Mobil

Primetals™ Gear Oil Series

Mobil Industrial , Denmark

Premium Gear Oils

PRIMETALS TECHNOLOGIES

Product Description

Primetals Gear Oils are high performance lubricants offering outstanding extreme pressure and load carrying properties, specifically designed for use in the enclosed gear drives of Primetals Technologies rolling mill equipment. Primetals Gear Oils are formulated to meet the higher loads of newer gear drive designs by providing extra protection for gears, bearings and seals, as well as protecting gear teeth from micro-pitting wear which can lead to significant gear tooth damage.

Primetals Gear Oils exceed industry requirements for bearing wear protection, offering up to 15 times the wear protection as measured by the industry standard FAG FE 8 test. Their balanced formulation is able to provide maximum wear and corrosion protection while maintaining compatibility with common gearbox seal materials, thereby preventing oil leaks and reducing the ingress of contaminants.

Primetals Gear Oils are recommended for spur, helical and bevel enclosed gears on Primetals Technologies mills with circulating or splash lubrication, operating at bulk oil temperatures up to 100°C. They are particularly suitable for gears working under heavy or shock loads. Primetals Gear Oils are available in three viscosity grades.

Features and Benefits

Primetals Gear Oils utilize the same technology found in the Mobilgear 600 XP Series gear oils, whose demonstrated performance has made them the primary choice of Primetals Technologies equipment owners worldwide. These premium mineral oil-based lubricants meet the latest gear industry standards and enjoy a reputation for innovation and high performance. Primetals Gear Oils offer the following features and potential benefits:

Features	Advantages and potential benefits
Enhanced protection from gear tooth micro-pitting wear	Less gear and bearing wear resulting in less unscheduled downtime
Reduced gear tooth denting from generated wear particles	Up to 22% improvement in bearing life, reducing replacement costs and improving productivity
Improved bearing wear protection	Improved bearing life resulting in higher productivity
Outstanding compatibility with a range of seal materials	Less oil leakage, consumption and contaminant ingress to improve maintenance, reliability and productivity
Excellent resistance to oil oxidation and thermal degradation	Helps extend lubricant life and reduce lubrication costs, with reduced scheduled downtime.
High resistance to sludge and deposit formation	Cleaner systems and reduced maintenance
Wide range of applications	Fewer lubricant grades required, allowing for lower purchase and storage costs and risk of misapplication

Features	Advantages and potential benefits
Strong resistance to rust and corrosion of steel, copper and soft metal alloys	Excellent protection of machine parts, with reduced maintenance and repair costs
Resistance to foaming and formation of emulsions	Robust lubrication and performance in the presence of water contamination or in equipment prone to oil foaming

Applications

Primetals Gear Oils can be used in a wide range of industrial applications, especially spur, helical, bevel and worm gearing, as follows:

- Conveyers, fans, mixers, presses, pumps, extruders and other heavy duty applications
- Non-gear applications including shaft couplings, screws and heavily loaded plain and rolling contact bearings operating at slow speeds

Specifications and Approvals

Primetals Gear Oils meet or exceed the requirements of:	150	220	320
AGMA 9005-E02-EP	X	X	X
DIN 51517-3: 2009-06	X	X	X
ISO L-CKD (ISO 12925-1:1996)		X	X

Typical Properties

Primetals Gear Oil Series	150	220	320
ISO Viscosity Grade	150	220	320
Viscosity, ASTM D 445, mm2/s @ 40°C	150	220	320
mm2/s @ 100°C	14.7	19.0	24.1
Viscosity Index, ASTM D 2270	97	97	97
Pour Point, °C, ASTM D 97	-24	-18	-15
Flash Point, °C, ASTM D 92	230	240	240
Density @15.6 °C, ASTM D 4052, kG/liter	0.89	0.89	0.90
FZG Micropitting, FVA 54, Fail Stage / Rating	10/High	10/High	10/High
FE 8 wear test, DIN 51819-3, D7,5/80-80.Roller wear, mg	2	2	2
Timken OK Load, ASTM D 2782, lb	65	65	65
4-Ball EP test, ASTM D 2783: Weld load, kG	250	250	250
Load Wear Index, kgf	47	48	48
FZG Scuffing, Fail Stage: A/8.3/90	12+	12+	12+

Primetals Gear Oil Series	150	220	320
A/16.6/90	12+	12+	12+
Rust Protection, ASTM D665, Sea water	Pass	Pass	Pass
Copper Strip Corrosion, ASTM D 130, 3 hrs. @ 100°C	1B	1B	1B
Demulsibility at 82 °C, ASTM D1401 Minutes to 3ml emulsion	30	30	30
Foaming Characteristics, ASTM D 892 Tendency/Stability, ml/ml			
Sequence I	0/0	0/0	0/0
Sequence II	30/0	30/0	30/0

Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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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
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