PHILLIPS 66 LUBRICANTS

Syndustrial® PAG Compressor Oil

Synthetic Polyalkylene Glycol-Based Compressor Oils for Natural Gas Service

Phillips 66® Syndustrial PAG Compressor Oils are premium quality, synthetic lubricants developed for use in reciprocating, oil-flooded rotary screw, centrifugal, and rotary vane compressors processing natural gas, carbon dioxide, propane, or other hydrocarbon gases. They are specially formulated to resist hydrocarbon dilution and oil absorption in this type of service.

Syndustrial PAG Compressor Oils are formulated with synthetic polyalkylene glycol (PAG) base oils and carefully selected additives to provide long service life, excellent wear protection, resistance to washout and lubricant carryover, and protection against rust and corrosion. Special inhibitors help resist corrosion caused by hydrogen sulfide when processing sour gas. The combination of outstanding oxidation resistance and thermal stability at high temperatures, a very high viscosity index, and excellent low-temperature properties makes them suitable for year-round use over a wide temperature range.

Syndustrial PAG Compressor Oils are highly resistant to hydrocarbon gas dilution and absorption into the gas stream. Solubility of gas in the oil causes reduced lubricant viscosity which can result in cylinder scoring and high wear rates. Absorption of the oil into the gas stream causes high oil consumption and carryover into the process gas that can cause depletion of the protective oil film on the cylinder walls. Resistance to gas dilution and oil absorption helps maintain proper viscosity and oil film thickness to protect against wear.

Applications

- Reciprocating, Oil-flooded rotary screw, and rotary vane compressors processing natural gas, carbon dioxide, or other hydrocarbon gases
- Centrifugal compressors processing propane refrigerant, including York centrifugal compressors where York Oil Q (ISO VG 46) or York Oil R (ISO VG 68) is recommended.

Note: Syndustrial PAG Compressor Oils are **not** compatible with petroleum compressor oils. Care should be taken to avoid mixing the products. When switching over from mineral oil to Syndustrial PAG Compressor Oils, a complete flush, drain, and refill should be performed.

CAUTION: Syndustrial PAG Compressor Oils are not recommended for use in R-134a refrigeration compressors that require a PAG lubricant.

KEEPING THE WORLD RUNNING SMOOTHLY

Phillips66Lubricants.com
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International Customer Service: 1-832-765-2500
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Features/Benefits

- Highly resistant to dilution by hydrocarbon gases
- Resists washout by condensed hydrocarbon liquids
- Resists absorption into the gas stream and subsequent carryover of the lubricant downstream
- 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
- Protects against rust and corrosion
- Extended service intervals compared with mineral oil-based lubricants
- Compatible with commonly used seals, gaskets, and hoses[1]

[1] **Note**: Syndustrial PAG Compressor Oils are compatible with neoprene, silicone rubber, torlon, vespal and viton, as well as epoxy paints. They are **not** compatible with oil-based paints or with solvents, such as diesel fuel, kerosene, heptane, methanol, ethylene glycol or triethanolamine.

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Typical Properties					
ISO Grade	**46**	**68**	**100**	**150**	**220**
Specific Gravity @ 60°F	1.03	1.04	1.04	1.05	1.05
Density, lbs/gal @ 60°F	8.59	8.62	8.68	8.73	8.74
Color, ASTM D1500	0.5	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	257 (495)	260 (500)	265 (509)	275 (527)	274 (525)
Pour Point, °C (°F)	-54 (-65)	-51(-60)	-51 (-60)	-50(-58)	-47 (-53)
Viscosity					
cSt @ 40°C	55.1	70.1	101.3	146.1	218.0
cSt @ 100°C	11.2	13.6	19.3	27.4	40.4
Viscosity Index	202	201	214	227	239
Copper Corrosion, ASTM D130, 3hr @ 121°C	1A	1A	1A	1A	1A
Foam Test, ASTM D892, Seq. I, II, III, mL	0/0	0/0	0/0	0/0	0/0
Four-Ball Wear Test, ASTM D4172, Scar Diameter, mm	0.4	0.4	0.4	0.4	0.4
Rust Test, ASTM D665, Part A	Pass	Pass	Pass	Pass	Pass

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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