

Mobilgrease EAL® 101 and 102

Grease

Product Description

Mobilgrease EAL 101 and 102 are supreme performance greases designed specifically for applications which are environmentally sensitive. These leading products are biodegradable and virtually non-toxic greases formulated from a synthetic ester base fluid and a lithium soap thickener. The wax-free nature of the synthetic base fluid, together with its low traction coefficient, provide excellent low temperature pumpability and very low starting and running torque - a significant benefit considering many environmentally sensitive applications are located outdoors.

Mobilgrease EAL 101 and 102 were formulated for multipurpose outdoor applications where grease leakage or run out could contaminate soil, groundwater or surface water systems. They can be used for indoor applications where grease leakage could enter plant water systems. They are recommended for plain and rolling element bearings and couplings that operate at temperatures from -30°C to 120°C. Mobilgrease EAL 101 and 102 are NLGI grade 1 and 2 respectively; both have ISO VG 100 base oils.

Extensive field evaluation and commercial experience with these products around the world has confirmed good performance in a variety of applications ranging from marble quarry chain saws to hydro-turbines. Even though they are designed for environmental benefits, Mobilgrease EAL 101 and 102 stand up to very demanding performance standards and help extend equipment life and keep equipment running reliably and efficiently.

Features and Benefits

The Mobil EAL brand of environmentally sensitive products has gained an exceptional reputation with OEMs and customers around the world. These products provide an exceptional balance between meaningful environmental benefits over conventional products while providing excellent performance as lubricants. Mobilgrease EAL 101 and 102 fit this profile well with excellent biodegradability and toxicity scores, and with very good performance features especially in terms of corrosion and wear protection.

Mobilgrease EAL 101 and 102 offer the following benefits:

Features	Advantages and Potential Benefits
Readily biodegradable by the OECD 301B Shake Flask Test (Modified Sturm Test)	Rapid biodegradation of spills in sensitive areas with minimal non-biodegradable residue and avoiding costly clean-up in some jurisdictions
Virtually non-toxic in OECD 203 Method Aquatic Toxicity Test	Minimal effects of spills on environment
Excellent rust and corrosion protection	Excellent bearing protection in wet conditions, with long bearing life
Very good wear protection	Extends bearing life and reduces needed maintenance
Good adhesion and water resistance	Resists water washout, avoiding need for frequent re-greasing



Applications

Mobilgrease EAL 101 and 102 are two members of a family of Mobil Environmental Awareness Lubricants (EAL) specifically designed for applications where contamination of the environment is a risk. Mobilgrease EAL 101 (NLGI Grade 1) and 102 (NLGI Grade 2) are multipurpose greases formulated with an ISO VG 100 base fluid. They are designed for the lubrication of equipment in environmentally sensitive areas, including:

- Marine equipment
- Water treatment plants
- Dams, locks and water ways
- Construction equipment
- Farm machinery

Specifications and Approvals

Mobilgrease EAL meets the following industry specifications:	101	102
DIN 51825 - KPE1K-30	X	
DIN 51825 - KPE2K-30		X

Typical Properties

Mobilgrease EAL	101	102
NLGI Grade	1	2
Thickener Type	Lithium Hydroxystearate	Lithium Hydroxystearate
Color, Visual	Amber	Amber
Penetration, Worked, 25° C, ASTM D 217	325	280
Dropping Point, °C, ASTM D 2265	182	182
Viscosity of Oil, ASTM D 445, cSt @ 40° C	100	100
Biodegradability Shake-Flask Test, OECD 301B, CO2 evolution	78	78
Aquatic Toxicity, OECD 203, LL50 ppm	>5001	>5001
4-Ball Wear, ASTM D 2266, Scar, mm	0.5	0.5
4-Ball Weld, ASTM D 2596, Load, Kg	300	315
Timken OK Load, ASTM D 2509	45	45
EMCOR Rust Test, IP 220 Mod., 4.5 pH Acid water	0-0	0-0
Copper strip corrosion, ASTM D 130 24 h @ 100° C	1B	1B
Water Washout at 79° C, ASTM D 1264	15	15
Rust Test, ASTM D 1743, rating	Pass	Pass

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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