## SYNTHETIC AVIATION TURBINE OIL

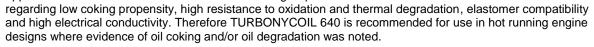
## SAE AS5780 Class HPC NATO CODE 0-154 – MIL-PRF-23699 G Class HTS

## **DESCRIPTION**

Turbonycoil 640 is a lubricating oil with a viscosity of 5 cSt at 100°C. It is based on polyol esters with high thermal stability, fortified with carefully selected anti-oxidant, anti-wear and anti-corrosion additives.

## **MAIN APPLICATIONS**

TURBONYCOIL 640 has been designed for use in gas turbine engines in military aircrafts and helicopters as well as in stationary industrial applications. It is tailor-made to address the following requirements



- Turbine oil of military aircrafts and helicopters, recommended in hot engines
- · Accessories (APU, IDG, starter, air cycle machine) of civil aircraft
- Main gearbox of helicopter
- Ground gas turbines (aero-derivative): Rolls-Royce 501K-B7, 501K-B7S and 501K-B7C engines.

Characteristic	Unit	Typical Result	SAE AS 5780 HPC Limit	Test method
- Kinematic viscosity at 100°C at 40°C at - 40°C	mm²/s	4.98 24.6 9000	4.90 - 5.40 min. 23.0 max. 13000	ASTM D 445
- Density @ 20°C	kg/dm <sup>3</sup>	0.994	-	ASTM D 4052
- Viscosity stability, 72 hrs at -40°C, % change	%	0.6	max. +/- 6	FED-STD-791- 3458
- Evaporation loss, 6 h 30 at 204°C	%w	3.1	max. 10.0	ASTM D 972
- Flash point, COC	°C	264	min. 246	ASTM D 92
- Pour point	°C	- 60	max 54	ASTM D 97
- Acid number	mg KOH/g	0.22	max. 1.00	SAE-ARP-5088
- Shear stability, viscosity loss	%	- 0.08	max. 4	ASTM D 2603
- AMS 3217/4 Rubber Swell, 72 hrs at 204°C	%	18.2	5 - 25	FED-STD-791- 3604
- Foaming test (tendency/stability) at 24°C at 94°C at 24°C after 94°C	cm²/min	5/0 5/0 5/0	max. 25/0 max. 25/0 max. 25/0	ASTM D 892
<ul> <li>Thermal stability and corrosivity,</li> <li>96 h at 274°C</li> <li>Viscosity change at 40°C</li> <li>Acid number change</li> <li>Steel weight change</li> <li>HLPS Dynamic coking at 375°C</li> </ul>	% mg KOH/g mg/cm²	0.04 0.4 0.02	max. +/- 5.0 max. 6.00 max. +/- 4.00	FED-STD-791- 3411
Deposit after 20 h Deposit after 40 h	mg	0.15 0.24	max. 0.4 max. 0.6	SAE-ARP-5996
- Electrical conductivity, at 20°C	pS/m	1500	-	ASTM D 2624

The values above are typical values. They do not constitute any contractual commitment. Sales specifications are available on request. The present technical data sheet replaces all the previous editions.









