



PHILSYN® PG Gear Oil

Phillips 66® PHILSYN PG Gear Oil is a premium quality, synthetic, polyalkylene glycol (PAG) based fluid developed for use in enclosed gearboxes, bearings and compressors where severe conditions demand the unique properties of these lubricants.

PHILSYN PG Gear Oil is formulated with synthetic PAG base oils and carefully selected additives to provide long service life, excellent wear protection, thermal and oxidative stability, reduced sludge and deposit formation, and protect against rust and corrosion. PHILSYN PG Gear Oil is specifically built for use in demanding applications where mineral based products fall short.

Applications

- Enclosed gearboxes operating in extreme or unfavorable conditions
- Worm gears operating in severe service
- Reciprocating gas compressor cylinder lubricant where hydrocarbon gas dilution is a problem

Features/Benefits

- Outstanding oxidation resistance and thermal stability at high temperatures
- High viscosity index and low pour point for use over a wide temperature range
- High film strength for wear protection
- Excellent lubricity compared to mineral-based products
- Protects against rust and corrosion
- Extended service intervals compared with petroleum-based lubricants
- Compatible with commonly used seals, gaskets, and hoses⁽¹⁾

Note: PHILSYN PG Gear Oil is **not** compatible with petroleum oils. Care should be taken to avoid mixing the two products. When switching over from mineral oil to PHILSYN PG Gear Oil, a complete flush, drain, and refill should be performed.

PHILSYN PG Gear Oil is compatible with neoprene, silicone rubber, torlon, vespal and viton, as well as epoxy paints. It is **not** compatible with oil-based paints or with solvents, such as diesel fuel, kerosene, heptane, methanol, ethylene glycol or triethanolamine.

**Synthetic
Polyalkylene
Glycol-Based
Industrial Gear
and Bearing Oil**

KEEPING THE
WORLD
RUNNING
SMOOTHLY. 



PHILSYN® PG Gear Oil

Typical Properties			
ISO Grade		220	320
Specific Gravity @ 60°F	ASTM D4052	1.06	1.06
Density, lbs/gal @ 60°F	Calculated	8.83	8.83
Color	ASTM D1500	<0.5	<0.5
Flash Point (COC), °C (°F)	ASTM D92	271 (520)	271 (520)
Pour Point, °C (°F)	ASTM D5950	-47 (-52)	-45 (-49)
Kinematic Viscosity			
cSt @ 40°C	ASTM D445	225	318
cSt @ 100°C		40.1	54.2
Viscosity Index	ASTM D2270	232	237
Acid Number, mg KOH/g	ASTM D974	0.6	0.6
Copper Corrosion, 24hrs. @ 100°C	ASTM D130	1B	1B
Rust Test	ASTM D655	Pass	Pass
Foam Test, Seq. I, tendency/stability, mL	ASTM D892	0/0	0/0
Foam Test, Seq. II, tendency/stability, mL	ASTM D892	0/0	0/0
Foam Test, Seq. III, tendency/stability, mL	ASTM D892	0/0	0/0
Four-Ball Wear, 40kg, 1200 rpm, 75°C, 1 hr, mm	ASTM D4172	0.36	0.28
FZG Scuffing Test, Passing Load Stage	ASTM D5182	12+	12+

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/SDS>

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Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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