



Syncon[®] Premium EP Gear Oil

Syncon Premium EP Gear Oil is a premium quality, synthetic, extreme-pressure gear lubricant specifically recommended for lubricating the heavily loaded enclosed gears and rolling-element bearings found in General Electric wheel motors used in mining haul trucks. It also is recommended for use in enclosed industrial gearboxes operating under extreme-temperature conditions.

Syncon Premium EP Gear Oil is formulated with synthetic polyalphaolefin (PAO) base oils, a non-chlorinated extreme-pressure additive and select inhibitors. It has outstanding oxidation resistance and thermal stability at high temperatures to help minimize deposit formation and provide long service life. It has high load-carrying capacity to protect against scuffing and wear, and protects against rust, corrosion and foaming.

Syncon Premium EP Gear Oil meets the performance requirements of General Electric Transportation Systems Specification D50E27. It is approved for use in GE AC and DC electric wheel motor gearboxes found in Caterpillar, Komatsu, Terex, Euclid and Hitachi mining haul trucks.

Applications

- GE motorized wheels found in mining haul trucks
- Enclosed industrial gearboxes operating at very high or very low temperatures, or operating continuously at higher than normal operating temperatures⁽¹⁾
- Heavily loaded plain and rolling-element bearings operating under extreme temperatures
- Applications where the manufacturer recommends a synthetic EP gear oil

Syncon Premium EP Gear Oil meets the requirements of the following industry and OEM specifications:

- ANSI/AGMA Standard 9005-E02
- Cincinnati Machine P-59 (ISO VG 320), P-35 (ISO VG 460), P-34 (ISO VG 680)
- DIN 51517 Part 3, Lubricating Oils, Type CLP HC
- GE Specification D50E27
- German Steel Industry SEB 181226, Type CLP HC
- ISO 12925-1:1996, Type L-CKC
- Joy Machinery TO-SHEP (ISO VG 320)
- U.S. Steel 224

**Synthetic PAO-
Based
Extreme-Pressure
Gear Lubricant For
GE Wheel Motors**

Contact Information

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Service:
1-800-822-6457**

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⁽¹⁾ **Note:** *Syncon® Premium EP Gear Oil is not recommended for use in worm gear drives with bronze-on-steel gears, or in automotive differentials with hypoid gears.*

Features/Benefits

- Outstanding oxidation resistance and thermal stability at high temperatures
- Outstanding low-temperature properties
- High load-carrying capacity
- Protects against scuffing and wear
- Protects against rust and corrosion
- Non-chlorinated additive system
- Suitable for year-round use
- Extended service intervals compared with conventional mineral oil-based gear oils

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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Syncon® Premium EP Gear Oil

Typical Properties

ISO Grade	320	460	680
AGMA Grade	6 EP	7 EP	8 EP
Specific Gravity @ 60°F	0.877	0.881	0.885
Density, lbs/gal @ 60°F	7.31	7.34	7.38
Color, ASTM D1500	1.0	1.0	1.0
Flash Point (COC), °C (°F)	238 (460)	238 (460)	238 (460)
Pour Point, °C (°F)	-34 (-30)	-32 (-25)	-26 (-15)
Viscosity,			
cSt @ 40°C	320	460	680
cSt @ 100°C	29.0	37.0	48.0
SUS @ 100°F	1,682	2,432	3,619
SUS @ 210°F	142	180	233
Viscosity Index	123	122	121
Acid Number, ASTM D974, mg KOH/g	0.40	0.40	0.40
Copper Corrosion, ASTM D130	1b	1b	1b
Foam Test, ASTM D892	Pass	Pass	Pass
Four-Ball EP, ASTM D2783, Weld Load, kgf	250	250	250
Four-Ball Wear, ASTM D4172,			
Scar Diameter, mm	0.36	0.36	0.36
FZG Scuffing Test, ASTM D5182, Failure Load Stage	>12	>12	>12
Oxidation Stability, ASTM D2893,			
Viscosity Increase @ 100°C, %	<4	<4	<4
Precipitation Number, ASTM D91, ml	Trace	Trace	Trace
Rust Test, ASTM D665 A&B	Pass	Pass	Pass
Timken OK Load, ASTM D2782, lb	>60	>60	>60

Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.

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