

MOL Hydro HM 46 AL

ashless hydraulic oil



MOL Hydro HM 46 AL is a high quality hydraulic fluid containing ash-free antiwear additives and carefully selected quality mineral base oil, which ensure consistently high performance even in hydraulic systems operated under heavy load conditions. It ensures outstanding wear resistance. In the standard vane pump test (Vickers V104C), the wear is 90 % lower than the specified limit. This product has an outstanding thermal and hydrolytic stability. Its TOST lifetime is 2.5 times greater than that specified in the DIN 51524-Part 2 standard. Its balanced additive system does not contain zinc, calcium or silicon compounds. The product meets the requirements of the Denison HF-O specification, which sets one of the highest level of performance for mineral oil based hydraulic fluids.

Application



Hydraulic systems operating at high pressures and under heavy operating conditions

Industrial equipment operating at low temperatures (pumps, servo systems)

Hydraulic systems of machine-tools

Circulation systems

Hydraulic systems of machines used in the plastics industry

Turbo-, screw and vane compressors

Hydraulic systems of earthmoving and forestry machines

Features and benefits

Outstanding wear protection

Reliable long-term operation, even in equipment exposed to heavy loads at high pressures
Anti-wear performance close to that of gear oils (FZG 12)
Long equipment lifetime

Ashless formulation

Low deposit formation

Outstanding thermal and hydrolytic stability

Provides stick-free operation of servo and control valves
Very low deposit formation tendency
Reliable operation, so reduced operational costs
Extra long oil drain interval

Excellent water separation

Water is rapidly separated from the oil and can be drained from the system
The formation of harmful deposits and filter plugging can be avoided
Longer oil change interval and equipment lifetime

Outstanding filterability

Calculably low filter usage even with 2-3 micron pore size filter cartridges
No deterioration of filterability, even in the presence of moisture

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Features and benefits (continue)

Rapid air release together with low foaming	Reduced risk of cavitation Stable balanced lubricating film between friction surfaces, giving long equipment lifetimes
Excellent corrosion protection	Effective protection of steel and non-ferrous metal parts even in the presence of water
Zinc-free additive system	Reduced environmental impact when the product is ingressed into wastewater

Specifications and approvals

Viscosity grade: ISO VG 46
ENGEL
Parker Denison HF-0
Parker Denison HF-1/HF-2
ISO 11158 HM
ISO-L-HM
DIN 51524-2 (HLP)
DIN 51506 VDL
Eaton (Vickers) I-286-S
Eaton (Vickers) M-2950-S
Cincinnati Lamb P-70
General Motors LS2 LH-04-1-00
SAE MS1004 Type HM
AIST (US Steel) 127
AIST (US Steel) 126
SEB 181222 (HLP)
AFNOR NF-E-48603 (HM)

Properties

Properties	Typical values
Density at 15°C [g/cm ³]	0,879
Kinematic viscosity at 40°C [mm ² /s]	47,2
Kinematic viscosity at 100 °C [mm ² /s]	6,8
Viscosity index	98
Pour point [°C]	-30
Flash point (Cleveland) [°C]	227

The characteristics in table are typical values of the product and do not constitute a specification.

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Storage and handling instructions

Store in the original container in dry, properly ventilated area.

Keep away from direct flame and other sources of ignition.

Protect from direct sunlight.

During transport, storage and use of the product follow the work safety instructions and environmental regulations relating to mineral oil products.

For further details please read the Material Safety Data Sheet of the product.

In the original container under the recommended storage conditions: 48 months

Recommended storage temperature: max. 40°C