



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		10	15	22	32	46	68	100
Specifications								
DIN 51524 Part 2-HLP		X	X	X	X	X	X	X
ISO 11158 HM		X	X	X	X	X	X	X
Typical Properties								
Test Parameters		ASTM Method	Typical Values					
Viscosity @ 40 °C, cSt		D 445	10.1	15.1	22.2	31.2	45.9	68.3
Viscosity Index		D 2270	97	97	98	100	100	99
Flash Point, °C		D 92	136	164	186	202	210	218
Pour Point, °C		D 97	-30	-24	-24	-24	-24	-12
Density @ 15°C, Kg/l		D 1298	0.847	0.858	0.865	0.87	0.874	0.881
Rust Test		D 665A/B	Pass	Pass	Pass	Pass	Pass	Pass
Emulsion Test 30 minutes max	@ 54 °C	D 1401	Pass	Pass	Pass	Pass	Pass	-
	@ 82 °C		-	-	-	-	-	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

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Properties mentioned above are typical only and minor variations, which do not affect the product performances, are to be expected in normal manufacturing. The above information is based on past history of the grade only and must not be construed as a guarantee of performance. Follow equipment manufacturer's recommendations for performance level and viscosity grade. The Material Safety Data Sheet for this product is available from your nearest Gulf Distributor.

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