



# Shell Tellus<sup>®</sup> Oils T

## High performance hydraulic oils for wide temperature ranges

Shell Tellus Oils T are premium quality hydraulic oils formulated with proprietary anti-wear technology and a shear stable viscosity index improver to enhance and maintain excellent viscosity/temperature characteristics. These oils are designed to meet the requirements of a large range of industrial and mobile hydraulic applications.

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### Applications

- Hydraulic and fluid power transmission systems subjected to wide variations in temperature or where low viscosity change with fluctuating temperature is required.

Certain critical hydraulic systems can only tolerate small variations in viscosity with fluctuating temperature if efficiency and responsiveness are to be maintained. Hydraulic oils, such as Shell Tellus Oil T, which exhibit multigrade viscosity characteristics may be used to particular advantage in these circumstances. If even further limited viscosity variations are required Shell Tellus Oils STX should be considered.

### Performance Features and Benefits

- **Wide operating temperature range**

The use of a specially selected viscosity index improver reduces the viscosity variation with temperature, which helps the system to operate in a wide oil temperature range with more consistent performance. There are various reasons for oil temperature variation in service like: environment (ambient) temperature variation, intermediate working condition or variable workload.

- **Viscometric characteristics unchanged with time**

The excellent shear stability of the viscosity index improver helps minimize permanent viscosity loss allowing the oil to maintain its original viscometric characteristics at high temperatures. This helps prevent the loss of system efficiency and inadequate protection at the maximum operating temperature.

- **Outstanding anti-wear performance**

Next generation anti-wear additives are incorporated into the formulation to be effective throughout the range of operating conditions, including low and severe load conditions. Shell Tellus Oils T exhibit outstanding performance in a range of piston and vane pump tests; including the newest Denison T6H (the so called hybrid pump), the tough Denison T6C (dry and wet versions) and the demanding Vickers 35VQ25.

- **Hydrolytic stability**

Shell Tellus Oils T demonstrate good chemical stability in the presence of moisture, which helps promote long oil life and reduce the risk of corrosion and rusting.

- **Excellent filterability**

Shell Tellus Oils T are suitable for ultra-fine filtration, an essential requirement in today's hydraulic systems. Shell Tellus Oils T are virtually unaffected by minor contamination with water and calcium, which are known to cause blockage of fine filters. Customers can use finer filters, which helps achieve all the benefits of using cleaner fluids.

- **Oxidation resistant**

Shell Tellus Oils T resist oxidation in the presence of air, water and copper. These oils exhibit low increase in acidity, low sludge formation, and low copper loss therefore helping to maintain expected oil drain intervals and minimize maintenance costs.

- **Thermal stability**

Shell Tellus Oils T are thermally stable in modern hydraulic systems working in extreme conditions of load and temperature. Shell Tellus Oils T are highly resistant to degradation and sludge formation therefore helping to improve system reliability and cleanliness.

- **Excellent air release and anti-foam properties**  
Careful use of additives provides quick air release without excessive foaming. Quick air release helps minimize cavitation and slows oxidation, helping to maintain system and fluid performance.

- **Good water separation**  
Shell Tellus Oils T exhibit good water separation properties (demulsibility) thereby resisting the formation of water-in-oil emulsions and helping to prevent consequent hydraulic system and pump damage.

### Specifications and Approvals

Shell Tellus Oils T have the following approvals:

- CINCINNATI P-68 (ISO 32)
- CINCINNATI P-70 (ISO 46)
- CINCINNATI P-69 (ISO 68)
- DENISON HF-0
- DENISON HF-1
- DENISON HF-2
- Eaton (Vickers) M-2950 S
- Eaton (Vickers) I-286 S

Shell Tellus Oils T meet the requirements of:  
Swedish Standard SS 15 54 34 AM

### Typical Physical Characteristics

Shell Tellus Oil T	15	22	32
<b>Product Code</b>			
Bulk	6540700001	6540000001	6540100001
Drums	6540700055	6540000055	6540100055
Pails	6540705203	6540005203	6540105203
Appearance	Light Pale	Light Pale	Pale
Kinematic Viscosity (ASTM D 445)			
cSt @ 40°C	15	22	32
cSt @ 100°C	3.7	4.8	6.1
Viscosity Index (ASTM D 2270)	140	140	140
Emulsion Test, 130 °F (ASTM D 1401) Separation time, 30 minutes max	Pass	Pass	Pass
Copper Corrosion (ASTM D 130)	1a	1a	1a
Rust Test (ASTM D 665B)	Pass	Pass	Pass
Pour Point, °C (ASTM D 5969)	-42	-42	-39
Dielectric Strength, kV* (ASTM D 877)	35 min	35 min	35 min

\* On product in sealed containers from Shell blending plants only.

### Compatibility

[Shell Tellus Oils T are compatible with most pumps.]  
However, please consult your Shell Representative before using in pumps containing silver plated components.

### Seal & Paint Compatibility

Shell Tellus Oils T are compatible with seal materials and paints normally specified for use with mineral oils.

### Health & Safety

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web:

<http://www.shell-lubricants.com/>.

### Protect the environment

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

Shell Tellus Oil T	46	68	100
<b>Product Code</b>			
Bulk	6540200001	6540300001	6540400001
Drums	6540200055	6540300055	6540400055
Pails	6540205203	6540305203	----
Appearance	Pale	Pale	Dark Pale
Kinematic Viscosity (ASTM D 445)			
cSt @ 40°C	46	68	100
cSt @ 100°C	7.9	10.5	14.0
Viscosity Index (ASTM D 2270)	140	140	140
Emulsion Test, 130 °F (ASTM D 1401) Separation time, 30 minutes max	Pass	Pass	Pass @ 180 °F
Copper Corrosion (ASTM D 130)	1a	1a	1a
Rust Test (ASTM D 665B)	Pass	Pass	Pass
Pour Point, °C (ASTM D 5969)	-39	-36	-33
Dielectric Strength, kV* (ASTM D 877)	35 min	35 min	-----

\* On product in sealed containers from Shell blending plants only.

# Viscosity - Temperature - Diagram

