Mobil Polyrex™ EM Series

Mobil Grease , Estonia

Electric Motor Bearing Grease

Product Description

Super-premium Mobil Polyrex™ EM Series greases are specially formulated for electric-motor bearings. The advanced thickener formulation and proprietary manufacturing techniques provide improved bearing performance and protection for long electric motor life.

Features and Benefits

Mobil Polyrex EM and Mobil Polyrex EM 103 offer the following features and benefits:

Features	Advantages and Potential Benefits
Outstanding grease life	Outstanding long-life, high-temperature lubrication of ball and roller bearings, particularly in sealed-for-life applications
Advanced polyurea thickener	Increased durability versus conventional polyurea greases when subjected to mechanical shear forces
Excellent corrosion resistance	Mobil Polyrex EM and Mobil Polyrex EM 103 provide protection against rust and corrosion.Mobil Polyrex EM provides additional protection under mild salt-water wash conditions versus Polyrex EM 103
Low-noise properties	Mobil Polyrex EM is suitable for lubrication of ball bearings in many noise-sensitive applications

Applications

Mobil Polyrex EM greases are recommended by many major bearing and electric motor manufacturers for long-life lubrication of electric motor ball and roller bearings.

Mobil Polyrex EM 103 is more specifically recommended for applications such as vertically mounted bearings, or very large motors where a stiffer grease consistency may be required by the OEM.

Mobil Polyrex EM greases have been shown to be compatible with a number of ExxonMobil lithium complex greases, as well as competitive electric motor mineral polyurea products, as determined by the methodology of ASTM D6185. For specific questions about grease compatibility, contact your Mobil representative.

Key applications include:

- Electric motor bearings
- Fin fan bearings
- High-temperature pump bearings
- Factory-filled, sealed-for-life ball bearings
- Ball or roller bearings operating at high temperatures where low oil separation is required
- Mobil Polyrex EM for ball or roller bearings operating in noise sensitive environments

Specifications and Approvals

This product meets or exceeds the requirements of:	MOBIL POLYREX EM
DIN 51825:2004-06 - K 2 P -20	X

Properties and Specifications

Property	MOBIL POLYREX EM	MOBIL POLYREX EM 103
Grade	NLGI 2	NLGI 3
Thickener Type	Polyurea	Polyurea
Color, Visual	Blue	Blue
Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D4048	1A	1A
Corrosion Preventive Properties, Rating, ASTM D1743	Pass	Pass
Dropping Point, °C, ASTM D2265	260	270
Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266	0.48	0.6
Low Temperature Torque, Running, -29 C, g-cm, ASTM D1478	405	910
Low Temperature Torque, Starting, -29 C, g-cm, ASTM D1478	3630	5840
Lubrication Life @ 177 C, h, ASTM D3336	750+	750+
Oil Separation, 0.25 psi, 24 h @ 25 C, mass%, ASTM D1742	0.5	0.1
Penetration, 60X, 0.1 mm, ASTM D217	285	250
Penetration, Change from 60X to 100,000X, 0.1 mm, ASTM D217	40	40
SKF Emcor Rust Test, 10% Synthetic Sea Water, ASTM D6138	0 , 1	
Viscosity @ 100 C, Base Oil, mm2/s, ASTM D445	12.2	12.2
Viscosity @ 40 C, Base Oil, mm2/s, ASTM D445	115	115
Viscosity Index, ASTM D2270	95	95
Water Washout, Loss @ 79 C, wt%, ASTM D1264	1.9	0.8

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

All trademarks used herein are trademarks or registered trademarks of Exxon Mobil Corporation or one of its subsidiaries unless indicated otherwise.

03-2026

.

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

ExxonMobil is comprised of numerous affiliates and subsidiaries, many with names that include Esso, Mobil, or ExxonMobil. Nothing in this document is intended to override or supersede the corporate separateness of local entities. Responsibility for local action and accountability remains with the local ExxonMobil-affiliate entities.

ExxonMobil

Exxon Mobil Esso

© Copyright 2003-2026 Exxon Mobil Corporation. All Rights Reserved