



Mobilgear™ 600 XP Series

Extra high-performance gear oils



Scientifically formulated for effective micropitting protection.

Microscopic wear — micropitting or “grey staining” — can lead to significant gear tooth damage. Mobilgear™ 600 XP Series gear oils are designed to protect gear teeth from wear at its earliest stages, meeting or exceeding the industry requirement for bearing wear protection. In fact, they provide up to ten times the wear protection compared with other mineral gear oils, as measured by the industry standard DIN 51517-3, helping reduce maintenance costs and prevent unexpected downtime.

Designed to stay ahead of the changing needs of gearbox technology.

Mobilgear 600 XP Series lubricants are premium gear oils with excellent extreme-pressure characteristics and load-carrying properties, intended for use in all types of enclosed gear drives with circulation or splash lubrication systems. As gearbox technology design trends are toward smaller units with higher power density, this places increased demands on gear lubricants. Mobilgear 600 XP Series oils are formulated to meet the stress by providing extra protection for gears, bearings, and seals.

Outstanding seal compatibility and protection.

Compatible with a wide range of seal materials commonly used in industry, Mobilgear 600 XP Series helps reduce leakage and oil consumption compared with mineral oils, and prevents contamination ingress, thereby helping to reduce maintenance costs, extend gearbox reliability, and enable greater productivity.

Balanced formulation provides excellent performance.

Mobilgear 600 XP Series’ balanced formulation is able to help provide maximum wear and corrosion protection while maintaining compatibility with common gearbox seal materials. Protecting gears, bearings, and seals, Mobilgear 600 XP Series lubricants are used in a wide range of industrial and marine applications, especially spur, helical, bevel, and worm gearing.

High-Performance Benefits

Resistance to sludge and deposit formation

Helps improve gearbox cleanliness and reduce maintenance costs and unexpected downtime.

Excellent resistance to oil oxidation and thermal degradation

Helps extend lubricant life in severe industrial applications. Helps lower lubrication costs and unplanned downtime, thereby increasing productivity.

Optimized rust and corrosion protection

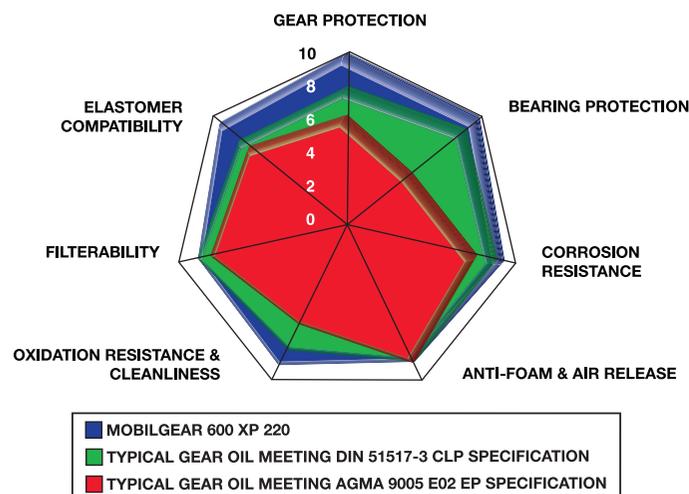
Helps protect machine parts from rust and corrosion, reducing unplanned downtime and maintenance costs.

Enhanced wear protection

Reduces wear on gears and bearings to help maximize critical reliability and performance.

Mobilgear™ 600 XP Series — Proof of Performance

Balanced Formulation



Some competitive gear oils are formulated specifically to deliver significant results in one area but often sacrifice performance in many other areas. Mobilgear 600 XP Series has a balanced formulation delivering overall productivity benefits.

