

AGIP OSO is the trademark of a line of high quality hydraulic oils specially developed for use in all types of hydraulic systems and equipment. The oils are formulated from selected paraffinic base stocks treated with antirust, antioxidant, and anti-wear additives (ISO-L-HM). These oils are available in a wide range of viscosity to suit all practical requirements.

CHARACTERISTICS (TYPICAL FIGURES)

AGIP OSO

Characteristics	ASTM	Unit	ISO VG GRADE				
			32	46	68	100	150
Density at 15°C	D 4052	kg/l	0.870	0.875	0.879	0.887	0.889
Viscosity at 100°C	D 445	mm ² /s	5.36	7.75	8.55	11.3	15
Viscosity at 40°C	D 445	mm ² /s	31	46	65.5	98	150
Viscosity Index	D 2270		102	100	101	101	100
Flash Point, COC	D 92	°C	220	226	240	246	250
Pour Point	D 97	°C	-27	-21	-21	-21	-21

PROPERTIES AND PERFORMANCES

- The oils are designed for energy transmission in plants requiring the use of a hydraulic fluid. The oils also provide adequate lubrication by creating a strong lubricant film that withstands high loads between the sliding parts of high-pressure hydraulic systems.
- AGIP OSO oils have very good anti-wear properties, as illustrated by typical test results:
 - Vane and ring wear in the Vickers test around 35 mg;
 - The higher grades (OSO 46-150) passes the 12th stage of the FZG test, while the lower grades passes 11th stage.
- They have extremely good oxidation resistance and stability even when subjected to unusually high thermal stresses, this property minimizes sludge and deposit formation, thus preventing blocking of ports, valves, and controls, while guaranteeing that the oil remains properly fluid.
- Maintenance costs are therefore reduced and the useful service life of the oil is extended.
- The high Viscosity index of all grades minimizes changes in viscosity throughout the normal range of operating temperatures, thus ensuring constant flow, low friction loss, and good hydraulic efficiency, while protecting against the possibility of cavitation.
- Their outstanding anticorrosion and antirust properties inhibit the oxidation of internal surfaces of hydraulic circuits and therefore prevent operating difficulties and breakdown of the oil caused by metallic oxides that would otherwise form within the machinery.
- Their good demulsibility prevents the formation of a stable emulsion between the oil and any water that enters the system through leakage or condensation. The fluids therefore maintain their lubricating power and anticorrosion performance even under these circumstances.
- Their antifoam properties and their ready release of entrained air prevent difficulties with pumps and controls which can cause irregularities in performance and other problems arising from the compressibility of air bubbles.
- They show a very high filterability; they are suitable for very fine filters (3 micron up to ISO VG 68)

SPECIFICATIONS

AGIP OSO products meet requirements of the following specifications :

- DIN 51524 TEIL 2 HLP
- AFNOR NF E 48603 HM
- CETOP RP 91 H HM
- DENISON HF-0
- VDMA 24318
- BS 4231 HSD
- ISO-L-HM

APPLICATION

AGIP OSO fluids are recommended for use in all hydrodynamic power transmission machinery, in hydraulic controls and hydrostatic systems widely used in all fields of technology, such as transport, construction and mining, as well as in chemical and metallurgical machinery, machine tools, marine and aviation equipment, etc.

Due to the great influence of viscosity on the efficiency of hydraulic machinery, the grade chosen should be that recommended by the system designer. Purely as an indication, the lighter grades are generally used in high-speed machinery and in precision equipment, while the heavier grades are used in low-speed machinery with high hydrostatic pressures.

AGIP OSO products are recommended not only for use as hydraulic fluids but also as heavy-duty lubricants for bearing, reduction units, etc., where operating conditions call for special antiwear characteristics. They can be adopted, too, where saving can be made by using a reduced number of grades throughout a plant.

APPROVAL

AGIP OSO products also meet the requirements from the following manufacturers:

- HYDROMATIC (REXROTH)
- HORBIGER HYDRAULIC
- LINDE
- SAUER
- ZF TE-ML 12