



## Technical Data Sheet

- Premium Protection
- All Season
- Cold Climate

# Shell Tellus S4 VK 46

## Advanced synthetic Gas-to-Liquid (GTL) zinc-based high-performance all season hydraulic fluid

Shell Tellus S4 VK hydraulic fluids are advanced performance, all season fluids, formulated using Shell Gas-To-Liquid (GTL) proprietary technology and advanced performance anti-wear additives. Shell Tellus S4 VK is a shear stable hydraulic fluid that exhibits good fluidity which enables fluid pumpability down to minus 30°C. For use in mobile applications, offering all season performance means this fluid is designed to keep the right viscosity/lubricity all year round. Giving greater peace of mind that your equipment will remain protected even during wide temperature ranges including arctic conditions.

## DESIGNED TO MEET CHALLENGES

### Performance, Features & Benefits

#### • Total cost of ownership savings

All season performance helps to reduce the need for seasonal oil changes, and therefore reducing oil being disposed of, as well as reducing inventory of products. All season performance means this fluid is designed to keep the right viscosity/lubricity all year round, giving greater peace of mind that your equipment will remain protected even during wide temperature ranges including arctic conditions.

#### • All season, sub-arctic performance

Use of GTL base oils and shear stable viscosity modifiers minimizes the fluid's variation in viscosity with changes in temperature. Exhibiting good fluidity at sub-zero temperatures enables fluid pumpability at low temperatures, prevents cavitation, and shortens time for warm-up.

Shell Tellus S4 VK fluids offer durable equipment performance at high temperatures. This wide operating temperature window offered by Shell Tellus S4 VK may allow you to use this hydraulic fluid for most seasons.

#### • Enhanced equipment protection

Shell Tellus S4 VK fluids include a carefully selected anti-wear additive technology that has demonstrated the ability to protect the most sensitive parts of the hydraulic system like high pressure axial piston pumps from wear. Shell Tellus S4 VK fluids demonstrate outstanding performance even in the most stringent pump tests such as Denison T6H20C (dry and wet version) and Eaton Vickers 35VQ25.

#### • Greater reliability

In addition to meeting standard industry and OEM specification requirements, Shell Tellus S4 VK provides exceptional level of additional performance. Shell Tellus S4 VK hydraulic fluids are advanced performance, shear stable hydraulic fluids using GTL base oil technology with strong thermal and oxidative stability offering you the capability to significantly extend oil change internals.

### Main Applications



#### • Mobile hydraulic systems

Shell Tellus S4 VK, with its broad operating window, long oil drain intervals, superior system operation characteristics, is designed to be particularly suitable for mobile hydraulic systems such as construction and mining machinery.

### Specifications, Approvals & Recommendations

- Denison (HF-0, HF-1, HF-2)
- Danfoss Vickers E-FDGN-TB002-E
- ASTM D6158-05 HV
- ISO 11158 HV Fluid
- DIN 51524-3 HVLP

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

## Compatibility & Miscibility

- **Equipment Compatibility**

Shell Tellus S4 VK fluids are suitable for use with most hydraulic pumps.

- **Fluid Compatibility**

Shell Tellus S4 VK fluids are compatible with most other mineral and synthetic based hydraulic fluids. However, mineral and synthetic hydraulic fluids should not be mixed with other fluid types (e.g., environmentally acceptable or fire-resistant fluids).

- **Seal Compatibility**

Shell Tellus S4 VK fluids are compatible with seal materials normally specified for use with mineral/synthetic oils.

## Typical Physical Characteristics

Properties			Method	Shell Tellus S4 VK 46
ISO Viscosity Grade			ISO 3448	46
Kinematic Viscosity	@40°C	mm <sup>2</sup> /s	ASTM D445	46
Kinematic Viscosity	@100°C	mm <sup>2</sup> /s	ASTM D445	10.4
Viscosity Index			ISO 2909	225
Shear Stability	at 100 °C after 5000 N/ 60 °C/ 20 hr.	%loss	CEC L45-A-99	13.5
Flash Point COC		°C	EN ISO 2592	195
Pour Point		°C	ASTM D97	-51
Brookfield Viscosity	@-30°C	cP	ASTM D2983	2 400
Brookfield Viscosity	@-40°C	cP	ASTM D2983	6 700
Density	@15°C	kg/m <sup>3</sup>	DIN EN ISO 12185	841
Dielectric Strength		kV minimum	ASTM D877	35

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

## Health, Safety & Environment

- **Health and Safety**

This product is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from <https://www.epc.shell.com>

- **Protect the Environment**

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## Additional Information

- **Advice**

Check compatibility with other products before use. Advice on applications not covered here may be obtained from your Shell representative.