AEROSHELL TURBINE OIL 308

AeroShell Turbine Oil 308 is a 3 mm²/s synthetic ester oil incorporating additives to improve resistance to oxidation and corrosion and to minimise wear.

APPLICATIONS

AeroShell Turbine Oil 308 was developed specifically for use in particular models of aircraft turbo-prop and turbo-jet engines for which a MIL-PRF-7808 (formerly MIL-L-7808) oil is required.

AeroShell Turbine Oil 308 contains a synthetic ester oil and should not be used in contact with incompatible seal materials and 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-7808L Grade 3
British	–
French	–
Russian	–
NATO Code	O -148
Joint Service Designation	OX - 9

PROPERTIES	**MIL-PRF-7808L Grade 3**	**TYPICAL**
Oil type	Synthetic ester	Synthetic ester
Density @ 15°C kg/l	-	0.956
Kinematic viscosity mm²/s @ 100°C @ 40°C @ –40°C @ –51°C	 3.0 min 11.5 min – 17000 max	 3.1 12.0 2400 12000
Viscosity stability	Must pass	Passes
Pourpoint °C	–	Below –62
Flashpoint, Cleveland Open Cup °C	210 min	235
Total Acidity mgKOH/g	0.3 max	0.15
Trace metal content	Must pass	Passes
Evaporation 6.5 hrs @ 205°C % m	30 max	20
Silver – bronze corrosion @ 232°C – silver gm/m² – bronze gm/m²	 ± 4.5 max ± 4.5 max	 0.01 0.05
Deposit Test – deposit rating – neutralization number change % – viscosity change @ 40°C %	 1.5 max 20 max 100 max	 0.8 2.0 12.0
Storage stability	Must pass	Passes
Compatibility	Must pass	Passes

Table continued

NOTES

Table continued

PROPERTIES	MIL-PRF-7808L Grade 3	TYPICAL
Elastomer compatibility		
SAE-AMS 3217/1,		
168 hrs @ 70°C – % swell	12 to 35	27
SAE-AMS 3217/4,		
72 hrs @ 175°C – % swell	2 to 25	16
– tensile strength change %	50 max	30
– elongation change %	50 max	3.5
– hardness change %	20 max	9.0
SAE-AMS 3217/5,		
72 hrs @ 150°C – % swell	2 to 25	Passes
– tensile strength change %	50 max	Less than 50
– elongation change %	50 max	Less than 50
– hardness change %	20 max	Less than 20
Static foam test		
– foam volume ml	100 max	30
– foam collapse time secs	60 max	15
Dynamic foam test	Must pass	Passes
Corrosion and oxidation stability	Must pass	Passes
Bearing deposition stability		
– deposit rating	60 max	<60
– filter deposit weight g	2.0 max	<2
– viscosity change @ 40°C	–5 to +25	Passes
– acid number change mgKOH/g	1.0 max	<1
– metal weight change mg/cm^2	±0.2 max	Passes
Gear load carrying capacity	Must pass	Passes

A viscosity/temperature chart is shown at the end of this section.