



The primary function of a hydraulic fluid is to convey power. In use, however, there are other important functions of hydraulic fluid such as protection of the hydraulic machine components. The table below lists the major functions of a hydraulic fluid and the properties of a fluid that affect its ability to perform that function:

Having good low temperature characteristics and offering a wide choice of Viscosities The properties of their solvent refined base oils are enhanced by full additive treatment to minimize oxidation and foaming and to ensure long machinery life by reducing wear to a minimum and preventing corrosion.

The oils are compatible with the seal materials in modern **Hydraulic Systems**.

Proper viscosity to minimize internal leakage
High viscosity index.

Hydraulics is used for the generation, control, and transmission of power by the use of pressurized liquids.

Hydraulic topics range through most science and engineering disciplines, and cover concepts such as pipe flow, dam design, fluidics and fluid control circuitry, pumps, turbines, hydropower, computational fluid dynamics, flow measurement, river channel behavior and erosion

Very low rates of wear ; therefore extended life for hydraulic components;
High chemical stability; resists breakdown of the oil, and there by preventing deposition of sludge and lacquers in both the system and the reservoir; so there are fewer shutdowns for maintenance and long life for the hydraulic oil it self

Excellent filterability; no tendency to block fine filter when water contamination is present; therefore trouble free operation of hydraulic systems.

HYDO AWS is primarily for use in hydraulic equipment, but is also suitable for other duties in which lubricants of high oxidation stability and lubrication performance are required.

- Viscosity for film maintenance
- Low temperature fluidity
- Thermal and oxidative stability
- Hydrolytic stability / water tolerance
- Cleanliness and filterability
- Demulsibility
- Antiwear characteristics
- Corrosion control



| GRADE | Test Method | Units | HYDO AWS | | | | | | | | | | |
|-----------------------|-------------|---------|----------|-------|-------|-------|---------|-------|-------|-------|-------|--|--|
| | | | 10 | 22 | 32 | 46 | 68 | 100 | 150 | 220 | 320 | | |
| Density @ 15°C | ASTM D1298 | kg/l | 0.861 | 0.875 | 0.876 | 0.879 | 0.882 | 0.886 | 0.888 | 0.893 | 0.896 | | |
| Flash Point | ASTM D92 | °C | 162 | 192 | 216 | 225 | 240 | 240 | 267 | 270 | 270 | | |
| Kin Viscosity @ 40°C | ASTM D445 | cSt | 9.4 | 21 | 32 | 46 | 68 | 105 | 160 | 220 | 320 | | |
| Kin Viscosity @ 100°C | ASTM D445 | cSt | 2.5 | 4.19 | 5.4 | 6.9 | 9 | 12 | 16 | 20 | 25 | | |
| Viscosity Index | ASTM D2270 | | 110 | 108 | 105 | 104 | 103 | 105 | 107 | 110 | 107 | | |
| Pour Point | ASTM D97 | °C | -45 | -30 | -30 | -30 | -30 | -24 | -24 | -24 | -24 | | |
| 4-Ball Welding Load | | Kg | 180/200 | | | | 200/220 | | | | | | |
| Neutralization Value | ASTM D664 | mgKOH/g | | | | | | | 0.2 | | | | |