

# Shell MALLEUS® GL 3500

## *Premium performance open gear and wire rope grease*

Shell MALLEUS® GL 3500 is full EP grease developed for the lubrication and protection of open gears subjected to extremes of temperature and operating conditions. Shell MALLEUS® GL 3500 combines high performance with chemistry that helps to minimize the cost of disposal and provides a tenacious film that helps to reduce fling-off.

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- Shell MALLEUS® GL 3500 provides a durable protective coating to metal surfaces without the use of bitumen, solvents or heavy metals. This film helps to minimize metal-to-metal contact and wear.
- Shell MALLEUS® GL 3500 contains graphite and MoS<sub>2</sub>. The combination of Biolaminate™ additive with MoS<sub>2</sub> and graphite enhances the separation of extremely loaded gear teeth and creates a durable protective film on the contact surfaces of machine components.
- Shell MALLEUS® GL 3500 remains pliable over its work life and resists drying out in gear teeth or shrouds even in extremely dusty conditions. Its excellent antiwear protection help to reduce tooth contact temperatures, reduce gear surface pitting and alleviate stick slip conditions. The use of high viscosity base oils and polymer forms a protective cushion between gear teeth and resists fling off, squeeze out and oil separation. The formulation is water resistant and resists water “wash off” by immersion or spray.

### **Performance Features and Benefits**

- Excellent antiwear performance
- Excellent load carrying capacity
- Water resistant
- Lead, bitumen and solvent free
- Excellent corrosion protection

### **Main Applications**

- Lubrication of grinding mills and kilns
- Lubrication of static and slow moving wire ropes including those intermittently immersed in salt water

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

### **Operating Temperature**

- -7°C (19°F) to + 100°C (212°F)
- Peak temperature of 130°C (266°F)

### **Dispensing**

Shell MALLEUS® GL 3500 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 3500	Test Method	
NLGI Grade		00
Soap Type		Alum. Complex
Color	Visual	Black
Texture		Tacky
Viscosity		
@ 40°C, cSt	D 445	4060
@ 100°C, cSt	D 445	157
Cone Penetration		
Worked @ 25°C	D 217	415
Dropping Point, °C(°F)	D 566	195(383)
Rust Test	D 1743	Pass
Copper Strip Corrosion		
3 Hr @ 100, °C		1b
Four Ball Weld Load, kgf	D 2596	800
Low Temp. Pumpability, °C (°F)		
Lincoln Ventmeter @ 400 psi		-7 (+19)

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