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# Hydraulic Fluid 0 HVI

ISO 32

**Very High Viscosity Index lubricant for hydraulic systems also of the last generation with antioxidant, anti-wear and antifoam additives. High filterability and excellent resistance to shear stress. (V.I. 170).**

PAKELO HYDRAULIC FLUID 0 HVI ISO 32 is a very high viscosity index lubricant formulated with selected paraffinic oil base stocks, antioxidant, antirust, anti-wear and antifoam additives. The product, thanks to its chemical and physical properties, has been designed for modern hydraulic systems also operating under severe working conditions.

PAKELO HYDRAULIC FLUID 0 HVI ISO 32 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:

- **Very High Viscosity Index** that enables minimum viscosity changes, if compared to common hydraulic lubricants, when the fluid is exposed to different operating temperatures;
- **high shear stability**: viscosity index improvers guarantee high resistance to mechanical stress and, during service, allow to maintain viscosities almost equivalent to new lubricant;
- **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 in the Viscosity Grade ISO 46 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 HYDRAULIC FLUID 0 HVI ISO 32 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, very high viscosity index lubricants with high mechanical resistance, low pour point, good anti-wear properties and thermal stability at high temperatures.

PAKELO HYDRAULIC FLUID 0 HVI ISO 32 transfers power with great promptness and uniformity lengthening life of systems even under severe working and ambient conditions.

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

## Performance level

**ISO 6743-4 HV, Afnor NFE 48-602, ISO 11158, DIN 51524 Part 3 HVLP, Afnor NFE 48-603 HV, 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.**

## Chemical-Physical Characteristics

Hydraulic Fluid 0 HVI	Method analysis	Unit measure	Value ISO 32
Density at 15°C	ASTM D1298	kg/l	0,866
Kinematic Viscosity at 40°C	ASTM D445	cSt	32,1
Kinematic Viscosity at 100°C	ASTM D445	cSt	6,6
Viscosity Index	ASTM D2270	-	167
Kinematic Viscosity at 40°C after Sonic Shear	ASTM D445	cSt	30,7
Sonic Shear Stability at 40°C	ASTM D5621	%(cSt/cSt)	4,0
Flash Point (C.O.C.)	ASTM D92	°C	210
Pour Point	ASTM D97	°C	-38

*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.*