



PRODUCT DATA SHEET



WORM GEAR OIL

Worm Gear Oil, commonly known as Bel-Ray HP Worm Gear Oil, is a high performance, metal free, non-Extreme Pressure lubricant used where a hardened steel worm typically engages a bronze gear. It is also suitable in many other heavily loaded enclosed gear applications. Its excellent anti-wear protection and corrosion resistance extends the life of worm gears. **Worm Gear Oil** is chemically compounded for worm gear service where AGMA 7 and 8 compounded oils are recommended or specified.

Applications

- ◆ Worm gears for steel on bronze gear drives where a compounded oil is specified
- ◆ Heavily loaded enclosed gear drives requiring an ISO 460 and 680 oil
- ◆ For intermediate operating temperature gear drives

Features and Benefits

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|------------------------|---|
| ◆ High load capacity | Ensures critical worm gear interface tolerances, extending gear life and reducing downtime. |
| ◆ High stability | Extended service life, reducing lubricant costs and waste generation. |
| ◆ High Viscosity Index | Reduced volatility, can be used for intermediate temperatures up to 108°C (225°F), where the high cost of synthetics is difficult to justify. |

General Description

Worm Gear Oil is formulated with a highly refined paraffinic oil specifically selected for its high Viscosity Index and natural lubricity, providing an extremely low coefficient of friction. It is chemically compounded with state-of-the-art “zero shear” polymeric film enhancers meeting AGMA 7 and 8 compound specifications, as well as additives to inhibit rust, foam and corrosion for worm gear protection.

Product No. 11000, 11010

BEL-RAY® WORM GEAR OIL

TYPICAL PROPERTIES

<u>Product No.</u>	<u>11000</u>	<u>11010</u>
ISO Viscosity Grade	460	680
SAE Gear Oil Grade	140	140
Former AGMA Number	7	8
Viscosity, ASTM D445		
@ 40°C, cSt	461	686
@ 100°C, cSt	30.7	43.5
Viscosity, ASTM D2161		
@ 100°F, SUS	2470	3678
@ 210°F, SUS	151	211
Viscosity Index, ASTM D2270	96	104
Copper Strip Corrosion, ASTM D130		
3 hrs @ 100°C, rating	1a	1a
Rust Test, ASTM D665, Procedure A & B	Pass	Pass
Falex EP Test, ASTM D3233 Method B		
Non-seizure Load, lbf	2000	2000
4-Ball Wear Test, ASTM D4172		
@ 1200 rpm, 40 kg, 1 hr, 75°C		
Scar diameter, mm	0.35	0.35
Flash Point, ASTM D92		
°C	293	293
(°F)	(560)	(560)
Color	Amber	Amber