

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 zinc based 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 applications 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 ingress 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

Characteristics	ASTM	MAK HYDROL HVLP			
		32	46	68	100
Appearance	--	Brown & clear	Brown & clear	Brown & clear	Brown & clear
Density at 15° C	D1298	0.8595	0.8643	0.8728	0.876
K.V at 40° C, cSt	D445	32.5	46.3	68.2	100.6
Viscosity Index	D2270	144	144	147	144
Pour Point, °C	D97	-33	-30	-27	-24
Flash Point, (COC), °C	D92	210	220	240	256
Copper Strip Corrosion Test at 100°C for 3 hrs.	D130	1a	1a	1a	1a
Foaming Characteristics/Stability					
a) Sequence I		Nil	Nil	Nil	Nil
b) Sequence II		Nil	Nil	Nil	Nil
c) Sequence III	D892	Nil	Nil	Nil	Nil
FZG Rating, fls	D5182	11	11	11	11
Demulsibility	D1401	40-40-0(10)	40-40-0(10)	40-40-0(15)	40-40-0(20)

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

Storage and Handling

- Indoor Storage is always preferable
- Barrels should be kept horizontally with bunk position at 3 O'clock 9 O'clock position
- Barrels should be kept away from dusty or heated areas.
- During handling any contact with dust must be avoided

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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