



## Mobiltemp™ Series

### Grease

#### Product Description

Mobiltemp™ Series greases are high performance clay-thickened products designed for the lubrication of plain and antifriction bearings operating at low speed and high temperature or under cycling conditions from ambient to high temperatures. These greases use a clay thickener, which, unlike traditional soap thickeners, do not soften at high temperatures. They are based on a high quality, high viscosity mineral oil and are specially formulated to provide: low volatility and excellent resistance to oxidation at high temperatures, resistance to water washout and good anti-wear performance under heavy loads and low speeds. Mobiltemp 1 and 78 are NLGI Grade 1 greases, and Mobiltemp 2 is an NLGI 2 Grade. Mobiltemp 78 also contains molybdenum disulphide for added anti-wear protection.

Mobiltemp Series greases are particularly suited for high temperature applications, and are very resistant to water or steam contamination. These greases have excellent resistance to changes in consistency under both high temperature and cyclic conditions of heating and cooling. Even with severe working under such conditions, they will not soften or harden significantly. Because they use low volatility base oils, these greases resist hardening when the grease is held at high temperatures for long periods. Mobiltemp Series greases have excellent resistance to water washing and, under humid conditions, can absorb about its own weight of water without any major change in structure or consistency. Mobiltemp Series have good flow properties and can be used with centralised grease systems down to 10°C, even with long distribution lines. With its additional anti-wear additization, Mobiltemp 78 is particularly suitable for the lubrication of sliding machine elements subject to limited or slow motion or shock loading.

With their excellent track record of superior performance in critical high temperature applications, Mobiltemp Series greases have become the products of choice for users around the world.

#### Features and Benefits

The Mobil brand of greases is well known and highly regarded worldwide based on their outstanding performance and the RandD expertise and the global technical support that stand behind the brand. The highly versatile performance of one series of lubricants in this family, the Mobiltemp Series, has made them the choice of many users around the world.

Mobiltemp Series greases enjoy an excellent reputation in the lubrication of high temperature applications where conventional soap thickened products are not viable. Close contacts with Original Equipment Manufacturers (OEMs) and end-users ensure that products such as the Mobiltemp Series will be available to meet critical application needs. The Mobil brand of greases is well known and highly regarded worldwide based on its outstanding performance and the RandD expertise and the global technical support that stand behind the brand.

Mobiltemp Series greases were designed specifically for difficult, high temperature applications, and offer the following advantages and potential benefits.

Features	Advantages and Potential Benefits
Excellent protection against wear at high temperatures	Reduced downtime and maintenance costs
Will not soften and leak from bearings	Extended intervals between relubrication
Very good resistance to water washout and steam	Maintains bearing protection and keeps equipment running even with gross water contamination
High stability under high temperature environments and temperature cycling conditions	Long product life under arduous conditions. Resists grease hardening and "frozen" bearings
Very good anti-wear properties	Protects equipment, even at low speed and under shock load, and reduces unexpected downtime

## Applications

Mobiltemp 1 and Mobiltemp 2 are recommended for the lubrication of plain and antifriction bearings or sliding machine elements in applications operating at low speeds and high temperatures or under cycling conditions from ambient to high temperatures. The grease will not soften and leak under high temperature conditions or harden excessively on cooling. The recommended operating temperature range is 0 to 170° C, with even higher temperatures for short periods, with appropriate relubrication intervals. Mobiltemp 78 is recommended for similar applications to Mobiltemp 1 but the presence of molybdenum disulphide makes it particularly suitable for the lubrication of sliding machine elements subject to long relubrication intervals, limited motion or shock loading. The recommended operating temperature range is 0 to 170° C. Specific applications for Mobiltemp greases include:

- Oven conveyor chain bearings
- Kiln car wheel bearings
- Glass manufacture conveyer belt roller bearings
- Cams, ways and other sliding machine elements (especially Mobiltemp 78)

## Typical Properties

Mobiltemp Series	Mobiltemp 1	Mobiltemp 2	Mobiltemp 78
NLGI Grade	1	2	1
Thickener Type	Clay	Clay	Clay
Color, Visual	Amber	Amber	Gray-Black
Penetration, Worked, 25°C, ASTM D 217	325	280	325
Dropping Point, °C, ASTM D 2265	300	300	300
Viscosity of Oil, ASTM D 445 cSt @ 40°C	460	460	460
cSt @ 100°C	31.7	31.7	31.7
Four Ball Wear, ASTM D 2266 Scar, mm	0.5	0.5	0.5
Four Ball EP, ASTM D 2596			
Weld Load, kg	200	200	200
Load Wear Index, kgf	50	50	50
Copper Strip Corrosion, ASTM D 4048	1A	1A	1A
Wet Roll Stability, ASTM D 1831 Mod., Penetration change, 0.1 mm	-60	-60	-60
Penetration Change, ASTM D 217, 60X to 100000X, mm/10	+50	+50	+50

## Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

The Mobil logotype, the Pegasus design, and Mobiltemp are trademarks of Exxon Mobil Corporation, or one of its subsidiaries.

1-2016

Exxon Mobil Corporation

22777 Springwoods Village Parkway  
Spring TX 77389

1-800-ASK MOBIL (275-6624)

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](http://www.exxonmobil.com). ExxonMobil is comprised of numerous affiliates and subsidiaries, many with names that include Esso, Mobil, or ExxonMobil. Nothing in this document is intended to override or supersede the corporate separateness of local entities. Responsibility for local action and accountability remains with the local ExxonMobil-affiliate entities.

Copyright © 2001-2016 Exxon Mobil Corporation. All rights reserved.