



MOBIL PAPER MACHINE OIL S SERIES

Mobil Industrial , Finland

Synthetic Paper Machine Oil

Product Description

MOBIL PAPER MACHINE OIL S Series lubricants are high performance synthetic lubricants specifically designed for demanding industrial paper machine circulating systems. They are engineered to provide exceptional lubrication characteristics not attainable with conventional premium mineral oil-based fluids. MOBIL PAPER MACHINE OIL S Series lubricants are formulated to provide excellent protection of gears and bearings operating under severe conditions. They have a very low pour point 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 low traction coefficient and high viscosity index can help result in lower energy consumption and reduced component operating temperatures.

MOBIL PAPER MACHINE OIL S Series lubricants are formulated with synthesized hydrocarbon fluid base oil technology and a proprietary additive system carefully balanced to attain high performance standards. This fluid permits the use of higher steam pressures, temperatures and machine speeds common in high output paper machines and calendar rolls. The 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. It readily separates water and retains its color characteristics for extended periods of operation under severe conditions.

Features and Benefits

The excellent performance capabilities of Mobil Paper Machine Oil S in the area of wear protection, enhanced oxidation and chemical stability, effective rust and corrosion protection, colour stability and filterability not only prolong maintenance service intervals but 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. Very good protection at elevated temperatures. Better control of feed rates.
Excellent Wear Protection	Improved bearing and gear performance.
Outstanding Oxidation and Thermal Stability	Lower filter replacement costs. Cleaner systems. Reduced system deposits
Effective Water Separation Properties	Allows easier removal of water. Reduces formation of undesirable emulsions in systems
Excellent Filtration Properties	Helps to keep oil lines and flow control mechanisms free of deposits. Improved oil flow and cooling performance. Lowers filter replacement costs.
Excellent Colour Stability	Ensuring flow meters can be easily monitored by eye so that the right flow rate is maintained to the bearings.
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 oil-wetted surfaces.

Applications

Lubrication of severe industrial paper machine circulating systems

Application involving circulation systems operating over a wide temperature range

Circulation systems lubricating gears and bearings

Mobil Paper Machine Oil S is particularly applicable for machines where it is essential for excellent colour stability to visually monitor the oil flow rate through flow meters.

Specifications and Approvals

This product is recommended for use in applications requiring:	150	220	320
Valmet Paper RAU4L00659_07 (wet and dry ends)	X	X	X
Valmet Paper RAUAH02725_00 (synthetic oil for hydraulic rolls)	X	X	X
Voith Paper VS 108 5.3.1 2023-04 (wet end)	X		
Voith Paper VS 108 5.3.2 2023-04 (dry end)		X	X
Voith Paper VS 108 5.3.3 2023-04 (off-line coaters)	X		
Voith Paper VS 108 5.3.4 2023-04 (hydraulic roll)	X		
Voith Paper VS 108 5.3.5 2023-04 (shoe press)	X	X	X
Voith Paper VS 108 5.3.6 2023-04 (winder)		X	

Properties and Specifications

Property	150	220	320
Grade	ISO VG 150	ISO VG 220	ISO VG 320
Density @ 15.6 C, g/ml, ASTM D4052	0.858	0.865	0.864
Emulsion, Time to 37 mL Water, 82 C, min, ASTM D1401	10	20	20
FZG 4-Square Load Support, Fail Stage, DIN 51354	12		
Flash Point, Cleveland Open Cup, °C, ASTM D92	250	240	260
Foam, Sequence I, Stability, ml, ASTM D892	0	0	0
Foam, Sequence I, Tendency, ml, ASTM D892	0	0	0
Foam, Sequence II, Stability, ml, ASTM D892	0	0	0
Foam, Sequence II, Tendency, ml, ASTM D892	0	0	0
Foam, Sequence III, Stability, ml, ASTM D892	0	0	0
Foam, Sequence III, Tendency, ml, ASTM D892	0	0	0
Kinematic Viscosity @ 100 C, mm ² /s, ASTM D445	20	27	36
Kinematic Viscosity @ 40 C, mm ² /s, ASTM D445	150	220	320
Pour Point, °C, ASTM D97	-42	-39	-36

Property	150	220	320
Viscosity Index, ASTM D2270	153	157	159

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>

All trademarks used herein are trademarks or registered trademarks of Exxon Mobil Corporation or one of its subsidiaries unless indicated otherwise.

08-2024

ExxonMobil Finland Oy Ab

Satamatie 10

21100 Naantali - FINLAND

+358 (0) 10 40 8500

<http://www.mobil.fi>

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

ExxonMobil is comprised of numerous affiliates and subsidiaries, many with names that include Esso, Mobil, or ExxonMobil. Nothing in this document is intended to override or supersede the corporate separateness of local entities. Responsibility for local action and accountability remains with the local ExxonMobil-affiliate entities.

ExxonMobil

Exxon Mobil Esso XTO ENERGY

© Copyright 2003-2025 Exxon Mobil Corporation. All Rights Reserved