Syndustrial® R&O Oil

Syndustrial R&O Oil is a premium quality, synthetic diester lubricant developed for use in air compressors and select steam turbines 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 formulated to provide long service life and excellent performance over a wide temperature range. It has excellent oxidation resistance and thermal stability at high temperatures to minimize sludge and varnish formation, and provide long service life. It also has excellent low-temperature properties for use over a wide temperature range. It has good natural detergency to help minimize deposit formation in air compressors and on the bearing surfaces of steam turbines. It protects system components against rust, corrosion and wear. It has good water-separating properties and is resistant to excessive foam buildup. It has lower volatility than conventional mineral oil-based lubricants for reduced oil consumption.

Applications

- Reciprocating air compressors[1]
- Select rotary air compressors operating in a dry environment[1]
- Elliott ring-oiled turbines, where a synthetic diester turbine oil is specified
- Circulating systems requiring a synthetic diester lubricant
- 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 manufacturer's recommendations regarding the use of diester lubricants and selection of proper viscosity grade. Typically, rotary air compressors and turbines require an ISO 32 or ISO 68 viscosity grade, and reciprocating compressors require an ISO 100 or ISO 150 viscosity grade.*

[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

Synthetic Diester Lubricant For Air Compressors And Some Turbines; Rust & Oxidation Inhibited

Contact Information

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

Technical Hot Line:
1-877-445-9198

International Customer Service:
+1-832-486-3363
+1-832-486-3870

E-mail address:
lubricants@conocophillips.com

- Excellent oxidation resistance to 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
Specific Gravity @ 60°F	0.941	0.965	0.961	0.957
Density, lbs/gal @ 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 Scuffing Test, ASTM D5182, Failure Load Stage	9	9	9	9
Oxidation Stability, RPVOT,				
ASTM D2272, minutes	>1,750	>1,750	>1,750	>1,750
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*.

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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