Syndustrial® R&O Oil

Synthetic Diester Rust & Oxidation-Inhibited Compressor Oil

Syndustrial R&O Oil is a premium quality synthetic diester lubricant developed primarily for use in reciprocating and some rotary air compressors operating under severe-service conditions, and in moisture-free environments. It is particularly recommended for use in applications where operating conditions may be unfavorable or too severe for conventional mineral oil-based lubricants.

Syndustrial R&O Oil is available in four viscosity grades: ISO 32, 68, 100 and 150. It is formulated with synthetic diester base fluids and select additives to provide long service life, good wear protection, and protection against rust and corrosion. It has better oxidation resistance and thermal stability at high temperatures compared with conventional mineral oil-based lubricants, resulting in fewer deposits and longer service life. It has lower volatility for reduced oil consumption. It also has excellent low-temperature properties for use over a wide temperature range.

Syndustrial R&O Oil has good natural detergency to help minimize the formation of deposits in air compressors. It also has good water-separating properties and resistance to foaming.

Applications

- Reciprocating air compressors[(1)]
- Some rotary air compressors operating in a dry environment[(1)]
- Circulating systems requiring a synthetic diester lubricant
- Elliott steam turbines where the manufacturer specifies a synthetic diester lubricant
- Plain and rolling element bearings operating at very high or very low temperatures
- Industrial equipment operating over a wide temperature range where an inhibited mineral oil is recommended[(2)]

[(1)] ***Note:*** *Always follow the equipment manufacturers' recommendations for selecting the proper viscosity grade and for preferences regarding the use of diester lubricants. Typically, the ISO 32 and ISO 68 viscosity grades are recommended for rotary air compressors, and the ISO 100 viscosity grade is recommended for reciprocating air compressors.*

[(2)] ***Note:*** *Syndustrial R&O Oil is* ***not*** *compatible with mineral oil-based lubricants. Mixing should be avoided to ensure optimum performance.*

Features/Benefits

- Excellent resistance to thermal breakdown at high temperatures

Contact Information

U.S. Customer Service:
1-800-822-6457

U.S. Technical Services Hot Line:
1-800-766-0050

International:
+1-832-486-3363

E-mail address:
lubricants@conocophillips.com

- Excellent oxidation resistance to help minimize sludge and varnish formation
- Protects against wear
- Protects against rust and corrosion
- Natural detergency
- Excellent low-temperature properties
- Extended service intervals compared with conventional mineral oil-based lubricants

Note: *For information on compatibility with seals, paints and plastics, please call our Technical Support Hot Line.*

Syndustrial® R&O Oil

Typical Properties

ISO Grade	32	68	100	150
Density, g/cm^3 @ 15.6°C (60°F)	0.941	0.965	0.961	0.957
Density, lbs/gal @ 15.6°C (60°F)	7.84	8.04	8.00	7.97
Color, ASTM D1500	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	243 (469)	254 (489)	260 (500)	265 (509)
Pour Point, °C (°F)	-51 (-60)	-42 (-44)	-39 (-38)	-39 (-38)
Viscosity,				
cSt @ 40°C	31.0	65.0	98.5	150
cSt @ 100°C	5.0	8.4	10.9	15.1
SUS @ 100°F	161	337	515	786
SUS @ 210°F	43.0	54.5	63.5	80.1
Viscosity Index	74	94	94	101
Acid Number, ASTM D974, mg KOH/g	0.39	0.39	0.39	0.39
Copper Corrosion, ASTM D130	1a	1a	1a	1a
Demulsibility, ASTM D1401, minutes to pass	10	10	15	15
Foam Test, ASTM D892	Pass	Pass	Pass	Pass
Four-Ball Wear, ASTM D4172,				
Scar Diameter, mm	0.70	0.80	0.70	0.66
FZG Gear Test, ASTM D5182, Pass Load Stage	8	8	8	8
Oxidation Stability, RPVOT,				
ASTM D2272, minutes	1,800	1,800	1,800	1,800
Rust Test, ASTM D665 A&B	Pass	Pass	Pass	Pass

Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via *http://w3.conocophillips.com/NetMSDS*.

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

AWP-07 101
02/07