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Raisol Oil

ISO 46

High Viscosity Index lubricant for hydraulic systems with antioxidant, anti-wear and antifoam additives. (V.I. 100).

PAKELO RAISOL OIL ISO 46 is a high viscosity index lubricant formulated with selected paraffinic oil base stocks, antioxidant, antirust, anti-wear and antifoam additives.

PAKELO RAISOL OIL ISO 46, thanks to its chemical and physical properties, has been designed for modern hydraulic systems also operating under severe working conditions.

PAKELO RAISOL OIL ISO 46 transfers power with great promptness and uniformity under all working and ambient conditions lengthening life of systems operating at high pressures, and/or at high pump speed (vane pumps, gear pumps, piston pumps, etc.).

The product provides the following properties:

- **High Viscosity Index;**
- **low Pour Point** enabling easy start-ups at low temperatures;
- **high anti-wear capability** to increase efficiency, life of pumps and the operating parts in the system; furthermore, the anti-wear characteristics are confirmed by a test made on a Denison T6H20C hybrid pump (piston and vane) to pass the severe Specification Denison HF-0 (new edition);
- **high thermal stability** that allows the use in sealed hydraulic systems operating also at high temperatures and at high pressure without causing deposits and sludge;
- **good oxidative stability** that allows longer oil drain intervals and thus avoids early oil thickening;
- **high hydrolytic stability** which enables to protect the oil being used also when contaminated with small percentages of water;
- **good demulsivity;** the lubricant can easily separate from the water that could contaminate the system avoiding an accelerated process of oxidation;
- **high filterability** even with presence of water avoiding in this way obstruction of filter system and guaranteeing longer filter life;
- **anticorrosion and anti-rust capability** to provide efficiently the protection of all metallic components of the hydraulic system;
- **anti-foam properties** to avoid the presence of foam and air that reduce system efficiency due to the compressibility ratio that is different from that of the lubricant;
- **compatibility** with gaskets and metals normally used in hydraulic systems.

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Application fields

PAKELO RAISOL OIL ISO 46 satisfies a wide range of applications, in terms of types of pumps (vane, gear, piston pumps, etc.), metals employed in the working system and of resistance to severe working conditions (high temperatures, pressure, etc.) which they may face without causing stress and/or decomposition.

The product has been specifically developed for hydraulic systems requiring, for correct functioning, high viscosity index lubricants with high mechanical resistance, low pour point, good anti-wear properties and thermal stability at high temperatures. PAKELo RAISOL OIL ISO 46 transfers power with great promptness and uniformity lengthening life of systems even under severe working and ambient conditions. The product can also be used for gear systems (e.g. machine tools and roller bearings) which do not require specific EP oils.

For the correct Viscosity Grade please refer to pump's Constructor recommendation and ambient temperatures.

Performance levels

ISO 6743-4 HM, Afnor NFE 48-602, ISO 11158, DIN 51524 Part 2 HLP, Afnor NFE 48-603 HM, ASTM D6158, Parker Hannifin (Denison) HF-0 (Hybrid Pump), Parker Hannifin (Denison) HF-1 / HF-2, Eaton Vickers I-286-S / M-2950-S, Cincinnati Machine P-68 / P-69 / P-70, Afnor NFE 48-690(dry), Afnor NFE 48-691(wet), U.S. Steel 126 / 127 / 136, JCMAS HK, Bosch variable vane pumps, Rexroth RE 90220, Sauer Danfoss 520L0463, General Motors (LS-2) LH-03-1 / LH-04-1 / LH-06-1, SEB 181222.

ASTM D 6080 Classification

ISO VG 46 / L46 - 46 (100)

Chemical-Physical Characteristics

Raisol Oil	Method analysis	Unit	Value ISO 46
Density at 15°C	ASTM D1298	kg/l	0,884
Kinematic Viscosity at 40°C	ASTM D445	cSt	46,1
Kinematic Viscosity at 100°C	ASTM D445	cSt	6,9
Viscosity Index	ASTM D2270	-	105
Kinematic Viscosity at 40°C after Sonic Shear	ASTM D445	cSt	45,9
Viscosity Index after Sonic Shear	ASTM D2270	-	102
FZG Failure Load Stage	ASTM D5182	Stage	12
Flash Point (C.O.C.)	ASTM D92	°C	215
Pour Point	ASTM D97	°C	-28
Temperature for Brookfield Viscosity of 750cP	ASTM D2983	°C	-5

The data just above refer to average values and must not be understood as guaranteed characteristics.

This Technical Data Sheet has been carefully checked to guarantee complete and precise information. However, we do not take any responsibility in case of damages caused by any mistakes or omissions. Due to continual product research and development, the information contained herein is subject to change without notification.