



Mobil Polyrex EP 2

Mobil Grease , United States

Multi-purpose Grease

Product Description

Mobil Polyrex EP 2 is a shear-stable polyurea grease with excellent extreme-pressure (EP) and load-carrying characteristics. The proprietary polyurea thickener : exhibits excellent resistance to oxidation and oil separation at operating temperatures as high as 160°C (320°F). With its outstanding high-temperature oxidation st load-carrying capability, shear stability, water resistance and wide operating temperature range, Mobil Polyrex EP 2 is an excellent multi-purpose grease for a wide of industrial and construction applications.

Features and Benefits

EXTREME-PRESSURE PROTECTION AND THERMAL STABILITY

Mobil Polyrex EP 2 contains a proprietary extreme-pressure (EP) additive package that provides load-carrying capability without degrading the thermal stability grease at high temperatures. Conventional sulfur- and phosphorus-base EP additives used in other multi-purpose greases begin to oxidize rapidly at temperatures 250°F. Mobil Polyrex EP 2, on the other hand, continues to provide a high level of wear and extreme-pressure protection up to 160°C (320°F) without rapid oxida the anti-wear or EP additives.

The outstanding high temperature lubrication life of Mobil Polyrex EP 2 is impressively demonstrated in the ASTM D 3336 grease life test - with an average ASTM life of 490 hours, 3 to 5 times better than the high-temperature lubrication life of competitive multi-purpose lithium-base greases.

SUPERB SHEAR STABILITY

The proprietary polyurea thickener system in Mobil Polyrex EP 2 exhibits excellent durability and stability when subjected to a mechanical shearing force. For exam the ASTM D 217 cone penetration test, the consistency of Mobil Polyrex EP 2 changed by approximately one NLGI grade after being worked for 100,000 strokes - to the performance of high-quality lithium-complex greases, which are the benchmark for excellent shear stability. By contrast, competitive polyurea greases cont shear-unstable thickener technology can soften by three NLGI grades under the same test conditions. Good mechanical shear stability is important in roller b applications where excessive grease softening may lead to grease leakage or purging from the bearing.

EXCELLENT WATER RESISTANCE

The Mobil Polyrex EP 2 formulation is enhanced with water-resistant polymers that enable it to form a tenacious protective film in applications that are l contaminated with water. The excellent results obtained for Mobil Polyrex EP 2 in the water washout (ASTM D 1264) and water spray-off (ASTM D 4049 demonstrate the grease's ability to stay in place, even in the presence of a pressurized water spray.

In summary, Mobil Polyrex EP 2 offers the following features and benefits:

- Outstanding high-temperature oxidation stability
- Excellent mechanical shear stability
- Thermally stable extreme-pressure (EP) protection
- Wide operating temperature range -20°C (-4°F) to 160°C (320°F)
- Exceptional resistance to water spray-off and water washout

Applications

Mobil Polyrex EP 2 is an excellent multi-purpose grease for a wide array of industrial and construction applications.

Typical Properties

Mobil Polyrex EP 2	
Thickener Type	Polyurea
NLGI Grade	2
Color	Green
Base Oil Viscosity, ASTM D 445	
cSt @ 40°C	235

Mobil Polyrex EP 2	
cSt @ 100°C	18.4
Mineral Oil Viscosity Index, ASTM D 2270	85
Penetration, ASTM D217 worked, 60x, mm/10	280
Penetration, ASTM D217 worked, 100,000, mm/10	310
Dropping Point, ASTM D 2265, °C (°F)	280 (535)
High Temperature Grease Life, ASTM D 3336, Hours @ 177°C	490
4-Ball Weld, ASTM D 2596, kg	500
4-Ball Wear Scar Diameter, @1200 rpm, 40kg, 75°C, 1 Hour, mm	0.4
Timken OK Load, ASTM D 2509, lb	45
Low Temperature Torque, ASTM D 4693, -40°C, Nm	12.2
Low Temperature Torque, ASTM D 1478, Torque @ Startup/1 Hour in gcm and -20C°	1600/180
Oil separation test, ASTM D 1742, %	<0.3
Water Spray-off, ASTM D 4049, %	15
Water Washout, ASTM D 1264, @ 79°C, %	2.7
Rust Protection, ASTM D 1743	Pass

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.as>

All trademarks used herein are trademarks or registered trademarks of Exxon Mobil Corporation or one of its subsidiaries unless indicated otherwise.

02-2023

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

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 entity.

ExxonMobil

Exxon

Mobil

Esso

XTO

© Copyright 2003-2024 Exxon Mobil Corporation. All Rights Reserved