

Castrol Tribol 3020 Range

Fluid Greases with TGOA

Description

CASTROL TRIBOL™ 3020/1000 fluid greases with TGOA™ were designed for applications which require good pumpability of the lubricant and properties to withstand heavy loads. In gear units which are not sealed oil-tight and in large slow-speed bearings the CASTROL TRIBOL 3020/1000 greases provide for a sufficient lubricating film due to their high base oil viscosity.

The TGOA additive package outperforms all other EP and antiwear additives because of its unique action on frictional surfaces.

- CASTROL TRIBOL 3020/1000 have a lithium soap as thickener. The base oils are high-viscosity mineral oils forming a stable lubricant film to withstand high continuous loads, shock loads and vibrations.
- The TGOA additive package is activated by high specific loads and corresponding temperatures causing a chemical-physical reaction. This results in an equalization of surface roughness without creating abrasion.
- The results of the TGOA additives can be compared with a rolling process in the micro-range. The surface roughnesses are gradually leveled and smoothed.
- Through smoothing of the working surfaces, the loads are distributed over increasing areas and the actual load carrying areas are enlarged. During the running-in process, the TGOA additive package creates an optimum of smooth contact surfaces.
- If, because of shock loads, or stop-and-go operation, surface roughness peaks redevelop, the TGOA additives are automatically reactivated. Surface roughness is again equalized and lubrication optimized.
- Corrosion and oxidation inhibitors maximize effective rust protection and long life of the grease.
- CASTROL TRIBOL 3020/1000 meet NLGI consistency grades commonly available for these types of lubricants.

Application

- Typical applications for CASTROL TRIBOL 3020/1000 fluid greases are non-oil-tight gear units, rolling and sliding bearings, bushings, slides and general lubrication designed for fluid-grease lubrication.
- Operating temperatures range from -40°C to $+120^{\circ}\text{C}$.

Advantages

- Excellent pumpability in central lubrication systems.
- Repairing of damaged friction surfaces (roughness) due to the TGOA additives.
- Extended lubrication interval.
- Reduced wear and noise.
- Lowering of the operating temperatures.
- Low downtime thus reducing maintenance and repair costs.
- Due to their excellent adhesion, these greases offer an optimum sealing effect.

Typical Characteristics

Name	Method	Units	Tribol 3020/1000-1	Tribol 3020/1000-2	Tribol 3020/1000-0	Tribol 3020/1000-00	Tribol 3020/1000-000
DIN Classification	DIN 51502	-	KP1K-30	KP2K-30	GP0K-40	GP00K-40	GP000K-40
Thickener type	-	-	Lithium	Lithium	Lithium	Lithium	Lithium
Worked Penetration (60 strokes @ 25°C / 77°F)	ISO 2137 / ASTM D217	0.1 mm	310 - 340	265 - 295	355 - 385	400 - 430	445 - 475
Dropping Point	ISO 2176 / ASTM D566	°C/°F	>180/ >356	>180/ >356	>160/ >320	-	-
Base Oil Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	1000	1000	1000	1000	1000
Base Oil Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm ² /s	54	54	54	54	54
Water Resistance (90°C)?	DIN 51807	-	0	0	1	1	1
Oxidation Stability - Rotating Pressure Vessel test, 100hrs at 99°C?	ASTM D942	pressure drop psi	<4.4	<4.4	<7.3	<7.3	<7.3

Subject to usual manufacturing tolerances.

Additional Information

- CASTROL TRIBOL 3020/1000 should not be mixed with greases using a different thickener.
- CASTROL TRIBOL 3020/1000 greases exceed the minimum requirements for greases „G“ according to DIN 51826.
- Application may be made manually with grease guns or automatic dispensing systems, designed for the respective NLGI grades

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