Technical Data Sheet

Formerly Known As: **Shell Tellus Arctic**

Shell **Tellus** *S4 VX 32*

- *Ultra Low Temperature Use*
- *Versatile applications*

Special Application Hydraulic Fluid

Shell Tellus S4 VX is an advanced hydraulic fluid technology designed for use in applications subjected to extremely low ambient temperatures such as arctic or exposed areas.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Low temperature system operation and efficiency**

  The very high viscosity index (VI) of Shell Tellus S4 VX ensures that the hydraulic fluid flows at temperatures where conventional hydraulic fluids would become too thick to allow equipment operation. This allows safe equipment start-up at very low temperatures, with no or minimum heating of the system being required. This delivers increased equipment availability and more efficient operation of the hydraulic system, which in turn, helps users obtain higher productivity from their machines.

- **Extremely wide operating temperature range**

  The very high viscosity index of the fresh fluid, coupled with mechanical shear stability, allows operation over a very wide temperature range.

  All-year round operation with Shell Tellus S4 VX is therefore possible (subject to a maximum operating temperature of 75^{0}C).

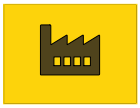
- **Equipment protection**

  Shell Tellus S4 VX contains carefully designed ashless (zinc-free) anti-wear additives to help protect critical components of the hydraulic system from wear.

  Shell Tellus S4 VX is manufactured with a Quality System assuring the fluid at the Shell plant filling lines meets the requirements of max ISO 4406 21/19/16 class. As recognized by DIN 51524 specification, the oil is exposed to various influences with transport and storage that could effect the cleanliness level.

Main Applications





- **Low temperature exterior hydraulic applications**

  Shell Tellus S4 VX has been designed for use in all types of hydraulic systems where the operating temperature does not continuously exceed 75^{0}C.

  Shell Tellus S4 VX has been specifically designed for systems that must be started-up at extremely low temperatures, with a subsequent temperature increase during operation.

  Note: Operators are recommended to check with the equipment manufacturer to determine whether the viscosity characteristics of Shell Tellus S4 VX are suitable for use in their application.

Specifications, Approvals & Recommendations

- Komatsu Mining (operation in cold and arctic conditions, -50^{0}C to 35^{0}C).
- ISO 11158 HV Fluid (with exception of Flashpoint)

  Listed or endorsed by:

- Komatsu (hydraulic systems operating in cold and arctic conditions, -50^{0}C to 35^{0}C).
- Dietz Automation GmbH (servo valve and proportional valve test equipment).

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

Compatibility & Miscibility

- **Compatibility**

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

- **Fluid Compatibility**

  Shell Tellus S4 VX fluids are compatible 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).

Typical Physical Characteristics

Properties			Method	Shell Tellus S4 VX 32
Kinematic Viscosity	@-40°C	cSt	ASTM D445	2 624
Kinematic Viscosity	@40°C	cSt	ASTM D445	32
Kinematic Viscosity	@100°C	cSt	ASTM D445	9.93
Viscosity Index			ISO 2909	300
Density	@15°C	kg/m^3	ISO 12185	890
Flash Point (COC)		°C minimum	ISO 2592	100
Pour Point		°C	ISO 3016	-60

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 & Safety**

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

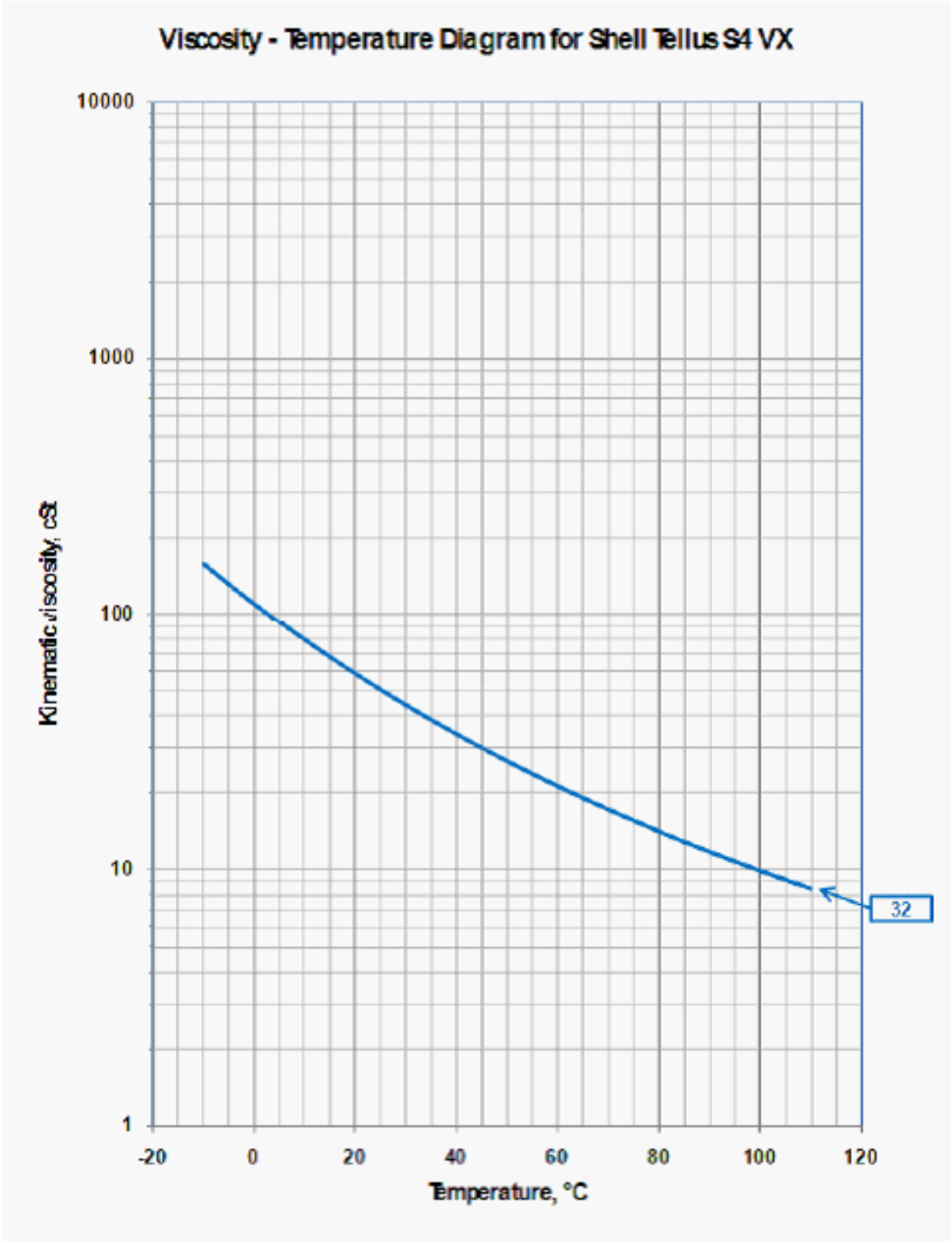
- **Protect the Environment**

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

Additional Information

- **Advice**

  Advice on applications not covered here may be obtained from your Shell representative.


Viscosity - Temperature Diagram for Shell Tellus S4 VX
10000
1000
100
10
1
Kinematic viscosity, cSt
-20
0
20
40
60
80
100
120
Temperature, °C
32