Mobilith SHC™ PM Series

Mobil Grease , New Zealand

Grease

Product Description

Mobilith SHC™ PM greases are superior performance products designed specifically for severe paper machine applications, including extreme temperature environments and exposure to different qualities of water. Mobilith SHC PM greases combine the unique features of a synthetic base fluid with those of a high quality lithium complex thickener. The wax-free nature of the synthetic base fluid provides excellent low temperature pumpability and low starting and running torque compared to other non-synthetic oil products of the same viscosity. The high viscosity index of the synthetic base fluid ensures excellent film protection at high temperatures. The lithium complex thickener contributes excellent adhesion, structural stability and resistance to water. These properties are complemented by a special additive system to provide rust and corrosion resistance, wear protection, thermal/oxidative resistance and to enhance water resistance properties. Mobilith SHC PM 220 and Mobilith SHC PM 460 are both NLGI grade 1.5 with base fluids of ISO VG 220 and 460, respectively.

Mobilith SHC PM greases are designed for use in the most critical rolling element bearing applications in paper machines. They provide outstanding protection against rust and typical acid and alkali water corrosion, making them ideal for the wet end of the paper machine. The low volatility and excellent oxidation stability of the PAO base stock ensures excellent service at high temperatures typical of dry end conditions.

The Mobilith SHC PM series has become the technology of choice for many paper mill operators, worldwide. Its reputation is based on exceptional quality, reliability and the proven performance benefits they deliver.

Features and Benefits

The Mobil SHC brand of oils and greases is recognized and appreciated for their innovation and outstanding performance. The Mobilith SHC series symbolizes our continued commitment to using advanced technology to provide outstanding products. A key factor in the development of Mobilith SHC PM greases was the close contacts between our scientists and application specialists with key paper machine designers to ensure that our product offerings would provide exceptional performance in this continually evolving, and increasingly severe, equipment area.

Our work with equipment builders has helped confirm the results from our own laboratory tests showing the exceptional performance of the Mobilith SHC PM greases. These benefits include excellent resistance to acidic and alkaline water, enhanced bearing protection and bearing life, wide temperature range of application, and longer grease life.

To combat high thermal exposure our product formulation scientists chose proprietary synthetic base oils for Mobilith SHC PM grease because of their exceptional thermal and oxidative resistance. Our scientists developed a high performance lithium complex thickener technology and used specific additives to enhance Mobilith SHC PM greases to meet the needs of modern and future paper machines. Mobilith SHC PM greases offer the following features and benefits:

Features	Advantages and Potential Benefits
Outstanding high temperature and low temperature performance	Wide application temperature range, from -40°C to 150°C with excellent protection at high temperatures and low torque, easy start-up at low temperatures
Excellent protection against wear, rust and corrosion, including acidic water	Reduced downtime and maintenance costs because of reduced wear, rust and corrosion even in acidic and alkaline water environments
Excellent structural stability and oxidation resistance	Extended service life with longer intervals between relubrication and improved bearing life
Excellent wear protection under heavy loads, slow speeds, and high temperatures	Outstanding protection of slow speed, heavily loaded bearings, with extended bearing life
Outstanding structural stability in the presence of water	Retains excellent grease performance in hostile aqueous environments

Features	Advantages and Potential Benefits
Low volatility	Helps resist viscosity increase at high temperatures to maximize relubrication intervals and bearing life

Applications

Application Considerations: While Mobilith SHC PM greases are compatible with most mineral oil based products, admixture may detract from their performance. Consequently it is recommended that before changing a system to one of the Mobilith SHC PM greases, it should be thoroughly cleaned out to achieve the maximum performance benefits. If dismantling the system for cleaning before changeover isn't feasible, then thorough purging and increased relubrication intervals are strongly recommended. Contact your local ExxonMobil Lube Engineer for consultation on this approach.

Mobilith SHC PM greases are recommended for critical rolling element bearing applications in paper machines. Included among these are:

- Wet end paper machine bearings.
- Highly loaded press section bearings.
- High-temperature felt roll and calendar stack bearings.

Specifications and Approvals

This product meets or exceeds the requirements of:	PM 220	PM 460
DIN 51825:2004-06 - KP HC 1-2 N -40	X	X

Properties and Specifications

Property	PM 220	PM 460
Grade	NLGI 1.5	NLGI 1.5
Thickener Type	Lithium Complex	Lithium Complex
Color, Visual	Off-White	Off-White
Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D4048	1B	1B
Corrosion Preventive Properties, Rating, ASTM D1743	Pass	Pass
Dropping Point, °C, ASTM D2265	275	275
Four-Ball Extreme Pressure Test, Weld Point, kgf, ASTM D2596	250	250
Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266	0.5	0.5
Oil Separation, 0.25 psi, 24 h @ 25 C, mass%, ASTM D1742	3	3
Penetration, 60X, 0.1 mm, ASTM D217	305	305
Roll Stability, Penetration Consistency Change, 0.1 mm, ASTM D1831	0	0
SKF Emcor Rust Test, 10% Synthetic Sea Water, ASTM D6138	0 , 1	0 , 1
SKF Emcor Rust Test, Acidic Water, ASTM D6138	0 , 1	0 , 1

Property	PM 220	PM 460
SKF Emcor Rust Test, Distilled Water, ASTM D6138	0 , 0	0 , 0
Viscosity @ 100 C, Base Oil, mm2/s, ASTM D445	30.3	55.6
Viscosity @ 40 C, Base Oil, mm2/s, ASTM D445	220	460
Viscosity Index, ASTM D2270	179	188
Water Washout, Loss @ 79 C, wt%, ASTM D1264	1	7

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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