

Gulf Harmony HLP

High performance anti-wear hydraulic oil

Product Description

Gulf Harmony HLP 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. These oils are formulated with high quality base oils and carefully selected 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 grades are formulated with field proven thermally stable zinc based anti-wear additive system. They exceed the performance requirements of global industry standards viz. DIN 51524 Part 2-HLP & ISO 11158 HM.

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
- 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
- Older hydraulic systems where leakage is a problem and a cost-effective hydraulic oil providing all-round protection is required
- Mobile hydraulic fluid power transmission systems and general machine lubrication

Specifications, Approvals & Typical Properties

| ISO Viscosity grades | | | 22 | 46 | 68 | 100 |
|--|---------|-------------------|----------------|-------|-------|-------|
| Specifications | | | | | | |
| DIN 51524 Part 2-HLP | | | Х | Х | Х | Х |
| ISO 11158 HM | | | X | X | Х | Х |
| Typical Properties | | | | | | |
| Test Parameters | | ASTM Method | Typical Values | | | |
| Viscosity @ 40 °C, cSt | | D 445 | 22.2 | 45.9 | 68.3 | 98.3 |
| Viscosity Index | | D 2270 | 98 | 100 | 99 | 97 |
| Flash Point, °C | | D 92 | 186 | 210 | 218 | 230 |
| Pour Point, °C | | D 97 | -24 | -24 | -24 | -12 |
| Density @ 15°C, Kg/l | | D 1298 | 0.865 | 0.874 | 0.881 | 0.886 |
| Rust Test | | D 665A/B | Pass | Pass | Pass | Pass |
| Emulsion Test 30 minutes max | @ 54 oC | D 1401 | Pass | Pass | Pass | - |
| | @ 82 oC | | - | - | - | Pass |
| Foam Test, foam after 10 minutes of settling for all sequences | | D 892 | 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 |

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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.