

AEROSHELL FLUID 12

AeroShell Fluid 12 is a low volatility synthetic ester oil used in aircraft instruments and also for the general lubrication of aircraft. It is oxidation and corrosion inhibited, and possesses good high and low temperature characteristics.

APPLICATIONS

AeroShell Fluid 12 is used for general aircraft lubrication as well as for aircraft gyro instrument gimbal bearings, separately lubricated high speed turbines and compressors, aircraft air cycle equipment and electronic equipment. AeroShell Fluid 12 is particularly suitable for use when an oil with a low evaporation rate is required at high and low temperatures.

AeroShell Fluid 12 is a synthetic oil and it should not be used in contact with incompatible seal materials such as neoprene or natural rubber. Suitable seal material include Fluorocarbon (Viton). AeroShell Fluid 12 may also affect certain paints and plastics. It is recommended that components are evaluated for compatibility if there is any question.

SPECIFICATIONS

U.S.	Approved MIL-PRF-6085D
British	Equivalent DEF STAN 91-49
French	Equivalent AIR 3511/A
Russian	–
NATO Code	O-147
Joint Service Designation	Equivalent OX-14

PROPERTIES	MIL-PRF-6085D	TYPICAL
Oil type	–	Synthetic ester
Kinematic viscosity mm ² /s @ 54.4°C @ –53.9°C	8 min 12000 max	8.2 11000
Flashpoint Cleveland Open Cup °C	185 min	220
Pourpoint °C	–57 max	Below –60
Total Acid Number mgKOH/g	–	0.20
Relative Density at 15.6/15.6°C	–	0.925
Evaporation loss in 22 hrs at 120°C % m	1.80 max	1.50
Colour ASTM	–	< 0.5
Oxidation and corrosion stability 168 hrs @ 135°C		
– metal weight change	Must pass	Passes
– viscosity change @ 54.5°C	± 5	0.5
– total acid number change mgKOH/g	0.5 max	0.1
– insolubles mg/100ml	–	1.0
Low temperature stability	Must pass	Passes
Corrosivity	Must pass	Passes

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