



PRODUCT DATA SHEET

EKO HYDROLUB ZF-AW Zinc-free/ashless hydraulic systems oils

DESCRIPTION

EKO HYDROLUB ZF-AW range includes zinc free and ashless hydraulic systems oils. EKO HYDROLUB ZF-AW range products are made of selected base oils and of state of the art additives that provide anti-oxidation, anti-wear and anti-corrosion protection.

SPECIFICATIONS

DIN 51524 Part 2, DIN 51524 Part 1, Denison HF-0, HF-1, HF-2, Eaton Vickers I-286-S, M-2950-S, AFNOR NFE 48603 (HM), U.S. Steel 127, 136, Cincinnati Machine P-68, P-69 and P-70, General Motors LH-04-1, LH-06-1, LH-15-1.

APPLICATIONS

- Hydraulic systems with high pressure pumps and hydraulic systems including critical parts such as low tolerance servovalves.
- Hydraulic systems requiring high wear protection level or that operate under very high temperature conditions.
- Hydraulic systems where there is a probability of slight water contamination, as in the paper mill industry, the food industry and the steel industry.
- Hydraulic systems that include bearings and gears.

ADVANTAGES

- Excellent protection of metals (iron, copper alloys etc.) against corrosion and rust, even under conditions of very high temperature.
- Excellent hydrolytic stability.
- Excellent filtering properties, in the presence or absence of water.



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ADVANTAGES

- High thermal and oxidative stability, leading to the reduction of deposits and to an increased life span of the product, the equipment and the filters.
- Excellent anti-wear protection of pumps and of all hydraulic system parts.
- Resistance to foaming and to air bubble retention.
- Excellent properties of water separation, leading to excellent protection of the equipment in the presence of slight moisture and the immediate separation of larger quantities of water from the lubricant.
- EKO HYDROLUB ZF-AW lubricants are compatible with hydraulic system lubricants containing calcium and zinc.
- EKO HYDROLUB ZF-AW lubricants do not contain zinc and other metals, resulting in a reduction in the release of heavy metals into the environment and minimization of wastewater disposal and treatment costs.

TYPICAL CHARACTERISTICS

EKO HYDROLUB						
Properties	Methods	Units	ZF-AW 32	ZF-AW 46	ZF-AW 68	ZF-AW 100
ISO Viscosity Grade	-	-	32	46	68	100
Density, 15°C	ASTM D4052	g/ml	0.871	0.876	0.885	0.904
Kinematic Viscosity, 100°C	ASTM D445	cSt	5.2	6.7	8.9	11.0
Kinematic Viscosity, 40°C	ASTM D445	cSt	30.1	45.4	70.1	99.2
Viscosity Index (VI)	ASTM D2270	-	101	102	100	95
Copper Corrosion 3h at 100°C	ASTM D130	Rating	1a	1a	1a	1a
Rust-preventing Characteristics	ASTM D665 A/B	-	Pass/Pass			
Water Separability, time to 40-37-3 (ml)	ASTM D1401	min	10	10	15	15
Foaming Characteristics, Seq. I/II/III Tendency/Stability	ASTM D892	ml	0/0	0/0	0/0	0/0
Pour Point	ASTM D5950	°C	-33	-30	-30	-21
Flash Point, COC	ASTM D92	°C	222	224	234	236
FZG gear test, A 8.3 / 90 visual damage-load stage	DIN 51354, part 2	Fail Stage	11	12	>12	>12



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SPECIAL INSTRUCTIONS

Mixing of EKO HYDROLUB ZF-AW hydraulic oils with engine oils may lead to foaming, creation of deposits and filter clogging.

HEALTH AND SAFETY

Protect the environment while disposing of used product. Used lubricants should be collected at specific points to ensure they do not pollute the environment. Do not mix with solvents, brake fluids, antifreeze and water, to allow for proper handling.

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This data sheet provides basic information on the product as at the date of drafting. For further information regarding applications, please contact EKO ABEE Technical Support, tel. +30 210 5509 511.
Advice on safe handling is provided in the Safety Data Sheet.