



Compounded Gear Oil

Phillips 66® Compounded Gear Oil is a high-quality, compounded lubricant developed for the lubrication of industrial and automotive worm gear drives operating at moderate to high temperatures, and for the lubrication of steam engine cylinders and valves.

Compounded Gear Oil is formulated with heavy paraffinic base oils compounded with acidless tallow (fatty oil). It has high film strength and excellent oiliness characteristics for effective lubrication of worm gears. It emulsifies with water to maintain excellent lubricity in the presence of steam and moisture to protect and lubricate cylinder and valve surfaces in steam engines.

Applications

- Industrial worm gear drives made with non-ferrous alloys (bronze-on-steel)
- Differentials on antique automobiles that require a high-viscosity, compounded gear oil
- Steam engine cylinders and valves
- Bearings on steam-heated calender or mixer rolls
- Screw-down bolts and nuts on aluminum and steel rolling mills
- Heavily loaded, low-speed bearings subject to moisture contamination
- Cylinders of gas compressors handling wet natural gas
- Applications where an SAE 140, SAE 190 or SAE 250, API GL-2 gear oil is specified

Compounded Gear Oil meets the following industry specification(s):

- AGMA 9005-F16 Compounded Lubricants (CP)

Features/Benefits

- Excellent lubricity for protection of sliding surfaces against scuffing
- High film strength
- Emulsifies with water to resist washing
- Good oxidation resistance and thermal stability
- Protects against rust and corrosion
- Non-corrosive to bronze or brass

Compounded Worm Gear & Steam Cylinder Lubricant





Compounded Gear Oil

Typical Properties			
ISO Grade	460	680	1000
AGMA Grade (obsolete)	7 Comp	8 Comp	8A Comp
AGMA Classification	CP	CP	CP
SAE Grade	140	190	250
Specific Gravity @ 60°F	0.894	0.909	0.924
Density, lbs/gal @ 60°F	7.45	7.57	7.69
Color, ASTM D1500	7.0	8.0	8.0
Flash Point (COC), °C (°F)	>300 (>572)	>300 (>572)	>300 (>572)
Pour Point, °C (°F)	-8 (18)	-5 (23)	0 (32)
Viscosity			
cSt @ 40°C	460	680	1,000
cSt @ 100°C	31.0	37.0	45.0
SUS @ 100°F	2,463	3,687	5,481
SUS @ 210°F	152	181	219
Viscosity Index	97	89	84
Acid Number, ASTM D974, mg KOH/g	0.20	0.20	0.20
Copper Corrosion, ASTM D130	1a	1a	1a

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/EN/products/Pages/MSDS.aspx>.