



Orelube®

**technical
information**

GL GEAR OILS

HEAVY DUTY INDUSTRIAL EP GEAR OILS

Description

Orelube GL Gear Oils are EP gear oils designed for industrial gear lubrication. Their superior oxidation and thermal stability will minimize viscosity increase and sludge formation at higher operating temperatures.

GL Gear Oils are formulated using highly-refined, hydrotreated, high VI paraffin base oils with a special additive package that helps to minimize the temperature rise in heavily-loaded bearings and gear sets. Their high load carrying ability greatly reduces wear -- they meet or exceed a 60 lb Timken OK load test.

GL Gear Oils are non-corrosive to gear and bearing materials such as steel, copper, bronze, babbitt or cadmium nickel. The lower viscosity grades have low pour points which make them suitable for use in gears and bearings exposed to winter weather.

Applications

GL Gear Oils are used in a wide variety of industrial and mobile equipment, enclosed gear systems, chain drives, sprockets, plain and roller bearings, slide guides, flexible couplings, cams and open chains.

They provide exceptional lubrication of enclosed gear drives and reducers from fractional horsepower gear motors to large high horsepower units on metal rolling mills and mine hoists with a wide variety of gears including spur, bevel, herringbone and worm.

They are recommended for the lubrication of industrial hypoid-type gears, for gears subjected to shock loading, for transmission gear cases and worm drive axles on mobile contractor-type equipment, open pit and underground mining machinery.

They can be used with bath, splash, circulating and spray-type lubrication systems.

GL Gear Oils exceed U.S. Steel 224 and American Gear Manufacturers Association (AGMA) 250.04 and 251.02 specification requirements.

Typical Properties

GL Gear	68	100	150	220	320	460	680
ISO Grade	68	100	150	220	320	460	680
AGMA #	2EP	3EP	4EP	5EP	6EP	7EP	8EP
Viscosity, ASTM D-445							
cSt @ 40 C	64.8	99.6	145.3	215.1	315.2	455.4	644.5
cSt @ 100 C	8.3	11.1	14.3	18.6	23.9	30.4	36.2
Flash Point, F	410	425	430	435	445	450	460
Pour Point, F	-25	-20	-15	-10	-5	0	+5
Foam Test, ASTM D-892 Seq. 1, 2 and 3	0/0	0/0	0/0	0/0	0/0	0/0	0/0
Rust Test, ASTM D-665 A and B	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Copper Corrosion, ASTM D-130 3 hrs @ 100 C	1a	1a	1a	1a	1a	1a	1a
4-Ball EP, ASTM D-2783							
Weld load, kg	250	250	250	250	250	250	250
Load wear index, kg	45	45	45	45	45	45	45
Timken EP Test, ASTM D-2782 OK Load, lbs	60	60	60	60	60	60	60
4-Ball Wear Test, ASTM D-4172 1200 rpm, 40 kg, 167 F, 1 hr scar diameter, mm	0.30	0.30	0.30	0.30	0.30	0.30	0.30
FZG Gear Test, 12 stages	Pass	Pass	Pass	Pass	Pass	Pass	Pass

