Technical Data Sheet
Eastman™ Turbo Oil 25

Application/Uses

- Gear Box
- Helicopter
- Transmission

Key Attributes

- 5 cSt load carying synthetic lubricant
- Type II oil in helicopter gear box and transmission

Product Description

Eastman™ Turbo Oil 25 is a high load-carrying gas turbine oil, for the most demanding gear applications.

Helicopter operators in both military and private sectors have shown a preference for the DOD-PRF-85734 oils, like Eastman™ Turbo Oil 25, because of the wear protection provided by its extreme pressure additive technology. Air Eastman lubricants is the only oil manufacturer to offer broadly used DOD-PRF-85734 and MIL-PRF-23699 HTS Class oils, to suit all your helicopter oil lubrication needs.

Eastman™ Turbo Oil 25 is formulated from synthetic base stocks and advanced technology additives, to provide the combined thermal and oxidation stability properties of commercial Type II lubricants, with extreme pressure additives to maximise gear system reliability.

Eastman™ Turbo Oil 25 is a DOD-PRF-85734, 5 cSt viscosity class oil, plus extreme pressure additives, for the demanding loads of helicopter gearboxes.

Typical Properties

Property	Test Method	Typical Value, Units
Density @ 15°C	ASTM D 1298	0.9950 kg/L
Viscosity, Kinematic		
@ 98.9°C	ASTM D 445	5.16 mm^2/s
@ 37.8°C	ASTM D 445	27.2 mm^2/s
@ -40°C after 35 minutes	ASTM D 2532	8,990 mm^2/s
Pour Point	ASTM D 97	-60°C
Flash Point	ASTM D 92	255°C
Total Acid Number	ASTM D 664	0.38 mg KOH/g
Evaporation Loss 6.5 hrs @ 204°C	ASTM D 972	1.8%
Foaming Volume		
Sequence 1 @ 24°C	ASTM D 892	5/0.05 ml/vol
Sequence 2 @ 93 °C	ASTM D 892	5/0.03 ml/vol
Sequence 3 @ 24°C	ASTM D 892	5/0.08 ml/vol
Ryder Gear		
Av. Rel. rating	FED 6508	167% reference oil
No. of determinations	FED 6508	2

Ref. Oil, av. Rating	FED 6508	2,400 lbs/in
Elastomer Compatibility		
H Rubber Swell (72 hrs @ 70°C)	FED-STD-791, 3604.14	14%
F Rubber Swell (72 hrs @ 204°C)	FED-STD-791, 3604.14	14%
Silicone Rubber tensile strength loss	FED-STD-791, 3433 57.6	57.6%
Corrosion & Oxidative Stability [a]		
Iron Weight Loss	ASTM D 4636	0 mg/cm^2
Silver Weight Loss	ASTM D 4636	-0.07 mg/cm^2
Aluminium Weight Loss	ASTM D 4636	0 mg/cm^2
Magnesium Weight Loss	ASTM D 4636	0.08 mg/cm^2
Copper weight Loss	ASTM D 4636	0.05 mg/cm^2
Viscosity Change 38°C	ASTM D 4636	10.3%
Total Acid Number Change	ASTM D 4636	0.56 mg KOH/g
Sludge	ASTM D 4636	0.1 mg/100ml

[a] *72 hrs @ 175°C; ASTM D4636, Alternate Procedure 2*