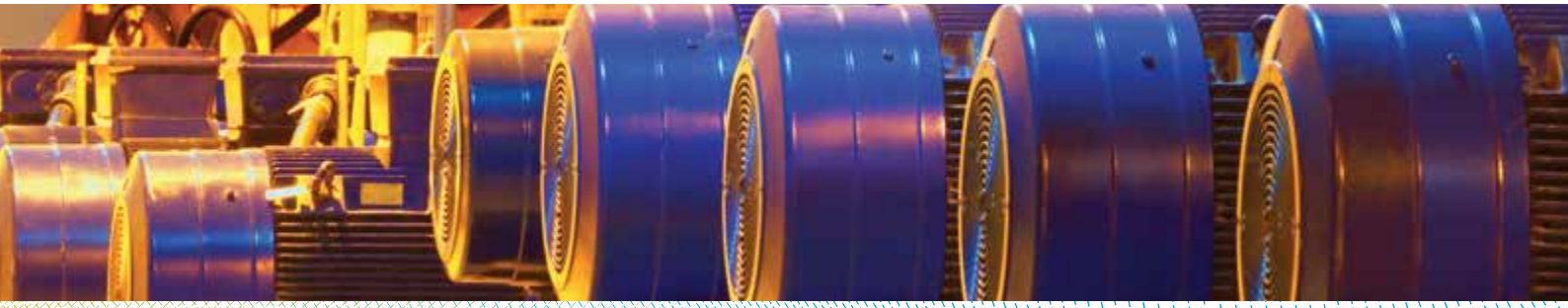
Performance profile

Mobil SHC™

Performance by ExxonMobil

Mobil SHC Polyrex™ 100 EM Series

Electric motor synthetic grease



Energy lives here™

Key benefits

Proven energy efficiency* benefits, which can help cut operational costs

Long relubrication intervals help minimize maintenance costs

Helps enhance electric motor life, which can limit equipment replacement costs

Up to

40%

improvement in bearing torque reduction

Mobil SHC Polyrex™ 102 EM is our first-ever grease with lab-proven, easily estimated energy efficiency benefits for electric motors.

By reducing bearing torque up to 40%, Mobil SHC Polyrex 102 EM synthetic grease can increase motor efficiency by up to 0.24% compared to our mineral-based grease. Formulated with advanced polyurea thickener, it can help provide:

- **High-temperature protection of ball and roller bearings**
- **Outstanding load-carrying capability**
- **Excellent rust and corrosion protection with uncompromised grease life**
- **Reduced motor bearing noise in noise-sensitive environments**

Specifications and approvals

Mobil SHC Polyrex 102 EM and Mobil SHC Polyrex™ 103 EM greases meet or exceed the requirements of DIN 51825.

Key applications include:

- Electric motor bearings
- Fan bearings
- High-temperature pump bearings
- Factory-filled, sealed-for-life ball bearings
- Ball or roller bearings operating at extreme high temperatures where low oil separation is required

energy efficiency

*The energy efficiency design is a trademark of ExxonMobil Corporation. The energy efficiency of Mobil SHC Polyrex™ 102 EM Grease is based on its performance compared to mineral oil-based Mobil Unirex™ N2 electric motor grease. The technology used reduces ball bearing torque up to 40%, depending on motor speed and under controlled conditions. The energy efficiency claim for this product is based on reducing motor bearing frictional losses, which are typically 0.6% of motor output. Efficiency gains will vary based on operating conditions, bearing design and applications.

Mobil SHC Polyrex™ 100 EM Series

Proven efficiency

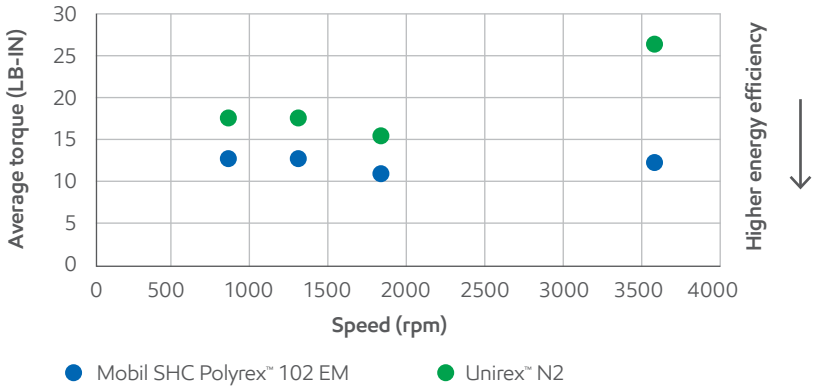
Energy efficiency

In bearing energy efficiency rig tests, during which laboratory staff collected 2 million data points, Mobil SHC Polyrex™ 102 EM grease demonstrates 17% to 40% lower torque, compared to our mineral-based grease.

Motor efficiency

By reducing bearing torque, Mobil SHC Polyrex™ 102 EM grease can increase motor efficiency by up to 0.24%.*

Speed (rpm)	Torque reduction by Mobil SHC Polyrex™ 102 EM	Increase in motor efficiency*
900	22.4%	0.13%
1300	17.0%	0.10%
1800	18.1%	0.11%
3600	40.0%	0.24%



Typical properties†

	Mobil SHC Polyrex 102 EM	Mobil SHC Polyrex 103 EM
NLGI Grade	2	3
Color	Light Blue	Light Blue
Base Oil Viscosity, ASTM D 445		
cSt @ 40°C	87	87
cSt @ 100°C	10.7	10.7
Viscosity Index, ASTM D 2270	108	108
Penetration, ASTM D217, 60x, mm/10	270	238
Penetration Change after 100,000 strokes, ASTM D217, mm/10	16	23
Dropping Point, ASTM D 2265, °C (°F)	253	269
4-Ball Wear Scar, ASTM D 2266, @ 40kg, 1200 rpm, 75°C, 1 hr, mm	0.39	0.60
Oil separation test, ASTM D 1742, %	0.4	0.0
Low Temperature Torque, ASTM D 1478, g-cm @ -29°C		
Starting	2210	3270
Running	297	313
Rust Protection, ASTM D 1743, Distilled Water	Pass	Pass
Copper Corrosion Resistance, ASTM D 4048	1A	1A
Water Washout, ASTM D 1264, %	1.0	0.4

Industrial Lubricants

Advancing Productivity™

Safety

Enhanced motor life and reliability helps minimize the need for maintenance and its associated safety risks.

Environmental Care‡

Long lubricant life can help minimize waste and the need for used grease disposal.

Productivity

Minimized corrosion and wear helps limit maintenance downtime, which can help enhance operational productivity.

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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. 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.

‡Visit mobilindustrial.com 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.

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