



PRODUCT DATA SHEET

EKO HYDROLUB HLP

Hydraulic systems oils

DESCRIPTION

EKO HYDROLUB HLP range includes hydraulic system oils with additives against oxidation, corrosion and wear.

The EKO HYDROLUB HLP range oils are designed for low and high pressure hydraulic systems, operating in industrial applications and in mobile equipment applications.

SPECIFICATIONS

DIN 51524 part 2 HLP, ISO 11158 HM, ASTM D6158 HM, Bosch Rexroth RDE-90235, Chinese standard GB 11118.1L-HL & L-HM High Pressure and General, Danieli 0.000.001 Type 10 & 11, Eaton Brochure 03-401-2010, Eaton Lubricant Specification E-FDGN-TB002-E, Fives Cincinnati P-68, P-69, P-70, GM LS-2 Antiwear Hydraulic Oil, JCMAS HK P041, Parker Denison HF-1, HF-2, HF-0, SAE MS1004, Swedish Standard SS 155434: 2015, US Steel 126, ZF TE-ML 07H, ZF TE-ML 21M.

APPLICATIONS

- Hydraulic systems in industrial applications.
- Hydraulic systems in marine applications.
- Hydraulic systems in mobile equipment applications (cranes, excavators, etc.).

ADVANTAGES

- Outstanding hydrolytic stability.
- Outstanding thermal stability and oxidation resistance.
- Excellent filtering properties.
- Outstanding anti-wear protection.
- Excellent anti-corrosion and anti-rust protection.
- Very good air release properties.



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TYPICAL CHARACTERISTICS

Properties	Methods	Units	HLP 22	HLP 32	HLP 46	HLP 68	HLP 100	HLP 150
ISO Viscosity Grade	-	-	22	32	46	68	100	150
Density, 15°C	ASTM D4052	g/ml	0.869	0.871	0.876	0.885	0.904	0.905
Kinematic Viscosity, 100°C	ASTM D445	cSt	4.5	5.2	6.7	8.9	11.0	14.5
Kinematic Viscosity, 40°C	ASTM D445	cSt	23.4	30.1	45.4	70.1	99.2	149
Viscosity Index (VI)	ASTM D2270	-	101	102	100	100	95	95
Copper Corrosion, 3 hours @ 100°C	ASTM D130	Rating	1a	1a	1a	1a	1a	1a
Rust-preventing characteristics	ASTM D665 A/B	-	Pass/Pass	Pass/Pass	Pass/Pass	Pass/Pass	Pass/Pass	Pass/Pass
Foaming characteristics, Seq. I/II/III Tendency/Stability	ASTM D892	ml	0/0	0/0	0/0	0/0	0/0	0/0
Water Separability, time to 40-40-0 (ml)	ASTM D1401	min	20	20	20	20	20	20
Pour Point	ASTM D5950	°C	-39	-33	-30	-30	-21	-21
Flash Point, COC	ASTM D92	°C	224	222	222	230	236	242
FZG gear test, A 8.3 / 90 visual damage-load stage	DIN 51354, part 2	Fail Stage	12	>12	>12	>12	>12	>12

SPECIAL INSTRUCTIONS

Mixing of EKO HYDROLUB HLP 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.

Issue 6, 31 October 2022

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.