

Castrol Tribol 4541

Wide Temperature Range Grease

Description

High performance Castrol Tribol 4541 Wide Temperature Range Grease is a wide temperature lubricant designed to extend the service life of bearings when loads are moderate to heavy, temperatures are elevated and speeds are low to moderate. This grease matches the rugged service requirements associated with mills and plants producing engineered woods, primary metals, castings, cement, glass and paper.

The following performance characteristics were emphasized in the development of Tribol 4541:

- Synthetic base fluid for high-temperature stability and low-temperature mobility;
- Optimum viscosity base oil, ISO VG 150, to increase the load carrying capacity;
- Temperature stability to withstand elevated and intermittently high temperatures (dropping point over 260°C/500°F)
- Shear stability to match the anticipated service life of precision anti-friction bearings.

Tribol 4541 is part of Castrol Performance Lubricants' Eco-Solutions product offering. Formulated to address environmental concerns, it is free of lead, chlorinated solvents, barium, molybdenum and antimony.

Tribol 4541 meets NLGI Consistency Grade No. 1. The load-carrying and anti-wear Tribol 4541 capabilities exceed conventional complex greases. High performance is the result of chemical additives working synergistically with the synthetic base fluids.

Tribol 4541 can maintain a high degree of mobility in the work zone of a bearing for its anticipated service life without losing its original consistency. This critical physical property is due to the use of a highly stable, advanced lithium complex thickening system and special manufacturing techniques.

Tribol 4541 is formulated from premium synthetic base oils.

Premium components in the balanced additive package provide excellent oxidation resistance for very long service life at elevated temperatures.

Application

Tribol 4541 should be used when loads are moderate to heavy, temperatures are elevated (up to 232°C/450°F), and speeds are slow to moderate. Tribol 4541 can be used in anti-friction bearings, bushings and couplings. In addition, the combination of synthetic base fluids provides outstanding low temperature grease mobility.

Establish reapplication intervals by inspection. See Notes regarding temperatures and speeds.

Primary Metals including Steel - Use Tribol 4541 Wide near hot ingots, soaking pits, and reheat furnaces to lubricate pit cover carriages, mill stand screws, slipper couplings, roll bearings, manipulators and guide rolls for continuous casters.

Use Tribol 4541 to lubricate bearings that are exposed to both low and high temperatures. These applications include conveyors exposed to both low winter temperatures and the high temperatures associated with foundry and casting operations.

Paper and Forest Products – Use in areas exposed to high temperatures and/or outside winter temperatures.

Typical Characteristics

	Test Method	Unit	Value
NLGI Grade	-	-	1
Thickener Type	-	-	Lithium Complex
Base Fluid Type	-	-	Fully Synthetic
ISO Grade	-	-	150
Dropping Point	ASTM D-2265	°C/°F	260+/500
Specific Gravity	ASTM D-1298	-	0.8404
Worked Penetration	ASTM D-217	Mm/10	310-340
Mechanical Stability	points change, (ASTM D-217)	100K strokes	11
Oxidation, psi Loss	ASTM D-942	100 hrs	0.5
Water Washout 79°C/175°F	ASTM D-1264	% Loss	3.1
Rust Test	ASTM D-1743	-	Pass
Life Performance	ASTM D-3527	hrs	160
Timken OK Load	ASTM D-2509	kg/lb	29.5/65
Four Ball EP	ASTM D-2596	kg weld	250
Four Ball Wear	ASTM D-2266	mm Scar	0.6
Low Temp Torque @-40°C	ASTM D-4693	N-m	2.63
US Steel Mobility @-18°C	-	g/mn	129.6
Lincoln Ventmeter	-	PSI @-20°F	760
Leakage Tendency	ASTM D-4290	g	4
Oil Separation	ASTM D-1742	%	2.1
Oil Separation 30h, 300°F	FTM 312.2	Separated %	7.1
Oil Separation 30h, 300°F	FTM 312.2	Evaporated %	1.8
Oil Separation 30h, 300°F	-	Total %	8.9
Color	Visual	-	Red

Subject to Usual Manufacturing Tolerances.

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