

PRODUCT DATA SHEET

Cirro R&O Oils

Premium Rust and Oxidation Lubes



PRODUCT DESCRIPTION:

Cirro R&O Oils are superior quality rust and oxidation (R&O) inhibited oils providing excellent performance in hydraulic systems, compressors applications including steam and hydro turbine sets and other systems where long lubricant service life is required and other applications where a high quality R&O type oil is required. Their superior oxidation resistance enables extended oil drain intervals, with significantly reduced sludge, varnish and carbon deposits on internal parts, pumps, exhaust valves and other compressor components.

Cirro R&O Oils considerably reduce the necessity of cleaning and other maintenance, provide protection against wear, as well as increase productivity and provide excellent filtration characteristics.

KEY FEATURES:

- Superior additive package with excellent protection.
- High performance additive system with anti-oxidant, anti-foam agents, rust and corrosion inhibitors.
- Excellent protection against wear with high base oil and additive performance.
- High resistance to foaming and excellent air release.

CUSTOMER BENEFITS:

- Exceeds performance requirements for manufacturers' pump and compressor specifications, provides longer life and performance.
- Provides superior protection against varnishing, rust, and excessive wear while extending equipment life and lowering maintenance costs.
- Less maintenance and longer life of equipment and repair costs.
- Prevents pump cavitation, noisy and erratic operation providing more efficient operation.

APPLICATIONS:

CIRRO R&O OILS have provided excellent performance when used for oil-film back-up roll bearings in hot and cold mills, high speed rod mills, and reduction gears and bearings. Excellent results have also been obtained in Morgan No-Twist rod mills using Grade 100.

They are also recommended for use in other applications which require a long life premium quality fluid such as in turbines, pumps, machine tools, gear drives calling for a non-EP (zinc free) oil, circulating oil systems, oil mist systems, etc.

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CIRRO R&O Oils meets or exceeds most pump manufacturer's specifications and may be used as a premium hydraulic fluid, compressor oil, and other applications as recommended where superior performance of an R&O type fluid may be needed. These high performance circulating lubricants are designed for applications where long lubricant service life is required. Specific applications include:

- Land-based and marine steam turbine, hydro turbine and some gas turbine circulation systems, including pumps, valves and other ancillary equipment
- Continuous service in plain and roller bearings and parallel shaft gearing
- Turbines with oil supplied by splash, bath, ring oiling or other mechanical means
- Moderate severity hydraulic pumps
- Compressors and vacuum pumps handling air, natural gas, and inert gases, and with discharge temperatures not exceeding 150 degrees C.

PACKAGING:

Drums and Pails

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Typical Properties

Cirro R&O Oils											
Product Number	240	241F	242E	243	244	245	246	247	248	250	Test Method
ISO Grade	22	32	46	68	100	150	220	320	460	100	
API	33.1	31.88	30.8	30.36	30.27	29.5	28.67	27.9	27.14	34.68	-
Specific Gravity	0.8592	0.8661	0.8719	0.8742	0.8747	0.8789	0.8834	0.8877	0.892	0.8515	ASTM D4052
Lbs/Gal	7.159	7.213	7.261	7.28	7.285	7.319	7.357	7.393	7.428	7.091	
Density	0.8592	0.8656	0.8714	0.8737	0.8742	0.8784	0.8829	0.8872	0.8915	0.8510	
Flash Point °C	194	208	221	230	236	250	264	278	291	174	ASTM D92
Pour Point °C	-24	-24	-21	-21	-21	-18	-12	-9	-3	-24	ASTM D97
Color, ASTM	<1.5	<1.5	<1.5	<1.5	<1.0	<2.0	<2.5	<3.0	<3.0	-0.3	ASTM D1500
Viscosity@100C, cSt	14.5	5.4	6.608	8.6	11.22	4.15	18.95	23.2	30.95	2.8	ASTM D445
Viscosity@40C, cSt	22	33.11	46	68	100	150	218.8	320	474.6	11.92	ASTM D445
Viscosity Index (VI)	95	95	95	97	97	95	95	91	97	97	ASTM D2270

Typical Properties are typical of those obtained with normal production tolerance and do not constitute essentially a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice.

Health and Safety:

When used for its intended application, this product is not expected to have any adverse health implications. For complete information on safe handling, as well as physical and chemical characteristics please refer to the Material Safety Data Sheet (MSDS) found on our website, www.royalmfg.com, or call 918-584-2671. Do not use this product for purposes other than its intended use. Please be responsible to the environment when disposing of used product.