



ISO-9001 Registered Quality System.
ISO-21469 Compliant.

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PRODUCT DATA

LUBRIPLATE PGO-FGL SYNTHETIC GEAR OILS

ISO VISCOSITY GRADES 150, 220, 320, 460 & 680

"These products are certified OU Kosher Pareve"
"Approved by Flender"

*NSF International H-1 Registered
NSF ISO21469 Certification

DESCRIPTION

The LUBRIPLATE PGO-FGL grades consist of a range of ISO VG lubricants formulated to provide the user with superior performance under demanding operating conditions. Water soluble polyalkylene glycol base stocks, known to provide outstanding micropitting and EP characteristics are used to manufacture these lubricants. With the addition of a high performance, food approved additive package, these products are able to offer excellent thermal stability, high wear reduction rates, high micropitting resistance and load carrying ability as well as good corrosion protection.

APPLICATIONS

The LUBRIPLATE PGO-FGL ranges have been specially formulated for use as industrial gearbox lubricants within the food manufacturing environment. As such, they have achieved approval within a number of different gear designs, these include:

- ⇒ Helical
- ⇒ Bevel Helical
- ⇒ Planetary
- ⇒ Worm Gears

"The **LUBRIPLATE PGO-FGL Synthetic Gear Oil Series** contains no components derived from TSE/BSE relevant animal species; therefore, it is compliant with the requirements of the TSE Note for Guidance EMA/410/01 Rev. 3 July 2011".

FLUSH PROCEDURE

When changing from a mineral oil or PAO based product to one of the LUBRIPLATE PGO-FGL grades, the following procedure should be followed:

The system should be run until the old oil is warm, then drain as fully as possible, particular attention being paid to reservoirs, lines etc., where oil may be trapped. The system should be cleaned of residual sludge.

The system should be cleaned, if necessary, with *Synflush FG* depending on the flushed oil condition.

Flush the system with the minimum quantity of LUBRIPLATE PGO-FGL by operating under no load and then drain the system while the fluid is warm. Repeat if necessary.

Seals, etc., should be inspected and if deteriorated, then replaced. Seals previously exposed to other oils may shrink when exposed to LUBRIPLATE PGO-FGL fluids, therefore, it may be advantageous to replace them, however, this is not mandatory. Careful inspection of the system for leaks will often suffice.

It is useful to inspect the lubricant after one or two days in use to make sure that it is free of extraneous materials. Contamination with significant quantities of other lubricants can, in some cases, lead to sludging, foaming and other problems.

Typical Test Data – See Back

COMPATIBILITY

Polyurethane based elastomers, leather, cork, asbestos, paper and board should be avoided. Common seal and gasket materials are unaffected by LUBRIPLATE PGO-FGL Synthetic Gear Oils. Nitrile Rubber (NBR), Fluoro-Silicone or Vinyl-Methyl Polysiloxane (Q) are recommended especially where high temperatures are involved.

Ordinary industrial paints soften in the presence of these products. Internal gearbox surfaces should ideally be unpainted, or coated with resistant materials, for example a resistant two-pack epoxy formulation. *These products must never be mixed with mineral or PAO based products.*

<u>PACKAGING AVAILABLE</u>	<u>PGO-FGL 150</u>	<u>PGO-FGL 220</u>
54 Gallon Drum	L0810-062	L0811-062
5 Gallon Pail	L0810-060	L0811-060
Carton, 4/1 Gallon Jugs	L0810-057	L0811-057
Carton, 12/1 Plastic Quarts	***	***

<u>PACKAGING AVAILABLE</u>	<u>PGO-FGL 320</u>	<u>PGO-FGL 460</u>
54 Gallon Drum	L0812-062	L0813-062
5 Gallon Pail	L0812-060	L0813-060
Carton, 4/1 Gallon Jugs	L0812-057	L0813-057
Carton, 12/1 Plastic Quarts	***	L0813-054

<u>PACKAGING AVAILABLE</u>	<u>PGO-FGL 680</u>
54 Gallon Drum	L0815-062
5 Gallon Pail	L0815-060
Carton, 4/1 Gallon Jugs	L0815-057
Carton, 12/1 Plastic Quarts	***

***NSF International H1 Registration No.'s (Meets former USDA 1998 Guidelines)**

(FGL 150) <u>141192</u>	(FGL 220) <u>141193</u>	(FGL 320) <u>141194</u>
(FGL 460) <u>141195</u>	(FGL 680) <u>141196</u>	

**Registered H-1 by NSF International for use in food processing facilities as a lubricant or anti-rust agent on equipment in which there may be incidental contact involving the lubricated part and the edible product.*

Typical tests for LUBRIPLATE PGO-FGL SYNTHETIC GEAR OILS are as follows:

PROPERTY	TEST METHOD	TYPICAL RESULTS*				
		PGO-FGL 150	PGO-FGL 220	PGO-FGL 320	PGO-FGL 460	PGO-FGL 680
Viscosity cSt @ 40°C	ASTM D-445	150	227	339	477	725
Viscosity cSt @ 100°C	ASTM D-445	25	41.9	60.6	83	122.2
ISO Viscosity Grade	ASTM D-2422	150	220	320	460	680
Viscosity Index	ASTM D-2270	232	242	252	262	272
Pour Point	ASTM D-97	-47°C	-42°C	-39°C	-36°C	-33°C
Flash Point (COC)	ASTM D-92	284°C	284°C	282°C	284°C	287°C
Density @ 15°C (Kg/L)		1.057	1.057	1.062	1.067	1.072
TAN	ASTM D-974	0.2 max	0.2 max	0.2 max	0.2 max	0.2 max
FZG Load Stage A/8.3/90	DIN 51354	***	>12	***	>12	***
FZG Load Stage		***	10	***	***	***
Micropitting @ 90°C Endurance		***	10	***	***	***
FZG Load Stage		***	10	***	***	***
Micropitting @ 60°C Endurance		***	10	***	***	***
4-Ball Wear	ASTM D-2266	0.32 mm	0.34 mm	0.38 mm	0.38 mm	***
Evaporation Loss	ASTM D-972	0.26%	0.36%	0.13%	0.22%	***

LUBRIPLATE PGO-FGL Gear Oils are considered to be inherently biodegradable according to test results from ASTM D-5864/OECD 301B.

