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## **BP Turbinol X-EP™**

**Premium antiwear turbine lubricant**

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### **Description**

The BP Turbinol X-EP turbine oil range of lubricants are based upon premium quality mineral oils enhanced with rust and oxidation inhibitors to give maximum protection at high temperatures. They also contain antiwear additives to give additional load carrying properties.

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### **Applications**

Turbinol X-EP grades are recommended for industrial gas turbines where the lubricant is likely to be exposed to very high localised temperatures.

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

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-EP contains a load carrying additive and can be used in geared turbines with a common oil reservoir.

Turbinol X-EP range is fully compatible with nitrile, silicone and fluoropolymer seal materials

Turbinol X-EP grades meet the requirements of:

British Standard BS 489

DIN 51515

Nuclear Electric 207001

National Power

PowerGen

GEK 32568F

GEK 107395A

GEK 101941

Alstom HTDG 90 117 (formally ABB)

Siemens TLV 9013 04 (gas & steam turbines)

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### **Advantages**

- Superior resistance to oxidation & thermal degradation provides a very

long life lubricant because of low deposit / lacquer formation.

- Antiwear properties including FZG 10 rating under A8.3/90 test conditions means it's suitable for geared turbine applications and for a wide range of other applications (e.g. pumps, motors, compressors, hydraulics, and turbo-couplings) thereby rationalising the lubricants required on site.
- Suitable for the lubrication of both gas and steam turbines makes it suitable for combined cycle generating stations.
- Superior air release properties means it meets the requirements of all turbine manufacturers.
- Excellent water separation and corrosion inhibition means reduced down time through prolonged lubricant life and increased equipment reliability.

### Typical Characteristics

Test	Method	Units	32	46	68
Density @ 15°C	ISO 12185	g/ml	0.88	0.86	0.87
K.V @ 40°C	ISO 3104	mm <sup>2</sup> /s	32	46	68
K.V @ 100°C	ISO 3104	mm <sup>2</sup> /s	5.7	7.1	9.5
Viscosity Index	ISO 2909	-	112	112	112
Foam Sequence I	ISO 6247	mls/mls	10/0	10/0	10/0
Air Release @ 50°C	ISO 9120	mins	2	2	3
Demulsification No	IP 19	secs	60	60	90
Pour Point	ISO 3016	°C	-15	-15	-12
Flash Point, COC	ISO 2592	°C	222	234	234
Rust Test (24 hrs synthetic sea water)	ISO 7120	-	Pass	Pass	Pass
RPVOT	ASTM D2272	mins	1200	1200	-
Copper Corrosion, 3hrs @ 100C	ISO 2160	-	1A	1A	1A
TOST, hrs to 2 mg KOH/g	ASTM D943	hrs	>10,000	>10,000	-
FZG fail stage (A8.3.90)	DIN 51354	-	9	10	10

### Additional Information

#### Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be

laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

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### **Health & Safety Recommendations**

Health, safety and environmental information is provided for this product in the Materials Safety Data Sheet. This gives details of potential hazards, precautions and First Aid measures, together with environmental effects and disposal of used products.

BP International will not accept liability if the product is used other than in the manner or with the precautions or for the purpose/s specified. Before the product is used other than as directed, advice should be obtained from the local BP office.

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*The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.*

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