



Tribol™ GR 4541 HT

Wide Temperature Range Grease

Description

High performance Castrol Tribol™ GR 4541 HT (previously called 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 GR 4541 HT:

- 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.

Application

Tribol GR 4541 HT 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 GR 4541 HT 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 GR 4541 HT 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 GR 4541 HT 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

| Name | Method | Units | Tribol GR 4541 HT |
|--|-----------------------------|--------------|-------------------|
| NLGI Grade | - | - | 1 |
| Colour | Visual | - | Red |
| Base Fluid Type | - | - | Fully Synthetic |
| ISO Grade | - | - | 150 |
| Specific Gravity | ASTM D1298 / ISO 3675 | - | 0.8404 |
| Worked Penetration | ASTM D217 | mm/10 | 310 - 340 |
| Mechanical Stability | points change ASTM D-217 | 100K strokes | 11 |
| Oxidation, psi Loss | ASTM D942 | 100 hrs | 0.5 |
| Rust test | ASTM D1543 | - | Pass |
| Water Washout 79°C / 175°F | ASTM D1264 | %Loss | 3.1 |
| Life Performance | ASTM D3527 | hrs | 160 |
| Timken OK load | ASTM D2509 | kg/lb | 29.5 / 65 |
| Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr) | ASTM D2266 | mm | 0.6 |
| Four Ball EP | ASTM D2596 | kg weld | 250 |
| Low Temp Torque @-40°C | ASTM D4693 | Nm | 2.63 |
| US Steel Mobility @ -18°C | - | g/mn | 129.6 |
| Lincoln Ventmeter | - | PSI @ - 20°F | 760 |
| Leakage tendency | ASTM D4290 | g | 4 |
| Oil Separation | ASTM D1742 | % | 2.1 |
| Oil Separation 30h, 300°F | FTM 312.2 | Separated % | 7.1 |
| | | Evaporated % | 1.8 |
| | | Total % | 8.9 |

Subject to usual manufacturing tolerances.

This product was previously called Tribol 4541. The name was changed in 2015.

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