



Product Data

Castrol Optimol Optigear[®] BM

Description

Castrol Optimol Optigear[®] BM is a solid-free, high performance gear oil. Wear problems such as abrasion, surface fatigue (pitting), grey staining, or problems during the running-in phase are controlled. **Castrol Optimol Optigear[®] BM** contains **Microflux Trans[®]** which is an additive system that adjusts itself to changing loads and actively prevents wear.

Application

- Long-term lubrication in the most extreme mechanical conditions such as vibration and elevated temperatures.
- Spur and bevel gears, worm gears.
- All types of rolling and sliding bearings.
- Gear tooth couplings and articulations.
- Highly loaded sliding surfaces.
- Circulation Systems.
- Hypoid gears (API GL5/GL6).

Benefits and Qualities

- Increase in load carrying capacity (70-80% after run-in).
- Surface improvement via plastic deformation process.
- Reduced metal-to-metal friction.
- Reduced noise & operating temperature.
- Solids free.
- Unique additive system activated by load forming tribopolymers
- Extended lifetime of machine elements and wear parts, lower maintenance and labour costs by minimised wear and friction.
- Full load operation within the shortest time, virtually eliminating the running-in period.
- Lower costs for lubricants and waste oil disposal due to significant extensions of both service life and relubrication intervals.
- Energy savings due to reduced coefficient of friction, lower temperature of lubricant and componentry plus improvement in operating efficiency.
- Product consolidation, simplification and reduction of lubes and spare parts.
- Reduction of noise resulting from high frequency stick-slip.
- "Fill for Life" lubrication in some applications.

B PLD1425/00.

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Recommendations

- Miscible and compatible with mineral oil based unleaded gear oils. However, maximum performance is only guaranteed if not mixed with any other product.
- Compatible with ferrous and non-ferrous metals.
- Compatible with paints and conventional sealing materials.
- Mechanical cleaning with all known filtering installations and separators possible.
- For best results, preclean all compartments with Optimol Detergen System Cleaner by adding to old oil before draining.
- **Castrol Optimol Optigear® BM** gear oils exceed the requirements of DIN 51517 part 3 CLP, and AGMA250.04
- Use where overall operating costs need to be minimised.

All reasonable care has been taken to ensure that the information contained in this publication is accurate as of the date of printing. However, such information may, nevertheless, be affected by changes in the blend formulation occurring subsequent to the date of printing. Material Safety Data Sheets are available for all Castrol Industrial Australia Inc. products. The MSDS must be consulted for appropriate information regarding storage, safe handling and disposal of a product.

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Technical Data

	Unit	Value													Test method
		46	68	100	150	220	320	460	680	1000	1500	2200	3000		
Optigear [®] BM	-	46	68	100	150	220	320	460	680	1000	1500	2200	3000	-	
Article no.	-	-	05220	05200	05218	05202	05204	05206	05208	05212	05213	-	05214	-	
Colour	-	Reddish/Brown													visual
Base	-	Mineral Oil													-
ISO viscosity group	-	46	68	100	150	220	320	460	680	1000	1500	2200	3000	-	
Density at 15°C/9°F	g/cm ³	0.870	0.876	0.901	0.904	0.910	0.917	0.920	0.930	0.927	0.930	0.920	0.918	DIN 51757	
Kin.viscosity at 40°C/+104°F + 100°C/+212°F	mm ² /s	47 7	71.3 9.40	101 11.4	157 15.0	218 21.6	320 24.3	459 30.6	670 37.8	1000 50.0	1507 75.6	2200 92	3000 122.0	DIN 51562	
Viscosity Index	-	106	109	99	95	97	97	96	94	95	112	115	117	DIN ISO 2909	
Pour point	°C °F	-29 -20.2	-20 -4	-24 -11.2	-18 -0.4	-16 3.2	-15 5.0	-12 10.4	-9 15.8	-9 15.8	-3 26.6	-3 26.6	0 32.0	DIN ISO 3016	
Flash Point	°C °F	195 383	219 425	224 435.2	226 438.8	232 449.6	236 456.8	236 456.8	238 460.4	260 500	>240 >464	260 500	260 500	DIN ISO 2592	
Copper Corrosion Protection	-	← 1a →													ASTM D-130
Steel Corrosion Protection	-	← 0 - A →													DIN 51355
FZG test (8.3/90) Damage load stage	-	← > 12 →													DIN 51354 T.2
SRV [®] test run-test mode 5ae: Wear scar diameter Min.friction coefficient, μ Max.friction coefficient	Mm μ μ	0.63 0.03 0.130	0.63 0.03 0.130	0.63 0.03 0.130	0.85 0.03 0.130	0.85 0.03 0.130	0.85 0.025 0.130	0.85 0.025 0.130	0.85 0.025 0.130	0.85 0.025 0.130	0.85 0.025 0.130	.85 0.025 0.130	0.85 0.025 0.080	DIN E 51834	
Grey staining test: SK number	-	← > 10 →													FVA information sheet 54/1-IV

