

Mobilgear 600 Series

Gear Oil

Product Description

The Mobilgear 600 Series are extra high performance gear oils having outstanding extreme pressure characteristics and load-carrying properties, intended for use in all types of enclosed gear drives with circulation or splash lubrication systems. They are formulated from highly refined base stocks and a special additive system that provides an extremely high level of resistance to oxidation and chemical degradation. They have friction-modifying characteristics that reduce power consumption and lower bulk oil temperatures. The Mobilgear 600 Series oils protect against corrosion and rusting, including seawater. They have excellent water separating properties and they are strongly resistant to foaming in service.

Mobilgear 600 Series oils are recommended for industrial spur, helical and bevel enclosed gears with circulation or splash lubrication, operating at bulk oil temperatures up to 100°C. For steel-on-steel applications, Mobilgear 600 Series are recommended whereas for bronze-on-steel worm gear applications, Mobil Glygoyle Series or Mobil SHC 600 Series products are recommended. They are particularly suitable for gear sets working under heavy or shock loads. Minimum bulk oil temperatures are governed by the pour point of the oil. Suitable heating may be necessary for the heavier grades at ambient temperatures. Mobilgear 600 oils also find broad application in marine gearing applications. Non gear applications include plain and rolling contact bearings - especially highly loaded and slow speed.

Mobilgear 600 Series gear oils are used in a very wide variety of applications in virtually all industrial sectors as well as in marine units. They are the product of choice for many users, worldwide, based on their outstanding performance, equipment protection and application versatility.

Features and Benefits

Mobilgear 600 Series products are a leading member of the Mobil brand of industrial lubricants that enjoy a reputation for innovation and high performance capability. These mineral-based products were designed by our formulation scientists to provide high quality industrial gear oils, meeting industry standards and with high versatility to lubricate a broad range of industrial and marine equipment. Mobilgear 600 Series products offer the following features and potential benefits:

Features	Advantages and Potential Benefits
Reduced gear tooth wear due to excellent load-carrying properties	Lower operating costs, higher productivity and longer machine life because of outstanding antiwear characteristics
Outstanding resistance to oil oxidation and degradation	Extended lubricant life with lower lubricant and lubrication costs and reduced scheduled downtime
	Cleaner systems and reduced maintenance because of minimal sludge and deposit formation
Wide range of applications	Fewer grades of lubricant required because of wide range of application, leading to lower purchase and storage costs and less danger of using wrong lubricant



Features	Advantages and Potential Benefits
Superior resistance to rust and corrosion of steel and corrosion of copper and soft metal alloys	Excellent protection of machine parts, with reduced maintenance and repair costs
Marked resistance to foaming and emulsion formation	Effective lubrication and problem free operation in the presence of water contamination or in equipment prone to oil foaming

Applications

Mobilgear 600 lubricants are used in a wide range of industrial and marine applications, especially spur, helical, bevel and worm gearing. Specific applications include:

- Industrial gearing for conveyers, agitators, dryers, extruders, fans, mixers, presses, pulpers, pumps (including oil well pumps), screens, extruders and other heavy duty applications
- Marine gearing including main propulsion, centrifuges, deck machinery such as winches, windlasses, cranes, turning gears, pumps, elevators and rudder carriers
- Non-gear applications include shaft couplings, screws and heavily loaded plain and rolling contact bearings operating at slow speeds.

Specifications and Approvals

Mobilgear 600 Series meets or exceeds the following industry specifications	626	627	629	630	632	634	636
Meets AGMA 9005-D94 EP (at appropriate viscosity grade)	X	X	X	X	X	X	-
Meets DIN 51517 Part 3 (CLP)	X	X	X	X	X	X	X
Meets ISO 12925-1 Type CKC	X	X	X	X	X	X	X
Meets US Steel # 224	X	X	X	X	X	X	-

Typical Properties

Mobilgear 600 Series	626	627	629	630	632	634	636
ISO Viscosity Grade	68	100	150	220	320	460	680
Viscosity, ASTM D 445							
cSt @ 40°C	68	100	150	220	320	460	680
cSt @ 100°C	9.2	12.0	15.8	19.5	24.5	29.9	39.2
Viscosity Index, ASTM D 2270	98	98	98	98	97	96	90
Pour Point, °C, ASTM D 97	-27	-27	-27	-24	-18	-12	-9
Flash Point, °C, ASTM D 92	225	235	245	255	265	275	285
Density @ 15.6°C, ASTM D 4052, kg/l	0.89	0.89	0.89	0.89	0.89	0.89	0.91
Timken OK Load, ASTM D 2782, lb	65	65	65	65	65	65	65

Mobilgear 600 Series	626	627	629	630	632	634	636
4-Ball EP test, ASTM D 2783, Weld Load, kg Load Wear Index, kgf	250 48	250 48	250 48	250 48	250 48	250 48	250 48
FZG Scuffing, DIN 51534, A/8.3/90, Fail Stage	12+	12+	12+	12+	12+	12+	12+
Rust protection, ASTM D 665, Sea Water	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Copper Strip Corrosion, ASTM D 130, 3 hrs @ 100°C	1B	1B	1B	1B	1B	1B	1B
Demulsibility, ASTM D 1401, @ 54°C Time to 3ml emulsion, minutes @ 82°C	30	30	30	30	30	30	30
Foam Test, ASTM D 892, Seq I and II, Tendency/Stability, ml/ml	0/0	0/0	0/0	0/0	0/0	0/0	0/0

Precautions

MOBILGEAR 600 SERIES is manufactured from high quality petroleum base stocks, carefully blended with selected additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact to skin, splashing into the eyes, ingestion or vapour inhalation. Please refer to our Imperial Oil Material Safety Data Sheet for further information.

Note: This product is not controlled under Canadian WHMIS legislation.

The Mobil logotype, the Pegasus design and Delvac are trademarks of ExxonMobil Corporation, or one of its subsidiaries.

ExxonMobil Lubricants & Specialties

All products may not be available locally. For more information, contact your local sales office 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. Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

© 2001 Exxon Mobil Corporation. All rights reserved.