Mobil

MOBIL DTE™ FM EXCEL SERIES

Mobil Industrial , Russia

Food Grade Paper Machine Lubricants

Product Description

Mobil DTE™ FM Excel Series are high-performance food grade lubricants designed to provide outstanding equipment protection in demanding industrial paper machine circulating systems, gears and bearings.

They are formulated with select high-quality base oils and a proprietary advanced technology additive system carefully balanced to comply with strict international food standards, whilst protect system components from wear, rust and corrosion. Mobil DTE FM Excel Series are NSF H1 registered lubricants and also comply with Title 21 CFR 178.3570 by the Food and Drug Administration (USA) for lubricants with incidental food contact.

Mobil DTE™ FM Excel Series provide excellent anti-wear protection for bearing and gears operating under severe conditions helping to minimize downtime in favor of productivity.

They exhibit ultra keep clean performance and excellent thermal and oxidative stability helping systems to run free from deposits, for long time, even at high temperatures.

Mobil DTE™ FM Excel Series oils are formulated to provide maximum protection and lubrication in presence of water.

Their outstanding demulsibility and filterability assure excellent performance and the ability to retain effective filtration even at very fine filtration levels. They readily separate water and retain their characteristics for extended periods of operation.

These fluids permit the use of high steam pressures, temperatures and machine speeds common in high output paper machines.

Mobil DTE™ FM Excel Series will not contribute to MOAH content in food when used in accordance with FDA 21CFR178.3570 limitations.

Features and Benefits

Mobil DTE™ FM Excel oils balanced formulation has documented high performance in modern high-output paper machine lubrication. Their excellent performance properties in the areas of wear protection, enhanced oxidation stability, chemical stability, effective rust and corrosion protection, and filterability help to extend maintenance service intervals. This results in less required maintenance, longer equipment life and increased production capacity all in good balance with the food grade requirements.

Features	Advantages and Potential Benefits
NSF H1 registered lubricants	Allows use in food and beverage packaging and processing applications
Exceptional Wear Protection	Improved bearing and gear performance
Outstanding Oxidation and Thermal Stability	Longer oil life Lower filter replacement costs Cleaner systems Reduced system deposits
Effective Water Separation Properties	Allows easier removal of water Reduces formation of emulsions in systems
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 protection against corrosion in a wet and humid environment

Applications

Mobil DTE™ FM Excel lubricants are designed to meet the demanding operating conditions in the paper industry whilst complying with the strict requirements of the food industry.

• Paper mill wet end: forming and pressing section.

• Paper mill dry end: drying section, size press, calendar stack, reel, winder.

• Food production and food packaging industrial machinery.

• General purpose lubrication for bearings, gears and hydraulic systems.

Specifications and Approvals

This product is recommended for use in applications requiring:	150	220
Valmet Paper RAU4L00659_06: OIL RECOMMENDATIONS FOR PAPER AND BOARD MACHINE OIL LUBRICATION SYSTEMS	X	X
Valmet Paper RAUAH02724_02_EN_V: MINERAL OIL RECOMMENDATIONS FOR ZONE-CONTROLLED ROLLS	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
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
Voith Paper VS 108 5.3.6 2023-04 (winder)		X

This product is registered to the requirements of:	150	220
NSF H1	X	X

This product meets or exceeds the requirements of:	150	220
DIN 51517-3:2018-09	X	X
DIN 51524-2:2017-06	X	

Properties and Specifications

Property	150	220

Property	150	220
Grade	ISO VG 150	ISO VG 220
Air Release Time, 75 C, min, ASTM D3427		16.1
Air Release, 75 C, min, ASTM D3427	10.9	
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130	1B	1A
Demulsibility, Time to 3 mL Emulsion, 82 C, min, ASTM D1401	15	10
Density @ 15 C, kg/l, ASTM D4052	0.8812	0.8814
FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1	12+	14+
Flash Point, Cleveland Open Cup, °C, ASTM D92	238	202
Foam, Sequence I, Stability, ml, ASTM D892	0	0
Foam, Sequence I, Tendency, ml, ASTM D892	0	0
Foam, Sequence II, Stability, ml, ASTM D892	0	0
Foam, Sequence II, Tendency, ml, ASTM D892	0	40
Foam, Sequence III, Stability, ml, ASTM D892	0	0
Foam, Sequence III, Tendency, ml, ASTM D892	0	0
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	150	210.8
Pour Point, °C, ASTM D97	-18	-15
Rust Characteristics, Procedure A, ASTM D665	Pass	
Rust Characteristics, Procedure B, ASTM D665	Pass	Pass

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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Mobil Oil Lubricants LLC : 123242, Moscow, Novinsky boulevard, 31, Russia

+ 7 (095) 232 22 23

You can always contact our Technical Help Desk engineers on Mobil lubricants and services related questions: https://www.mobil.ru/ru-ru/contact-us-technical

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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