



Optigear Synthetic RO

High-performance gear oil

Description

Optigear™ Synthetic RO is a special high-performance, long-term multigrade oil developed especially for gears used in rail traffic and mechanical engineering applications, with a view to extreme climate conditions and long-term use. The Microflux Trans additive combination is free of solid lubricants, adapts even to rapidly changing conditions and actively reduces wear – even under the most severe application conditions. Can be used in a very broad range of temperatures (no preheating needed in winter).

Application

All types of spur gear teeth, also under difficult load conditions.
Bevel gear units, including those with a large offset (hypoid) and heavy alternating loads.
All types of roller bearings, with heavy loads and low and high temperatures.
Dip lubrication at high numbers of revolutions, as well as injection and oil mist lubrication.

Advantages

- High pressure absorption and excellent wear protection
- Safe bearing lubrication in high- and low-temperature ranges
- High seizure load-bearing capacity
- Above-average application times – even under difficult conditions
- Reduction of friction coefficient and operating temperature
- Good corrosion protection
- Long service life for gears
- Exceeds requirements regarding wear protection in line with DIN 51517, part 3

Typical Characteristics

Name	Method	Units	RO 150	RO 220
			150	220
Colour	Visual	-	Green	Green
Density at 15°C/59°F	ISO 12185/ ASTM D4052/ DIN 51757	g/ml	0.86	0.87
Viscosity at 40°C/104°F	ISO 3104/ ASTM D445/ DIN 51562	mm ² /s	155	210
Viscosity at 100°C/212°F	ISO 3104/ ASTM D445/ DIN 51562	mm ² /s	19.0	22.5
Viscosity Index	ISO 2909/ ASTM 2270/ DIN ISO 2909	-	138	133
Pour Point	ISO 3016/ ASTM D97/ DIN ISO 3016	°C/°F	-39/-38	-36/-33
Flash Point	ISO 2592/ ASTM D92/ DIN 2592	°C/°F	230/446	240/464
FZG (A/16.6/90) Scoring Load Stage	DIN 51354	-	>12	>12
FZG (S-A10/16,6R/90)	-	-	Pass: GL 5	Pass: GL 5
SRV (300N/50°C), Ball Scar Diameter	-	mm	0.50	0.09

Subject to usual manufacturing tolerances.

Additional Information

Can be mixed with lead-free mineral gear oils in any mixing ratio, compatible in operations.

Full performance range only in undiluted application, however.

No influence on usual sealing materials or paint in gear casings.

Filtering (mechanical) does not result in any additive loss.

Not for synchronised gears or limited slip differentials due to low friction coefficients.

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14 Feb 2011

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