

Product Information:

LIQUIMATIC HV GRADES

High Viscosity Index Hydraulic Oils

Description

Liquimatic HV Grades are a range of high viscosity index hydraulic oils, formulated from high quality minerals oils and the latest anti-wear technology. These grades utilise a shear stable polymer that ensures that the oils do not thin down during their working life. They are ideal for hydraulic systems subjected to the very extremes of operating conditions and temperatures, from frozen food stores (-20°C) to industrial hydraulic systems at elevated temperatures and off highway equipment.

They are corrosion and oxidation inhibited and will provide protection even in the presence of seawater. Excellent anti-wear and EP properties provide protection with anti-foam additives to control foam and facilitate rapid air release, ensuring correct hydraulic function and meeting the stringent filterability requirements of modern machines and robotics.

Main Features

- Outstanding low temperature performance
- Multigrade properties, lubrication film maintained at high temperatures
- Excellent Filterability
- Latest anti-wear and EP technology
- Good thermal stability

Applications

Recommended for both Industrial and off highway hydraulic systems, where extreme operating conditions are encountered. Can also be used in hydrostatic drives, power steering systems, brake systems and other applications where products of this type and specification required. Liquimatic HV 46 is particularly recommended for contractor's plant and machinery.

Performance Levels

Please note not all viscosity grades are applicable to all specifications – if in doubt please refer to Technical Services.

DIN 51524 part II (HM), DIN 51524 part III (HV)
Eaton E-FDGN-TB002-E
Eaton M-2950-S (35VQ25 pump test)
Parker HF-0, HF-1, HF-2* (T6H20C hybrid pump test)
ISO 11158 categories HM, HV
ISO 20763 Conestoga vane pump test
Vickers I-286-S3
Cincinnati Machine P-68 (HV32), P-69 (HV46), P70 (HV68)**
Poclain Hydraulics (HV46, HV68 for mobile installations).
Bosch Rexroth RD/E 90235
JCMAS P041 HK
ANSI/AGMA 9005-E02-RO
GM LS-2
SEB 181222
ASTM D6158
AIST 126, 127
SAE MS 1004 (HM, HV)

** Specifications now obsolete.

Approvals

* Liquimatic HV46 is listed on the Parker approved list of fluids, approval number: 482(1), class HV.

Note: HVI 46 hydraulic oil is an undyed version of Liquimatic HV46 and is also included on the Parker list of approved fluids, approval number: 482(6), class HV.

Physical Characteristics

	ISO VG Grade					
	HV10	HV22	HV32	HV46	HV68	HV100
Appearance	Pale Straw	Pale Straw	Pale Straw	Pale Straw	Pale straw	Pale Straw
Relative Density @ 15°C	0.842	0.847	0.854	0.862	0.872	0.874
Kinematic Viscosity @ -30°C/cSt	-	-	-	8125	-	-
Kinematic Viscosity @ -20°C/cSt	203	616	1127	2429	4433	-
Kinematic Viscosity @ 0°C/cSt	50	139	231	432	691	-
Kinematic Viscosity @ 40°C/cSt	9.62	21.18	32.75	48.28	66.47	94.53
Kinematic Viscosity @ 80°C/cSt	-	-	-	13.92	-	-
Kinematic Viscosity @ 100°C/cSt	2.94	4.93	6.81	8.89	11.20	14.01
Viscosity Index	176	169	173	167	162	152
Closed Flash Point /°C	147	181	204	208	210	212
Pour Point/ °C	-54	-51	-48	-48	-45	-42
Conestoga Vane pump, ISO 20763						
Vane wt loss/mg	-	<20	<10	<10	<10	<10
Ring wt loss/mg	-	<50	<20	<20	<20	<20
FZG Gear Test A/8.3/90 ASTM D5182, pass load stage	-	10	12	12	12	12
ASTM D665A & B Rust Test	Pass	Pass	Pass	Pass	Pass	Pass

All figures above are typical of average production values and do not constitute a specification. Figures may differ slightly from those shown within normal batch-to-batch variation.

Part Nos:

Liquimatic HV10: LHO025, LHO205:

Liquimatic HV22: HVT025, HVT205:

Liquimatic HV32: HVA025, HVA205:

Liquimatic HV46: LHV005, LHV025, LHV205:

Liquimatic HV68: LHS025, LHS205:

Liquimatic HV100: HVO025, HVO205

(TDS Liquimatic HV Range – 161024 Issue 17)