Typical Properties*

Mobilgear 600 XP	Mobilgear 600 XP 68	Mobilgear 600 XP 100	Mobilgear 600 XP 150	Mobilgear 600 XP 220	Mobilgear 600 XP 320	Mobilgear 600 XP 460	Mobilgear 600 XP 680
ISO Viscosity Grade	68	100	150	220	320	460	680
Viscosity, ASTM D445 mm ² /s @ 40°C	68	100	150	220	320	460	680
mm ² /s @ 100°C	8.8	11.2	14.7	19.0	24.1	30.6	39.2
Viscosity Index, ASTM D2270	101	97	97	97	97	96	90
Pour Point, °C, ASTM D97	-27	-24	-24	-24	-24	-15	-9
Flash Point, °C, ASTM D92	230	230	230	240	240	240	285
Density @15.6 °C, ASTM D4052, kg/l	0.88	0.88	0.89	0.89	0.90	0.90	0.91
FZG Micropitting, FVA 54, Fail Stage/Rating		10/High	10/High	10/High	10/High	10/High	10/High
FE 8 wear test, DIN 51819-3, D7,5/80-80. Roller wear, mg	2	2	2	2	2	2	2
Timken OK Load, ASTM D2782, lb	65	65	65	65	65	65	65
4-Ball EP test, ASTM D2783 Weld Load, kg	200	200	250	250	250	250	250
Load Wear Index, kgf	47	47	47	48	48	48	48
FZG Scuffing, Fail Stage A/8.3/90	12+	12+	12+	12+	12+	12+	12+
A/16.6/90		12+	12+	12+	12+	12+	12+
Rust Protection, ASTM D665, Sea Water	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Copper Strip Corrosion, ASTM D130, 3 hrs @ 100°C	1B	1B	1B	1B	1B	1B	1B
Demulsibility, ASTM D1401, Time to 3ml emulsion, minutes @ 82°C	30	30	30	30	30	30	30
Foam Test, ASTM D892, Tendency/Stability, ml/ml Sequence 1	0/0	0/0	0/0	0/0	0/0	0/0	0/0
Sequence 2	30/0	30/0	30/0	30/0	30/0	30/0	30/0

Quality and Performance Claims

Mobilgear 600 XP meets or exceeds the requirements of:	Mobilgear 600 XP 68	Mobilgear 600 XP 100	Mobilgear 600 XP 150	Mobilgear 600 XP 220	Mobilgear 600 XP 320	Mobilgear 600 XP 460	Mobilgear 600 XP 680
AGMA 9005-E02	2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	-
DIN 51517-3: 2009-06	X	X	X	X	X	X	X
ISO 12925-1 Typ	CKD 68	CKD 100	CKD 150	CKD 220	CKD 320	CKC 460	CKC 680

Application Expertise and Equipment Builder Recognition

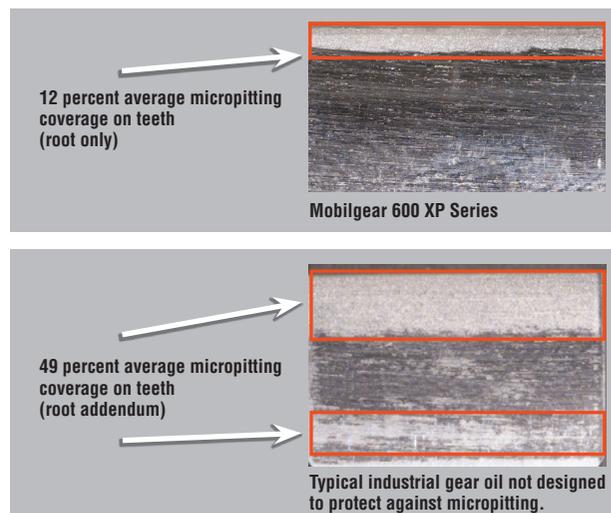
Mobilgear 600 XP meets the quality requirements for the following builders:	Mobilgear 600 XP 68	Mobilgear 600 XP 100	Mobilgear 600 XP 150	Mobilgear 600 XP 220	Mobilgear 600 XP 320	Mobilgear 600 XP 460	Mobilgear 600 XP 680
Siemens T 7300, Table A-1, Revision 13, Flender Code No.		A17	A16	A15	A14	A13	A12
Mueller Weingarten DT 55 005		CLP 100	CLP 150	CLP 220	CLP 320	CLP 460	

Please refer to the equipment builder manual for final lubrication recommendation.

*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 representative or visit www.exxonmobil.com. ExxonMobil comprises 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.

Health and Safety Based on available information, this product is not expected to produce adverse effects on health when used for the applications referred to above and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contact office or via the Internet. This product should not be used for purposes other than the applications referred to above. If disposing of used product, take care to protect the environment.

Micropitting Protection



In controlled laboratory testing illustrating micropitting formation on gear teeth, Mobilgear 600 XP Series provided outstanding micropitting protection versus generic oils.

For more information on Mobilgear 600 XP Series and other Mobil Industrial Lubricants and services, please contact your local company representative or visit mobilindustrial.com.