

# **Gulf Harmony HVI Super Clean**

# Premium quality high viscosity index super clean hydraulic oil for extreme temperature ranges

### **Product Description**

**Gulf Harmony HVI Super Clean** series are premium quality anti-wear hydraulic oils specially developed for applications requiring super clean oils and subjected to wide range of temperature or where small viscosity change with fluctuating temperature is needed. They are formulated with high quality paraffinic base oils, a highly shear stable polymer and an advanced additive system to meet the stringent requirements of modern hydraulic systems. They provide oxidation protection, superior foam control, water separation and rapid air release properties. They exceed the performance requirements of global industry standards viz. DIN 51524 Part 3 HVLP, AFNOR NFE 48-603 (HV) & ISO 11158 HV & majority of the international OEMs viz. Poclain, Hitachi, Cincinnati Lamb, Eaton & Denison.

#### **Features & Benefits**

- Exceptional anti-wear property results in longer component life reducing costs
- Extremely high viscosity index assures equipment protection at cold start-up temperatures as well as at high operating temperatures
- Excellent shear stability minimises viscosity loss over time and exhibits "stay-in-grade" performance under high shear conditions
- · Excellent thermo-oxidative stability controls the formation of sludge & varnish and improves oil life
- Smoother operation of hydraulic systems with 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 & most sealing materials used in hydraulic systems

## **Applications**

- Hydraulic and power transmission systems subjected to a wide range of ambient & operating temperatures requiring super clean oils
- · Critical, high accuracy industrial hydraulic systems
- Hydraulic systems of excavators, cranes and hydrostatic drives subjected to most severe outdoor operating conditions

#### Specifications, Approvals & Typical Properties

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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.



ISO Viscosity grades			46	68	100
Meet the following Specifications					
DIN 51524 Part 3 HVLP, AFNOR NFE 48-603 (HV), ISO 11158 HV			Х	Х	Х
Denison HF-0, HF-1, HF-2, Eaton (Vickers) M-2950-S, M-2952-S, Eaton (Vickers) I-286-S, Bosch Rexroth 07 075 for vane, piston & gear pumps, Sauer Danfoss 520L0463, BR 90220			X	Х	
FIVES CINCINNATI (Former MAG IAS, LLC)			P-70	P-69	
Hitachi			Х		
Typical Properties					
Test Parameters ASTM Method		Test Values			
Viscosity @ 40 °C, cSt		D 445	46.9	69.9	99.4
Viscosity Index		D 2270	151	152	152
Flash Point, °C		D 92	218	226	238
Pour Point, °C		D 97	-36	-36	-27
Density @ 15°C, Kg/l D 1298		D 1298	0.874	0.881	0.886
Rust Test		D 665A/B	Pass	Pass	Pass
Emulsion Test	@ 54 oC	D 1401	Pass	Pass	-
30 minutes max	@ 82 oC	D 1401	-	-	Pass
Foam Stability in all three sequences, ml D 892		Nil	Nil	Nil	
Turbine Oil Stability Test, hrs		D 943	2500+		3000+
FZG, fail load stage, minimum		DIN 51354 Part II	11	11	11
Cleanliness level (at filling stage) NAS 1638		NAS 1638	6	6	6

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