Product Data

Tribol GR 4747/220-2 HT

High-temperature grease

Description

CASTROL TRIBOL™GR 4747/220-2 HT (previously named Tribol™ 4747/220-2) 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. The high base oil viscosity of CASTROL TRIBOL GR 4747/220-2 HT provides a heavier oil film for applications at slower speeds, higher loads and/or higher temperatures. The patented TGOA™ additive technology provides for an unsurpassed protection against friction and wear in the conditions above.

- CASTROL TRIBOL™ GR 4747/220-2 HT is formulated from a mixture of high-quality synthetic base oils (PAO & ester) and a lithium complex thickener.
- It contains corrosion inhibitors and antioxidants for long service life.
- The load carrying, antiwear and friction reducing capabilities of CASTROL TRIBOL GR 4747/220-2 HT exceed conventional complex greases. The 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 increases in actual load carrying areas and reduces friction.
- TGOA™ additives are very effective in protecting the machined surface of bearings during the critical “running-in” period.
- TGOA®’s additive package automatically reactivates to optimise lubrication and smooth rough surfaces when roughness peaks redevelop in shock load or stop-and-go operations. This is essential as good bearing surfaces mean bearing longevity.

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Application

- CASTROL TRIBOL™ GR 4747/220-2 HT 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™ GR 4747/220-2 HT grease should be used when loads are moderate to heavy and speeds are slow to moderate.

Advantages

- CASTROL TRIBOL™ GR 4747/220-2 HT 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 reduce wear at lowered operating temperatures as well as extended service life leading to decreased maintenance and repair costs.

Typical Characteristics

Name	Method	Units	Tribol GR 4747/220-2 HT
DIN Classification	DIN 51502	-	KP HC E 2 P -40
Thickener Type	-	-	Lithium complex
Worked Penetration	ASTM D217 / ISO 2137	0.1 mm	265 – 295
Dropping Point	ASTM D566 / ISO 2176	°C / °F	>250 / >482
Base Oil Viscosity @ 40°C / 104°F	ASTM D445 / ISO 3104	mm²/s	220
Base Oil Viscosity @ 100°C / 212°F	ASTM D445 / ISO 3104	mm²/s	25.4
Viscosity Index	ASTM D2270 / ISO 2909	-	146
Flash Point - open cup method	ASTM D92 / ISO 2592	°C / °F	280 / 536
Water Resistance	DIN 51807-1	Rating	0
Oxidation Stability - Rotating Pressure Vessel test (100h @ 99°C)	ASTM D942 / DIN 51808	pressure drop psi	<250
Oxidation Stability - Rotating Pressure Vessel test (300h @ 99°C)	ASTM D942 / DIN 51808	pressure drop psi	<400
Copper Corrosion (24 hrs,100°C / 212°F)	ASTM D4048	Rating	2
Emcor Test	ASTM D6138 / ISO 11007 / DIN 51802	Rating	0/0
Four Ball Wear test - Wear Scar Diameter	DIN 51350-5E	mm	<0.7
SRV Test	DIN 51843-02-S	µ	<0.1
FAG-FE 9 test (A/1500/6000-150)	DIN 51821-02	-	Passed
Flow pressure @ -20°C	DIN 51805	mBar	225
Flow pressure @ -30°C	DIN 51805	mBar	340
Flow pressure @ -35°C	DIN 51805	mBar	450

1 mm²/s ^ 1cSt Subject to usual manufacturing tolerances

User Advice

- CASTROL TRIBOL™ GR 4747/220-2 HT 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™ GR 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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