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AFRIQ POLYREX EP 2

DESCRIPTION

Afriq Polyrex EP 2 is a shear-stable polyuria, multi-purpose grease with excellent extreme-pressure (EP) and load-carrying characteristics. The proprietary polyurea thickener system exhibits excellent resistance to oxidation and oil separation at operating temperatures as high as 350°F. With its outstanding high-temperature oxidation stability, load-carrying capability, shear stability, water resistance and wide operating temperature range, Afriq Polyrex EP 2 is an excellent multi-purpose grease for a wide array of industrial and construction applications.

APPLICATION

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

BENEFITS AND FEATURES

Excellent Water Resistance

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

Extreme-Pressure Protection and Thermal Stability

Afriq Polyrex EP 2 contains a proprietary extreme-pressure (EP) additive package that provides load-carrying capability without degrading the thermal stability of the grease at high temperatures. Conventional sulphur- and phosphorus-base EP additives used in other multi-purpose greases begin to oxidize rapidly at temperatures above 250°F. Afriq Polyrex EP 2, on the other hand, continues to provide a high level of wear and extreme-pressure protection up to 350°F without rapid oxidation of the anti-wear or EP additives.

The outstanding high temperature lubrication life of Afriq Polyrex EP 2 is impressively demonstrated in the ASTM D 3336 grease life test - with an average ASTM D 3336 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 Afriq Polyrex EP 2 exhibits excellent durability and stability when subjected to a mechanical shearing force. For example, in the ASTM D 217 cone penetration test, the consistency of Afriq Polyrex EP 2 changed by approximately one NLGI grade after being worked for 100,000 strokes - similar to the performance of high-quality lithium-



complex greases, which are the benchmark for excellent shear stability. By contrast, competitive polyurea greases containing shear-unstable thickener technology can soften by three NLGI grades under the same test conditions. Good mechanical shear stability is important in roller bearing applications where excessive grease softening may lead to grease leakage or purging from the bearing.

In summary, Afriq 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 (-40 F to 350 F)
- Exceptional resistance to water spray-off and water washout

TYPICAL PHYSICAL CHARACTERISTICS

Thickener Type	Polyurea
Color	Green
Mineral Oil Viscosity Index, ASTM D 2270	85
NLGI Grade	2
Penetration, ASTM D217 worked, 60x, mm/10	280
Penetration, ASTM D217 worked, 100,000, mm/10	310
Base Oil Viscosity, ASTM D 445	
cSt @ 40°C	235
cSt @ 100°C	18.4
Timken OK Load, ASTM D 2509, lb	45
Low Temperature Torque, ASTM D 4693, -40°C, Nm	12.2
Oil separation test, ASTM D 1742, %	<0.3
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
Water Spray-off, ASTM D 4049, %	15
Water Washout, ASTM D 1264, @ 79°C, %	2.7
Rust Protection, ASTM D 1743	Pass