



Indol®

Anti-Wear Hydraulic Oil

General Description

Indol® is an exceptional quality zinc anti-wear hydraulic oil designed to exceed the performance requirements of major pump manufacturers.

Indol is specially formulated with the highest quality Group II base oils, which provide outstanding thermal and oxidation stability. The addition of a uniquely balanced additive system provides total anti-wear, hydrolytic stability, anti-rust, demulsibility and anti-foam performance.

The zinc anti-wear agent used in Indol helps minimize wear in high speed, high pressure vane and gear pumps, while meeting the requirements of bronze axial piston pumps. Indol is highly stable under thermal or oxidative stress and is exceptional in the presence of moisture.

Indol also comes in a multi-viscosity formulation, which contains an extremely shear stable viscosity modifier. It provides exceptional low temperature properties enabling performance over a wide range of startup and operating temperatures.

Features and Benefits

- **Oxidation Control:** Excellent oxidation and thermal stability reduces sludge and varnish providing protection of critical components, while extending oil and equipment life.
- **Wear Protection:** The premium anti-wear technology provides protection that passes major hydraulic equipment manufacturers pump tests resulting in longer equipment component life.
- **Filterability:** Superior hydrolytic stability with quick water separation, which provides protection against filter plugging and deposits.
- **Rust and Corrosion Protection:** Reduced maintenance due to outstanding rust and corrosion prevention capabilities.
- **Foam Control:** A special anti-foam agent promotes the rapid break up of foam and reduces air entrainment.
- **High Viscosity Index:** The shear stability of Indol MV provides exceptional viscosity stability, resulting in consistent operation during extreme temperature ranges and prolonged drain intervals.
- **Reserve Quality:** Maintains a higher level of performance under the toughest operating and extended drain conditions.

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Typical Applications/Recommendations

- Denison HF-0, HF-1, HF-2
- Cincinnati Lamb P-68, P-69, P-70
- Eaton Vickers I-286-S, M2950-S (35VQ25)
- Rexroth, Parker Hannifin
- Marzocchi, Racine S
- DIN 51524-2, GM LS-2, AFNOR 48-603
- U.S. Steel 126, 127, 136
- ASTM D-665, Rust Test A&B: Pass
- ASTM D-943 Oxidation Test: 6,000+Hrs

Typical Customers

Owners and operators of:

- Mobile/industrial hydraulic systems
- Electric utility maintenance equipment
- Enclosed gear sets
- Circulating systems
- Air compressors and vacuum pumps
- Injection molding machines

Typical Properties

ISO Viscosity Grade	15	22	32	MV-32	46	68	100	150	220	460
Approximate SAE Grade	(0W)	(5W)	(10W)	(5W-20)	(20W)	(20)	(30)	(40)	(50)	--
Viscosity @ 100°C, cSt	3.8	4.4	5.5	6.6	6.9	8.8	11.4	15.2	19.3	30.5
SUS	38.9	40.6	44.3	46.5	48.5	55.1	63.2	76.4	93.0	145
@ 40°C, cSt	15.0	22.1	32.4	33.3	46.5	69.0	101.1	152.3	220.2	461.3
SUS	77	106	150	156	215	313	456	686	992	2136
Viscosity Index	158	108	106	158	104	100	99	99	99	95
Pour Point, °C / °F	-57/-70	-42/-44	-42/-44	-48/-54	-39/-38	-36/-33	-27/-17	-30/-22	-21/-6	-3/27
API Gravity / lbs./gal.	34.9/7.08	33.4/7.15	32.1 /7.2	32.3/7.19	31.2/7.24	30.6/7.27	30.1/7.2	29.5/7.32	28.8/7.35	25.7/7.5
Flash Point, °F		400	420	400	440	460	480	500	540	560
Dielectric Strength, KV	40*	40*	40*	40*	40*	40*				

*The Dielectric Strength specification is only found in the above products that are in new sealed drums, totes, and 2½ -gallon containers from CHS Lubricant manufacturing plants.

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

Health & Safety

A complete safety data sheet is available by calling 1-651-355-8438 or visit cenex.com/sds-library.