

Anti-wear Hydraulic Fluid

Synolex Venus S1 HLP Series

Synolex Venus S1 HLP family is a range of high-performance mineral anti-wear hydraulic oils available in various ISO VG viscosity grades for industrial hydraulic systems, mobile equipment and selected marine applications.

Formulated with quality mineral base oils and a balanced additive system, the range provides good oxidation and thermal stability, anti-wear and corrosion protection, water separation, filterability, air release and foam control. These products are intended for systems requiring HLP / HM hydraulic fluids in accordance with equipment-manufacturer recommendations.

Advantages:

- **Long Fluid Life and Reduced Maintenance Needs:** Resistance to thermal and oxidative degradation helps limit sludge, deposits and oxidation by-products, supporting system cleanliness and dependable fluid performance throughout the service period.
- **Effective Anti-Wear Protection:** A stable lubricating film and anti-wear additive system help protect pumps and loaded components against surface wear.
- **System Cleanliness:** Control of deposits and oil-degradation products supports reliable operation of valves, oil passages and filtration equipment.
- **Moisture Stability and Corrosion Protection:** Rust and corrosion protection helps safeguard metal surfaces in humid environments and where incidental water contamination may occur.
- **Good Water Separation:** Effective demulsibility promotes separation of free water from the oil, allowing easier removal of water contamination from the reservoir.
- **Good Filterability:** Supports effective filtration and hydraulic circuit cleanliness while helping reduce the risk of premature filter restriction caused by contamination and deposits.
- **Air Release and Foam Control:** Helps maintain efficient power transfer, stable pump operation and reduced adverse effects from entrained air, foam and cavitation.
- **Maintained Hydraulic Efficiency:** The combined effects of fluid stability, wear protection, contamination control and air management support consistent hydraulic response and efficient system operation.
- **Smooth Equipment Operation:** Suitable frictional characteristics can help reduce stick-slip behavior in sensitive hydraulic components and mechanisms.
- **Equipment Compatibility:** Suitable for use with most common hydraulic pump designs, subject to equipment-manufacturer recommendations.
- **Fluid Compatibility & Miscibility:** Compatible with most other mineral oil-based hydraulic fluids; however, it should not be mixed with fire-resistant or environmentally acceptable hydraulic fluids.
- **Seal & Paint Compatibility:** Compatible with seal materials and coatings normally specified for use with mineral oils.

Standards:

- ISO 11158 (HM)
- DIN 51524-2 (HLP)
- GB 11118.1-2011 (L-HM general and high pressure)
- Bosch Rexroth (RDE 90245)
- Parker Denison
- Danfoss Vickers
- Fives (Cincinnati Machine) and other equipment manufacturers.

Characteristics:

Parameter	Test Method	Typical Value				
		ISO 32	ISO 46	ISO 68	ISO 100	ISO 150
Density@15°C kg/m ³	ASTM D1298	850	855	860	870	880
Kinematic Viscosity at 40°C, cSt	ASTM D445	32	46	68	100	150
Kinematic Viscosity at 100°C, cSt	ASTM D445	5.2	6.8	8.95	10.9	18
Viscosity Index	ASTM D2270	105	105	105	105	105
Flash Point, °C	ASTM D92	210	220	230	245	250
Pour Point, °C	ASTM D97	-30	-30	-24	-24	-24
Water Separability, min	ASTM D1401	20	20	20	20	20
Rust Test Proc. A	ASTM D665	Pass	Pass	Pass	Pass	Pass
Copper Corrosion	ASTM D130	1a	1a	1a	1a	1a

Note: The properties mentioned above are typical and may vary slightly.

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet which can be obtained from Sepahan Petro Kimia Central Office.

Protect the environment: Take used oil to an authorized collection point. Do not discharge into drains, soil or water.

Disclaimer: Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

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