MOBIL SHC™ GEAR 22M, 46M SERIES

Mobil Industrial , New Zealand

Gear Oils

Product Description

Mobil SHC Gear 22M and 46M are supreme performance ultra high viscosity synthetic lubricants designed specifically for use in heavily loaded, low speed open gears where boundary lubrication conditions often prevail. They are formulated from synthetic base stocks, which have remarkable low-temperature fluidity, even at such high viscosity grades. These ultra high viscosity products can be pumped over relatively long distances and use standard spray application equipment. The combination of a naturally high viscosity index and a unique additive system gives the products exceptional thermal/oxidative properties and provides outstanding performance under severe high and low temperature operating conditions even with very slow moving gears. The additive formulation also provides excellent gear scuffing protection, anti-wear performance and rust and corrosion inhibition.

Mobil SHC Gear 22M and 46M exceed Falk Corporation's minimum viscosity requirements for intermittent lubrication of gears - winter and summer grades, respectively. These grades also meet the viscosity requirements for AGMA lubricant numbers 14R and 15R, respectively, although they are not residual lubricants, but are leading edge synthetic products. Mobil SHC Gear 22M and 46M do not contain any solvent or any asphaltic-type base oil.

Features and Benefits

Mobil SHC Gear 22M and 46M lubricants are leading members of the Mobil SHC brand of products that are world-renowned for their innovation and performance. These scientifically engineered synthetic lubricants symbolize the continuing commitment to using advanced technology to provide outstanding lubricant products. Mobil SHC Gear 22M and 46M provide benefits not possible with mineral stocks, particularly under extreme high and low temperature operating conditions, and deliver performance features and customer benefits.

Our formulation scientists have used innovative combinations of base oils plus a proprietary additive combination that fortifies the base oils to provide excellent gear scuffing protection and anti-wear performance, even in shock load situations. The resulting finished products have shown exceptional performance in OEM evaluations, customer field tests and commercial use. These ultra high viscosity products are particularly effective in low-speed, high load, high temperature situations and provide excellent gear and bearing protection, longer oil life and excellent all-round service compared with conventional products.

Specific features and potential benefits for the Mobil SHC Gear 22M and 46M lubricants include:

Features	Advantages and Potential Benefits
Thick EHL fluid film formation and selected additives provide outstanding load-carrying, antiwear and tackiness properties	Helps extend gear life, less downtime and reduce maintenance and replacement cost Avoids potential for solvent retention and reduced viscosity with solvent-type products Provides much thicker EHL film compared with semi-fluid grease products
Excellent pumpability at ambient temperatures	Helps reduce in pump replacement costs
Uses existing lubricant spray equipment	Low-cost conversion from asphaltic of semi-fluid grease products
Lower application rates than greases, less waste compared with asphalt/solvent products	Helps reduce lubricant consumption and disposal costs
Does not contain solids or asphaltic resins	Absence of hard-packed gear root deposits results in reduction in downtime and maintenance costs

Features	Advantages and Potential Benefits
Light colored product	Helps avoid need for costly gear cleaning prior to inspection
Solvent-free	Helps avoid potential safety issues related to volatile, low flash solvent

Applications

Application Considerations: Normally, conversion to Mobil SHC Gear 22M or 46M from asphaltic or grease products will be a simple process with no change in lubricant spray equipment. It is recommended that the gears be thoroughly cleaned to take advantage of the light color of these synthetic products. Consult your Mobil representative for further details on lubricant conversion.

Mobil SHC Gear 22M and 46M are designed specifically for use in heavily loaded, low speed open gearing which drive stationary rotating machinery. Product is typically applied by intermittent by spray nozzle systems. Specific applications include:

- Kilns and mills in metal mining, cement and limestone production and in sugar plants
- Slow speed, heavily loaded plain and rolling contact bearings

Properties and Specifications

Property	22M	46M
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130	1B	1B
Density @ 15.6 C, kg/l, ASTM D4052	0.890	0.924
Flash Point, Cleveland Open Cup, °C, ASTM D92	240	240
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	700	1375
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	22000	46000
Pour Point, °C, ASTM D97	6	15
Viscosity Index, ASTM D2270	180	180

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

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