

Puma Industrial Gear Oil EP

Heavy Duty Industrial Gear Oil

Puma Industrial Gear Oils have been developed to meet the widest range of requirements of EP (Extreme Pressure) lubrication, such as gears operating under severe duty. These oils are formulated from high quality base stocks and technology advanced additive packs, such as sulphur compounds (which ensure good high-speed and shock-load performance) and phosphorus compounds (for low-speed and high-load performance). Available in ISO 68, 100, 150, 220, 320, 460, 680, 1000

- ✓ Anti-wear Protection
- ✓ Oxidation Resistance
- ✓ Anti-foam Performance
- ✓ Micro-pitting Resistance

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.

Extreme Pressure Performance

Puma Industrial Gear Oils have an effective full extreme pressure (EP) additive system that allows it to be used in highly loaded gear systems. An EP additive pack allows for trouble free application in most enclosed industrial gearbox systems which use steel spur and helical gear drives.

Oxidation Resistance - Longer Oil Life

They have an extremely good oil life and lubricant stability even when subjected to unusually high thermal stresses and chemical break down. This property minimises sludge and deposit formation. Maintenance costs are therefore reduced and the useful service life of the oil is extended, permitting continuous use at operating temperatures as high as 100°C.

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.

Non-corrosiveness

They are designed to be non-corrosive towards materials employed for the construction of machinery and especially those used for gaskets and seals, as well as metals such as steel, cast iron, copper and bronze.

Toxicity

The product is non-toxic since it contains no lead compounds; it can thus be used in oil-mist lubrication systems.

Protection Against Micro-pitting

Puma Industrial Gear Oils have excellent load carrying capacity that helps reduce gear tooth and bearing wear on steel components hence offers excellent resistance to micro-pitting.

Anti-corrosion & Anti-rust Properties

These inhibit the oxidation of internal surfaces of industrial gear systems and therefore prevent operating difficulties and breakdown of the oil caused by metallic oxides that would otherwise form within the machinery.

Demulsibility – Component Life Extension

Prevents the formation of water in oil emulsions, 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. The fluids therefore maintain their lubricating power and anti-corrosion performance even under these circumstances.

Compatibility

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

Performance Characteristics

Puma Industrial Gear Oils are recommended for splash or circulation lubrication of all types of enclosed gears, especially where operating conditions involve heavy loads, high speeds and high relative sliding velocities, at elevated ambient and operating temperatures. This oil can also be used to lubricate other heavily loaded parts and components such as couplings, transmission screws and low speed plain bearings. As indicated, it can be used in oil-mist lubrication systems.

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Meets the requirements of the following specifications:

- AGMA 9005-E02
- DIN 51517 Part 3
- David Brown S1.53.101E
- U.S. Steel 224

Typical Physical Characteristics

Test	Temp	Units		Typical Results								
Viscosity Grade ISO	-	-	-	68	100	150	220	320	460	680	1000	
Density	20°C	g/mL	ASTM D-1250	0.88	0.88	0.882	0.883	0.888	0.889	0.889	0.91	
Viscosity Kinematic	40°C	cSt	ASTM D-445	68	100	150	220	320	460	680	1000	
Viscosity Kinematic	100°C	cSt	ASTM D-445	8.52	11.1	14.5	18.7	23.9	30.3	39.2	45	
Viscosity Index	-	-	ASTM D-2270	95	98	95	95	95	95	95	99	
Timken Load	-	lb	ASTM D-2782	60	32	60	60	60	60	60	60	
Flash Point	-	°C	ASTM D-92	227	250	240	240	240	246	250	260	
Pour Point	-	°C	ASTM D-97	-24	-12	-24	-21	-21	-21	-18	-6	
Rust Prevention			ASTM D-665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
Copper Corrosion – Part B			ASTM D-130	1b max	1b max	1b max	1b max	1b max	1b max	1b max	1b max	
FZG Scuffing Load Test (A/8.3/90)			ASTM D-5182	>12	>12	>12	>12	>12	>12	>12	>12	
FAG-FE-8 Roller Bearing D7.5/80-80	80°C	mg	DIN 51819-3	<30	-	<30	<30	<30	<30	<30	<30	

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 authorized collection point. Do not discharge used or new oil into drains, soil or water.

Additional Information

- Technical advice on any applications not covered here may be obtained from your Puma Energy Representative.