SUPEOX CL-WN Series

Synthetic Refrigeration Lubricant for HC systems

Introduction

SUPEOX CL-WN series are water insoluble polyalkylene glycol based gas compressor lubricants with distinctive additives for use in reciprocating, screw, and rotary compressors for hydrocarbon process gas chillers in Refrigeration Lubrication application. Unlike mineral oils, PAOs, and R&O oils, CL-WN lubricants are not easily absorbed into the gas stream and therefore lubricant viscosity dilution is significantly minimized. SUPEOX CL-WN lubricants are particularly suitable for use with propane and propene chiller systems. The high resistance to gas dilution of the lubricant ensures proper lubricant viscosity is maintained, thereby ensuring adequate oil film thickness and efficient compressor lubrication. SUPEOX CL-WN lubricants are a precise synthesis of premium PAG base oil and sophisticated additives to ensure long service life, excellent wear protection, and high thermal and oxidation resistance. They are available in three viscosity grades ISO VG 68, 100 and 150 to meet the design requirements of reciprocating and screw compressors.

Advantages

- Optimized viscometrics for hydrocarbon refrigerants such as R290 (propane)
- Superior lubricity compared to alternative lubricant types, including Polyol Esters (POE), standard 'single end-capped' PAG products, and di-capped PAGs with lower di-capped material content.
- Exceptional Viscosity Index (VI) – The high VI enhances compressor life by ensuring efficient running at temperature extremes. The high VI may also allow the user to select a lower viscosity fluid than typically used, with associated power usage savings.
- Good high temperature and chemical stability, even in presence of water, resulting in system lifetime extension and reduced maintenance costs.
- Formulating expertise – optimised additive technology to provide corrosion protection within the system, to further enhance the extreme pressure / antiwear performance of the PAG, and to maximise fluid lifetime by ensuring against thermal or oxidative deterioration of the lubricant.

Physical Properties

Characteristic	Test Method	Unit	*CL-WN 68*	*CL-WN 100*	*CL-WN 150*
Viscosity (40°C)	ASTM D445	cSt	*68*	*100*	*150*
Viscosity (100°C)	ASTM D445	cSt	*13*	*17*	*26*
Viscosity Index	ASTM D2270		*185*	*195*	*210*
Flash Point (COC)	ASTM D92	°C	*210*	*215*	*217*
Specific Gravity @ 25°C	ASTM D1298	g/cc	0.99	0.99	1.00
Pour point neat lub[1]	ASTM D97	°C	-55	-50	-46

[1] pour point with coexisting gas in a running system is lower

Note: *Typical properties given do not constitute a supply specification*