	C250 series		C250 series	--
CFM International			CFM-56	--
GE	CF6, CT58, CF700, CJ610, CJ805, CF34, CT7, CT64	CT58, CT64, CF700, CJ610	CF6 (all models), CJ610, CF700	--
IAE	V2500		V2500	--
IHI			FJR 710	--
Motorlet	M601D, E and Z	M601D, E and Z	M601D, E and Z	--
Pratt & Whitney	JT3, JT4, JT8, JT9, JT12, PW 4000, PW 2000	JT3, JT4, JT8, JT9, JT12, PW 4000	JT3D, JT8D, JT9D	--
Pratt & Whitney Canada	JT15, PT6, ST6, PW100, PW901 APU	PT6T, PT6A (some models), ST6, PW200	PT6T, PT6A (some models), PW 100, JT15D, PW300 series, PW901A APU	PT6 (some models)
Rolls-Royce (includes industrial version)	RB211 (all models), Tay, Gnome, Spey, RB183, Adour, M45H, Viper (series MK 301, 521, 522, 526, 535, 540, 601, 623, 632)	RB211 (all models), Adour, Gem Gnome, M45H, Olympus 593, RB199	RB211 (all models), Spey, Tay, RB 183	Dart, Tyne, Gnome, Pegasus
Avco Lycoming	LTS 101, LTP 101, T53, T 55, AL5512		LTS 101, LTP 101	--
Turbomeca	Artouste, Larzac, Makila, Arriel	Makila	Arriel, Makila, RTM 322, TM 319, TM 333, TP 319	Astazov, Bestan, Turmo, Artouste, Arriel, Makila
Eurocopter Transmissions		Super Puma		--
Agusta Transmissions		A109 and A129		--
Bell Helicopter Textron		All transmissions		--
Boeing Vertol		Chinook		--
McDonnell Douglas		All Transmissions		--
MBB		All transmissions		--
Sikorsky		S-61N		S-61N Transmissions (Preferred)
GE Industrial	LM series		LM Series	--
Solar	Saturn, Centaur, Merc			--
Turbo Power Marine CPIW	GG3/FT3, GG4/FT4, gg12/FT12		FT8/GG8	--
Allison	501K, 570K			--

## TYPICAL PROPERTIES

Property	AEROSHELL Turbine Oil 500	AEROSHELL Turbine Oil 555	AEROSHELL Turbine Oil 560	AEROSHELL Turbine Oil 750	
<b>Product Code</b>	<b>420-120</b>	<b>420-121</b>	<b>420-130</b>	<b>420-125</b>	<b>ASTM METHOD</b>
Pour Point, ° C max.	-54	-55	<-60	-54	D 97
Flash Point, ° C. min.	246	246	260	242	D 92
Viscosity cSt. @ 210 °F	5.4	5.3	5.3	7.5	D 445
cSt. @ 100 °F	29.1	29.2	29.2	32	-
cSt. @ -40 °C	10025	10775	10775	10140	D 445
TAN-E, mg KOH/g	0.11	0.14	0.14	0.03	D 664
Ryder Gear Test	121	>145	126	Pass	-
% Herculube A, 102 min.	117	>145	126	-	-

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or e-mail us at [questions@shell.com](mailto:questions@shell.com)

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