

Shell MALLEUS® GL

Superior performance open gear greases

Shell MALLEUS® GL is a range of premium quality, lead and solvent free, EP lubricants developed for the lubrication and protection of open gears and wire ropes subjected to extremes of ambient temperature and operating conditions. They are a unique blend of high quality paraffinic mineral and synthetic base oils with carefully selected additives to provide optimum performance.

Performance Features and Benefits

- **Excellent physical and mechanical stability**
Shell MALLEUS® GL retains its natural protective properties over its long working life
- **Excellent anti-wear performance**
At working temperatures, speeds and pressures, Shell MALLEUS® GL forms a protective cushion between the large gear (girth, bull etc) and pinion teeth.
- **Superb load carrying capacity**
Molybdenum disulphide and other solid lubricants combine to reduce tooth contact zone temperatures, reduce gear surface pitting and alleviate 'stick-slip' conditions
- **Water repellent**
Effectively resists water 'wash-off' by immersion or spray
- **Corrosion protection**
Protects metal surfaces from corrosion in hostile environments such as salt-water conditions. Repels dirt and dust
- **Environmental compliance**
Lead and solvent haven't been added intentionally to Shell MALLEUS® GL

Main Applications

- Heavily loaded open gears, particularly those found in grinding mills, kilns, shovels, draglines, ship loaders, stackers and reclaimers and excavator applications. When choosing a product to suit your ambient temperature conditions, always consult with your Shell representative for the appropriate grade.
- Multi service lubricant that can be used as the one grease (multi purpose and open gear) for the entire machine on most shovels, excavators and draglines (excluding electrical motors bearings)

- Surface dressing of slow moving gears open to the atmosphere
- Plain bearings, pivot pins/bushings and articulations found in earth moving equipment
- Mooring, static and slow moving wire ropes including those intermittently immersed in salt water
- Wide variety of heavy-duty mining and industrial applications

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

Specifications, Approvals, and Recommendations

Shell MALLEUS® GL's have been approved by following OEM's:

- FLSmith (MALLEUS® GL 400, 500)
- Norberg (MALLEUS® GL 400)
- Ferry Capitain (MALLEUS® GL 400, 500)
- Falk (MALLEUS® GL 400)
- Lincoln (All MALLEUS® GL)

Dispensing

Shell MALLEUS® GL may be applied manually or by conventional centralized automatic lubrication systems.

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® GL	Test Method	GL 95	GL 400	GL 500
Base Oil Kinematic Viscosity:				
@ 40°C, cSt	D 445	655	1625	1625
@ 100°C, cSt	D 445	37.4	83.5	83.5
Specific Gravity @ 60 °F	D 4052	1.000	1.018	1.070
Flash Point, COC, °C	D 92	min 130	min 130	min 130
Four Ball EP Test				
Weld Pt. N (kgf)	D 2596	min 6200 (632)	min 6200 (632)	min 6200 (632)
Scar Diameter, mm	D 2266	max 0.8	max 0.8	max 0.8
Timken OK Load (without solids) lbs	D 2509	min 45	min 45	min 45
Falex Continuous Load Failure, N (kgf)	D 3233	min 20450 (2085)	min 20450 (2085)	min 20450 (2085)

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