



Product Data

Castrol Molub-Alloy[®] 894 LF

Elevated Temperature Grease

Castrol Molub-Alloy 894 LF (Lead Free) Elevated Temperature Grease is designed to function as a multipurpose grease for extensive periods at elevated temperatures. This grease is formulated from quality, high viscosity, petroleum oils that offer high film strength in elevated temperature applications. The combination of heavy oil and aluminum complex thickener produces grease that will not melt or drip even when occasionally exposed to extremely high temperatures.

Antiwear and load carrying characteristics of this high performance grease is enhanced by Castrol Molub-Alloy lubricating solids. Specifically treated and thoroughly dispersed in the grease, Castrol Molub-Alloy lubricating solids offer additional wear and load protection at higher temperatures.

Description

Castrol Molub-Alloy 894 LF Elevated Temperature Grease is manufactured from the highest quality components, carefully selected for their compatibility with Castrol Molub-Alloy lubricating solids.

A proprietary blend of lubricating solids of suitable grade and size are treated to increase their natural affinity for working metal surfaces. The blend of solids is completely dispersed to assure effectiveness throughout the full working life of the lubricant.

Rust and oxidation inhibiting characteristics are maximized for effective rust protection and long life of the grease.

Castrol Molub-Alloy 894 LF Elevated Temperature Grease is of a consistency between NLGI Grades No. 1 and No. 2.

Applications

Typical applications are low to moderate speed ball and roller bearings (See Notes), bushings, and general lubrication in steel, hot aggregate, mining, and chemical industries where conditions require dependable lubrication at moderately high temperatures.

The following guidelines for temperature use are suggested:

- Sustained operation up to 121°C/250°F
- Alternating exposure (as in oven conveyor bearings) up to 177°C/350°F

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- Brief peak exposure up to 232°C/450°F
- Reapplication intervals vary with conditions (See Notes).

Advantages

- Substantial increase in the service life of both parts and lubricant will result from the proper establishment of a protective film of Castrol Molub-Alloy lubricating solids. Reduced friction is most evident under boundary conditions. Benefits are most pronounced where frequent start-up, slow speeds, or high and unexpected loads are encountered.
- Product soilage due to lubricant dripping from overhead bearings is minimal because of the non-melting nature of the grease.
- Realistic energy savings are possible through a reduction in peak power demand during cold start-up.
- Overall savings are derived from the above and result from less labor and downtime, smoother, more efficient operation with longer parts life, and extended lubrication cycles.

Notes

Any petroleum base grease used in elevated temperature applications will need to be replenished while still pliable. Relubrication cycles must be based on experience and the most severe exposure in each application.

Castrol Molub-Alloy 894 LF Elevated Temperature Grease is not fully compatible with any other type of grease at temperatures over 121°C/250°F and softening may result.

Lubrication intervals should be increased gradually to remove previous lubricant completely and to establish a film of Castrol Molub-Alloy lubrication solids.

The heat resistant structure of this lubricant limits the use in high speed applications such as electric motors. **Castrol Molub-Alloy 894 LF Elevated Temperature Grease** has been used successfully in motor bearings where ambient temperatures are near or above 90°C/200°F. At lower ambient temperatures and high speeds, excess heat will be generated within the bearing.

For specific terms, conditions, warranty, and availability, refer to Castrol Performance Lubricants' Price List in effect at time of purchase.

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Typical Characteristics

NLGI Grade	*
Worked Penetration, ASTM D 217, mm/10	280-310
Thickener Type	Aluminum Complex
Dropping Point, ASTM D 2265, °C/°F	254/490
Base Fluid Properties:	
Viscosity, ASTM D 445, D 2161:	
@ 40°C, cSt	902
@ 100°F, cSt	62
@ 100°F, cSt/SUS	1036/4800
@ 210°F, cSt/SUS	64/300
Flash Point, ASTM D 92, °C/°F	238/460
Pour Point, ASTM D 97, °C/°F	-18/0
Oxidation Stability, ASTM D 942:	
Pressure drop @ 100 hrs, kPa/psi	14/2
Pressure drop @ 300 hrs, kPa/psi	55/8
Water Washout, ASTM D 1264:	
@ 79°C/175°F, % loss	6.9
Rust Prevention Properties, ASTM D 1743, rating	Pass
Emcor Rust Test, ASTM D6138, IP 220/85, rating	Pass
Worked Penetration, ASTM D 217, 100M Strokes, mm/10	309
% change from 60 strokes	3
Wheel Bearing Performance, ASTM D 1263:	
Leakage, grams	5.6
Deposits	None
Timken EP Test, ASTM D 2509, OK Value, kg/lbs	25/55
Four Ball EP Test, ASTM D 2596:	
Load Wear Index, kg	53
Weld Load, kg	315
Castrol Molub-Alloy Solids, Grade Classification	High Temperature

Subject to Usual Manufacturing Tolerances.

All reasonable care has been taken to ensure that this information is accurate as of the date of printing. Nevertheless, such information may be affected by changes in the blend formulation occurring subsequent to the date of printing. Material Safety Data Sheets are available for all Castrol products. The MSDS must be consulted for appropriate information regarding storage, safe handling and disposal of a product.

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