Mobil

Mobil Vacuoline™ 100 Series

Mobil Industrial , Singapore

Circulating Oils

Product Description

The Mobil Vacuoline™ 100 range is a series of extra high quality circulating system oils primarily intended for the lubrication of plain bearings in systems designed for full fluid lubrication, particularly those subjected to heavy water contamination, such as may be used for back-up roll bearings in metal rolling mills. Specifically, they meet the requirements for rolling mill bearings including the Morgan “super demulsibility" specification as defined by Morgan's Advanced Lubricant Specification, Revision 2.5a. The Mobil Vacuoline 100 Series oils are formulated from high quality base stocks and additives to provide outstanding water separation ability, good resistance to thermal degradation and oxidation, and protection against rust and corrosion. The Mobil Vacuoline 100 Series oils are resistant to the formation ofemulsion and sludge. Consequently the oils can contribute to cleaner systems and filters. Also solid contaminants separate readily for easy cleaning by centrifuge, filtration or settling. The Mobil Vacuoline 100 Series possess a high viscosity index and good demulsibility that is retained under conditions of severe water contamination and are recommended for both single and dual tank circulation systems. Mobil Vacuoline 100 Series oils are the choice of rolling mill operators worldwide. They enjoy strong support of key equipment builders including Morgan Construction Company, Worcester, MA, USA.

Features and Benefits

The Mobil Vacuoline family of products is well known and highly regarded worldwide based on their outstanding performance and the global technical support which stand behind the brand. The exceptional performance of Mobil Vacuoline 100 Series oils, has made it the choice of rolling mill users around the world. Experience gained in close contact with key rolling mill builders, including Morgan Construction in the United States has been applied to ensure that Vacuoline oils meet the needs of evolving rolling mill designs and applications.

For Mobil Vacuoline 100 Series oils, this work has resulted in a formulation based on a high quality base stocks, along with specially chosen additives, to provide rust and corrosion protection and excellent demulsibility which results in superb equipment protection, highly reliable operation and long oil charge life. A review of the features, advantages and potential benefits of the product are shown below:

Features	Advantages and Potential Benefits
Outstanding demulsibility	Ready separation from water and contaminants throughout the life of the oil for trouble-free operation and reduced downtime
Good resistance to oxidative degradation	Extended oil charge life and reduced oil replacement costs Cleaner system and filters and reduced maintenance costs
Excellent rust and corrosion protection	Enhanced equipment protection and equipment life

Applications

Mobil Vacuoline 100 Series oils are primarily recommended and used almost exclusively for rolling mill applications. The oils are suitable for:

- Back-up roll bearings of rolling mills, particularly bearing systems, where either a single or dual tank is employed
- Other full fluid bearing systems and similar type applications in other industries, particularly where the bearings are subjected to heavy water contamination

Specifications and Approvals

This product meets or exceeds the requirements of:	128	133	137	146	148
DIN 51517-2:2018-09	X	X	X	X	

This product meets or exceeds the requirements of:	128	133	137	146	148
Primetals Technologies Morgoil® Advanced Lubricant Specification Rev 2.5a	X	X	X	X	X
Primetals Technologies Morgoil® Standard Lubricant Specification Rev 1.1	X	X	X	X	X
SMS Group X-Roll® Oil Bearing- Advanced Lubricant Specification (SN 180-4)	X	X	X	X	X
SMS Group X-Roll® Oil Bearing- Standard Lubricant Specification (SN 180-3)	X	X	X	X	X

Properties and Specifications

Property	128	133	137	146	148
Grade	ISO VG 150	ISO VG 220	ISO VG 320	ISO VG 460	ISO VG 680
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130	1B	1B	1B	1B	1B
Demulsibility, Emulsion, 52 C, Non-EP Oils, ml, ASTM D2711(mod)					40
Demulsibility, Free Water, 52 C (125 F), Non-EP Oils, ml, ASTM D2711(mod)	40	36	39	41	
Density @ 15 C, kg/l, ASTM D4052	0.89	0.89	0.9	0.9	0.91
Emulsion, Time to 40/37/3, 82 C, min, ASTM D1401	15	20	25	30	35
Flash Point, Cleveland Open Cup, °C, ASTM D92	280	288	286	296	318
Foam, Sequence I, Stability, ml, ASTM D892	0	0	0	0	0
Foam, Sequence I, Tendency, ml, ASTM D892	0	0	0	0	0
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	14.8	18.8	23.9	30.1	36.7
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	150	220	320	460	680
Pour Point, °C, ASTM D97	-9	-6	-9	-6	-6
Rust Characteristics, Procedure A, ASTM D665	PASS	PASS	PASS	PASS	PASS
Viscosity Index, ASTM D2270	96	95	95	95	91

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.

05-2025
ExxonMobil Asia Pacific Ltd
1 HarbourFront Place
#06-00 HarbourFront Tower One
Singapore 098633

+65 6885 8000
http://www.exxonmobil.com

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

© Copyright 2003-2026 Exxon Mobil Corporation. All Rights Reserved