

UNIREX® N

Grease

Product Description

Esso UNIREX N is the brand name for two premium quality long-life lithium complex greases suitable for high-temperature service in all types of bearings. These versatile greases have applications in a wide range of industries, including nuclear power plants. They are excellent for electric motors and most sealed-for-life bearings. UNIREX N greases have outstanding mechanical stability and long lubrication life at recommended operating temperatures and are suitable for service down to -29° C. They are highly water resistant and provide excellent rust protection.

UNIREX N greases are available in two consistencies. 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 3 is an NLGI No. 3 grade and is used for special applications. Most of the uses for UNIREX N involve manual methods of application. Although UNIREX N 2 is suitable for use in automatic centralised 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 a system. Based on their rugged performance and high reliability, UNIREX greases are the products of choice for many users, world-wide.

Features & Benefits

UNIREX N greases are important members of the UNIREX brand of premium quality products that have gained a world-wide reputation for reliability under tough operating conditions. UNIREX N greases are made using a special type of lithium complex soap thickener, and a paraffin mineral oil base fluid. As with other Esso brand greases, UNIREX N products are manufactured to the highest levels of quality and consistency. UNIREX N greases also contain anti-oxidant and anti-corrosion additives. The special type of lithium complex soap thickener gives the greases many useful properties and performance features including:

- Excellent grease life in applications at temperatures in excess of 120° C
- Very good low temperature performance, down to -40°C for easy start-up and low power requirements
- Excellent mechanical stability for reduced leakage and improved reliability
- Outstanding resistance to water washout and good rust protection provides excellent performance in wet and corrosive environments
- Very good antiwear performance for bearing protection and extended life
- Manufactured under ExxonMobils stringent Product Quality Management System (PQMS)[™] quality control standards

Applications

UNIREX N 2 grease is a wide temperature range NLGI 2 grade grease formulated to extend greasing intervals in grease packed bearings, sealed for life bearings, or where only small amounts of grease are added infrequently. UNIREX N3 grease is an NLGI 3 grade grease designed for bearings in high temperature service. Its low volatility and superior oxidation stability render UNIREX N3 grease suitable for many applications where temperatures can reach 175° C. UNIREX N3 grease supplements UNIREX N2 grease for high speed bearings (*dN values over 200,000), very high temperature bearings, or electric motors and other equipment requiring a NLGI 3 grade grease.

They are used in applications such as:

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- Electric motor and generator anti-friction bearings (Unirex N2)
- Valves, door openers, portable tools (Unirex N2)
- Machine tools, conveyers, refrigeration equipment (Unirex N2)
- Steel mill machinery and processing equipment (Unirex N2)
- Coal and other mining machinery (Unirex N2)
- Oven conveyer bearings (Unirex N3)
- Rotary steam joints (Unirex N3)
- Dryer roll bearings (Unirex N3)
- Kiln car bearings (Unirex N3)
- Induced-draft fan bearings (Unirex N3)

Typical Properties

UNIREX N GRADE	2	3
Thickener Type	Lithium-complex	Lithium-complex
NLGI Grade	2	3
Color	Green	Green
Texture	Smooth, Buttery	Smooth, Buttery
Dropping Point, ASTM D 2265, °C (°F)	225 (437)	231 (448)
Base Oil Viscosity, ASTM D 445		
cSt @ 40°C	115	115
Mineral Oil Viscosity Index, ASTM D 2270	95	95
Penetration, ASTM D217 worked, 60x, mm/10	280	235
EMCOR corrosion test, ASTM D 6138 (D.W.)	1	1
Lubrication life, ASTM D 3336, hrs @ 149°C (300°F)	1000	1500
Lubrication life, ASTM D 3336, hrs @ 163°C (325°F)	500	500
4-Ball wear test, ASTM D 2266, scar diam., mm, 10 kg, 1800 rpm, 75°C (167°F), 1 hr	0.28	0.30
4-Ball wear test, ASTM D 2266, scar diam., mm, 40 kg, 1200 rpm 75°C (167°F), 1 hr	0.45	0.47
Rust Protection, ASTM D 1743	Pass	Pass

Health & 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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