

Mobil SHC Polyrex Series

High Temperature Synthetic Polyurea Greases

Product Description

The Mobil SHC Polyrex series of greases are specifically designed to improve your productivity by solving high temperature lubrication problems in both general industry and food processing applications. Developed using advanced Polyurea technology, these synthetic, polymer-enhanced greases bring a high temperature solution to the market while carrying a full NSF H1 registration.

The Mobil SHC Polyrex Series of greases are designed to offer a combination of high temperature performance, excellent water resistance, and the balanced wear performance consistent with Mobil grease products. Using advanced Polyurea thickener technology, ExxonMobil researchers developed a unique combination of synthetic oils that achieve excellent high temperature performance able to provide lubrication up to 170°C. Even at these extreme temperatures, Mobil SHC Polyrex resists oxidation and loss of structural stability allowing re-lubrication intervals to be extended while maintaining equipment protection. The carefully balanced combination of thickener, base oils, and additives yields a grease with excellent load carrying capabilities and rust protection. Mobil SHC Polyrex is also highly resistant to water and has excellent corrosion protection providing added protection to equipment in wet, humid environments and applications where water wash downs are frequent.

All Mobil SHC Polyrex greases are NSF H1 registered and meet the requirements of Kosher/Parve enabling their use in food processing applications in equipment that is both above and below the processing line as a high temperature and general purpose H1 grease.

Features and Benefits

The Mobil brand of oils and greases is recognized around the world for its innovation and outstanding performance. Mobil SHC Polyrex utilizes the advanced thickener technology of the Mobil Polyrex family of greases to deliver a high performance, problem solving product for some of industries' toughest lubrication problems. Mobil SHC Polyrex brings that performance to another level through the addition of a unique combination of synthetic oils, polymer enhancement and a balanced additive package that is geared to deliver solutions to tough lubrication problems.

| Features | Advantages and Potential Benefits |
|---|--|
| Outstanding high temperature performance, up to 170C. | Provides protection under harsh conditions and allows for extended re-lubrication or maintenance intervals. |
| Excellent load carrying capability | Reduced bearing wear under heavy loads |
| Excellent Water Resistance and corrosion protection | Reduces lubricant consumption and increase bearing protection where water wash downs are common. Reduced rust and corrosion extends equipment life. |

Applications

Application Considerations: While Mobil SHC Polyrex Series greases are compatible with many Polyurea and lithium complex greases, admixture may detract from their performance. Consequently it is recommended that



before changing a system to one of the Mobil SHC Polyrex greases, it should be thoroughly cleaned out to achieve the maximum performance benefits. While the Mobil SHC Polyrex greases share many performance benefits, their applications are best described in terms of each product grade:

- Mobil SHC Polyrex 005 is NLGI 00 grade grease specifically designed for use in central grease systems. The enhanced pump ability and low temperature mobility make it an ideal choice for grease systems subject to low ambient temperatures, such as those found in food processing freezers or in outdoor applications. Mobil SHC Polyrex 005 may also be used for the lubrication of enclosed gears where oil leakage may be a concern. Its recommended operating temperature range is -30 to 160 °C.
- Mobil SHC Polyrex 222 is a multi-purpose, NLGI 2 grease recommended for heavy-duty plain and anti friction bearings. It uses an ISO VG 220 synthetic base fluid. Mobil SHC Polyrex 222 has a recommended operating temperature range of -30° C to 160° C.
- Mobil SHC Polyrex 462 is NLGI 2 Grade grease with ISO VG 460 synthetic base fluid and is recommended for heavily loaded plain and antifriction bearings. It is also recommended for bearings where extreme temperatures are a concern such as steam heated rolls, exhaust fan bearings, felt roll bearings, and oven conveyor bearings. The recommended operating temperature range is -20C to 170°C.

Specifications and Approvals

| Mobil SHC Polyrex greases meet or exceeds the following industry specifications* | Mobil SHC Polyrex 005 | Mobil SHC Polyrex 222 | Mobil SHC Polyrex 462 |
|--|-----------------------|-----------------------|-----------------------|
| DIN 51825 (2004:06) | GPF00K-30 | KPF2P-30 | KPF2P-20 |
| NSF H1 Registration # | 141947 | 141946 | 139558 |
| Kosher/Parve | X | X | X |

Typical Properties

| Mobil SHC Polyrex Series | Mobil SHC Polyrex 005 | Mobil SHC Polyrex 222 | Mobil SHC Polyrex 462 |
|---|-----------------------|-----------------------|-----------------------|
| NLGI Grade | 00 | 2 | 2 |
| Thickener Type | Polyurea | Polyurea | Polyurea |
| Viscosity, ASTM D 445: | | | |
| cSt @ 40°C | 220 | 220 | 460 |
| cSt @ 100°C | 37 | 40 | 40 |
| Color | White | White | White |
| Penetration, Worked, 25 C, ASTM D 217, 0.1 mm | 415 | 275 | 280 |
| Dropping Point, ASTM D 2265, Deg C | ---- | 260 | 270 |
| Water Washout, 79 C, ASTM D 1264, % Wt. Loss | 37 | 7 | 5 |
| Water Spray-Off, ASTM D 4049, % Wt. Loss | ---- | 28 | 30 |
| 4-Ball Wear, ASTM D 2266, Scar, mm | 0.38 | 0.48 | 0.46 |
| 4-Ball Weld Point, ASTM D 2596, kg | 315 | 315 | 400 |
| Bearing Corrosion, ASTM D 1743, Rating | Pass | Pass | Pass |

| Mobil SHC Polyrex Series | Mobil SHC Polyrex 005 | Mobil SHC Polyrex 222 | Mobil SHC Polyrex 462 |
|---|-----------------------|-----------------------|-----------------------|
| EMCOR Rust Test, ASTM D 6138, Distilled Water, Rating | 0,0 | 0,0 | 0,0 |
| Wheel Bearing Leakage, ASTM D 4290, 160 °C, Grams Leakage | ---- | 1 | <1 |
| FE9, DIN 51821, Var. A, 160 Deg C, L50, Hours | ---- | 350 | >350 |
| Pumpability, USS DM-43, grams/minute @ -18 °C | 40 | 18 | 7 |

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.

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ExxonMobil Lubricants & Specialties

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