



## Mobil SHC PM Series

### Supreme-performance synthetic circulation oils for paper machines



#### **Excellent equipment protection for long bearing and gear life.**

As paper machinery moves to higher speeds and steam temperatures — in excess of 2,000 m/min and 200°C (392°F) respectively — lubricants must respond to these challenging operating environments. Mobil SHC PM Series was engineered to do just that. A synthetic lubricant specifically designed for the dry and wet section or calender circulation system in paper machines, its combination of synthetic basestocks and additives provides a balanced performance, helping ensure maximum reliability and productivity.

#### **Balanced performance in severe application conditions.**

Formulated with leading-edge base oil and additive technology, Mobil SHC PM Series provides an extra margin of protection for bearings and gears at elevated temperatures compared with

standard mineral paper machine oils. Its high viscosity index gives additional protection for an effective lubricant film thickness, helping protect metal surfaces from contact.

#### **Outstanding oxidation and thermal stability for long oil life and clean circulation systems.**

The exceptional oxidation and thermal stability of Mobil SHC PM Series helps provide extended oil life at extreme temperatures in paper machinery without concessions to system deposit control and filterability. Keep-clean performance helps keep the system free of deposits, potentially reducing unnecessary downtime and premature component failure.

#### **Recommended by equipment builders worldwide.**

Mobil SHC PM Series is recognized for outstanding technical performance in the paper industry. Formulated in close contact with equipment builders, Mobil SHC PM Series is designed to provide exceptional performance in continually evolving industrial equipment design. It is recognized by major builders such as Voith, Metso, FAG, and SKF for excellent lubrication of paper machine bearings and gear systems.

## High-Performance Benefits

#### **Proven performance**

Recognized by major OEMs and customers for years of uninterrupted service and equipment protection.

#### **Outstanding protection**

##### **against rust and corrosion**

Protects bearings from corrosion and wear even in harsh wet-end process water environments, helping reduce downtime and maintenance costs.

#### **Long oil life**

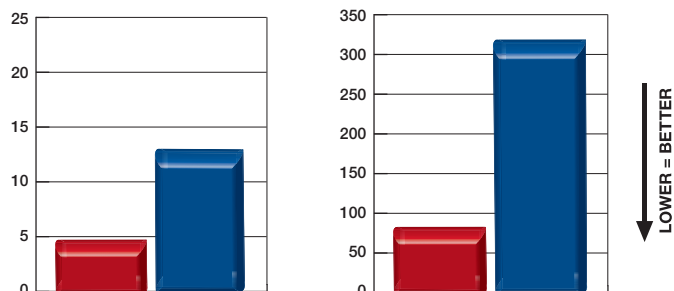
Lasts considerably longer than mineral oils due to advanced synthetic formulation technology and outstanding oxidation and thermal stability.

#### **Excellent keep-clean performance**

Keeps circulation systems free of deposits, allowing for long-filter-time life, clean bearings, and flow meters, which contribute to trouble-free paper machine operation.

# Mobil SHC PM Series — Performance

## Oxidation Stability



**B10 Viscosity Increase**  
(72 hrs, 163°C, 10 l/hr air), %

**B10 Viscosity Increase**  
(24 hrs, 218°C, 5 l/hr air), %

■ MOBIL SHC PM 220 ■ PREMIUM MINERAL PMO

In the high-temperature oxidation-stability test, Mobil SHC PM Series demonstrates outstanding viscosity control, with less viscosity increase, compared with competitive paper machine oils. Lower viscosity increase translates to longer oil life and helps enable extended drains.

## Keep-Clean Performance



**MOBIL SHC PM**

**PREMIUM MINERAL PMO**

**AVERAGE CLEANLINESS RATING: 7.8\***

**AVERAGE CLEANLINESS RATING: 5.9\***

\*(10 = CLEAN)

Mobil SHC PM Series outperforms premium mineral oils in standard bearing cleanliness tests. The bearing rig test mimics actual application conditions, evaluating the high-temperature, keep-clean performance and oxidation stability of paper machine oils over a period of 500 hrs. As shown in the graphics above, conventional paper machine oil results in cage and rollers with signs of deposits and discoloration, whereas the well-balanced paper machine oil formulation of Mobil SHC PM Series shows none of these effects and has a high cleanliness rating.

## 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 stage	11	11	11	11
Rust Characteristics, Proc A and B, ASTM D 665	Pass	Pass	Pass	Pass
Hydrolytic Stability (Acid Number Change), ASTM D 2619, mgKOH/g	0	0	0	0
Copper Strip Corrosion, 24th @ 100°C, ASTM D 130, rating	1B	1B	1B	1B
Demulsibility, minutes to 40/40/0, 82°C	15	25	30	30
Pour Point, °C, ASTM D 97, max	-39	-36	-33	-27
Flash Point, °C, 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

For more information on Mobil SHC PM Series and other Mobil Industrial Lubricants and services, please contact your local company representative or visit [mobilindustrial.com](http://mobilindustrial.com).