Avalon HLP

Heavy Duty Hydraulic Oil

Product Description:

Veedol Avalon HLP is a range of premium quality, heavy duty hydraulic oils specially developed to meet the requirements of the most demanding modern hydraulic systems found in industrial and mobile equipment.

Blended with severely hydro-processed base oils and advanced additive system, they provide enhanced protection to hydraulic components compared to conventional hydraulic oil. Avalon HLP series hydraulic oils have passed the stringent Bosch Rexroth RFT-APU-CL pump test.

Performance Specifications:

Veedol Avalon HLP hydraulic oils meet & exceed the performance requirements of

- DIN 51524-2, HLP
- Parker HF-0, HF-1, HF-2
- Bosch Rexroth RD 90220
- Eaton E-FDGN-TB002-E specification, Eaton M-2950-S & I-286-S3
- Fives Cincinnati P-68, P-70, P-69
- IS: 11656-1986 (Reaffirmed 1991), IS: 10522-1983 (Reaffirmed 2004)
- ASTM D 6158

Features/Benefits:

- Enhanced anti-wear and corrosion protection help extend component life and improve equipment output.
- Excellent oxidation stability helps in maintaining system cleanliness and deposit reduction, enable long oil and filter life thus reduce downtime and operating costs.
- Outstanding filterability, faster air release and water separation contribute to enhance and maintain efficiency of hydraulic system.

Approvals:

- Bosch Rexroth RD 90220 (Fluid Rating List RDE 90245)
- Voith Turbo Variable speed coupling Type "S", Torque converter Type "E" and Geared Variable speed coupling type "R" (Avalon HLP32)
- Injection Molding Machine manufacturer: Milacron, Windsor Machines Ltd.

Application:

- High pressure hydraulic systems found in various manufacturing industries.
- Construction and mining equipment where HLP type hydraulic oils are recommended.
- Hydraulic applications requiring extended oil drain interval.
- Recommended for hydraulic systems subjected to high pressure and load.

Typical Properties:

Test Parameters	Test Method	32	46	68
Density at 29.5ºC	ASTM D4052	0.843	0.845	0.850
Kinematic Viscosity @ 40°C, cSt	ASTM D445	32.5	46.0	68.03
Kinematic Viscosity @ 100°C, cSt	ASTM D445	5.58	7.02	8.97
Viscosity Index	ASTM D2270	109	110	106
Flash Point (COC), °C	ASTMD92	220	232	236
Pour Point, °C	ASTM D97	-24	-24	-27
Copper Corrosion at 100°C, 3 hours	ASTM D130	1a	1a	1a
Foaming Tendency/ Stability Sequence I, mL/mL Sequence II, mL/mL Sequence III, mL/mL	ASTM D892	 0/0 10/0 0/0	 0/0 10/0 0/0	 0/0 10/0 0/0
Rust Test	ASTM D665	Pass	Pass	Pass
Air release at 50ºC, minutes	ASTM D3427	2'18"	3'51"	5'42"
TOST Life, hours	ASTM D943	>4500	>4500	>4600
FZG Fail load stage (A/8.3/90)	DIN 51354-2	11	11	12

The above typical properties are those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice.

STORAGE
All packages should be stored under cover. It should not be exposed to direct sunlight, intense cold and extreme temperature fluctuations. Where outside storage is unavoidable, drums should be laid horizontally or properly covered to avoid the possible ingress of water and damage to drum markings.

HEALTH, SAFETY AND ENVIRONMENT
The informtion on this product is available in the Material Safety Data Sheet (MSDS) as a guide to the precautions and safe handling of this product and its disposal. For further information, we recommend you review the MSDS. If handled correctly, there are no special precautions suggested.

