



Gear Oils

WISE Gear Oils are designed to meet or exceed OEM and equipment requirements for their respective SAE grades and API classifications. In addition to excellent performance, these gear oils are formulated from environmentally responsible, renewable, non-GMO agricultural plant resources.

We believe Earth's environmental future rests in the use of renewable materials.

E.P. Gear Oil

E.P. (Extreme Pressure) Gear Oils are designed to meet and exceeds the U.S. Steel 224, AGMA 250.04, DIN 51517, Part 3, David Brown DB S1.53.101, and Cincinnati Milacron E.P. performance requirements. E.P. Gear Oils are recommended for lubricating spur, helical, bevel, and worm gear configurations which are subject to heavy loading or shock loading and are designed for heavy-duty applications. The formulas have combined energy conserving agricultural and synthetic base stocks with mild E.P./antiwear additives. The result is an Ultimately Biodegradable¹ product which has the long life heat stability but which additionally offers the protection advantages of increased gear life through extremely high film strength during operating temperatures. E.P. Gear Oils are environmentally responsible lubricants that are formulated from renewable agricultural plant resources.

**Typical
Specifications &
Features**

Industrial Grade Replacement		Light		Medium Light	Medium	Heavy-Medium	
ISO grade Replacement	46	68	100	150	220	320	460
AGMA Replacement	E.P. 1	E.P. 2	E.P. 3	E.P. 4	E.P. 5	E.P. 6	E.P. 7
API Gravity @ 60°F. (D-287)	28.90	27.50	25.2	25.7	25.2	25.3	24.3
Pounds/Gallon @ 60°F.	7.35	7.42	7.53	7.55	7.53	7.52	7.56
Specific Gravity @60°F. (D-287)	0.882	0.890	0.903	0.90	0.903	0.90	0.908
VISCOSITIES:							
@100°C., cSt. (D-445)	8.26	11.84	14.5	20	24.1	34	49
@40°C., cSt. (D-445)	41.73	65.37	86.3	131	166	252	382
Viscosity Index (D-2270)	178	179	175	175	177	182	194
Flash Point, COC, °C (D-92)	260	272	288	288	280	280	280
Pour Point, °C (D-97)	-34	-30	-25	-22	-20	-18	-12
Copper Corrosion 3hr @ 100°C (D-130)	1A	1A	1A	1A	1A	1A	1A
4-Ball Wear (D-4172)	.30	.30	.30	.30	.30	.30	.30
4-Ball EP Weld Point (kg)	250	250	250	250	250	250	250
4-Ball EP Load Wear Index	47.86	47.86	47.86	47.86	47.86	47.86	47.86
FZG Test (DIN 51517)	12	12	12	12	12	12	12
Demulsibility (D-2711)	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Foam Sequence I, II, III (D-892)	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Rust Prevention (D-665)	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Timken Load, OK Load (lbs) (D-2782)	70	70	70	70	70	70	70
Biodegradation classification	Ultimate	Ultimate	Ultimate	Ultimate	Ultimate	Inherent	Inherent

- (1) Energy Conserving Formulas. Because of the super high viscosity index (VI) of the stability base stocks, these products are lighter therefore more energy efficient at room temperatures up to 40 C but provide a more protective heavier viscosity than mineral based formulas at operating temperatures of 60 C and above.
- (2) Super high viscosity index provides wider temperature performance
- (3) Fortified with additives to resist wear, oxidation, rust and foam
- (4) More fire resistant and improved heat dissipation

This product is based on a proprietary and patented anti-oxidant, anti-wear, and cold flow technology. Base stocks are non-GMO agricultural vegetable oils. This stabilized technology provides high performance in high and low temperature applications, reducing oil thickening and deposits.

¹ Ultimate Biodegradation (Pw1) within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants. Passes Fish and Game LC-50 toxicity test

To Order

Fax to 831-728-1753 or call 800-491-9473 for Customer Service
Visit www.wisesolutions.net or Email sales@wisesolutions.net

**Available Size
Container**

5 gal. Pail	55 gal. Drum	330 gal. Tote

Quantity (min.)



Performance Biolubricants and Colloidal Cleaners

Food Grade Gear Oil (NSF H1, H2)

ISO-46, SAE 30,
API GL-3

Typical Specifications



Nonfood Compounds
Program Listed (H1, H2)
(Registration #140521)

Food Grade¹ (FG) Gear Oil is for gear drives and right angle gear drives commonly used in food processing equipment; this oil is essentially odorless and tasteless. These gear sets do not require Hypoid level of extreme pressure and because of this, the lubricant most commonly specified by makers of these gear reducers is an R&O or GL-3 type circulating oil.

