Mobil SHC™ PM Series

Mobil Industrial , Denmark

Paper Machine Lubricants

Product Description

Mobil SHC™ PM Series products are superior performance synthetic lubricants specifically designed for the most demanding industrial paper machine circulating systems. The Mobil SHC PM Series oils are formulated to provide outstanding protection of gears and bearings operating under the most severe conditions. They have very low pour points and a naturally high viscosity index (VI) which helps ensure good low temperature start-up while maintaining excellent viscosity characteristics at very high temperatures. The fluids are very shear stable and maintain viscosity control even when subjected to severe mechanical shear in heavily loaded bearings and gears. Their low traction coefficient and high viscosity index can help result in lower energy consumption and reduced component operating temperatures.

To develop the latest Mobil SHC technology for Mobil SHC PM Series oils, ExxonMobil product formulation scientists chose select base oils because of their exceptional thermal/oxidative resistance potential and combined them with a balanced additive system, which complement the inherent benefits of the base oils to attain high performance standards. These fluids permit the use of higher steam pressures, temperatures and machine speeds common in high output paper machines and calendar rolls. Their outstanding hydrolytic stability and filterability assure excellent performance in the presence of water and the ability to retain effective filtration even at very fine filtration levels. They readily separate water and retain their colour characteristics for extended periods of operation under severe conditions.

Features and Benefits

The Mobil SHC PM Series oils represent a technological advance in paper machine lubrication. Their excellent performance capabilities in the areas of wear protection, enhanced oxidation stability, chemical stability, effective rust and corrosion protection, colour stability, and filterability not only prolong maintenance service intervals but can improve machine performance and increase production capacity. This can result in less required maintenance and longer equipment life.

Features	Advantages and Potential Benefits
Excellent Wide Temperature Performance	Easier start-up and improved lubrication at cold starts Extra margin of protection at elevated temperatures Better control of feed rates
Exceptional Wear Protection	Improved bearing and gear performance
Outstanding Oxidation and Thermal Stability	Longer oil life Lower filter replacement costs Cleaner systems Reduction of system deposits
Effective Water Separation Properties	Allows easier removal of water Reduces formation of undesirable emulsions in systems
Low Traction Coefficient	Reduced energy consumption Lower operating temperatures Reduced wear
Excellent Filterability	Keeps oil lines and flow control mechanisms free of deposits Improved oil flow and cooling performance Lowers filter replacement costs

Features	Advantages and Potential Benefits
High Level Rust and Corrosion Protection	Protects gears and bearings in wet environments Provides vapour space protection for areas of bearing and gear cavities above normally wetted surfaces

Applications

- Lubrication of severe industrial paper machine circulating systems
- Application involving circulation systems operating over a wide temperature range such as calendar rolls
- Systems that must be started and brought on line quickly
- Circulation systems lubricating gears and bearings

Properties and Specifications

Property	150	220	320	460
Grade	ISO 150	ISO 220	ISO 320	ISO 460
Copper Strip Corrosion, 24 h, 100 C, Rating, ASTM D130	1B	1B	1B	1B
Density @ 15 C, kg/l, ASTM D1298	0.857			
Emulsion, Time to 40/40/0, 82 C, min, ASTM D1401	15	25	30	30
FZG 4-Square Load Support, Fail Stage, DIN 51354	11			
FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1		11	11	11
Flash Point, Cleveland Open Cup, °C, ASTM D92	220	220	220	220
Hydrolytic Stability, Acid Number Change, mgKOH/g, ASTM D2619		0	0	0
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	18.9	25.6	34.7	44.8
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	158	225	325	465
Pour Point, °C, ASTM D97	-39	-36	-33	-27
Rust Characteristics, Procedure B, ASTM D665	PASS	PASS	PASS	PASS
Specific Gravity, 15 C/15 C, ASTM D1298		0.863	0.865	0.874
Viscosity Index, ASTM D2270	124	127	130	137

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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