



## Product Data

# Castrol Optigear<sup>®</sup> Synthetic A

Fully synthetic gear oils based on polyalphaolefin with MICROFLUX TRANS<sup>®</sup>, the load-active additive combination.

### Description

**Castrol Optigear<sup>®</sup> Synthetic A** are fully synthetic high performance gear oils with MICROFLUX TRANS<sup>®</sup> additives. They offer optimum wear protection under 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<sup>®</sup> additive combination adjust themselves to the changing operating conditions and actively prevent wear.

### Performance Benefits

- 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

### Recommended Applications

- For especially highly loaded industrial gears – wide temperature swings and extreme loads
- For wind turbines, conveyor drives, crane gearing, lifts, rolling mills etc
- For highly loaded eccentrics, gear couplings, chain drives, robotic drives
- For all types of rolling and sliding bearings, especially for tapered roller bearings in extruders, vibrating screens.
- For conveyor systems operating during winter

### Notes For Use

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

### Castrol Industrial Americas

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# Product Data

## Typical Properties

	Unit	Value		
<b>Castrol Optigear® Synthetic A</b>	-	<b>220</b>	<b>320</b>	<b>460</b>
Color visual	-	←----- Dark brown -----→		
Base Fluid	-	←----- polyalphaolefin -----→		
ISO viscosity group, ASTM D-2422	-	220	320	460
Specific gravity @ 60°F, ASTM D-1298	-	.87	.87	.86
Kin. Viscosity @ + 40°C/+104°F @ + 100°C/+212°F, ASTM D 445 - 445	mm <sup>2</sup> /s	210	305	463.2
		23.5	30.5	44.50
Viscosity index, ASTM D - 2270	-	140	140	151
Pour point, ASTM D - 97	°C	-36	-36	-30
	°F	-33	-33	-22
Flash point, COC, ASTM D - 92	°C	205	205	205
	°F	428	399	399
Copper corrosion, ASTM D - 130	-	1a	1a	1a
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
a) ball/scar wear	mm	0.50	0.50	0.50
b) profile depth Pt (wear)	μm	1.0	1.0	1.0
FZG test A/16.6/140, DIN E 51354	-			
Damage load stage	-		> 12	
Grey staining („micro-pitting“) test: failure load stage	-	←----- 10 -----→		
1mm <sup>2</sup> /s ^= 1cSt				

Technical data is based on average test results. Minor deviations may occur from case to case.

Storage: Indoor or protected storage recommended. See technical bulletin for detail.

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 formulation occurring subsequent to the date of printing. Material Safety Data Sheets are also available for all Castrol Industrial North America products. The MSDS must be consulted for appropriate information regarding storage, safe handling, and disposal of a product.



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