



## Product Data

# Castrol Tribol™ 800

Synthetic gear oils

### Description

Castrol Tribol™ 800 synthetic gear oils have been developed for the lubrication of heavily loaded gears, bushings and bearings which may operate over a broad range of temperatures from ambient to elevated temperatures (>80°C/176°F). They are particularly intended to extend the service life of both lubricant and machine parts where unusually high operating and oil reservoir temperatures are encountered.

The high performance characteristics of Tribol 800 are achieved with select polyalkyleneglycol (PAG) based synthetic fluids. They feature chemical and thermal stability, high viscosity index, water solubility, and compatibility with metals and elastomers most commonly used in machine construction.

The naturally high resistance to oxidation of the synthetic base fluid is further enhanced by inhibitors. Corrosion protection is very effective even in the presence of water. Also, a package of high performance additives acts in combination for superior anti-wear and Extreme Pressure (EP) performance. Exceeds the requirements of DIN 51517-3 and ISO 12925-1.

### Application

The Tribol 800 range is especially suited to reservoirs and circulation systems operating at high temperatures because of heat generated in severe service or high temperatures in the application. Castrol Tribol 800's are intended for all types of heavily loaded gears including spur, bevel and worm gears.

Although well suited for all types of gearing and bearings, the Tribol 800 range is particularly effective in controlling wear and reducing friction between sliding surfaces. In addition, they possess a high degree of affinity for cupric metal alloys.

### Advantages

- Shear stability - the synthetic base offers high viscosity index (VI) without the addition of VI improvers. In service, VI improvers can shear, lowering oil viscosity and reducing protection critical for gear sets and bearings. The naturally high VI of Castrol Tribol 800 assures full protection for components over a wide range of operating temperatures, speeds, and load conditions.
- Long life, extended drain intervals are possible because of the natural aging and oxidation resistance of the synthetic base fluid. Advanced Castrol Tribol lubrication technology forms friction-fighting, anti-wear films that can significantly reduce local operating temperatures as gear teeth or bearing surfaces come into contact.
- More protection for components in severe service. The extended EP performance of Tribol 800 offers protection beyond the capabilities of conventional petroleum oils.
- Wear protection under conditions of extreme temperature fluctuation and high loads.
- High efficiency and lower oil temperature, especially in worm gear units.
- High corrosion protection of cast and steel surfaces through special additive packages, even in the presence of water.
- Compatibility with non-ferrous metals through well-formulated synergistic additives.
- Potential energy savings as a result of a lower coefficient of friction.
- Reduction of maintenance costs as a result of significantly increased life of the lubricant.

### Additional Information

Tribol 800 synthetic gear oils are water soluble, so spills may be cleaned up with water. They are NOT compatible with mineral (petroleum) based lubricants. Condensation water may be absorbed without the damage of corrosion or a change in viscosity. Cleaning lubrication systems with a flushing oil or Tribol 800 prior to the first filling is recommended. To achieve long drain cycles and obtain the economic advantages, systems must be free of contaminants.

The Tribol 800 range is compatible with most seals including Viton A and nitrile or Buna N (NBR). 800's are NOT compatible with neoprene (polychloroprene) and butadiene seals - mixed polymers, styrenebutadienes, polystyrene, or methacrylates.

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## Technical data

	Unit	Value								Test method
		800/100	800/150	800/220	800/320	800/460	800/680	800/1000	800/1500	
<b>CASTROL TRIBOL® 800</b>	-									-
ISO viscosity groupe	-	100	150	220	320	460	680	1000	1500	DIN 51519
Density at + 15°C	kg/m³	1050	1056	1070	1074	1075	1075	1074	1060	DIN 51757
Kinematic Viscosity at + 40°C + 100°C	mm²/s	100 20	150 26	220 34	320 50	460 72	680 112	1000 152	1500 230	DIN 51550
Viscosity index	-	205	210	215	230	240	260	275	290	DIN ISO 2909
Flash point, COC	°C	280	280	290	290	290	290	300	290	DIN ISO 2592
Pour point	°C	- 42	- 36	- 33	- 30	- 30	- 27	- 24	- 12	DIN ISO 3016
Corrosion test, test A (dist. water)	-	0								DIN 51585
Copper corrosion test (3 hrs. @ 100 °C)	-	1a								DIN EN ISO 2160
Four ball weld load	N	1600/1800	1600/1800	1600/1800	1800/2000	1800/2000	1800/2000	1800/2000	2400/2600	DIN 51350-02
Four ball wear test Wear scar diameter	mm	0.27								DIN 51350-03-B
FZG test, (A/8.3/90), damage load stage	-	> 12								DIN 51354
FZG shock-load test (S-A10/16.6R/90) Scoring load stage		9								-
FZG micropitting test Micropitting load carrying capacity: high	-	10								FVA No. 54
Foam Sequence I Sequence II Sequence III	mls	0 50/0 0								ISO 51566

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