



PRI-QPL-AS5780

## SYNTHETIC AVIATION TURBINE OIL

OX-27 / OX-28 – O-156 – DEF STAN 91-101 Iss.3, Amd. 1  
MIL-PRF-23699 F class STD  
SAE AS5780 SPC

### Description

Turbonycoil 600 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. Turbonycoil 600 features a much lower volatility at high temperature and high flash point than competitor oils. It has excellent resistance to foaming and a superior lubricity.



### Application

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

Turbonycoil 600 is validated by all major engine manufacturers (General Electric, Pratt and Whitney, Allison, Rolls-Royce, Allied Signal, Snecma, Klimov, Turbomeca, PZL-Rzeszow) for use in 38 different military engines powering a wide range of combat, transport or surveillance airplanes or helicopters.

TURBONYCOIL 600 is also validated for use on the following civil engines:

- CFM International CFM56-2, -3, -5A, -5B, -5C and -7
- International Aero Engines V 2500 series
- Turbomeca Artouste II, Artouste III, Astazou II, Astazou IV M, Astazou XIV, Astazou XVI, Bastan VI, Bastan VII, AST. 600, Arriel, Arrius, Makila, Larzac, Turmo IV, TM 319, TM 333

- Allison/Rolls Royce Allison 250, Allison 501 K AE 3007
- Pratt & Whitney Canada PT6A
- Rolls-Royce All marks of RB 211 and AVON, Olympus, Tyne, Spey for Industrial & Marine application  
RB 211 for Aircraft application
- Hamilton Sundstrand/APIC All APU models
- Honeywell APU 85, 131-9, 331 models
- General Electric LM ground gas turbines (all models)

Turbonycoil 600 has logged over 20 million hours operation since 1985, of which 10 million in industrial gas turbines.

Characteristic	Unit	Result	Limit *	Test method
- Kinematic viscosity at 100°C 40°C - 40°C	mm <sup>2</sup> /s	5.12 25.6 9468	4.90 - 5.40 min. 23.0 max. 13000	ASTM D 445
- Density at 15°C	kg/m <sup>3</sup>	0.996	-	ASTM D 4052
- Low temperature stability 72 h at - 40°C	%	- 0.7	max. +/- 6	FTM-S-791-3458
- Flash point, COC	°C	270	min. 246	ASTM D 92
- Pour point	°C	- 57	max. - 54	ASTM D 97
- Acid number	mg KOH/g	0.16	max. 1.00	SAE ARP 5088
- Particles contamination according to NAS 1638	class	4	max. 6	HIAC
- Evaporation loss 6 h 30 at 204°C Mass fraction	%	3.4	max. 10.0	ASTM D 972

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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.



# Turbonycoil 600

Characteristic	Unit	Result	Limit *	Test method
- Foaming characteristics Foam volume (after) at 24°C 5 minutes aeration 1 minute settling at 94°C 5 minutes aeration 1 minute settling at 24°C after 94°C 5 minutes aeration 1 minute settling	ml	10 0 5 0 10 0	max. 25 0 max. 25 0 max. 25 0	ASTM D 892
- Thermal stability and corrosivity 96 h at 274°C Viscosity change at 40°C Acid number change (pH = 11) Steel weight change	% mg KOH/g mg/cm <sup>2</sup>	- 0.3 0.80 - 0.05	max. +/- 5.0 max. 6.00 max. +/- 4.00	FTM-S-791-3411
- Sediments, filtered through 1.2 micrometer porosity	mg/dm <sup>3</sup>	0.1	max. 10.0	FTM-S-791-3010
- Corrosion and oxidative stability 72 h at 204°C Acid number change (pH = 11) Viscosity change at 40°C Steel weight change Silver weight change Aluminium weight change Magnesium weight change Copper weight change	mg KOH/g % mg/cm <sup>2</sup> mg/cm <sup>2</sup> mg/cm <sup>2</sup> mg/cm <sup>2</sup> mg/cm <sup>2</sup>	1.20 + 17.0 0.0 0.0 0.0 0.0 0.0	max. 3.00 - 5.0 to + 25.0 max. +/- 0.2 max. +/- 0.2 max. +/- 0.2 max. +/- 0.2 max. +/- 0.4	FTM-S-791-5308
- Sludge content through 10 micrometers	mg/100 cm <sup>3</sup>	0.1	max. 50.0	
- Metal content Zinc Silicon Tin Titanium Nickel Lead Iron Magnesium Aluminium Copper Silver Chromium Molybdenum	mg/kg	0 2 0 0 0 0 0 0 0 0 0 0 0 0	max. 2 max. 10 max. 11 max. 2 max. 2 max. 2 max. 2 max. 2 max. 2 max. 1 max. 1 max. 2 max. 3	ICP

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