



Avalon HVI ZF Pro

Heavy Duty Long Drain Zinc-free Hydraulic Oil

Previous name: Atransol ZF

PRODUCT DATA SHEET

Product Description:

Veedol Avalon HVI ZF Pro is a range of Zinc-free, environment friendly hydraulic oils specially developed to meet the needs of the most demanding modern hydraulic systems found in mobile equipment.

Formulated from high quality base stocks and specially selected zinc free additives to give exceptional protection in severe hydraulic applications. Veedol Avalon HVI ZF Pro exhibits excellent oxidation and thermal stability properties which can provide extended oil and filter life, as well as optimum equipment protection, thereby reducing both maintenance and product disposal costs. They are suitable for use in environmentally sensitive applications that require hydraulic oils containing ashless additives.

Performance Specifications:

Veedol Avalon HVI ZF Pro hydraulic oils meet & exceed the performance requirements of

- DIN 51524-3, HVLP
- Parker HF-0, HF-1, HF-2
- Bosch Rexroth RD 90220
- Eaton M-2950-S & I-286-S3
- Fives Cincinnati P-70, P-69
- ASTM D 6158

Features/Benefits:

- **High thermal and oxidation stability** prolongs oil and equipment life.
- **Outstanding filterability, faster air release and water separation** contribute to enhance and maintain efficiency of hydraulic system.
- **Excellent sludge control** over a wide temperature range helps maintain system cleanliness and reduce deposits, enable longer oil, and filter life thus reduce downtime and operating costs.
- **Zinc-free** formulation for environment friendly applications.
- **NAS 6 cleanliness level** ensures smooth operation of hydraulic systems employing close clearance servo valves.

Application:

- Recommended for earth moving equipment requiring Zinc-free hydraulic oils.
- Hydraulic systems operating in environmentally sensitive zones.
- Hydraulic applications requiring extended oil drain interval.
- Also suitable for industrial hydraulic systems requiring Zinc-free hydraulic oils.



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Typical Properties:

Test Parameter	Test Method	46	68
Density@29.5 °C	ASTM D4052	0.845	0.850
Kinematic Viscosity @40°C, cSt	ASTM D445	46.2	67.5
Kinematic Viscosity @100°C, cSt	ASTM D445	7.85	10.37
Viscosity Index	ASTM D2270	140	140
Flash Point (COC), °C	ASTM D92	250	255
Pour Point, °C	ASTM D97	-33	-36
Copper Corrosion at 100°C, 3 hr.	ASTM D130	1a	1a
Foaming Tendency/ Stability			
Sequence I, mL/mL	ASTM D892	0/0	0/0
Sequence II, mL/mL		0/0	0/0
Sequence III, mL/mL		0/0	0/0
Rust Test	ASTM D665	Pass	Pass
Air release at 50°C, minutes	ASTM D3427	4'01"	4'00"
TOST Life, hrs.	ASTM D943	>7500	>7500
FZG Fail load stage (A/8.3/90)	DIN 51354-2	12	12
Oil cleanliness level, max.	NAS 1638	NAS 6	NAS 6

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:

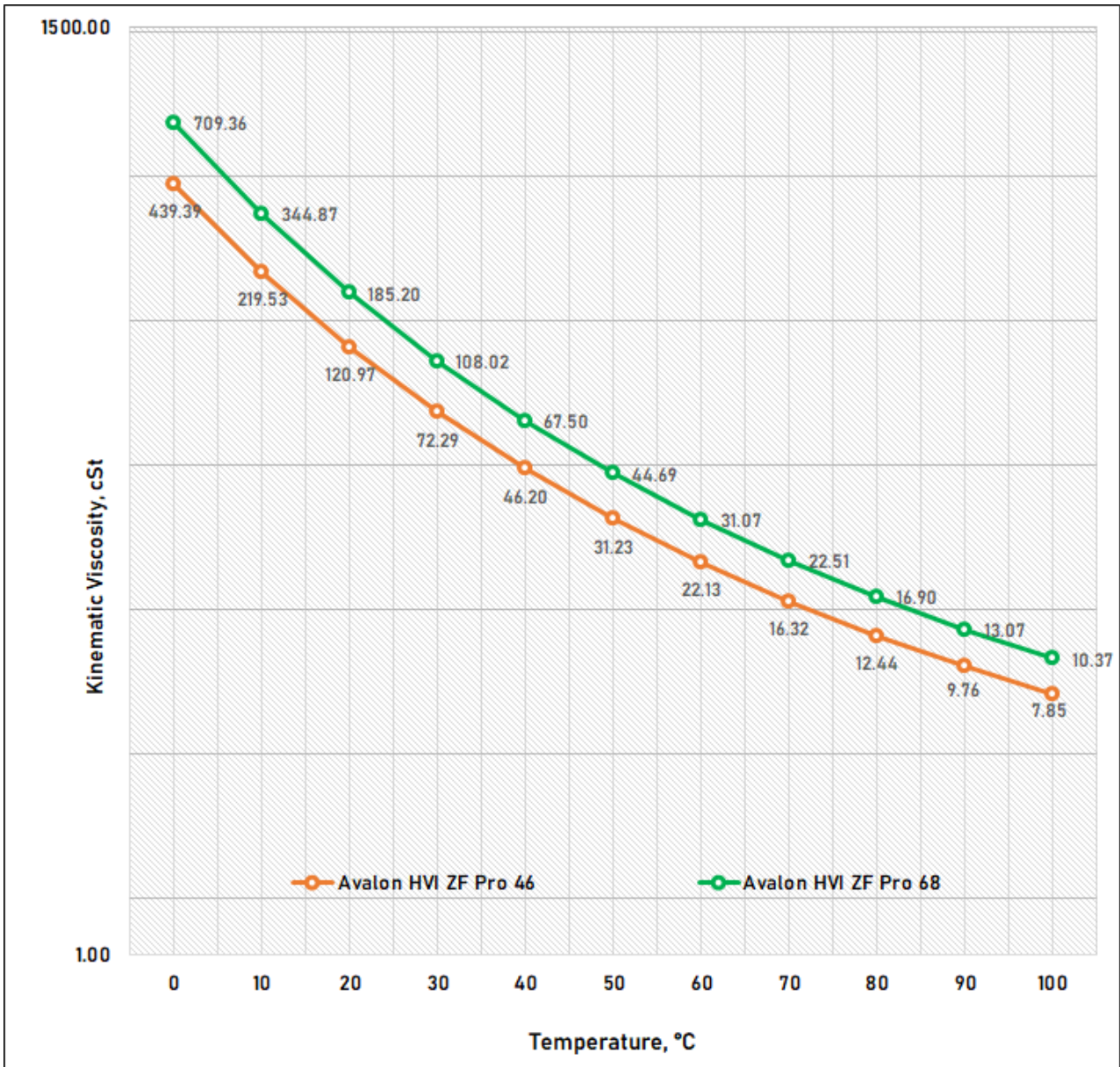
All packages should be stored under cover. It should not be exposed to direct sunlight, intense cold and extreme temperature fluctuations. Where outside storage is unavoidable, drums should be laid horizontally or properly covered to avoid the possible ingress of water and damage to drum markings.

HEALTH AND SAFETY:

The information 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.



Viscosity – Temperature Diagram



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