Mobil SHC™ Polyrex Series

Mobil Grease , Japan

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 also comply with Title 21 CFR 178.3570 by the Food and Drug Administration (USA) for lubricants with incidental food contact. Additionally, they meet the requirements of Kosher. Mobil SHC Polyrex Greases are manufactured in ISO 22000 certified facilities and in accordance with the hygiene and manufacturing principles of ISO 21469, supporting controlled production conditions and a high level of product integrity for food industry applications.

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
NSF H1 registered lubricants	Allows use in food and beverage packaging and processing applications
Manufactured in facilities registered to ISO 21469	Product integrity assurance through independent verification.
Outstanding high temperature performance, up to 170°C	Helps provide protection under harsh conditions and allows for extended re-lubrication or maintenance intervals.
Excellent load carrying capability	Helps reduce bearing wear under heavy loads
Excellent Water Resistance and corrosion protection	Helps reduce lubricant consumption and increase bearing protection where water wash downs are common.Helps reduce 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 an NLGI 00 grade grease specifically designed for use in central grease systems. The enhanced pumpability 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. The recommended operating temperature range for this product is –30 to 170º C.
- Mobil SHC Polyrex 221 is a multi-purpose, NLGI 1 grade grease specifically designed for use in heavy-duty plain and anti friction bearings. Mobil SHC Polyrex 221 has a recommended operating temperature range of -30° C to 170° C.
- Mobil SHC Polyrex 222 is a multi-purpose, NLGI 2 grease recommended for heavy-duty plain and anti friction bearings. Mobil SHC Polyrex 222 has a recommended operating temperature range of -30º C to 170º C.
- Mobil SHC Polyrex 462 is an NLGI 2 Grade grease recommended for heavily loaded plain and anti-friction 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 -20º C to 170º C.

Specifications and Approvals

This product has the following approvals:	MOBIL SHC POLYREX 005	MOBIL SHC POLYREX 221	MOBIL SHC POLYREX 222	MOBIL SHC POLYREX 462
Kosher & Parve	X	X	X	X

This product is registered to the requirements of:	MOBIL SHC POLYREX 005	MOBIL SHC POLYREX 221	MOBIL SHC POLYREX 222	MOBIL SHC POLYREX 462
This product has met the requirements of the NSF ISO 21469 cer tification for lubricants with incidental product contact.	X	X	X	X
NSF H1	X	X	X	X

This product meets or exceeds the requirements of:	MOBIL SHC POLYREX 005	MOBIL SHC POLYREX 221	MOBIL SHC POLYREX 222	MOBIL SHC POLYREX 462
DIN 51825:2004-06 - KPF HC 1 P -30		X		
DIN 51825:2004-06 - KPF HC 2 P -20				X
DIN 51825:2004-06 - KPF HC 2 P -30			X	
DIN 51826:2005-01 - GPF HC 00 K -30	X			
FDA 21 CFR 178.3570	X	X	X	X

Properties and Specifications

Property	MOBIL SHC POLYREX 005	MOBIL SHC POLYREX 221	MOBIL SHC POLYREX 222	MOBIL SHC POLYREX 462
Grade	NLGI 00	NLGI 1	NLGI 2	NLGI 2
Thickener Type	Polyurea Greases	Polyurea Greases	Polyurea Greases	Polyurea Greases
Color, Visual	White	White	White	White
Corrosion Prevention, Rating, ASTM D1743	Pass	Pass	Pass	Pass
Dropping Point, °C, ASTM D2265	260	270	260	270
FAG Roller Bearing Grease Test FE9, Shielded, 1500N, 600 0 rpm, 160 C, L50 hrs, DIN 51821 Variation B		200	>350	>350
Four-Ball Extreme Pressure Test, Weld Point, kgf, ASTM D2 596	400	400	400	400
Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266	0.45	0.45	0.45	0.45
Grease Mobility, -18 C, g/min, US Steel DM-43	40	30	18	7
Penetration, 60X, 0.1 mm, ASTM D217	415	325	280	280
SKF Emcor Rust Test, Distilled Water, Rating, ASTM D613 8	0,0	0,0	0,0	0,0
Viscosity @ 100 C, Base Oil, mm2/s, ASTM D445	30	30	30	40
Viscosity @ 40 C, Base Oil, mm2/s, ASTM D445	220	220	220	460
Viscosity Index, ASTM D2270	177	177	177	134
Water Sprayoff, Loss, %, ASTM D4049			28	30

Property	MOBIL SHC POLYREX 005	MOBIL SHC POLYREX 221	MOBIL SHC POLYREX 222	MOBIL SHC POLYREX 462
Water Washout, Loss @ 79 C, wt%, ASTM D1264	37	7	7	5

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.aspx

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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

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