



AeroShell Fluid 3

AeroShell Fluid 3 is a general purpose mineral lubricating oil recommended for general lubrication of aircraft parts that require a light oil with good low temperature characteristics and a low freezing point. It is inhibited against oxidation and corrosion. AeroShell Fluid 3 is a relatively low viscosity product with good resistance to evaporation.

DESIGNED TO MEET CHALLENGES

Main Applications

- AeroShell Fluid 3 is recommended for general lubrication of aircraft parts that require a light oil, e.g. hinges, pivot joints, shaft joints, linkage pins and bearings, pulleys, cables, camera mechanisms, radio and radar gear and instruments. AeroShell Fluid 3 is normally applied by means of an oil can or brush. For this reason it is also described as 'an oilcan lubricant'.
- Operating temperature range of AeroShell Fluid 3 is -54°C to +121°C.
- For high temperature applications where no provision is made for frequent re-lubrication the synthetic oil, AeroShell Fluid 12, should be used in place of the mineral oil, AeroShell Fluid 3; however in this case care should be taken to ensure that there is no incompatibility between AeroShell Fluid 12 and seals, paints etc.

Specifications, Approvals & Recommendations

- Approved MIL-PRF-7870D (US)
- Approved DEF STAN 91-47 (British)
- NATO Code O-142
- Joint Service Designation OM-12

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Typical Physical Characteristics

Properties		MIL-PRF-7870D	Typical
Oil type		-	Mineral
Kinematic viscosity	@38°C mm ² /s	10 min	10.0
Kinematic viscosity	@-40°C mm ² /s	4000 max	Less than 4000
Flashpoint (Cleveland Open Cup)	°C	130 min	155
Pour point	°C	-57 max	Below -57
Evaporation 22 hrs	@99°C %m	25 max	13
Total acid number	mgKOH/g	Report	0.3
Relative Density	@15.6/15.6°C	-	0.89
Low temperature stability 72 hrs	@-54°C	Must Pass	Passes
Corrosion & oxidation stability 168 hrs - metal weight change	@121°C	Must Pass	Passes
Corrosion & oxidation stability 168 hrs - viscosity change	@121°C %	-5 to +20	10
Corrosion & oxidation stability 168 hrs - acid number change	@121°C mgKOH/g	0.2 max	0.02
Corrosivity		Must Pass	Passes
ASTM Colour		-	< 0.5

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

- **Health and Safety**

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from <http://www.epc.shell.com/>

- **Protect the Environment**

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**

Advice on applications not covered here may be obtained from your Shell representative.