PREMIUM ANTI-WEAR "HD" HYDRAULIC OILS
ISO GRADES 22, 32, 46, 68, 100

Typical Properties

ISO Grade	22	32	46	68	100
Viscosity, cSt					
At 40 C	22.0	30.2	44.2	66.2	93.8
At 100 C	4.3	5.2	6.6	8.5	10.6
Viscosity Index	100	100	98	95	95
Flash Point, (COC) Deg F	385	390	415	425	450
Pour Point, Deg F	-30	-25	-20	-15	-0
Neut. No., ASTM D 974	0.55	0.55	0.55	0.55	0.55
Gravity, API @ 60 F	31.0	30.0	29.0	28.7	28.3
Oxidation Life, ASTM D 943, Hrs	+4500	+4500	+4500	+4500	+4500
Rust Test, ASTM D-665 A & B	No rust	No Rust	No Rust	No Rust	No Rust
Demulsibility, ASTM D-1401	Pass	Pass	Pass	Pass	Pass
**Dielectric Strength, ASTM D 877	30 KV+	30KV+	30KV+	30KV+	--------

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.

The five grades are premium-quality anti-wear hydraulic oils with excellent stability, designed to meet the most stringent requirements of most all the major manufacturers and users of hydraulic equipment. These oils are characterized by providing rust protection, low deposit formation, rapid release of entrained air, oxidation resistance, low pour points, and good anti-foam properties. They contain an effective anti-wear agent that helps reduce wear in high-speed, high-pressure vane and gear pumps.

APPLICATIONS

Recommended for vane, gear, and piston-type pumps where operating pressures may exceed 3000 psi. These anti-wear hydraulic oils are very effective in reducing vane and gear pump wear and greatly extend the life of systems operating at high loads, speeds, and temperatures. In a clean dry system, typical value** for ASTM D-877, "Dielectric Breakdown Voltage of Insulating Liquids" will exceed 30 Kilovolts . These hydraulic oils meet performance requirements of Denison HF-0, Eaton-Vickers I-286-S, M-2950-S and Cincinnati Lamb Landis P-68, P69, and P-70 .

**Application ISO Grades 22, 32, 46, & 68 meet dielectric strength test results described in ASTM D-877 @ 30KV+ providing customer storage and containment are free of moisture under all conditions.