

# Shell Malleus Grease OGM Heavy

## Special Purpose Open Gear and Wire Rope Grease

THICKENER	NLGI	TEMP RANGE	BASE OIL VISCOSITY		EP	WATER RESISTANCE	SOLID LUBRICANT
		0 °C	40 °C	100 °C			
Al Complex	0	to	4000	125	✓✓✓	☆☆	✓✓
		+50 °C	mm <sup>2</sup> /s	mm <sup>2</sup> /s			

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.

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

### Applications

Typical applications for Malleus OGM Heavy are:

- 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

### Performance Features

- **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 OGM is not formulated to contain chlorinated solvent or lead

### Operation Temperatures :

From 0 °C up to +50 °C

### Approvals and Recommendations

Shell Malleus OGM Heavy is designed to meet following specifications :

Bucyrus SD 4713  
P&H 464 Ver 09, 04-93

### Health & Safety

Shell Malleus Grease OGM Heavy 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. Prolonged or repeated contact with the skin should be avoided.

For further guidance on product Health and Safety refer to the appropriate Shell Product Safety Data Sheet.

## Typical Physical Characteristics

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

These characteristics are typical of current production. Whilst future production will conform to Shell's specification variations in these characteristics may occur. conform to Shell's specification variations in these characteristics may occur.

### Advice

Advice on applications not covered in this leaflet may be obtained from your Shell Representative