Mobil SHC Polyrex™ Series

High-temperature synthetic grease

Key benefits

- Long relubrication intervals even in harsh and high-temperature conditions
- Enhanced equipment life and reliability even in wet, steam-saturated and dusty environments
- NSF H1 registered for incidental food contact

Formulated with advanced polyurea thickener, Mobil SHC Polyrex™ Series greases deliver exceptional protection in a variety of industrial and food processing applications.

Operations rely on Mobil SHC Polyrex to help solve some of their toughest lubrication challenges through:

- **Excellent resistance to water washout**
- **High performance at temperatures up to 170°C (338°F)**
- **Minimized bearing wear under heavy loads**
- **Strong resistance to rust and corrosion**

Outstanding performance up to

170°C

Food-safe formulation

- NSF H1 registered
- Kosher/Parve approved
- Meets the requirements of FDA 21 CFR 178.3570
- Can help support food-safe production and processing through an HACCP (Hazard Analysis Critical Control Point) lubrication plan
- Manufactured in facilities registered to the stringent requirements of ISO 21469 and ISO 22000 food and beverage safety standards

Industrial Lubricants

Advancing Productivity™

Safety

Enhanced equipment reliability and long relubrication intervals help minimize the need for maintenance and the associated safety risks of employee-equipment interaction.

Environmental Care*

Long product life and enhanced equipment life help minimize waste and the need for disposal, which can limit operational footprint.

Productivity

Maximized equipment uptime, due to enhanced reliability and minimized maintenance, can help boost operational productivity.

*Visit mobil.com/industrial to learn how certain Mobil-branded lubricants may provide benefits to help minimize environmental impact.
Actual benefits will depend upon product selected, operating conditions and applications.

Mobil SHC Polyrex™ Series

Proofs of performance

Mobil SHC Polyrex™ 462 saves a German sugar beet processing plant US $23,000 annually.*

Situation

The product being used to lubricate the critical components of a steam dryer at continuously high temperatures of 150°C (302°F) in a humid environment was leading to excessive wear on sluice jaws and lubricating rings due to uncontrolled oil bleeding. Grease stiffening was causing a malfunction of magnetic valves of the centralized grease system.

Solution

Mobil SHC Polyrex 462 was used during an intense sugar campaign period. Inspection of the critical components showed no evidence of wear. The grease maintained its consistency, resulting in flawless operation of the centralized grease system. Mobil SHC Polyrex 462 was the only NSF H1 registered grease that performed under these severe conditions. By using Mobil SHC Polyrex 462, the plant stated it was able to save $23,000 annually in spare part and maintenance costs.

Mobil SHC Polyrex 462 saves a US global printing company US $33,900 annually.*

Situation

The printing company's Contiweb dryer was equipped with ¼" grease delivery lines and operated at slow speeds/high temperatures. The staff was having difficulty maintaining the dryer's fan bearings, and despite the use of several competitive greases, they still suffered from 16 bearing failures per year.

Solution

After analysis of the elastohydrodynamic lubrication parameters of the application and the dryer's grease delivery system, ExxonMobil engineers recommended use of Mobil SHC Polyrex 462 grease for excellent performance at temperatures as high as 170°C (338°F). After one year, use of Mobil SHC Polyrex 462 improved grease pumpability through the dryer's delivery lines and reduced bearing temperatures by as much as 15°F. According to the company, this helped eliminate bearing failures, resulting in $33,920 annual savings in bearing maintenance costs.

Typical properties†

Mobil SHC Polyrex Series	Mobil SHC Polyrex 005	Mobil SHC Polyrex 221	Mobil SHC Polyrex 222	Mobil SHC Polyrex 462
NLGI Grade	00	1	2	2
Thickener Type	Polyurea	Polyurea	Polyurea	Polyurea
Viscosity, ASTM D 445:				
40° C, mm^2/s	220	220	220	460
100° C, mm^2/s	30	30	30	40
Color	White	White	White	White
Penetration, Worked, 25° C, ASTM D217, 0.1 mm	415	325	280	280
Dropping Point, ASTM D2265, °C	260	270	260	270
Water Washout, 79° C, ASTM D1264, % Weight Loss	37	7	7	5
Water Spray-Off, ASTM D4049, % Weight Loss	----	----	28	30
4-Ball Wear, ASTM D 2266, Scar, mm	0.45	0.45	0.45	0.45
4-Ball Weld Point, ASTM D 2596, kg	400	400	400	400
Bearing Corrosion, ASTM D 1743, Rating	Pass	Pass	Pass	Pass
EMCOR Rust Test, Distilled Water, ASTM D6138, Rating	0,0	0,0	0,0	0,0
FE9 Grease Life, 160° C, DIN 51821-1, F50, Hours	----	200	>350	>350
Pumpability, -18° C, USS Mobility, g/minute	40	30	18	7

*This proof of performance is based on the experience of a single customer. Actual results can vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.

†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.