

SHELL TELLUS S4 ME

ADVANCED SYNTHETIC INDUSTRIAL HYDRAULIC FLUID

PREVIOUSLY SHELL TELLUS EE

DESIGNED TO MEET CHALLENGES



Shell Tellus S4 ME hydraulic fluids are designed to help users improve the energy efficiency of their hydraulic systems without compromising the protection of the system or maintenance procedures of their equipment and operations. Shell Tellus S4 ME has been found to improve energy efficiency in applications such as plastic injection moulding and metal pressing compared to Shell Tellus S2 M. In addition, Shell Tellus S4 ME also uses an advanced ashless additive system designed to help equipment service life and lower maintenance costs through providing outstanding wear protection and long oil life capability.

PERFORMANCE FEATURES (COMPARED TO SHELL TELLUS 2M)

ENERGY EFFICIENCY

- With the help of sophisticated system modelling, Shell Tellus S4 ME has been designed to improve the energy efficiency of hydraulic systems through a specially developed formulation that balances the flow, frictional and power transmission characteristics of the fluid. Field evaluation has shown energy efficiency improvements in such applications.

REDUCE MAINTENANCE COSTS

- Shell Tellus S4 ME offers outstanding performance in all the properties relevant to a hydraulic fluid such as hydraulic pump wear and resistance to breakdown in contact with water or other contaminants.
- Together with an oil life that exceeds the 10,000 hours maximum duration that can be measured in the industry Turbine Oil Stability Test (TOST), Shell Tellus S4 ME offers you the capability to significantly extend oil change intervals, which can help reduce overall maintenance costs.

GREATER EQUIPMENT PROTECTION

- In addition to meeting standard industry and OEM specification requirement, Shell Tellus S4 ME is formulated to provide an exceptional level of additional protection. For instance, Shell Tellus S4 ME results in up to 68% less wear in the Vickers V104C pump wear test than the 50 mg pass/fail limits for many OEMs such as Cincinnati Machine (P-specification), Bosch-Rexroth (RD 90220-1) and Eaton Vickers. Superior cleanliness (meeting the requirements of ISO 4406 21/19/16 class or better ex Shell filling plants. As recognised by DIN 51524 specification, the oil is exposed to various influences with transport and storage that could affect the cleanliness level). Together with outstanding protection against sludge build-up, valve sticking and corrosion, it can help prolong the life of your hydraulic equipment.

APPLICATIONS

INDUSTRIAL HYDRAULIC SYSTEMS

- Particularly suitable for those systems with high intensity hydraulic power usage such as injection moulding and high pressure metal pressing operations and where resistance to high temperatures or long oil life is required.

MOBILE HYDRAULIC SYSTEMS

- Shell Tellus S4 ME is also suitable for use in certain mobile hydraulic fluid power transmission systems and in marine applications and provides superior low temperature fluidity compared to most conventional ISO HM type fluids.

* Actual energy savings may vary depending on application, current oil used, maintenance procedures, condition of equipment, operating conditions and intensity of hydraulic power usage.

ENVIRONMENTAL IMPACT

- Shell Tellus S4 ME oils use an advanced zinc-free (ashless) additive system to help provide reduced environmental impact in the case of leakage or accidental spillage compared to conventional zinc-based hydraulic fluids through the use of ashless anti-wear.

COMPATIBILITY

- Suitable for use with most hydraulic pumps.
- With most other mineral oil based hydraulic fluids. However, mineral oil hydraulic fluids should not be mixed with other fluid types (e.g. environmentally acceptable or fire resistant fluids).
- With seal materials and paints normally specified for use with mineral oils.

SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS

HAS THE APPROVALS OF:

- Denison Hydraulics: (HF-0, HF-1, HF-2)
- Cincinnati Machine: P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
- Eaton Vickers: M-2950 S, I-286 S
- BoschRexroth
- Arburg: Injection moulding applications.

MEETS OR EXCEEDS THE REQUIREMENTS OF:

- ASTM: D 6158 (HM fluids)
- ISO: 11158 (HM fluids)
- DIN: 51524 Part 2 HLP type
- Swedish Standard (SS): 15 54 34 AM
- AFNOR: NF-E 48-60
- Krauss Maffei.

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

TYPICAL PHYSICAL CHARACTERISTICS

CHARACTERISTICS	46	68
ISO Fluid Type	HM	HM
Kinematic Viscosity (IP 71)		
@ 0°C mm ² /s	576	1038
@ 40°C mm ² /s	46	68
@ 100°C mm ² /s	6.8	8.7
Viscosity Index (ISO 226)	98	97
Density @ 15°C kg/m ³ (ISO 12185)	0.832	0.835
Flash Point °C (COC) (ISO 2592)	250	250
Pour Point °C (ISO 3016)	-51	-51