



Shell Tellus[®] Oil DO 46

Premium quality zinc free detergent hydraulic oils

Shell Tellus Oil DO 46 is a detergent/dispersant, anti-wear, mineral oil based, specialty hydraulic oil for systems where emulsifiable oils are preferred. Shell Tellus Oil DO 46 is based on zinc free anti-wear technology.

Applications

- Industrial hydraulic systems
- Injection molding machines
- Electronically controlled hydraulic equipment
- Mobile equipment
- Headstocks and hydraulic controls in automatic lathes (when a synthetic or semi-synthetic water-extendible metal working fluid is used)

Performance Features

- **Powerful cleaning properties**
Helps prevent the breakdown of hydraulic systems caused by sticky residues and deposits. The dirt is very finely dispersed and kept in suspension, even when the oil is contaminated with synthetic metalworking fluids.
- **Effective anti-corrosion performance**
An active anti-corrosion additive effectively protects hydraulic systems from corrosion.
- **Emulsification properties**
Water collected in the lubrication system, due to condensation or contamination with soluble cutting fluid, is emulsified to provide further protection.
- **Enhanced anti-friction properties**
Polar additives help prevent stick-slip, a phenomenon that may occur when modern sealing materials are used in hydraulic systems.
- **Outstanding anti-wear and load carrying properties**
Exceptional performance in hydraulic and geared systems, especially under high load and low speed boundary lubrication conditions as shown by the high Bruggler load value DIN 51347-2.

- **Excellent filterability**

An essential property in modern hydraulic systems where the use of very fine filters has become standard practice. Shell Tellus Oil DO 46 offers state of the art filterability performance in the range of detergent hydraulic fluids.

- **Excellent mechanical and oxidation stability**

In hydraulic systems operating under severe thermal stress, the oil's natural resistance to aging is enhanced by special additives.

- **Low foaming tendency**

Quick air release without excessive foaming.

- **Reduced environmental impact**

The use of a zinc free technology helps reduce negative impact on the environment that would be due to disposal of metal containing substances.

Specifications and Approvals

Shell Tellus Oil DO 46 meets the requirements of:
ISO 11158 HM

Shell Tellus Oil DO 46 is approved by:
Mueller Weingarten

Seal & Paint Compatibility

Shell Tellus Oil DO 46 is compatible with all seal materials and paints normally specified for use with mineral oils.

Health & Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet that can be obtained from your Shell representative.

Protect the environment

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

Advice

Advice on applications not covered in this leaflet
may be obtained from your Shell Representative.

Typical Physical Characteristics

Shell Tellus Oil DO		46
ISO Viscosity Grade		46
Bulk		5067335
Fluid Type	ISO Designation	L-HM
Kinematic Viscosity @ 40 °C @ 100 °C	ASTM D 445	46 7.0
Viscosity Index	ISO 2909	107
Density @ 15 °C, lb/gal	ISO 12185	7.32
Flash Point, °C (°F)	ASTM D 92	223 (433)
Pour Point, °C (°F)	ISO 3016	-24 (-11)
Steel Corrosion 24 hours at 60 °C	ASTM D 665b	No rust
Copper Corrosion	ASTM D 130	1a
Air Release, min	ASTM D 3427	5.6
Foam, ml	ASTM D 892	0/0 – 40/0 – 0/0
Demulsibility @ 54°C after 30 min	ASTM D 1401	0-0-80
Brugger Test, N/mm ²	DIN 51347-2	>50
FZG failure load stage	DIN 51354-2	>12