Mobil

# Mobiltemp SHC™ Series

Mobil Grease , Sweden

Grease

**Product Description**

Mobiltemp SHC™ Series products are supreme performance antiwear greases primarily intended for high temperature applications. They combine the unique features of polyalphaolefin (PAO) synthetic base fluids with those of an organo-clay, non-soap thickener. The excellent resistance to thermal/oxidative degradation provided by the PAO base, coupled with the excellent high temperature structural stability and high dropping point of the clay thickener result in outstanding high temperature greases. The wax-free nature of the synthetic base fluid and its high viscosity index also provide superior low temperature lubrication as well as excellent film protection at high temperatures.

Because the PAO base oil has low traction properties (compared to mineral oil), Mobiltemp SHC Series also offer the potential for energy savings through reduced friction and lower torque, and reduced temperatures in the load zone of rolling element bearings. The Mobiltemp SHC Series is available as three products: Mobiltemp SHC 32 is an NLGI 1 1/2 grade with ISO VG 32 base oil; Mobiltemp SHC 100 is an NLGI 1 1/2 grade with ISO VG 100 base oil; Mobiltemp SHC 460 Special is an NLGI 1/2 grade with ISO VG 460 base oil, plus molybdenum disulphide for extra wear protection.

The Mobiltemp SHC Series of greases is used in numerous high temperature applications, as well as applications where low temperature start-up or running torque is important. They provide excellent grease life at high temperatures and offer extended relubrication periods and energy savings potential. Clay greases may exhibit softening during prolonged storage.

Mobiltemp SHC Series greases have become the products of choice for many users, in many industries worldwide. Their reputation is based on very wide application temperature range, and their excellent overall performance.

**Features and Benefits**

The Mobil SHC brand of oils and greases are recognised and appreciated around the world for their innovation and outstanding performance. These molecular design PAO synthetic products, pioneered by ExxonMobil research scientists, symbolise the continuing commitment to using advanced technology to provide outstanding products. A key factor in the development of Mobiltemp SHC Series was the close contact between our scientists and application specialists with key Original Equipment Manufacturers (OEMs) to ensure that our product offerings would provide exceptional performance in the continually evolving industrial equipment designs.

Our work with equipment builders has helped confirm the results from our own laboratory tests showing the exceptional performance of the Mobiltemp SHC Series lubricants. These benefits include superb high temperature performance including thickener integrity and oxidation life with enhanced bearing protection and bearing life.

To combat high thermal exposure of the oil our product formulation scientists chose PAO synthetic base oils for Mobiltemp SHC Series oils because of their exceptional thermal/oxidative resistance potential. Our formulators used a special clay thickener to provide excellent structural stability and high dropping point. Mobiltemp SHC Series greases offer the following benefits:

| Features | Advantages and Potential Benefits |
|---|---|
| Outstanding high and low temperature performance | Reduced downtime and lower maintenance costs |
| Excellent resistance to oxidation and maintenance of grease structure at high temperatures | Extended service life with longer intervals between relubrication |
| Low coefficient of traction | Reduced energy consumption potential |
| Outstanding low temperature pumpability | Easier low temperature start-up and lower running torque |

| Features | Advantages and Potential Benefits |
|---|---|
| Very good antiwear protection | Extended bearing life, reduced unanticipated downtime |

**Applications**

Mobiltemp SHC greases offer excellent high temperature grease life, bearing protection and grease integrity along with excellent low temperature capability and good wear protection. Specific applications include:

For Mobiltemp SHC 32

- Sealed or re-packable ball and roller bearings
- Splines, screws and some enclosed gearing
- Extreme temperature applications with a recommended operating temperature range of -50º C to 180º C (with appropriate relubrication intervals).

For Mobiltemp SHC 100

- High speed bearings and thrust bearings where a wide temperature range is desired
- It is particularly suitable for use in electric motor bearings where operating conditions demand reduced friction, low wear and long service life
- Extreme temperature applications with a recommended operating temperature range of -50º C to 200º C (with appropriate relubrication intervals).

For Mobiltemp SHC 460 Special

- The presence of molybdenum disulphide makes it particularly suitable for the lubrication of sliding machine elements such as cams and ways, which are subject to long relubrication intervals, limited motion or shock loading.
- Oven conveyor or kiln bearings which are subject to high temperatures or cycling between high and normal temperatures
- Extreme temperature applications with a recommended operating temperature range of -40º C to 180º C (with appropriate relubrication intervals).

**Specifications and Approvals**

| This product meets or exceeds the requirements of: | 32 |
|---|---|
| DIN 51825:2004-06 - KP HC 1-2 K -50 | X |

**Properties and Specifications**

| Property | 100 | 32 | 460 SPECIAL |
|---|---|---|---|
| Grade | NLGI 1.5 | NLGI 1.5 | NLGI 0.5 |
| Thickener Type | Clay | Clay | Clay |
| Color, Visual | Light Brown | Red | Grey |
| Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D4048 | 1A | | 1A |
| Dropping Point, °C, ASTM D2265 | 308 | 308 | 285 |
| Four-Ball Extreme Pressure Test, Weld Point, kgf, ASTM D2596 | 200+ | 200+ | 250+ |

| Property | 100 | 32 | 460 SPECIAL |
|---|---|---|---|
| Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266 | 0.4 | 0.7 | 0.4 |
| Penetration, 60X, 0.1 mm, ASTM D217 | 280 | 315 | 325 |
| Viscosity @ 100 C, Base Oil, mm2/s, ASTM D445 | | 6.1 | |
| Viscosity @ 40 C, Base Oil, mm2/s, ASTM D445 | 100 | 32 | 460 |
| Viscosity Index, ASTM D2270 | | 141 | |

**Health and Safety**

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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