

SYNTHETIC CIRCULATING OIL

ISO GRADES: 32-680

Product Description

Formulated from high-purity synthetic base stocks, Synthetic Circulating Oil delivers exceptional operating performance and extended service life. This robust formulation is engineered to withstand both high and low temperature environments, heavy gear loads, and severe operating conditions with outstanding shear stability.

A specialized additive system provides enhanced oxidation resistance, excellent lubricity, and superior wear protection in heavily loaded gear and bearing applications. The product is fully demulsible, allowing rapid water separation, and features a high viscosity index that maintains film strength at elevated temperatures while supporting excellent low-temperature performance, including reliable cold start-up.

This lubricant is non-hazardous and can be disposed of in the same manner as mineral-based circulating oils.

Applications

Synthetic Circulating Oil is recommended for:

- Filled-for-life gearboxes and remote gearboxes where oil change intervals are challenging.
- Low-temperature environments, including ski lifts, where seasonal oil changes can be minimized.
- Mixer roll bearings and roll-neck bearings that experience elevated operating temperatures.
- Oil-flooded rotary screw compressors used in natural gas, field gas gathering, CO₂ service, and other process gases within the natural gas industry.

The formulation is compatible with most seals, plastics, and elastomers, ensuring reliable long-term system integrity.

Typical Properties

ISO Grade	32	46	68	150	220	320	460	680
Appearance	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Viscosity, cSt @ 40°C	31.5	44.8	66.2	151	230	320	460	662
Viscosity, cSt @ 100°C	6.0	7.6	11.16	18.2	26.1	33.1	49.0	57.2
Viscosity Index	139	137	162	135	145	145	167	150
Flash Point, COC °F (°C)	430 (221)	430 (221)	374 (190)	445 (230)	445 (230)	450 (232)	455 (235)	460 (238)
Color, ASTM	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Pour Point °F (°C)	-31 (-35)	-31 (-35)	-38 (-39)	-22 (-30)	-22 (-30)	-13 (-25)	-13 (-25)	-4 (-20)
Gravity, API @ 60°F	33.0	32.0	34.0	30.0	29.0	29.0	28.5	28.0

*The values shown are typical of current production. Some are controlled in the manufacturing process, while others are not. All of them may vary within tolerable ranges.