



MAKER HIDROLEO

Description

Top quality oils for hydraulic circuits. Oils manufactured with top quality bases from paraffinic crude oils subject to solvent refining and hydrofinishing processes which give it high stability against rust and a high viscosity index. The additives used in the formulation are of the ashless type.

Its use, on being a hydraulic oil with ashless-type anti-wear additives, is recommended for systems running under very severe conditions with high filterability requirements: servovalves, robotics, numerical control equipment, etc. In hydraulic engines running at very high loads (pressure and temperature). Wide temperature ranges.

Properties

- Resistance to foam formation and easy to release air (deaeration).
- High resistance to oxidation. Excellent thermal stability.
- Exceptional filterability.
- Very good performance with joints and elastomers.
- Excellent EP anti-wear properties (FZG).
- Low pour point, which facilitates good pumpability at low temperatures.
- Good anti-rust and anti-corrosion capacity. Does not attack copper and its alloys.
- Very good water separation properties (demulsibility).

Quality levels, approvals and recommendations

- MANULI: Hydraulics* (ISO 46)
- DIN: 51524-HVLP (ISO 100, ISO 32, ISO 46, ISO 68)
- FIVES CINCINNATI: P-69 (ISO 68)
- ISO: 6743/4 HVLP, 11158 (ISO 100, ISO 32, ISO 46, ISO 68)
- AFNOR: NF ISO 11158 HV (ISO 100, ISO 32, ISO 46, ISO 68)
- FIVES CINCINNATI: P-68 (ISO 32)
- FIVES CINCINNATI: P-70 (ISO 46)
- *Formal approval

Technical specifications

	UNIT	METHOD	VALUE			
ISO Viscosity Grade			32	46	68	100
Viscosity at 40 °C	cSt	ASTM D445	32	46	68	100
Viscosity at 100 °C	cSt	ASTM D445	6,1	7,9	10,4	14.8
Viscosity index	-	ASTM D2270	141	143	143	143
Density at 15 °C	g/cm3	ASTM D4052	0,868	0.874	0.878	0.882
Pour point	°C	ASTM D97	-39	-39	-36	-36
Flash point, open cup	°C	ASTM D92	220	226	242	250
FZG, damage stage	°C	DIN 51354	11	11	11	11
Four ball wear, scar diameter (1h, 40 kg, 75 °C)	mm	ASTM D4172	0,32	0,32	0,32	0,32
Water separability at 54 °C	min	ASTM D1401	<25	<30	<45	<45
TAN	mg KOH/g	ASTM D664	0,4	0,4	0,4	0,4



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Technical specifications

	UNIT	METHOD	VALUE			
Rust resistance, method A	-	ASTM D2272	Pass	Pass	Pass	Pass

The above mentioned characteristics are typical values and should not be considered product specifications.