

Castrol Tribol 4747/220-2

High-temperature grease

Description

CASTROL TRIBOL™ 4747 high-temperature grease with TGOA™ is a clear multi-service lubricant designed to extend the service life of bearings in heavy-duty applications and at elevated temperatures.

Because of the high base oil viscosity CASTROL TRIBOL 4747 provides a heavier oil film for applications at slower speeds, higher loads and/or higher temperatures.

The patented TGOA additive technology under those adverse conditions provides for an unsurpassed protection against friction and wear.

- CASTROL TRIBOL 4747 is formulated from a mixture of high-quality synthetic base oils (PAO & ester) and a lithium complex thickener.
- In addition to this it contains corrosion inhibitors and antioxidants for long service life.
- The load carrying, antiwear and friction reducing capabilities of CASTROL TRIBOL 4747 exceed conventional complex greases. High performance is the result of the TGOA additives which, under relatively high specific loads and related temperatures, promote a non-destructive smoothing of the surface roughness in the micro-range.
- The smoothing effect leads to an increase of the actual load carrying area and reduces friction.
- TGOA additives are very effective in protecting the machined surface of bearings during the critical “running-in” period.

Good bearing surfaces are essential for long bearing life. If, because of shock loads or stop-and-go operation, surface roughness peaks redevelop, the TGOA® additive package is automatically reactivated. Surface roughness is again smoothed and lubrication optimized.

Application

- CASTROL TRIBOL 4747 grease with TGOA is designed as a multi-service lubricant for heavy-duty applications of rolling and sliding bearings for temperatures up to 160°C (peak temperatures up to 180°C).
- CASTROL TRIBOL 4747 grease should be used when loads are moderate to heavy and speeds are slow to moderate.

Advantages

- CASTROL TRIBOL 4747 with TGOA offers increased load carrying capability due to higher viscosity base oils and surface smoothing as well as friction reducing properties of TGOA.
- The lithium complex thickener is characterized by its excellent working and shear stability.
- Excellent thermal stability (dropping point >250 °C).
- The TGOA additives ensure reduced wear, lowered operating temperatures as well as extended service life leading to decreased maintenance and repair costs.

Typical Characteristics

Test	Method	Unit	Value
CASTROL TRIBOL 4747	-	-	220-2
DIN classification	DIN 51502	-	KP HC E 2 P – 40
NLGI grade	DIN 51818	-	2
Thickener type	-	-	Lithium complex
Worked penetration	DIN ISO 2137	0.1 mm	265 - 295
Dropping point	ISO 2176	°C	> 250
Base oil properties			
Viscosity			
at + 40°C	DIN 51366	mm ² /s	220
at + 100°C			25.4
Viscosity index	ISO 2909	-	146
Flash point	ISO 2592	°C	280
Water resistance at 90°C, rating	DIN 51807/1	-	0
Oxidation stability			
Pressure drop			
after 100 h at 99°C	DIN 51808	hPa	< 250
after 300 h at 99°C			< 400
Copper corrosion, 100°C, 24 h, rating	DIN 51811	-	2
Emcor test	ISO 11007	-	0/0
Four ball wear test			
Wear scar diameter	DIN 51350-05-E	mm	< 0.7
SRV test	DIN 51834-02-S	μ	< 0.1
FAG-FE 9 test (A/1500/6000-150)	DIN 51821-02	-	passed
Flow pressure at			
- 20°C			225
- 30 °C	DIN 51805	hPa	340
- 35°C			450

1 mm²/s $\hat{=}$ 1cSt

Subject to usual manufacturing tolerances

Additional Information

- CASTROL TRIBOL 4747 grease with TGOA should not be mixed with greases using a different thickener.
- Lubricating intervals should be increased gradually after changing over to CASTROL TRIBOL 4747 to ensure complete removal of the previous lubricants and to use the TGOA additives to their full advantage. Their performance might be affected by residual greases containing solid lubricants!
- At peak temperatures of 180 °C relubrication intervals should be established by inspection.

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