

# MAK HYDROL HVLP

## **Description**

MAK Hydrol HVLP oils are premium quality hydraulic oils blended with Hydro processed Group II plus base oil and fortified with very carefully selected anti-wear additives and high shear stable viscosity index improver to impart very high resistance to change in viscosity with temperature hence they can be used over a wide range of temperature. They also show exceptional hydrolytic stability and demulsibility and resist any deterioration due to water contamination.

# **Application**

These are recommended for hydraulic application with sophisticated high performance Electro-hydraulic or Numerically Controlled systems. These oils are recommended for High Pressure Systems and Power Transmission Systems, requiring very high Viscosity Index, operating under high speeds, load and temperatures.

### **Benefits**

- Outstanding Anti-wear performance: Ensures minimum wear throughout the range of operations.
- Outstanding Oxidation Stability: Reduces consumption, filter blocking and valve sticking.
- Good water and foam resistant properties: Separates out water very fast in case of water ingression and releases entrapped air immediately to avoid foaming.
- Excellent Hydrolytic Stability: This avoids absorption of water in oil and thus enhances fluid life.
- Excellent Seal Compatibility: Prolongs seal life and reduces maintenance.
- Higher FZG Rating: Makes it suitable for use at higher load conditions

#### PERFORMANCE LEVEL

- IS 11656: 1986 [Reaffirmed March, 2002]
- DIN 51 524 Part 3 HVLP Type
- Denison HF-0 & HF-2
- Vickers 1-286-S
- US Steel 127
- Cincinnati Milacron P-70

Our grades meet above specification for the respective viscosity grades.



# **Technical Specifications**

		MAK HYDROL HVLP		
Characteristics	ASTM	32	46	68
Appearance		Brown & clear	Brown & clear	Brown & clear
Density at 15° C	D1298	0.8595	0.8643	0.8728
K.V at 40° C, cSt	D445	32.5	46.3	68.2
Viscosity Index	D2270	144	144	147
Pour Point, °C	D97	-21	-18	-18
Flash Point, (COC), °C	D92	210	220	240
Copper Strip Corrosion Test at 100°C for 3 hrs.	D130	la	la	la
Foaming Characteristics/Stability a) Sequence I b) Sequence II c) Sequence III	D892	Nil Nil Nil	Nil Nil Nil	Nil Nil Nil
FZG Rating	D5182	11+	11+	11+
Demulsibility	D1401	40-40-0(10)	40-40-0(10)	40-40-0(15)

All the mentioned values are typical which may vary from batch to batch.

# **Health and Safety**

These oils are not hazardous under normal conditions of use. For further guidance appropriate Material Safety Data Sheet (MSDS) may be referred.

## Advice

For any further advice on applications or otherwise please contact the nearest Bharat Petroleum Territory Office or Technical Services Department at the address given below.

#### **Bharat Petroleum Corporation Ltd.**

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