# Perfecto XEP

Premium Antiwear Turbine Lubricant

## Description

The Castrol Perfecto XEP turbine oil range of lubricants is based upon premium quality mineral oils enhanced with rust and oxidation inhibitiors to give maximum protection at high temperatures. They also contain antiwear additives to give additional load carrying properties.

## Application

Perfecto XEP 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.
Perfecto XEP grades possess superior air release performance, good resistance to foaming and excellent water separation properties. They contain a load carrying additive and can be used in geared turbines with a common oil reservoir.
They are fully compatible with nitrile, silicone and fluropolymer seal materials.
Perfecto XEP grades meet the requirements of:
British Standard BS 489
DIN 51515 -1 and -2
General Electric GEK 32568F, 101941 and 107395A (ISO 32)
Alstom HTDG 90 117 (formerly ABB) (ISO 32 and 46)
Siemens TLV 9013 04 and 05 (ISO 32 and 46)

## Features / Benefits

Superior resistance to oxidation & thermal degradation provides a very long life lubricant because of low deposit / lacquer formation.
Antiwear properties including FZG 9 rating under A8.3/90 test conditions mean they are suitable for geared turbine applications and for a wide range of other applications (e.g. pumps, motors, compressors, hydraulics, and turbocouplings) thereby rationalising the lubricants required on site.
Suitable for the lubrication of both gas and steam turbines makes them suitable for combined cycle generating stations.
Excellent water separation and corrosion inhibition means reduced down time through prolonged lubricant life and increased equipment reliability.

## Technical Data

| Name | Method | Units | XEP 32 | XEP 46 | XEP 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 | mm²/s | 32 | 46 | 68 |
| Kinematic Viscosity at 100°C | ISO 3104, ASTM D445 | mm²/s | 5.7 | 7.1 | 9.5 |
| 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 |

| Name | Method | Units | XEP 32 | XEP 46 | XEP 68 |
|---|---|---|---|---|---|
| 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 | -15 | -15 | -12 |
| Flash Point, COC | ISO 2592, ASTM D92 | °C | 222 | 234 | 234 |
| Total Acid Number (Potentiometric) | ISO 6619, ASTM D664 | mg KOH/g | 0.05 | 0.05 | 0.05 |
| Rust Test, (24 hours 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 |
| FZG Gear Failure Load Stage ( A/8.3/90 ) | DIN 51354 | - | 9 | 10 | 10 |

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

## Care and Handling

Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

## Packaging and 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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