# Mobil

## Mobil SHC<sup>™</sup> PM Series

### **Paper Machine Lubricants**

#### **Product Description**

Mobil SHC<sup>™</sup> 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		
	Easier start-up and improved lubrication at cold starts		
Excellent Wide Temperature Performance	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		
High Level Rust and Corrosion Protection	Protects gears and bearings in wet environments		
	Provides vapour space protection for areas of bearing and gea		
	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

#### **Typical Properties**

Mobil SHC PM Series	150	220	320	460		
ISO Viscosity Grade	150	220	320	460		
Viscosity, ASTM D 445						
cSt @ 40° C	158	225	325	465		
cSt @ 100° C	18.9	25.6	34.7	44.8		
Viscosity Index, ASTM D 2270, typical	124	127	130	137		
FZG 4-Square Load Support, DIN 51354, fail stag	e 11	11	11	11		
Rust Characteristics, Proc A and B, ASTM D 665	Pass	Pass	Pass	Pass		
Hydrolytic Stability (Acid Number Change),ASTM	0	0	0			
2619, mgKOH/g	0	0	0	0		
Copper Strip Corrosion, 24h @ 100° C, ASTM D	1B	1B	1B	1B		
130, rating	Ш					
Demulsibility, minutes to 40/40/0, 82° C	15	25	30	30		
Pour Point, ºC, ASTM D 97, max	-39	-36	-33	-27		
Flash Point, ºC, ASTM D 92, min	220	220	220	220		
Specific Gravity 15° C/15° C, ASTM D 1298	0.857	0.863	0.865	0.874		

#### Health and Safety

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

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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 <u>www.exxonmobil.com</u>

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