



## Perfecto XPG 46

Premium Quality Industrial Turbine Oil

### Description

Castrol Perfecto XPG 46 is based upon highly refined base oils with an additive system designed to provide high resistance to oxidation and additional load carrying performance for geared turbines. This high resistance to oxidation ensures long oil life and reduces deposit formation and lacquering within the turbine lubrication system.

### Application

Perfecto XPG 46 is a premium quality turbine oil, specifically developed for geared Industrial gas turbines where the lubricant is likely to be exposed to very high local temperatures. It also possesses good air release properties and resistance to foaming. Good water separation performance, as required for the lubrication of steam turbines, makes it suitable for Combined Cycle generating systems where the steam and gas turbines share a common oil supply.

Perfecto XPG 46 meets or exceeds the requirements of:

- BS 489: 1999
- DIN 51515 Part 1 (L-TD)
- DIN 51515 Part 2 (L-TG)
- Alstom HTGD 90117
- Siemens
  - TLV 9013 04
  - TLV 9013 05
  - MAT812109
- Solar ES 9-224 AA Class II

### Advantages

- Excellent thermal / oxidation stability even under extremes of thermal stress
- Good water separation and corrosion inhibition performance
- Excellent filterability minimising the possibility of additive removal even under ultra-fine filtration and the presence of moisture
- Well proven in high performance gas turbines with extensive field experience

## Typical Characteristics

Name	Method	Units	Perfecto XPG 46
ISO Viscosity Grade	-	-	46
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m <sup>3</sup>	866
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	46
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm <sup>2</sup> /s	6.9
Viscosity Index	ISO 2909 / ASTM D2270	-	103
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0
Foam Sequence II - tendency / stability	ISO 6247 / ASTM D892	ml/ml	30/0
Foam Sequence III - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0
Air Release @ 50°C / 122°F	ISO 9120 / ASTM D3427	minutes	4
Water Separation - steam method	IP 19	seconds	135
Water Separation @ 54°C / 129°F (40/37/3)	ISO 6614 / ASTM D1401	minutes	10
Pour Point	ASTM D5950	°C (°F)	-12 (10)
Flash Point - open cup method	ISO 2592 / ASTM D92	°C (°F)	232 (450)
Acid Number	ISO 6619 / ASTM D664	mgKOH/g	0.1
Rust test – distilled water (24 hrs)	ISO 7120 / ASTM D665A	rating	Pass
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	rating	Pass
Copper corrosion (3 hrs@100°C/212°F)	ISO 2160 / ASTM D130	rating	1b
Oxidation Stability - Rotating Pressure Vessel test	ASTM D2272	minutes	1300
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1 / ASTM D5182	Failure Load Stage	10

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

## 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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