Mobilgrease® FM221 and FM 222

Multipurpose grease for food processing equipment

Product Description

Mobilgrease FM 221 and FM 222 are high performance multi-purpose products designed specifically for the lubrication of food processing machinery. Mobilgrease FM 221 and FM 222 are Agriculture and Agri-Food Canada category n lubricant (incidental food contact) and are formulated with components meeting the requirements of CFR 178.3570, Chapter 21, and NSF registered as H1 classified lubricants.

Food processing equipment often operates in a variety of environments, covering the extremes of temperatures from oven to freezer operations, as well as a high level of contamination from water, steam and cleaning agents. Mobilgrease FM 221 and FM 222 were developed as mid-viscosity, multipurpose grease lubricants capable of providing excellent lubrication in all of these environments. Mobilgrease FM 221 and FM 222 are engineered with excellent water resistance to withstand periodic washdown and cleaning operations frequent in the food processing industry. Rust inhibition is a critical property for the industry. Mobilgrease FM 221 and FM 222 are formulated with an excellent rust inhibition package which, working in concert with the water resistance properties will provide protection against rust. The ISO VG 220 base oil viscosity coupled with excellent thickener shear stability translates into an ability to provide lubrication over a wide range of speeds, loads and temperatures. Mobilgrease FM 221 and FM 222 are also formulated to handle a variety of loads, exhibiting good protection against wear and shock load conditions.

Mobilgrease FM 221 and FM 222 were designed to meet many global performance and cultural requirements, including:

- Approved for use in establishments operating under the authority of the Food Inspection Directorate (Agriculture and Agri-food Canada n- incidental food contact)

- HSF H1 Registered
- DIN 51825 KPF1K -20 (for Mobilgrease FM 221)
- DIN 51825 KPF2K-20 (for Mobilgrease FM 222)
- Kosher/Parve
- Halal

Features and Benefits

Mobilgrease FM 221 and FM 222 belong to the Mobilgrease brand of products, which has gained a worldwide reputation for innovation and performance excellence. Mobilgrease FM 221 and FM 222 are designed by ExxonMobil formulation technologists and backed by our worldwide technical support staff.

Due to continual product research and development, the information contained herein is subject to changes without notification.
Additional important health and safety information on this product can be found in the Material Safety Data Sheet, which is available online at www.imperialoil.ca/mobil or by contacting Lubricants and Petroleum Specialities, Technical Services,
Technical Help Desk: 1-800-268-3183

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Mobilgrease FM 221 and FM 222 greases have been designed specifically to meet the needs of the food processing industry that requires excellent water resistance, rust protection and a lubricant able to provide oil to the load zones reliably under high shear conditions. These greases offer the following features and potential benefits:

Features	Advantages and Potential Benefits
Excellent water resistance and rust protection	Provides superb equipment protection during frequent equipment cleaning operations
ISO 220 mid-viscosity base oil	Mid-viscosity able to provide good film thickness over a wide range of operating temperatures
Excellent thickener shear stability	Product exhibits excellent stability for long periods of time, providing oil more consistently between relubrication cycles.
NSF H1 registered, DIN 51825 certified, Kosher/Parve, Halal, Agriculture and Agri-Food Canada category n lubricant (incidental food contact)	Engineered to meet global requirements, presenting a multi-purpose solution to the food processing industry around the world

Applications

Mobilgrease FM 221 and FM 222 greases are recommended for multi-purpose lubrication of food processing equipment where Agriculture and Agri-Food Canada category "n" lubricant (incidental food contact) or NSF H1 registration is required. The food industry includes food processing, beverage, medical and packing industries for a wide range of cultures. Applications include:

- General rotating equipment lubrication
- Conveyor bearings
- Equipment central lubrication systems (FM 221)
- Anti-friction roller bearings under heavy or shock loading
- Linkages and slides
- Joints

Specifications and Approvals

Mobilgrease meets the following industry and builder specifications:	FM 221	FM222
Agriculture and Agri-Food Canada category n lubricant (incidental food contact)	X	X
NSF H1	X	X
DIN 51825 KPF1K -20	X	X
DIN 51825 KPF2K -20		X

Mobilgrease also has these other qualifications:	FM 221	FM222
Kosher/Parve	X	X
Halal	X	X

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Typical Properties

	Mobilgrease FM 221	Mobilgrease FM222
NLGI Grade	1	2
Thickener Type	Aluminum Complex	Aluminum Complex
Color, Visual	White	White
Penetration, Worked, 25º C, ASTM D 217, mm/10	325	280
Dropping Point, ºC, ASTM D 2265	260	260
Viscosity of Oil, ASTM D 445		
cSt @ 40º C	220	220
Penetration Consistency Change, 100,000 Stroke, Change from Worked Pen, ASTM D 1831, mm/10	+15	+5
4-Ball Wear Test, ASTM D 2266, Scar, mm	0.50	0.50
Corrosion Prevention, ASTM D 1743, Rating	Pass	Pass
Copper Strip Corrosion, DIN 51811	1b	1b

Health & Safety

Mobilgrease FM 221 and FM 222 are manufactured from high quality petroleum base stocks, carefully blended with selected thickeners and additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact to skin, splashing into the eyes, ingestion or vapour inhalation. High-pressure injection of any grease under the skin can cause serious delayed soft tissue damage and should be treated immediately by a physician. To avoid injection injuries, inspect greasing equipment regularly for worn hoses and fittings. Keep finger away form the nozzle and ensure the nozzle is firmly in place before discharging the grease. Please refer to our Imperial Oil Material Safety Data Sheet for further information.

Note: This product is not controlled under Canadian WHMIS legislation.

Precautions

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