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TECHNICAL PRODUCT SHEET

HYDRAULIC SP

ISO 15, 32, 46, 68, 100

DESCRIPTION

HYDRAULIC SP series are premium quality mineral oil-based hydraulic fluids of high Viscosity Index (VI). They are specially intended for hydraulic systems operating under widely varying temperatures, requiring a high level of anti-wear performance. They are formulated with good shear stability, allowing their use in high-pressure/high-temperature conditions for extended periods of time. They surpass all the main international performance standards.

APPLICATIONS

The series is suitable for high-pressure (>1000psi) hydraulic systems in outdoor plants with wide temperature variations, and in cases of cold start-up conditions and high-temperature continuous running. They are highly recommended for hydraulic and circulation systems in industrial and marine machinery applications. They are suitable for precision machine tools and copying machines, where minimal viscosity change with temperature is crucial.

SPECIFICATIONS

DIN	51524 Part 3 HVLP	Fives Cincinnati	P-68, P-69, P-70
ISO	6743-4 (ISO-L-HV)	AFNOR NFE	48-690 (dry)
ISO	11158 HV	AFNOR NFE	48-691 (wet)
Parker (Denison)	HF-0, HF-1, HF-2	Case	IH Poclain
Eaton Vickers	I-286-S & M-2950-S		

PROPERTIES

HYDRAULIC SP features a high viscosity index with very good shear stability, ensuring reliable performance across a wide operating temperature range. It provides excellent equipment protection through high oxidation and hydrolytic stability, along with effective protection against rust and corrosion. The formulation inhibits foam formation, promotes fast water separation, and offers improved filterability, supporting clean, efficient, and dependable system operation.

BENEFITS

HYDRAULIC SP exhibits minimal viscosity change with temperature, ensuring easy start-up and reliable lubrication at low temperatures. It minimizes metal-to-metal contact, protecting vane and ring components from friction-induced wear and helping to reduce maintenance costs. The formulation delivers a longer service life than conventional lubricants while maintaining a high cleanliness level. Rapid water release prevents rust formation and eliminates foaming and aeration issues, while effective contaminant control helps prevent filter plugging, supporting dependable and efficient system operation.

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PHYSICAL-CHEMICAL CHARACTERISTICS

HYDRAULIC SP	METHOD	ISO 15	ISO 32	ISO 46	ISO 68	ISO 100
Density at 15°C, g/cm^3	ASTM D4052	0.840	0.854	0.863	0.865	0.876
Viscosity, Kinematic (cSt) 40°C	ASTM D445	15	32	46	68	100
Viscosity, Kinematic (cSt) 100°C	ASTM D445	3.9	6.5	8.1	10.9	14.5
Viscosity index	ASTM D2270	171	151	151	151	150
Flash point, COC, °C	ASTM D92	182	200	215	220	224
Pour point, °C	ASTM D97	-39	-33	-30	-27	-24
Copper corrosion	ASTM D 130	1a	1a	1a	1a	1a
Foam Tendency / Stability, ml Sequence I Sequence II Sequence III	ASTM D892	 10 / 0 10 / 0 10 / 0	 20 / 0 20 / 0 20 / 0	 20 / 0 20 / 0 20 / 0	 20 / 0 20 / 0 20 / 0	 20 / 0 20 / 0 20 / 0
Demulsibility, min.	ASTM D1401	5	5	5	10	10

The above mentioned characteristics represent mean values.

STORAGE

All packages must be stored in covered, well-ventilated areas. If outdoor storage cannot be avoided, barrels must be placed horizontally to prevent water ingress and to protect labels and markings from damage. Products must not be stored at temperatures above 60 °C and must not be exposed to direct sunlight, freezing conditions, or extreme temperature fluctuations.

HEALTH & SAFETY

This product is not considered to pose significant risks to health or safety when used as intended and in accordance with recommended personal hygiene practices. It must not be applied for purposes other than those for which it has been formulated. For detailed guidance on safe handling and use, refer to the Safety Data Sheet (SDS).

USED OILS

Used lubricants must be collected at designated collection points to prevent environmental contamination. They must not be mixed with solvents, brake fluids, or antifreeze.