



**THE
GOOD
STUFF**

Industrial Gear Oil

Kendall® Industrial Gear Oil is a premium quality, heavy-duty, extreme pressure (EP) industrial gear oil developed for the lubrication of heavily loaded enclosed gear drives operating under moderate to severe service conditions. It is specially formulated with “clean gear” additive technology to minimize deposit formation and provide excellent gearbox cleanliness. It is recommended for use in all applications where the equipment manufacturer specifies an AGMA EP gear oil.

Industrial Gear Oil is formulated to provide extreme-pressure and anti-wear properties, excellent deposit control, protection against rust and corrosion, and resistance to foaming. It has high load-carrying capacity for protection against scuffing and wear. It has excellent oxidation resistance and thermal stability at high temperatures to minimize sludge and varnish formation, and provide long service life. It protects gears and bearings against rust and corrosion. It has excellent water-separating properties to minimize the formation of emulsions, and is resistant to excessive foam buildup that can interfere with proper lubrication.

Applications

- Enclosed industrial gear drives operating under heavy loads, high peak loads, or intermittent shock loads
- Enclosed spur, bevel, helical, herringbone, and planetary gear sets where the equipment manufacturer specifies an AGMA EP gear oil
- Heavily loaded plain and rolling-element bearings

Industrial Gear Oil meets the requirements of the following industry specifications:

- ANSI/AGMA Standard 9005-E02, Anti-Scuff/Anti-Wear (EP) Oils
- DIN 51517 Part 3, Lubricating Oils, Type CLP
- Fives Cincinnati P-77 (ISO VG 150), P-74 (ISO VG 220) (approved)
- German Steel Industry SEB 181226, Type CLP
- ISO 12925-1:1996, Type L-CKC
- U.S. Steel 224

Features/Benefits

- High load-carrying capacity for protection against scuffing and wear
- Excellent oxidation resistance and thermal stability
- Excellent deposit control for gearbox cleanliness
- Protects against rust and corrosion
- Fast water separation
- Quick foam release

**Premium
Extreme-
Pressure
Industrial Gear
Oil; Formulated
with “Clean
Gear” Additive
Technology**



Industrial Gear Oil

Typical Properties			
ISO Grade	68	150	220
AGMA Grade	2 EP	4 EP	5 EP
Specific Gravity @ 60°F	0.877	0.884	0.887
Density, lbs/gal @ 60°F	7.30	7.36	7.39
Color, ASTM D1500	3.0	4.0	4.5
Flash Point (COC), °C (°F)	235 (455)	243 (469)	252 (486)
Pour Point, °C (°F)	-33 (-27)	-33 (-27)	-27 (-17)
Viscosity, Kinematic			
cSt @ 40°C	68.0	150	220
cSt @ 100°C	8.7	14.4	18.4
SUS @ 100°F	353	789	1,166
SUS @ 210°F	55.5	77.3	94.2
Viscosity Index	99	93	92
Acid Number, ASTM D974, mg KOH/g	0.73	0.73	0.73
Copper Corrosion, ASTM D130	1a	1a	1a
Foam Test, ASTM D892, Seq. I, mL	0/0	0/0	0/0
Four-Ball EP, ASTM D2783, Weld Load, kgf	200	250	250
Four-Ball Wear, ASTM D4172, Scar Diameter, mm	0.30	0.30	0.30
FZG Scuffing Test, ASTM D5182, Failure Load Stage	>12	>12	>12
Timken OK Load, ASTM D2782, lb	65	70	70

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>.

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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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