

Castrol Optigear Range

High Performance and Long-term Gear Oils Based on Mineral Oil with MICROFLUX TRANS®

Description

Castrol Optigear™ are solid-free high performance gear oils for long-term or life-time lubrication. They exceed the performance of conventional gear oils or oils with solids even at high speeds and under difficult operating conditions. The additive combination MICROFLUX TRANS® adjusts itself to changing loads and actively prevents wear.

Application

- Long-term and life-time lubrication even when subjected to difficult mechanical conditions.
- Spur and bevel gears even under shock loads.
- All kinds of rolling bearings.
- Gear-tooth couplings.
- Drive units of rail borne vehicles.

Advantages

- Extraordinary load carrying capacity.
- Extremely extended operating period even under high loads and speed.
- Reduction of the coefficient of friction and temperature.
- Improvement of the surface quality.
- Smoothing of existing surface damage.
- Excellent corrosion protection.
- Reduced running-in period.
- Maximum operational reliability.
- Extended service life of gears.
- Reduced energy, maintenance and disposal costs.

Typical Characteristics

Name	Method	Units	32	46	68	100	150	220	320	460
Colour	Visual	-	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green	Dark Green
Base	-	-	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil	Mineral Oil
ISO Viscosity Grade	DIN 51519	-	32	46	68	100	150	220	320	460
Density at +15°C / +59°F	DIN 51757	kg/m ³	880	885	890	892	901	909	917	924
Kin. Viscosity at +40°C / +104°F	DIN 51562	mm ² /s	32.50	45.4	67.50	103.7	146.3	215.6	317.7	428.3
Kin. Viscosity at +100°C / +212°F	DIN 51562	mm ² /s	5.65	7.10	8.80	11.5	14.8	19.0	23.5	29.6
Viscosity Index	DIN ISO 2909	-	114	115	102	98	100	99	93	97
Pour Point	DIN ISO 3016	°C / °F	- 27 / - 16.6	- 27 / - 16.6	- 24 / - 11.2	- 24 / - 11.2	- 24 / - 11.2	- 21 / - 5.8	- 12 / 10.4	- 12 / 10.4
Flash Point	DIN ISO 2592	°C / °F	190 / 374	194 / 381.2	190 / 374	201 / 393.8	204 / 339.2	206 / 402.8	210 / 410	218 / 424.4
Copper Corrosion Protection	ASTM D-130	-	1b	1b	1b	1b	1b	1b	1b	1b
Steel Corrosion Protection	DIN 51355	-	0 - A	0 - A	0 - A	0 - A	0 - A	0 - A	0 - A	0 - A
FZG Test (A/ 16.6/90), Damage Load Stage	DIN 51354, intensified special test	-	> 12	> 12	> 12	> 12	> 12	> 12	> 12	> 12
SRV® test run - test mode 5ae: Wear Scar Diameter	DIN E 51834	mm	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
SRV® test run - test mode 5ae: min. friction coefficient μ	DIN E 51834	-	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070

Name	Method	Units	32	46	68	100	150	220	320	460
SRV® test run - test mode 5ae: max. friction coefficient μ	DIN E 51834	-	0.105	0.105	0.105	0.105	0.100	0.100	0.095	0.095
Grey Staining Test: SK number	FVA information sheet No. 54/I - IV	-	>10	>10	>10	>10	>10	>10	>10	>10

1 mm²/s = 1 cSt

User Advice

- Miscible and compatible with unleaded gear oils based on mineral oil. However, maximum performance is only guaranteed if not mixed with any other product.
- Compatible with paints and conventional sealing materials.
- Mechanical cleaning with all known filtering installations and separators possible.
- Do not use for self-locking differential gears and synchronized gears due to the given coefficient of friction.

Storage

All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing condition

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