



Gulf Harmony AW Super Clean

High performance super clean anti-wear
hydraulic oil

Product Description

Gulf Harmony AW Super Clean series are high performance anti-wear hydraulic oils developed for high pressure hydraulic systems operating under moderate to severe conditions in mobile and industrial service requiring super clean oils. These oils are formulated with high quality base oils and field proven performance additives to provide excellent protection against oxidation degradation, rust & corrosion and wear. They also possess superior foam control, water separation and rapid air release properties. These oils are available in ISO 10 through ISO 100 viscosity grades. They exceed the performance requirements of global industry standards viz. DIN 51524 Part 2-HLP, AFNOR NFE 48-603 (HM) & ISO 11158 HM and majority of the international OEMs viz. Denison, Cincinnati Lamb & Eaton (Vickers).

Features & Benefits

- Excellent thermo-oxidative stability controls the formation of sludge & varnish and improves oil life
- Exceptional anti-wear property results in longer pump and component life and reduces costs
- Ensures smooth operation of hydraulic systems employing close clearance servo valves
- Superior demulsibility helps in faster separation of water from oil and resists formation of emulsions
- Special rust & corrosion inhibitors protect multi-metallurgy components even in presence of moisture
- Rapid air release property minimises chances of pump cavitation leading to trouble free operations
- Compatible with multi-metals and sealing materials commonly used in hydraulic systems

Applications

- Hydraulic systems operating under moderate to severe conditions in mobile and industrial service requiring super clean oils
- Mobile hydraulic fluid power transmission systems and general machine lubrication

Specifications, Approvals & Typical Properties

| ISO Viscosity grades | 15 | 22 | 32 | 46 | 68 | 100 | |
|----------------------------------------------------------------------------|--------------------|----------------|-------|-------|-------|-------|-------|
| Meet the following Specifications | | | | | | | |
| DIN 51524 Part 2-HLP | X | X | X | X | X | X | |
| AFNOR NFE 48-603 (HM), ISO 11158 HM | X | X | X | X | X | X | |
| Denison HF-0, HF-1, HF-2 | | | X | X | X | | |
| FIVES CINCINNATI (Former MAG IAS, LLC) | | | P-68 | P-70 | P-69 | | |
| Eaton (Vickers) M-2950-S, M-2952-S, I-286-S | | | X | X | X | | |
| Bosch Rexroth 07 075 for vane, piston & gear pumps, Sauer Danfoss 520L0463 | | | X | X | X | | |
| Typical Properties | | | | | | | |
| Test Parameters | ASTM Method | Typical Values | | | | | |
| Viscosity @ 40 °C, cSt | D 445 | 15.1 | 22.2 | 31.2 | 45.9 | 68.3 | 98.3 |
| Viscosity Index | D 2270 | 97 | 98 | 100 | 100 | 99 | 97 |
| Flash Point, °C | D 92 | 164 | 186 | 202 | 210 | 218 | 230 |
| Pour Point, °C | D 97 | -24 | -24 | -24 | -24 | -24 | -12 |
| Density @ 15°C, Kg/l | D 1298 | 0.858 | 0.865 | 0.87 | 0.874 | 0.881 | 0.886 |
| Rust Test | D 665A/B | Pass | Pass | Pass | Pass | Pass | Pass |
| Emulsion Test 30 minutes max | @ 54 oC @ 82 oC | D 1401 | Pass | Pass | Pass | Pass | Pass |
| | | | - | - | - | - | Pass |
| Foam Test, foam after 10 minutes of settling for all sequences | D 892 | Nil | Nil | Nil | Nil | Nil | Nil |
| Turbine Oil Stability Test, hrs | D 943 | 2000+ | | 2500+ | | 2000+ | |
| FZG, fail load stage, minimum | DIN 51354 Part II | - | - | 11 | 11 | 11 | 11 |
| Cleanliness level (at filling stage) | NAS 1638 | 6 | 6 | 6 | 6 | 6 | 6 |

April 2022

Properties mentioned are typical only and minor variations, which do not affect product performance, are expected to arise in normal manufacturing processes. Please follow equipment manufacturer's recommendations for performance level and viscosity grade. The Safety Data Sheet for this product is available from your nearest Gulf Distributor. Please consult our local representative if any further information is required.

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