



UNIREX N

High Temperature Bearing Grease

Product Description

UNIREX N greases are premium-quality, lithium-complex products suitable for high-temperature service in rolling-element bearings. These versatile greases can be used in a wide range of industrial applications and are particularly recommended for electric-motor lubrication.

Unirex N 2 in an NLGI No. 2 grade and is preferred in most cases for application by hand packing or by grease gun. UNIREX N 3 is an NLGI No. 3 grade often used for special applications such as sealed-for-life electric motor bearings, vertically mounted bearings, and higher-speed applications. UNIREX N greases are not intended to be used under extreme pressure conditions where extra anti-welding properties are required.

UNIREX N 2 meets the requirements of Lubricating Grease DIN 51825 - K2N - 30L and ISO L-XBDHA 2.

UNIREX N 3 meets the requirements of Lubricating Grease DIN 51825 - K3N - 20 and ISO L-XBDHA 3.

Features and Benefits

Unirex N greases exhibit excellent high and low temperature performance, resistance to water and corrosion, and long service life in a range of bearing applications.

Features	Advantages and Potential Benefits
Excellent high-temperature performance	Lithium-complex thickener resists softening / running out of bearings at temperatures up to 190°C
Outstanding grease life	Laboratory bearing rig tests show outstanding continuous lubrication performance at bearing temperatures of up to 140° C
Very good low-temperature characteristics	Start-up power requirements are low at temperatures down to at least -20°C and may be suitable at temperatures down to -30°C in those applications where torque is not limiting. Meets DIN 51825 low temperature torque requirements at -20°C.
Excellent mechanical stability	Exhibits excellent resistance to softening due to mechanical working
Excellent water and corrosion resistance	Resists water washout and protects bearings against corrosion
Excellent performance in high-speed applications	Channelling characteristics provide excellent performance in high- speed deep-groove ball bearings. Unirex N3 is recommended where DmN (mean bearing diameter X rpm) exceeds 360,000.

Applications

Because of their outstanding oxidation stability and resistance to softening at high temperatures, UNIREX N greases may be used in many applications such as oven-conveyor bearings, dryer-roller bearings, rotary steam joints, kiln-car bearings, induced-draft fan bearings, and equipment adjacent to high radiant heat such as ovens, soaking pits, etc.

UNIREX N 2 is an NLGI No. 2 grade and is preferred in most cases for application by hand-packing or by grease gun. UNIREX N 2 is recommended for the lubrication of electric motors. It is suitable for NEMA (National Electric Manufacturer's Association) Insulation Class A, B, and F motors.

UNIREX N 3 is an NLGI No. 3 grade and is used for special applications such as sealed-for-life bearings, vertically-mounted bearings, and higher-speed bearings.

Most of the uses for UNIREX N involve manual methods of application. Although UNIREX N 2 is suitable for use in automatic centralized systems, equipment served by these systems would normally not require the long-life properties of UNIREX N, since one of the functions of automatic systems is to replenish the lubricant at relatively short time intervals. UNIREX N 3 should not be used in such systems.

Regardless of the level of oxidation stability of a grease, an increase in temperature will affect the rate of oxidation and thermal deterioration. Consequently, more frequent relubrication is required at higher temperatures. For UNIREX N greases, it is recommended that relubrication intervals not exceed one week of continuous service at 175°C. As temperatures approach 190°C, relubrication intervals should be daily or every shift. Relubrication intervals will, of course, vary widely with the type of service and should be based primarily on the recommendations of the motor manufacturer.

Specifications and Approvals

Unirex N Series meets or exceeds the requirements of:	2	3
DIN 51825: (2004-06)	K2N-30L	K3N-20

Typical Properties

UNIREX N	2	3
Thickener Type	Lithium-complex	Lithium-complex
NLGI Grade	2	3
Color, Visual	Green	Green
Texture	Smooth, Buttery	Smooth, Buttery
Dropping Point, ASTM D 2265, °C	230	230
Base Oil Viscosity, ASTM D 445, cSt @ 40°C	115	115
Base Oil Viscosity Index, ASTM D 2270	95	95
Penetration, worked 60 stokes, ASTM D 217, mm/10	280	235
Penetration change after 100,000 strokes, ASTM D 217, mm/10	25	30
Oil Separation, ASTM D 6184, mass % @100°C / 30 hrs	1.5	0.6
EMCOR Corrosion , ASTM D 6138 (Distilled Water), rating	0,1	0,1
Water Washout @ 79°C, ASTM D 1264, mass %	3.7	3.5
Grease life, DIN 51821 (FE-9), L50 hrs @ 140°C	283	448

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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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.

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