



SYNTHETIC AVIATION TURBINE OIL

**NATO CODE O-156 – MIL-PRF-23699 F Class STD – DCSEA 299/A
DEF STAN 91-101 Iss.3, Amd. 1 – OX-27 / OX-28**

SAE AS5780 Class SPC

DESCRIPTION

TURBONYCOIL 600 is a lubricating oil with a viscosity of 5 cSt at 100°C. It is based on high thermal stable polyol esters, fortified with carefully selected anti-oxidant, anti-wear and anti-corrosion additives.

TURBONYCOIL 600 features a much lower volatility at high temperature and a higher flash point than oils from competition. It possesses excellent resistance to foaming and demonstrates superior lubricity.



APPLICATIONS

- Turbine oil (power plant, APU, starter, IDG, ...) for aircraft and helicopters
- Helicopter systems
- Leak testing
- Test bench
- Ground gas turbine (aeroderivative)
- Off-shore installation

TURBONYCOIL 600 is designed for use in gas turbine engines in military and civil aircrafts as well as in stationary industrial applications.

TURBONYCOIL 600 is approved by all major engine manufacturers (General Electric, Pratt and Whitney, Allison, Rolls-Royce, Allied Signal, Snecma, Klimov, Turbomeca, PZL-Rzeszow) for use in more than 40 different military engines powering a wide range of combat, transport or surveillance aircrafts or helicopters.

TURBONYCOIL 600 is also approved for use on the following civil and military engines, propellers, APU and IDG :

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|--------------------------|---|
| • CFM International | CFM56-2, -3, -5A, -5B, -5C and -7, LEAP-series (ongoing) |
| • International Aero | V 2500 series |
| • General Electric | CF34 -3 to -10, CF6-80 (ongoing), F-404-GE-400, F110-GE-129, T700-GE-701C, CT7-9C, T58 |
| • Honeywell | APU 85, 131-9, 331 models |
| • Klimov | TV-3-17 |
| • Motor Sich | D-436 |
| • Perm Motor | PS 90, PS 90A |
| • Pratt & Whitney | PW1100G (ongoing), |
| • Pratt & Whitney Canada | PT6A, PT6C, PT6T (ongoing), PW 100 family, PW 300 family, PW 600 family, PW 800 (ongoing) |
| • Rolls Royce / Allison | RB211, BR715, AE3007, Allison 501K, Allison 250, T56, F-405-RR-401, EJ200, AE 2100 (ongoing), Adour Mk's 804, 804E, 811, 815, 861, 871, Pegasus, All Mk's, Viper Mk 301, Mk's 22-1, 526, 632-43, Orpheus Mk 80302, 803D-11, Gem Mk's 202, 204, 205, 1004, ... |
| • Snecma | M53, M88, Silvercrest... |

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Sales specifications are available on request. The present technical data sheet replaces all the previous editions.





- Turbomeca All models Artouste, Astazou, Bastan, Arriel, Arrius, Makila, Larzac, Turmo, TM 319, TM 333, RTM 322, MTR 390
- Ratier Figeac / GE-Dowty Propellers
- UTAS/Hamilton Sundstrand All IDG models

TURBONYCOIL 600 is also approved for use on the following stationary industrial gas turbines:

- General Electric all models (LM 2500, LM 6000, LMS 100,...)
- Rolls-Royce / Allison Avon, RB211, Allison 501K, Olympus, Tyne, Spey, ...

Turbonycoil 600 has logged over 30 million hours of operation since 1985.

Characteristic	Unit	Typical Result	Limit *	Test method
- Kinematic viscosity @ 100°C	mm ² /s	5.03	4.90 - 5.40	ASTM D 445
40°C		25.01	min. 23.0	
- 40°C		9171	max. 13000	
- Density @ 20°C	kg/m ³	0.993	-	ASTM D 4052
- Stability 72 h @ - 40°C, viscosity change	%	1.0	max. +/- 6	ASTM D 2532
- Flash point, COC	°C	269	min. 246	ASTM D 92
- Pour point	°C	- 57	max. - 54	ASTM D 97
- Acid number	mg KOH/g	0.2	max. 1.00	SAE-ARP-5088
- Particles contamination according to NAS 1638	Class	5	max. 6	FED-STD-791-3012
- Evaporation loss 6 h 30 at 204°Cn	%w	3.4	max. 10.0	ASTM D 972
- Foaming characteristics				
Foam volume @ 24°C after	ml	9	max. 25	ASTM D 892
5 minutes aeration				
1 minute settling @ 94°C	0	0		
5 minutes aeration	5	max. 25		
1 minute settling @ 24°C after 94°C	0	0		
5 minutes aeration	7	max. 25		
1 minute settling	0	0		
- Thermal stability and corrosivity 96 h @ 274°C	%			
Viscosity change at 40°C	mg KOH/g	1.1	max. +/- 5.0	FED-STD-791-3411
Acid number change		1.3	max. 6.00	
Steel weight change	mg/cm ²	0.1	max. +/- 4.00	
- Sediments, filtered through 1.2 micron	mg/dm ³	0.3	max. 10.0	FED-STD-791-3010
- Corrosion and oxidative stability 72 h @ 204°C				
Acid number change	mg KOH/g	1.20	max. 3.00	FED-STD-791-5308
Viscosity change at 40°C	%	16.0	- 5.0 to + 25.0	
Steel weight change	mg/cm ²	0.0	max. +/- 0.2	
Silver weight change	mg/cm ²	0.0	max. +/- 0.2	
Aluminium weight change	mg/cm ²	0.0	max. +/- 0.2	
Magnesium weight change	mg/cm ²	0.0	max. +/- 0.2	
Copper weight change	mg/cm ²	0.0	max. +/- 0.4	
Sludge content through 10 microns	mg/100 cm ³	0.7	max. 50.0	
- HLPS dynamic coking @ 375°C - 20 h	mg	0.6	-	SAE-ARP5996

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