

Shell MALLEUS® Grease OGM Heavy

Special Purpose Open Gear and Wire Rope Grease

Shell MALLEUS® Grease OGM Heavy is primarily designed for use in very heavy applications, and operations under severe conditions, in mining equipments, shovels, draglines and excavators in open cut operations. Open Gear Lubricant for ball mills and kilns.

Shell MALLEUS® Grease OGM Heavy is based upon an aluminum Complex soap thickener dispersed in a high viscosity, very high quality mineral base oil containing enhanced extreme pressure – antiwear chemistry.

Performance Features and Benefits

- **Excellent load carrying capacity under severe operation conditions**
Grease contains selected components to ensure excellent resistance to shock and permanent heavy load
- **Very high mechanical and thermal stability**
Grease thickener structure is designed to resist mechanical stress and high temperature
- **Withstanding severe operation conditions**
like dust and dirt contamination, water, changes in temperature
- **Maintain adhesive characteristic over time**
Thanks performing and advanced polymere technology ensuring durable protection. Forms a dark coating on metal surfaces that is adhesive and highly water resistant
- **Low Friction**
Selected components ensure low friction characteristics, lower energy consumption and wear reduction
- **Environmental compliance**
Shell MALLEUS® Grease OGM Heavy is not formulated to contain chlorinated solvent or lead

Main Applications

- Open gears on draglines, shovels, excavators, stackers and reclaimers
- Sticks
- Circle Rail and rollers
- Heavily loaded, slow moving antifriction bearings
- Bushings
- Slow moving wire rope

Advice on applications not covered in this handbook may be obtained from your Shell representative.

Operation Temperatures:

From 0°C up to +50°C

Specification, Approvals, and Recommendations

Shell MALLEUS® Grease OGM Heavy is designed to meet following specifications:

Bucyrus SD 4713

P&H 464 Ver 09, 04-93

Handling and Safety Information

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at <http://www.epc.shell.com/>. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

Protect the Environment

Do not discharge into drains, soil, or water.

Typical Physical Characteristics

| | |
|---|----------------------|
| Shell MALLEUS® Grease | OGM Heavy |
| NLGI Consistency | 0 |
| Color | Black |
| Soap Type | Al Complex |
| Base Oil (type) | High Quality Mineral |
| Solid Lubricant | Yes |
| Base Oil Viscosity @ 40°C, cSt @ 100°C, cSt (IP 71/ASTM-D445) | 4000 125 |
| Cone Penetration Worked @ 25°C, 0.1 mm (IP 50/ASTM-D217) | 355-385 |
| Dropping Point °C (IP 132/ASTM-D566-76) | 190 |
| Four Ball Test , kg (IP 236) | 800 |
| Four Ball Wear Scar , mm (ASTM D 2266) | Max 0.7 |
| Four Ball Load Wear Index (LWI) kg (ASTM D 2596) | 120 |
| FZG A/2.76/50 (DIN 51354) Load Stage pass | 12 |
| Rust Test (ASTM D 1743) | Pass |
| Copper Strip 3h @ 100 °C (ASTM D 4048) | 1b |

These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.