WISE Solutions patented formula has improved performance over conventional products in terms of thermal shear and fluid film (viscosity index). This super high viscosity index allows this product to be energy conserving in the startup mode and provide improved load protection, reducing wear, during operation. It is highly inhibited against moisture and rusting in both fresh and seawater and passes both A and B Sequences of the ASTM D-665 Turbine Oil Rust Test. This product also provides double the oxidation stability over the US Steel 127 test requirement of 125 minutes and shows excellent performance in ASTM D-1401 Turbine Oil Demulsibility with a rating of 40/40/0 in ten minutes. WISE FG Gear Oil has stabilized base stock technology combined with specialized, food grade mild EP/anti-wear additives that exceed the load stage 10 in the FZG (DIN51354) requirements for both turbine oils and reduction gears. The result is a patented Food Grade product with long life heat stability and the protection advantages of the mild EP and antiwear of an API "GL-3" type gear lube.

API Gravity @ 60°F (D-287)	28.6
Pounds/Gallon @ 60°F	7.36
Specific Gravity @60°F (D-287)	.8838
VISCOSITIES:	
@100°C, cSt. (D-445)	9.31
@40°C, cSt. (D-445)	45.01
Viscosity Index (D-2270)	196
Flash Point, °C (D-92)	240.5°C, 465°F
Pour Point, °C (D-97)	-21
Copper Corrosion (D-130) 3hr @ 100°C	1B
Acid Number (D-974)	1.04
Demulsibility (D-1401) 10 minutes	40/40/0
Foam Sequence I, II, III (D-892) 10 minutes	0 Foam
Rust Prevention, (D-665 A&B)	Pass Clean
4 Ball Wear (D-4172), 1h, 167°F, 1200 RPM, 40kg	.34
Shell 4-Ball EP Test (D-2783)	
Weld Load/Load Wear Index	160-200/47
Timken OK Load Test (D-2782), 'OK' Load (lbs)	33/35
FZG Test (DIN 51517)	11
Rotary Bomb Oxidation Stability (D-2272)	250 minutes

- (1) API Service Classifications for ashless GL-1, GL-2, GL-3
- (2) Super high viscosity index and low pour point for wide temperature usage
- (3) Fortified with food grade additives to resist wear, oxidation, rust and foam

This product is based on a proprietary and patented anti-oxidant, anti-wear, and cold flow technology. Base stocks are non-GMO agricultural vegetable oils. This stabilized technology provides high performance in high and low temperature applications, reducing oil thickening and deposits.

¹ Base oils and additives in this product are listed in 21 CFR 178.3570, Lubricants for incidental food contact (USDA H-1). Full compliance with other applicable restrictions of FDA, USDA, oil spill, and oil pollution prevention statutes is recommended.

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80W90 Gear Oil

ISO-22, API GL-4

Typical Specifications

Gear Oil 80W90 is designed to meet the GL-4 requirements of spiral bevel transmission and moderate service hypoid gears. This formula combines stabilized high-oleic base stocks with synthetic base stocks and mild EP/antiwear additives. The result is an Ultimately Biodegradable¹ product which has the long life heat stability but which additionally offers the protection advantages of increased gear life through extremely high film strength and excellent low temperature performance. Gear Oil 80W90 is an environmentally responsible lubricant that is formulated from renewable, non-GMO agricultural plant resources.

We believe Earth's environmental future rests in the use of renewable material.

SAE Grade	80W90
API Gravity @ 60°F (D-287)	22
Pounds/Gallon @ 60°F	7.424
Specific Gravity @60°F (D-287)	0.92
VISCOSITIES:	
@100°C, cSt. (D-445)	19.2
@40°C, cSt. (D-445)	121
Viscosity Index (D-2270)	180
Flash Point, °C (D-92)	280
Pour Point, °C (D-97)	-30
Copper Corrosion Strip 3hr @ 100°C (D-130)	1A
4 Ball Wear, 1h, 167°F, 1200 RPM, 40kg (D-4172)	.30
FZG Test (DIN 51517)	12
Demulsibility (D-2711)	Pass
Foam Sequence I, II, III (D-892)	Pass (0 foam)
Rust Prevention (D-665)	Pass

- (1) API Service Classifications GL-3, GL-4
- (2) Super high viscosity index and low pour point for wide temperature usage
- (3) Fortified with additives to resist wear, oxidation, rust and foam
- (4) Exceeds U.S. Steel and AGMA wear and EP performance

This product is based on a proprietary and patented anti-oxidant, anti-wear, and cold flow technology, providing high performance even in high and low temperature applications, reducing oil thickening and deposits.

¹ Ultimate Biodegradation (Pw1) within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants.

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