



# PRODUCT DATA SHEET



---

## 100 GEAR OIL EXTREME PRESSURE GEAR OIL

**100 Gear Oil Extreme Pressure Gear Oil**, commonly known as Bel-Ray 100 Gear Oil, is an excellent extra heavy-duty, enclosed gear oil formulated for all types of gearing. It provides Extreme Pressure and anti-wear properties, excellent demulsibility, and exceeds manufacturers' specifications. **100 Gear Oil Extreme Pressure Gear Oil** has a 45-year history of component life extension. It boasts 100 pound Timken OK Load, 12 loading stages of the FZG Test, and 4500 pounds on the Falex EP Test. Grades ISO VG 460, ISO VG 1000, ISO VG 1500 are certified for Caterpillar SD4721 Part A Specification for dragline enclosed gear case lubricant. Grades ISO VG 150, ISO VG 220 are Bosch Rexroth approved.

### *Applications*

---

- ◆ Industrial and process equipment, including enclosed gear cases and circulating systems, where an Extreme Pressure gear oil is recommended or required
- ◆ Mining equipment - draglines, drills and shovels where heavy loads demand a higher viscosity; ISO Grades of 680, 1000 and 1500 are available

### *Features and Benefits*

---

- |                                             |                                                                                                    |
|---------------------------------------------|----------------------------------------------------------------------------------------------------|
| ◆ Friction modifiers                        | Provides a reduction in energy consumption, operating temperature and noise level.                 |
| ◆ Extreme Pressure and anti-wear protection | Maximizes component useful life helping to reduce replacement part costs and lost production time. |
| ◆ Bright red color                          | Assists in the detection of oil leaks. Promotes improved housekeeping and worker safety.           |

### *General Description*

---

**100 Gear Oil Extreme Pressure Gear Oil** is formulated with paraffinic base oils. It is blended with proprietary advanced generation Extreme Pressure and anti-wear additives and friction modifiers along with corrosion, rust, oxidation and foam inhibitors. **100 Gear Oil Extreme Pressure Gear Oil** provides maximum protection in an extremely cost-effective, high performance gear oil.

**Product No. 21600, 21420, 21440, 21470, 21480, 21500, 21520, 21530**

# 100 GEAR OIL EXTREME PRESSURE GEAR OIL

## TYPICAL PROPERTIES

<b><u>Product No.</u></b>	<b><u>21600</u></b>	<b><u>21420</u></b>	<b><u>21440</u></b>	<b><u>21470</u></b>
ISO Viscosity Grade	100	150	220	320
Previous Bel-Ray Name Grade	ISO 100	75/80	90	85W/140
SAE Gear Oil Grade	85W	80W-90	110	85W-140
Formerly AGMA Grade	3	4	5	6
Viscosity, ASTM D445				
@ 40°C, cSt	104	137	222	321
@ 100°C, cSt	11.5	14.1	19.2	24.4
Viscosity, ASTM D2161				
@ 100°F, SUS	543	718	1173	1708
@ 210°F, SUS	65.8	76.0	97.7	121
Viscosity Index, ASTM D2270	97	100	98	97
Pour Point, ASTM D97				
°C (°F)	-30 (-22)	-30 (-22)	-21 (-5)	-24 (-10)
Copper Strip Corrosion, ASTM D130				
3 hrs @ 100°C, rating	1b	1b	1b	1b
Rust Test, ASTM D665, Procedure A & B	Pass	Pass	Pass	Pass
Demulsibility, 1 hour, ASTM D1401				
Oil/water/emulsion, ml/ml/ml	40/40/0	40/40/0	40/40/0	40/40/0
Foam Test, ASTM D892, Sequence I, II, III	Nil	Nil	Nil	Nil
Falex EP Test, ASTM D3233				
Method A, Non-seizure Load, lbf	4500	4500	4500	4500
Method B, Non-seizure Load, lbf	3500	3500	3500	3500
4-Ball EP Test, ASTM D2783				
Weld Load, kg	400	400	400	400
Load Wear Index, kg	64	64	66	68
Timken EP Test, ASTM D2782				
OK Load, kg (lb)	45.4 (100)	45.4 (100)	45.4 (100)	45.4 (100)
FZG Visual Test, ASTM D5182				
Failure Load Stage	12+	12+	12+	12+
Color	Red	Red	Red	Red

# 100 GEAR OIL EXTREME PRESSURE GEAR OIL

## TYPICAL PROPERTIES

<b><u>Product No.</u></b>	<b><u>21480</u></b>	<b><u>21500</u></b>	<b><u>21520</u></b>	<b><u>21530</u></b>
ISO Viscosity Grade	460	680	1000	1500
Previous Bel-Ray Name Grade	140	200	250	350
SAE Gear Oil Grade	140	190	250	--
Formerly AGMA Grade	7	8	8A	9
Viscosity, ASTM D445				
@ 40°C, cSt	445	688	984	1402
@ 100°C, cSt	29.7	36.5	47.7	56.5
Viscosity, ASTM D2161				
@ 100°F, SUS	2384	3736	5364	7725
@ 210°F, SUS	146	178	232	275
Viscosity Index, ASTM D2270	95	87	92	87
Pour Point, ASTM D97				
°C (°F)	-8 (18)	-4 (25)	0 (32)	5 (41)
Copper Strip Corrosion, ASTM D130				
3 hrs @ 100°C, rating	1b	1b	1b	1b
Rust Test, ASTM D665, Procedure A & B	Pass	Pass	Pass	Pass
Demulsibility, 1 hour, ASTM D1401				
Oil/water/emulsion, ml/ml/ml	40/40/0	40/40/0	40/40/0	40/40/0
Foam Test, ASTM D892, Sequence I, II, III	Nil	Nil	Nil	Nil
Falex EP Test, ASTM D3233				
Method A, Non-seizure Load, lbf	4500	4500	4500	4500
Method B, Non-seizure Load, lbf	3500	3500	3500	3500
4-Ball EP Test, ASTM D2783				
Weld Load, kg	400	400	400	400
Load Wear Index, kg	69	73	75	75
Timken EP Test, ASTM D2782				
OK Load, kg (lb)	45.4 (100)	45.4 (100)	45.4 (100)	45.4 (100)
FZG Visual Test, ASTM D5182				
Failure Load Stage	12+	12+	12+	12+
Color	Red	Red	Red	Red