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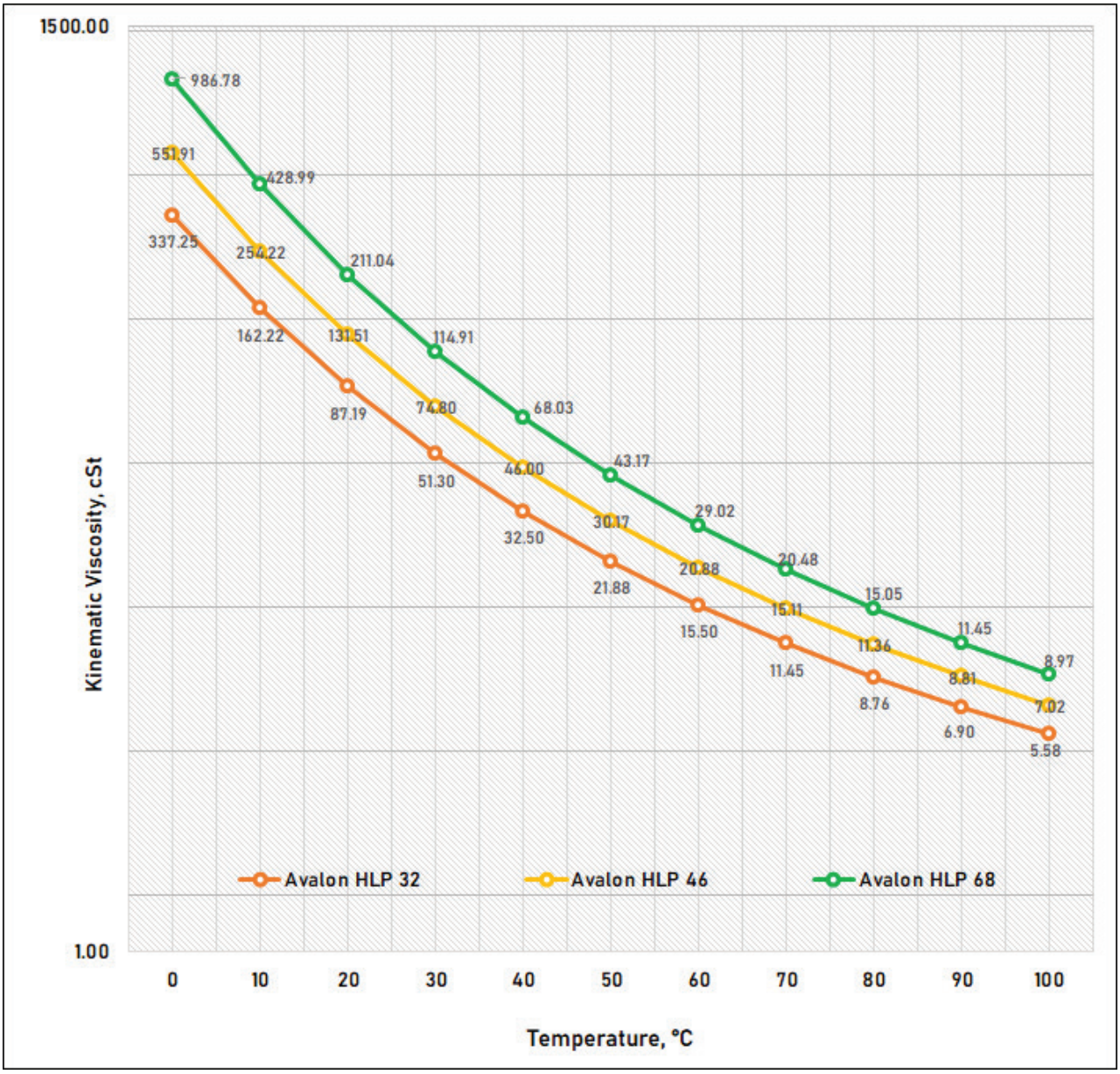
Viscosity – Temperature diagram:



The Viscosity-Temperature Diagram for Avalon HLP is based on the typical characteristics of the product as mentioned above and may vary depending on the batch results having variations that do not affect the product performance.