



Shell FM Grease HD 2

Heavy-duty grease for the food industry

Shell FM Grease HD 2 is a heavy-duty product specially designed for the grease lubrication of food processing machinery where frequent changes and re-applications of the grease charge are required, such as machines used to process pet food and animal feed.

It is based on a modified aluminium complex thickener, selected base oils and additives chosen for their ability to meet the stringent requirements of the pet food and animal feed industry.

Registered by NSF (Class H1) for use where there is potential for incidental food contact. This product contains only substances permitted under US 21 CFR 178.3570, 178.3620 and 182 for use in lubricants with incidental food contact. It also meets the former guidelines (1998) of the US Department of Agriculture for Food Safety and Inspection Service (USDA) for H1.

Applications

- ◆ This product is recommended for use in machinery where frequent changes of the grease charge are required or there is a high product consumption rate.
- ◆ Slow and medium speed plain and rolling element bearings
- ◆ Heavy-loaded and shock-loaded applications
- ◆ Joints, linkages and slides
- ◆ Overhead track systems
- ◆ Shell FM Grease HD 2 may also be used as protective antirust films and as release agents on gaskets and seals of tank closures.

Performance Features

- ◆ Good wash out resistance to hot and cold water
- ◆ Good oxidation and mechanical stability
- ◆ Good corrosion prevention characteristics
- ◆ Good adhesive properties
- ◆ Neutral odour and taste
- ◆ Does not contain any natural products derived from nuts or genetically modified organisms (GMO).

Seal and Paint Compatibility

Compatible with the elastomers, gaskets, seals and paints normally used in food machinery lubrication systems.

Specifications and Certificates

- ◆ NSF H1
- ◆ Kosher
- ◆ Halal

Operating Temperatures

-10°C to +140°C (peak up to +150°C)

“Incidental Food contact”

Registered by NSF (see information under Specification and Certificates) (Class H1) and meets the USDA H1 guidelines (1998) for lubricants for use where there is a potential for incidental food contact.

Made only from substances permitted under the US FDA Title 21 CFR 178.3570, 178.3620 and/or those generally regarded as safe (US FDA 21 CFR 182) for use in food grade lubricants.

To comply with the requirements of US FDA 21 CFR 178.3570, contact with food should be avoided where possible. In the case of incidental food contact, the concentration of this product in the food must not exceed 10 parts per million (10mg/kg of foodstuff).

In locations and/or applications where local legislation does not specify maximum concentration limits, Shell recommends that this same 10 ppm limit be observed, as up to this concentration Shell FM Grease HD 2 will not impart undesirable taste, odour or colour to food, nor will it cause adverse health effects.

Shell FM Grease HD 2 may be used for machinery where food for both human and animal consumption is being processed.

Consistent with good manufacturing practice, use only the amount necessary to achieve correct lubrication and take appropriate corrective action should excessive incidental contact with food be detected.



Technical Data Sheet

Health and Safety

Based on information available, Shell FM Grease HD 2 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of industrial and personal hygiene are maintained. As for all oils and greases, prolonged or repeated contact with the skin should be avoided.

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com/>.

Protect the environment

Take used lubricants and empty packs to an authorised collection point. Do not discharge into drains, soil or water.

Handling and storage

All food grade lubricants, such as Shell FM Grease HD 2, should be stored separately, out of direct sunlight or other heat sources, from other lubricants, chemical substances and foodstuffs. Store between 0°C and 40°C. Provided that the product has been stored under these conditions we recommend that the product be used within 3 years from the date of manufacture.

Consult your local Shell Company for details.

Accept for use new Shell FM Grease HD 2 only if the manufacturer's seal is intact. Before opening the pack ensure the area around the closure is clean. It is recommended that it be cleaned with Shell Cassida Fluid PL, Shell FM Hydraulic Oil, Shell FM Gear Oil and/or potable water and then dried with a clean cloth before opening.

Record the date the seal was broken.

To prevent product contamination, always close the package after use. Upon opening a pack, the product must be used within 2 years (or within 3 years of date of manufacture, whichever is the sooner).

Typical characteristics

Shell FM Grease HD 2

Property		Test method	
NSF Registration No.			136885
Appearance			Off-white, tacky paste
Type of thickener			Modified Aluminium complex
Worked Penetration at 25°C	dmm	ASTM D217	265 - 295
Kin. Visc. (base oil) 40°C	cSt	ASTM D445	550
Kin. Visc. (base oil) 100°C (calculated)	cSt	ASTM D445	37.8
Dropping point	°C	ASTM D2265	>240
Application range	°C		-10 to +140
Short-time peak temperature	°C		up to +150

These characteristics are typical for current production. Variations in these characteristics may occur.

Produced according to Shell Quality Standards, in facilities where HACCP audit and Good Manufacturing Practice have been implemented and form part of the quality/environment management system ISO 9001/ ISO 14001.