



## Turbinol X

Premium Turbine Lubricant

## Product Data

### Description

The BP Turbinol X turbine oil range of lubricants is based upon premium quality mineral oils enhanced with rust and oxidation inhibitors to give maximum protection at high temperatures.

### Application

Turbinol X grades are recommended for industrial gas turbines where the lubricant is likely to be exposed to very high localised temperatures. They are also suitable for the lubrication of steam turbines and Combined Cycle generating systems where the steam and gas turbines share a common oil supply.

Turbinol X grades possess superior air release performance, good resistance to foaming and excellent water separation properties.

The Turbinol X range is fully compatible with nitrile, silicone and fluoropolymer seal materials.

Turbinol X grades meet the requirements of:

British Standard BS 489

DIN 51515-1 and -2

GEK 32568F (ISO 32)

GEK 107395A (ISO 32)

Alstom HTDG 90 117 (formerly ABB) (ISO 32 and 46)

Siemens TLV 9013 04 and 05 (ISO 32 and 46)

### Advantages

- Superior resistance to oxidation & thermal degradation provides a very long life lubricant because of low deposit / lacquer formation.
- Superior air release properties mean they meet the requirements of all turbine manufacturers.
- Excellent water separation and corrosion inhibition mean reduced down time through prolonged lubricant life and increased equipment reliability.
- Suitable for the lubrication of both gas and steam turbines makes them suitable for combined cycle generating stations.

### Typical Characteristics

Name	Method	Units	Turbinol X 32	Turbinol X 46	Turbinol X 68
ISO Viscosity Grade	-	-	32	46	68
Relative Density at 15°C	ISO 12185, ASTM D4052	-	0.86	0.86	0.87
Kinematic Viscosity at 40°C	ISO 3104, ASTM D445	mm <sup>2</sup> /s	32	46	68
Kinematic Viscosity at 100°C	ISO 3104, ASTM D445	mm <sup>2</sup> /s	5.7	7.1	9.5



## Typical Characteristics

Name	Method	Units	Turbinol X 32	Turbinol X 46	Turbinol X 68
Viscosity Index	ISO 2909, ASTM D2270	-	>100	>100	>100
Foam Sequence I (tendency/stability)	ISO 6247, ASTM D892	ml	10/0	10/0	10/0
Air Release at 50 °C	ISO 9120, ASTM D3427	minutes	2	2	3
Demulsification	IP 19	seconds	60	60	90
Pour Point	ISO 3016, ASTM D97	°C/ °F	-15/ 5	-15/ 5	-12/ 10
Flash Point, COC	ISO 2592, ASTM D92	°C/ °F	222/ 432	234/ 453	234/ 453
Total Acid Number (Potentiometric)	ISO 6619, ASTM D664	mg KOH/g	0.05	0.05	0.05
Rust Test (24hrs synthetic sea water)	ISO 7210, ASTM D665B	-	Pass	Pass	Pass
RPVOT	ASTM D2272	minutes	>1000	>1000	>1000
Copper Corrosion (3hrs at 100°C)	ISO 2160, ASTM D130	-	1 max	1 max	1 max
TOST Test, to 2 mg KOH/g	ASTM D943	hours	>10000	>10000	>10000

Subject to usual manufacturing instructions.

## Additional Information

The BP Turbinol X range is classified as non-hazardous according to the criteria of Work Safe Australia. However, in line with safe handling practices, it is recommended that the handling instructions outlined in the Castrol Material Safety Data Sheet be followed.

The BP Turbinol X range is classified as a C2 combustible liquid for storage and handling purposes. Store in a cool, dry, well-ventilated area out of direct sunlight. Avoid sparks, flames and other ignition sources. Store away from incompatible materials such as materials that support combustion (oxidising materials). Reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

Spillage: **SMALL - 20 LITRES OR LESS**  
Soak up on Castrol Diatomaceous Earth or similar inert oil absorbent. Arrange for disposal through an approved facility.  
**LARGE - GREATER THAN 20 LITRES**  
Contain as soon as possible, remove by best means available and arrange recycling (preferred) or disposal through an approved facility.

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