



Product Data Sheet

OPTIMOL OPTIGEAR[®] SYNTHETIC A

Fully synthetic gear oils based on polyalphaolefin with MICROFLUX TRANS[®], the load-active additive combination

DESCRIPTION

OPTIMOL OPTIGEAR[®] SYNTHETIC A are fully synthetic high performance gear oils with MICROFLUX TRANS[®] additives. They offer optimum wear protection under very extreme thermal loads and operating conditions such as vibrations, oscillating motions and shock loads. The wide range of temperature - especially in case of low starting temperatures - and the high load carrying capacity are special assets of these industrial gear oils. Thermally and mechanically stable polyalphaolefin and the MICROFLUX TRANS[®] additive combination adjust themselves to the changing operating conditions and actively prevent wear.

APPLICATIONS

- For especially highly loaded industrial gears - in case of great changes in temperature and extreme loads
- For wind power stations, conveyor belts, crane control gears, lifts, rolling mills etc.
- For highly loaded eccentrics, gear couplings, chain drives, robot drives and joints as well as positive power transmissions
- For all types of rolling and sliding bearings, especially for tapered roller bearings in extruders, shaking screens, vibrators or for spindle presses
- For transport systems operated during winter
- Especially suited for arctic countries such as Canada, North America and Scandinavia

ADVANTAGES

- good viscosity/temperature behavior, wide range of operating temperature
- excellent low-temperature behavior, easy starting, good fluidity at extremely low temperatures
- optimum wear protection - smoothing of pitting and scoring
- especially low coefficient of friction leading to reduced friction and energy costs, lowering of oil temperatures
- significantly extended oil change intervals, reduced maintenance costs
- shear-stable
- high corrosion protection, compatible with non-ferrous metals
- compatible with conventional paints and sealing materials

NOTES FOR USE

- Observe the viscosity specified by the machine manufacturer.
- Miscible with all gear oils based on mineral oil.
- Maximum performance is only guaranteed if not mixed with any other product.



OPTIMOL OPTIGEAR[®] SYNTHETIC A

Technical data

	Unit	Value				Test method
		100	220	320	460	
OPTIMOL OPTIGEAR[®] SYNTHETIC A	-	100	220	320	460	-
Article no.	-	05238	05234	05236	05240	-
Color	-	dark brown				visual
Base	-	polyalphaolefin				-
ISO viscosity group	-	100	220	320	460	DIN 51519
Density at + 15°C/+ 59°F	kg/m ³	855	870	870	873.8	DIN 51757
Kin. viscosity at + 40°C/+ 104°F at + 100°C/+ 212°F	mm ² /s	98 13.8	210 23.5	330 33	463.2 44.50	DIN 51562
Viscosity index	-	140	140	140	151	DIN ISO 2909
Pour point	°C °F	- 45 - 49	- 36 - 32.8	- 36 - 32.8	- 30 - 22	DIN ISO 3016
Flash point	°C °F	220 428	220 428	220 428	204 399.2	DIN ISO 2592
Copper corrosion protection	-	1a	1a	1a	1a	ASTM D-130
SRV [®] test run - test mode 5 ae: 300 N/50°C/122°F/ball/surface/2h friction coefficient	μ	0.055	0.055	0.055	0.055	DIN E 51834
wear	mm	0.50	0.50	0.50	0.50	
a) ball/scar Ø b) profile depth Pt	μm	1.0	1.0	1.0	1.0	
FZG test A/16.6/140 Damage load stage	-	> 12				DIN 51354 intensified special test
Grey staining test: failure load number	-	← > 10 →				FVA information sheet No. 54 I-IV

1 mm²/s $\hat{=}$ 1cSt

These technical data are based on average test results. Minor deviations may occur from case to case.

For further product information please contact the Technical Service of Castrol Industrie GmbH.

Above data are based on extensive tests and practical experience. Considering the wide range of application requirements, they cannot, however, guarantee success in every single case. We therefore recommend practical trials. We reserve the right to change the product composition with a view to further improvement.