



AGMA/EP Gear Oil

Industrial Extreme Pressure Gear and Rock Drill Oil

General Description

The AGMA/EP Gear Oil series of lubricants are special formula gear lubricants for heavy duty industrial gear sets as specified by the AGMA (American Gear Manufacturers Association).

AGMA/EP Gear Oils are formulated with premium high quality base oils to provide optimum load carrying capability, water separation and oxidation resistance. The additive system incorporated in this series of oils provides extreme pressure (EP) and anti-wear protection, superior oxidative and thermal stability, increased protection against rust and corrosion and excellent seal compatibility.

At the high localized temperatures achieved under heavy load conditions, the sulfur-phosphorus EP additive in AGMA/EP Gear Oils chemically reacts with the metal surfaces in order to prevent the welding, scoring and galling that may occur as the oil film is broken. By modifying the metal surfaces at contact in this manner, wear is reduced and gear life is extended.

AGMA Gear Oils are not to be used in automotive differential gear sets that require the use of API GL-5 rated gear oils, and are not food-grade products.

Several viscosity grades, as described in the typical properties section, have tackifier added to provide added adhesion for rock drill and pneumatic tool performance.

Features and Benefits

- **E.P. Performance:** Excellent extreme pressure properties reduce wear and maintenance costs where applicable.
- **Long Oil Life:** Enhanced oxidative and thermal stability lead to longer fluid life.
- **Rust and Corrosion Protection:** Superior rust and corrosion prevention leads to prolonged equipment life.
- **Seal Compatibility:** Excellent seal compatibility decreases degradation and swelling of seal materials.

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Typical Applications

Industrial gear sets calling for a premium industrial gear oil, with AGMA 250.04, AGMA 9005-F16 or U.S. Steel 224 performance, as well as enclosed gear drives including spur, helical, double helical or “herringbone” and straight bevel types.

Worm gear sets that are comprised entirely of steel, or ferrous, components typically accept an AGMA style of gear oil readily. Worm gear sets that contain copper, brass, bronze, or other red and yellow metal alloys generally should not use an AGMA style of gear lubricant.

This product is suitable for splash, chain or ring oil delivery as well as for circulation, or pump delivery.

Typical Customers

Owners and operators of:

- Enclosed gear sets, such as industrial plants
- Rock drill equipment
- Pneumatic tools

Typical Properties

AGMA Grade	1EP	2EP	3EP	4EP	5EP	6EP	7EP	8EP
Rock Drill Grade			Medium	Med/Hvy	Heavy	Ex.Hvy		
ISO VG	46	68	100	150	220	320	460	680
API Gravity / lbs./gal.	31.0	31.4	30.1	29.3	28.4	27.7	27.0	25.9
Viscosity @ 100°C, cSt	6.80	9.1	11.8	15.3	19.3	25.4	31.5	38.0
Viscosity @ 40°C, cSt	45.70	69.3	104.1	150.4	230.6	336.1	467.8	650
Viscosity Index	102	106	102	103	95	98	98	95
Flash Point, °F	420	420	425	430	435	435	440	
Pour Point, °F / °C	-33/-36	-22 / -30	-22 / -30	-22 / -30	+10 / -12	+16 / -9	+32 / 0	+16 / -9

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

Health & Safety

A complete safety data sheet is available by calling 1-651-355-8438 or visit cenex.com/sds-library.