



PREMIUM ANTI-WEAR HYDRAULIC OIL ISO GRADES 10, 15, 22, 32, 46, 68, 100

Typical Properties

| ISO Grade | 10 | 15 | 22 | 32 | 46 | 68 | 100 |
|---|---------|---------|---------|---------|---------|---------|---------|
| Viscosity, cSt | | | | | | | |
| At 40 C | 10.98 | 15.5 | 22.0 | 30.2 | 44.2 | 66.2 | 93.8 |
| At 100 C | 3.3 | 3.5 | 4.3 | 5.2 | 6.6 | 8.5 | 10.6 |
| Viscosity Index | 100 | 100 | 100 | 100 | 98 | 95 | 95 |
| Flash Point, (COC) Deg F | 370 | 380 | 395 | 405 | 425 | 445 | 460 |
| Pour Point, Deg F | -35 | -35 | -30 | -25 | -20 | -15 | -0 |
| Neut. No., ASTM D 974 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| Gravity, API @ 60 F | 33.0 | 31.5 | 31.0 | 30.0 | 29.0 | 28.7 | 28.3 |
| Oxidation Life, ASTMD 943, Hrs | +6000 | +6000 | +6000 | +6000 | +6000 | +6000 | +5500 |
| Rust Test, ASTM D-665 A & B | No Rust | No Rust | No Rust | No Rust | No Rust | No Rust | No Rust |
| Demulsibility, ASTM D-1401 mins to 3 ml emulsion | 20 Min | 20 Min | 20 Min | 20 Min | 20 Min | 20 Min | 20 Min |
| **Dielectric Strength, ASTMD 877 | 30KV+ | 30KV+ | 30KV+ | 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.

These 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 are suitable for use in DIN 51524 HLP, Denison HF-0 (HM), Eaton-Vickers I-286-S, M-2950-S and Cincinnati Lamb Landis P-68, P-69, and P-70, GM LS-2, ISO 6743/4, ISO 11158, ASTM D-6158 (HM), BOSCH Rexroth RDE-90235, AIST 127, 126(USS), AFNOR NF E 48-603, SEB 181222.

**Application ISO Grades 10, 15, 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.