



LUBRICANTS

Syncon® Premium EP Gear Oil

Phillips 66® Syncon Premium EP Gear Oil is a premium quality, synthetic, extreme-pressure gear lubricant specifically recommended for lubricating the heavily loaded gears and rolling-element bearings in motorized wheel gearboxes found on mining haul trucks. It also is recommended for lubrication of enclosed industrial gear drives operating in severe service.

Syncon Premium EP Gear Oil is formulated with synthetic polyalphaolefin (PAO) base oils, advanced extreme-pressure additives and select inhibitors. It has outstanding oxidation resistance and thermal stability at high temperatures to minimize deposit formation and provide long service life. It has high load-carrying capacity to protect against scuffing and wear, protects against rust and corrosion, and is resistant to excessive foaming that can interfere with proper lubrication.

Syncon Premium EP Gear Oil meets the performance requirements of General Electric Transportation Systems Specification D50E35. It is approved for use in GE AC and DC electric motorized wheel gearboxes found on Komatsu, Terex, Euclid and Hitachi mining haul trucks.

Applications

- GE motorized wheels found on mining haul trucks
- Enclosed industrial gear drives 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 at extreme temperatures
- Applications where the equipment manufacturer recommends a synthetic extreme-pressure gear oil

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

- ANSI/AGMA Standard 9005-E02, Anti-Scuff/Anti-Wear (EP) Oils
- DIN 51517 Part 3, Lubricating Oils, Type CLP HC
- GE Specification D50E35
- German Steel Industry SEB 181226, Type CLP HC
- ISO 12925-1:1996, Type L-CKC
- Joy Machinery Specification TO-SHEP (ISO VG 320)
- U.S. Steel 224

⁽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.

**Synthetic PAO-
Based Extreme-
Pressure Gear
Lubricant for
GE Motorized
Wheels**

**KEEPING THE
WORLD
RUNNING
SMOOTHLY.**





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 to conventional mineral oil-based gear oils

Syncon® Premium EP Gear Oil

Typical Properties			
ISO Grade		320	680
AGMA Grade		6 EP	8 EP
Specific Gravity @ 60°F	ASTM D4052	.854	.856
Density, lbs/gal @ 60°F	Calculated	7.11	7.13
Flash Point (COC), °C (°F)	ASTM D92	>232 (>450)	>232 (>450)
Pour Point, °C (°F)	ASTM D97	-54 (-65)	-45 (-49)
Viscosity	ASTM D445		
cSt @ 40°C		329	706
cSt @ 100°C		43.0	80.5
Viscosity Index	ASTM D2270	187	198
Acid Number, mg KOH/g	ASTM D664	0.9	0.9
Copper Corrosion, 3 hrs @ 100°C	ASTM D130	1b	1b
Rust Test	ASTM D665 A/B	Pass	Pass
Oxidation Stability, Viscosity Increase @ 121°C, %	ASTM D2893	2.86	3.50
FZG Scuffing Test, Failure Load Stage	ASTM D5182	>14	>14
FAG FE8 wear, roller, mg	DIN 51813	13	13
FZG Micropitting, 90°C, GF class		High	High

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/SDS>.