



Shell Tellus Oils T

Multigrade hydraulic oil

Shell Tellus Oils T are premium performance, anti-wear hydraulic oils which incorporate a special viscosity index improver additive to enhance their viscosity/temperature characteristics.

Applications

- Hydraulic and fluid power transmission systems subjected to wide variations in temperature, or where low viscosity change with fluctuating temperature is required
- Oil lubricated rolling bearings
- Lubrication of bearings by the micro-fog technique

Certain critical hydraulic systems can only tolerate small variations in viscosity with fluctuating temperature if efficiency and responsiveness is to be maintained. Hydraulic oils such as Shell Tellus Oils T, which exhibit multigrade viscosity characteristics, may be used to particular advantage in these circumstances.

Performance Features

- Very low viscosity variation with temperature
Special viscosity modifier technology minimises the oil's variation in viscosity with changes in temperature and provides good pumpability at low temperatures. These features are particularly beneficial in hydraulic applications subjected to extremes of temperature
- High shear stability
The viscosity modifier is highly resistant to mechanical stress. The maintenance of 'stay-in-grade' characteristics ensures effective lubrication, efficient system operation and long oil life
- Outstanding anti wear performance
Proven anti-wear additives are effective in all operating conditions, including low and severe duty situations
- Excellent filterability

Minimal tendency to cause filter blockage in the presence of contaminants such as water and calcium

- Oxidation resistant
Resists the formation of acidic products and sludge, even at high working temperatures
- Corrosion protection
Powerful inhibitors provide long term protection against corrosion of both ferrous and most non-ferrous metals
- Rapid air release and anti-foam properties
Provide rapid air release without excessive foaming

Compatibility

The anti-wear additive technology used in Shell Tellus Oils T is based upon zinc which, although ideal for most hydraulic pumps, should not be used in those of older design containing silver plated components. Shell Tellus Oils S should be used for these applications.

Health & Safety

Shell Tellus Oils T are unlikely to present any significant health or safety hazard when properly used in the recommended application, and good standards of industrial and personal hygiene are maintained.

For further guidance on Product Health & Safety refer to the appropriate Shell Product Safety Data Sheet. This can be obtained from your own internal Health & Safety focal point. In the event of any queries contact your local Shell Business Development Manager or

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Typical Physical Characteristics

Shell Tellus Oil	T15	T37	T46	T68	T100
ISO Oil Type	HV	HV	HV	HV	HV
Kinematic Viscosity					
@ 0 °C cSt	79	296	392	637	1041
20 °C cSt	31	90	116	179	276
40 °C cS	15	37	46	68	100
100 °C cSt	3.8	6.9	8.1	10.9	14.5
(IP 71)					
Viscosity Index					
(IP 226)	150	150	150	150	150
Density @ 15 °C kg/l					
(IP 365)	0.877	0.872	0.876	0.880	0.884
Flash Point °C					
(Pensky-Martens Closed Cup)	150	185	180	186	190
(IP 34)					
Pour Point °C					
(IP 15)	-42	-39	-39	-36	-30
Air Release Value					
Minutes to 0.2% air @ 50°C	3	4	6	8	10
(IP 313)					
Aniline Point °C					
(IP 2)	90	98	99	103	107
Copper Corrosion					
3 hours @ 100 °C	Class 1				
(IP 154)					
Foaming Characteristics					
Sequence 1,					
Tendency/Stability, ml @ 24 °C	20/Nil	30/Nil	30/Nil	30/Nil	50/Nil
Sequence 2,					
Tendency/Stability, ml @ 93.5 °C	10/Nil	20/Nil	40/Nil	40/Nil	40/Nil
Sequence 3					
Tendency/Stability, after test @ 93.5 °C,					
ml @ 24 °C	20/Nil	30/Nil	30/Nil	30/Nil	50/Nil
(IP 146)					
Neutralisation Number					
mg KOH/g	1.0	1.0	1.0	1.0	1.0
(IP 139)					
Rust Preventing Characteristics					
Synthetic Sea Water procedure	No rust				
(IP 135B)					
Water Separability					
Minutes to 40-40-0 @ 54 °C	20	20	20	30	30
(ASTM-D1401)					(82 °C)

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