



# AEROSHELL TURBINE OIL 390

## AUXILIARY POWER UNITS

### DESCRIPTION

AeroShell Turbine Oil 390 is a 3 centistoke synthetic diester oil incorporating a carefully selected and balanced combination of additives to improve thermal and oxidation stability and to increase the load carrying ability of the base oil. AeroShell Turbine Oil 390 was developed as an improved 3 cSt oil for older British turbo-jet engines.

More recently, because of the low temperature characteristics of AeroShell Turbine oil 390, this oil is being increasingly used in auxiliary power units (APU) in order to overcome the effects of cold soak. Normal practice is to shut down the APU during cruise, the APU then experiences cold soak, often prolonged and when the unit is started there is considerable difficulty, resulting in the unit not coming up to speed in the given time thus causing hung start.

### PERFORMANCE FEATURES

- The Low temperature Viscosity of AeroShell Turbine Oil 390 is approximately 2000 centistokes at -40 thus having less viscous drag on oil wetted components in the APU compared to 10,000 centistokes of a typical 5 cst Turbine Oil.
- Reduced clutch slip reducing wear and preventing damage due to exceeding APU starter duty time leading to better reliability and increased life of APU components.

### SUMMARY OF BENEFITS

- **Outstanding** Low temperature viscosity for ease of starting APU after prolonged cold soak.
- **Qualified** to DEF STAN 91-94.
- **Good** load carrying properties.
- **Good** thermal and oxidation stability.
- **Reduced** wear during the initial start up due to improved lubrication

### HEALTH & SAFETY

AeroShell Turbine Oil 390 is unlikely to present any significant health or safety hazard when properly used in the recommended application, and good standards of industrial and personal hygiene are maintained.

For further guidance on Product Health & Safety refer to the appropriate Shell Material Safety Data Sheet.



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### SPECIFICATIONS/APPROVALS

US	-
British	DEF STAN 91-94
Russian	[ IPM-10, VNII NP 50-1]
NATO	-
Joint Service Designation	OX-7

[ ] Indicates that the product is analogue to the specification

### TYPICAL CHARACTERISTICS

DESCRIPTION	UNITS	METHODS	TYPICAL
APPEARANCE	VISUAL	-	Clear & Bright
DENSITY @ 15°C	kg/L	-	0.926
VISCOSITY AT 100°C	mm <sup>2</sup> /s	-	3.43
VISCOSITY AT 40°C	mm <sup>2</sup> /s	-	13.0
VISCOSITY AT -40.0°C	mm <sup>2</sup> /s	-	2000
POUR POINT	°C	-	< -60
FLASH POINT (COC)	°C	-	220

### ADVICE

Advice on applications not covered in this leaflet may be obtained from your Shell Representative. Shell Technical Advice Centre: Free Call 1800 805 000.

#### Document Information

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