

AIRCRAFT SYNTHETIC OIL

OX-9 – O-148 – MIL-PRF-7808 L Gr. 3

Description

Turbonycoil 160 is a 3 cSt oil at 100°C and is made of neopolyol esters containing additives to improve its anti-oxidant, anti-corrosion and extreme-pressure properties. It is designed to withstand the high temperature experienced by the military engines of combat jet aircraft and retain fluidity at very low temperature (operation down to - 54°C).

Application

Turbonycoil 160 is intended for the lubrication of turbine gas engines powering military aircraft, as well as accessories and auxiliary power unit.

It is mainly used in U.S.-made combat jet aircraft such as F-16, F-15 and earlier aircraft models.

Turbonycoil 160 has been in service for many years on such aircraft operated by European or Asian Air Forces.



Characteristic	Unit	Result	Limit*	Test method
- Appearance	-	conform	limpid	visual examination
- Density at 15°C	kg/dm ³	0.959	report	ASTM D 4052
- Kinematic viscosity at 100°C 40°C - 51°C 35 min. 3 h	mm ² /s	3.20 12.8 9728 9682	min. 3.00 min. 11.5 max. 17000 max. 17000	ASTM D 445 ASTM D 2532
- Acid number (pH = 11)	mg KOH/g	0.15	max. 0.30	ASTM D 664
- Flash point	°C	228	min. 210	ASTM D 92
- Evaporation losses – Mass fraction 6 h 30 at 205°C	%	20.7	max. 30	ASTM D 972
- Static foam test Foam volume Collapse time	cm ³ s	20 5	max. 100 max. 60	FTM-S-791-3213
- Lead corrosion (after 1 h at 163°C)	g/m ²	- 1.4	max. +/- 9.3	FTM-S-791-5321
- Oxidation and corrosiveness test 96 h at 200°C Acid number increase (pH = 11) Viscosity change (at 40°C) Sludge volume Weight loss Corrosion Aluminium Silver Steel M/50 Iron Titanium Brass Magnesium	mg KOH/g % cm ³ % mg/cm ²	2.0 + 14.8 not visible 1.7 0.0 0.0 0.0 0.0 0.0 0.0 - 0.1 0.0	max. 4.0 - 5 to + 25 not visible max. 4.0 max. +/- 0.2 max. +/- 0.2 max. +/- 0.2 max. +/- 0.2 max. +/- 0.2 max. +/- 0.4 max. +/- 0.4	ASTM D 4636
- Contamination Particle Filtration time	mg/dm ³ min/dm ³	0.3 14	max. 5.0 max. 30	APPENDIX MIL-PRF-7808 L
- Trace metal content Aluminium Steel Chromium Silver Copper Tin Magnesium Nickel Titanium Silicon	mg/kg	0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1	max. 2.0 max. 2.0 max. 2.0 max. 1.0 max. 1.0 max. 11.0 max. 2.0 max. 2.0 max. 1.0 max. 2.0	I.C.P.

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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 160

Characteristic	Unit	Result	Limit*	Test method
- Compatibility with standard elastomer SAE-AMS 3217/1 after 168 h at 70°C Swelling	% volume	28.0	12 to 35	FTM-S-791-3604
- Compatibility with standard elastomer SAE-AMS 3217/4 after 72 h at 175°C Swelling Tensile strength change Elongation change Hardness change	% volume % % %	18.7 - 30 + 12 - 15	2 to 25 max. 50 max. 50 max. 20	FTM-S-791-3432
- Compatibility with standard elastomer SAE-AMS 3217/5 after 72 h at 150°C Swelling Tensile strength change Elongation change Hardness change	% volume % % %	8.8 - 18 - 14 - 16	2 to 25 max. 50 max. 50 max. 20	FTM-S-791-3432
- Corrosion test at 232°C Brass, weight change Silver, weight change	g/m ² g/m ²	0.0 0.0	max. ∇ 4.5 max. ∇ 4.5	FTM-S-791-5305

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