



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>

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