

# Puma Turbine Oil

#### High Performance Industrial Steam & Gas Turbine Oil

Puma Turbine Oils has been developed to meet the widest range of requirements meeting the demands of most modern steam and light duty gas turbines. These oils are formulated from high quality group 2 base stocks and technology advanced additive packs, that provide great performance against rust and corrosion prevention, excellent oxidative stability, low foaming and excellent demulsibility.

### **Designed to Perform**

#### Anti-wear Protection - Longer Equipment Life

Proven anti-wear additive packages provide greater resistance to sliding wear thus ensuring efficiency and long life of all moving parts of industrial gearbox systems.

#### Oxidation Resistance - Longer Oil Life

It has extremely good oil life and lubricant stability even when subjected to unusually high thermal stresses and chemical break down. This property minimises the formation of aggressive corrosive acids deposits and sludge. Maintenance costs are therefore reduced and the useful service life of the oil is extended.

#### Anti-foam - Increased Performance

Easy release of entrained air which will prevent difficulties with gear tooth surface wear and other problems arising from the compressibility of air bubbles.

#### Rapid Air Release & High Resistance to Foaming

Puma Turbine Oils have excellent anti-foam additive which controls foam formation. This feature is coupled with fast air-release agents, which reduces the risk of pump cavitation, excessive wear and premature oxidation. Hence giving you increased system performance and reliability.

#### Anti-corrosion & Anti-rust Properties

Protects turbine blades and bearings from corrosion. Anti-oxidants in the oil resist oil degradation and sludge formation prolonging the life of the oil.

#### Demulsibility - Component Life Extension

Prevents the formation of water in oil emulsion, which enters the system through leakage or condensation. Separates rapidly from water and thus ensures perfect lubrication even in applications where water contamination is possible. These fluids therefore maintain their lubricating power and anti-corrosion performance even under these serve circumstances.

## **Compatibility & Miscibility**

Puma Turbine Oils are compatible with various seal materials to help prevent premature failure of seals and thus avoid leakage.

### **Performance Characteristics**

Puma Turbine Oils are modern high performance turbine oils formulated with hydro-treated base oils and selected additives.

- > Combined cycle turbine systems
- > Steam turbines
- > Large heavy duty and smaller gas turbines
- > Turbines with heavy load gears

### Puma Turbine Oil

Meets the requirements of the following specifications:

- > ISO 6743-5 L TSA/TSE/TGA/TGB/TGE
- > DIN 51515 Part 1
- > JIS K 2213 Type 2
- > BS 489

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The information contained herein is accurate at the time of this review. However specifications change from time to time. Ensure specifications meet equipment manufacture requirements. Document No: 01/03/2017 | Printed Copies are UNCONTROLLED

- Anti-wear Protection
- $\checkmark$  Rust & Oxidation Resistance

### ✓ Demulsibility Performance

✓ Premium Group II Base Oil



Property	Temp -	Units -	Test Method	Typical Results		
ISO VG Grade				32	46	68
Kinematic Viscosity	100°C	cSt	ASTM D445	5.4	6.8	8.7
Kinematic Viscosity	40°C	cSt	ASTM D445	32	46	68
Viscosity Index	-	-	ASTM D2270	102	101	99
Density	15°C	g/mL	ASTM D4052	0.87	0.877	0.884
FZG Scuffing, Fail Stage	-	-	ASTM D5182	8	9	10
TOST, Hours to 2 NN	-	-	ASTM D943	5000	4500	3500
Demulsibility	-	min	NF T 60-125	5	5	<10
Flash Point	-	°C	ASTM D92	210	230	240
Pour Point	-	°C	ASTM D97	-9	-9	-9

### **Typical Physical Characteristics**

These characteristics are typical of current product methods whilst future production will conform to Puma Lubricants specifications, variations in these physical characteristics may occur.

### Health & Safety Environment

- > This product is unlikely to present any significant health and safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.
- > Avoid contact with eyes and skin, use proper impervious gloves with used oil. After skin contact, wash immediately with soap and water. Guidance on health and safety is available on the appropriate Safety Data Sheet (SDS) which can be obtained from sds.pumaenergy.com.au

### **Protect the Environment**

 Take used oil to an authorised collection point.
Do not discharge used or new oil into drains, soil or water.

# **Additional Information**

> Technical advice may be obtained from your Puma Energy Representative.

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