Product Data Sheet

Mobil Jet Oil II

Aircraft-Type Gas Turbine Lubricant

Product Description

Mobil Jet Oil II gas turbine lubricant is a combination of a highly stable synthetic base fluid and a unique chemical additive package. The combination provides outstanding thermal and oxidation stability to resist deterioration and deposit formation in both the liquid and vapour phases, as well as excellent resistance to foaming.

The effective operating range of Mobil Jet Oil II is between -40°C and 204°C. Pour point is -54°C. The product has a high specific heat in order to ensure good heat transfer from oil-cooled engine parts. In extensive laboratory testing and in-flight performance, Mobil Jet Oil II exhibits excellent bulk oil stability at temperatures up to 204°C. The evaporation rate at these temperatures is low enough to prevent excessive loss of volume.

Application

Mobil Jet Oil II is recommended for aircraft gas turbine engines of the turbo-jet, turbo-fan, turbo-prop, and turbo-shaft (helicopter) types in commercial and military service. It also is recommended for aircraft-type gas turbine engines in industrial or marine application.

Mobil Jet Oil II is approved against US Military Specification MIL-L-23699C, as well as by the following engine and accessory manufacturers:

Engine Approvals
- Textron-Lycoming
- Allison Engine Co.
- General Electric Company
- Pratt & Whitney Group, United Technologies Corp.
- SNECMA
- Pratt & Whitney, Canada
- Rolls-Royce Limited
- Garrett Turbine Engine Co.

Accessory Approvals
- AiResearch, Auxiliary power units and air cycle machines
- Hamilton Standard Division, United Technologies Corp., Starters
- Sundstrand Corp., Constant-speed drives and integrated-drive generators
- Westinghouse Aerospace Electrical Division, Generators

Mobil Jet Oil II is compatible with other synthetic gas turbine lubricants meeting MIL-L-23699E. However, mixing with other products is not recommended because the blend would result in some loss of the performance characteristics of Mobil Jet Oil II. Mobil Jet Oil II is compatible with all metals used in gas turbine construction, as well as with F Rubber (Viton A), H Rubber (Buna N), and silicone seal materials.

Mobil Jet Oil II packaged in quart cans may be held safely in storage for 30 years. Product packaged in drums should be tested before being placed in service after two years from date of manufacture. Mobil can provide information on conducting these inspection tests.

Typical Characteristics

Physical properties are listed in the table. Values not shown as maximum or minimum are typical and may vary slightly. Pertinent test properties are listed to show important performance characteristics of the oil.

Advantages

- Reduces formation of carbon and sludge deposits
- Reduces engine maintenance
- Lengthens gear and bearing life
- Lowers oil consumption

Health and Safety

WARNING ! While no significant adverse effects on health are expected when properly handled and used, this product contains tricresyl phosphate (TCP) which, if taken internally, can cause paralysis.

Provide the following information to users:
- Do not use as medicine or food product.
- If swallowed, get medical assistance. If medical assistance is not immediately available, induce vomiting.
- After handling wash thoroughly and immediately with soap and water. Launder oily clothing before reuse.
- Discard oil-soaked shoes or boots.

We recommend that you obtain a Material Safety Data Bulletin and review it with users.
For this and additional technical information, call Mobil Oil Company Ltd. on 01372 22 2000.

Typical Characteristics

	Mobil Jet Oil II	MIL-L-23699C Requirements
Viscosity, cSt at 100°C	5.0	5.0 - 5.5
cSt at 40°C	25.3	25.0 min.
cSt at -40°C	11,000	13,000 max.
% change at -40ºC after 72 hr.	3.7	±6
Flash Point, ºC, min	268	246
Fire Point, ºC, min	285	--
Autogenous Ignition Temp, ºC, min	404	--
Pour Point, ºC	-54	-54
Specific Gravity, 15/15ºC	1.0035	--
TAN (mg KOH/g sample)	0.08	0.05 max.
Evaporation Loss, %		
6.5 hr at 204°C, 29.5" Hg	5.0	10 max.
6.5 hr at 232°C, 29.5" Hg	10.9	--
6.5 hr at 232°C, 5.5" Hg	33.7	--
Foam, ml		
Sequence 1, 24°C	10	25 max.
Sequence 2, 93°C	15	25 max.
Sequence 3, 75°C (after 93°C test)	10	25 max.
Foam Stability, after 1 min settling, ml	0	0 max.
Rubber Swell		
F Rubber, 72 hr at 204°C, %	19	5 - 25
H Rubber, 72 hr at 70°C, %	16	5 - 25
Silicone, 96 hr at 121°C, %	9	5 - 25
Tensile Loss, %	17	30 max.
Sonic Shear Stability, KV at 39 °C, change, %	0	4 max.
Ryder Gear		
Average lb/in	2750	--
% Hercolube A	115	112 max.

Due to continual product research and development, the information contained herein is subject to change without notice.

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