

AMSOIL Greases for All Applications

- **GL Series – Multipurpose** • **GVC – High Viscosity** • **GWR – Water Resistant**
- **GH Series – Heavy Duty** • **GRG – Racing Grease** • **GXC – Food Grade**
- **GFW – Fifth-Wheel and Open-Gear**

According to *The Practical Handbook of Lubrication*, “grease is a lubricant composed of a fluid lubricant thickened with a material that contributes a degree of plasticity.”

Pretty dry stuff.

A better way to understand grease is to think of it as “the gravy of the lubricant world.”

Like gravy, grease starts out with a liquid base, like chicken or beef broth, and then a thickener is added – much like the flour or cornstarch paste for gravy – to give it the right consistency. Then, additives, like the spices, create greases appropriate for their various applications.

Pretty simple stuff, but vital to the smooth operation of equipment parts under extreme pressure and heat.

Why is grease important and what are its functions?

Grease is important because it separates metal surfaces from one another and prevents wear. It continues to provide a barrier between those components under extreme pressure, heat and heavy loads.

Because greases have high retentive properties, they are used where a continuous supply of fresh lubricant is not provided, and where an oil would not be retained. That means, for instance, bearings that are not supplied by circulating bath systems are lubricated with grease.

AMSOIL uses only synthetic base oils for its greases because tests prove they provide a tougher film strength, are more durable and last longer than petroleum base oils.

All AMSOIL grease products contain complexed thickeners and complete additive systems.

AMSOIL uses lithium complex thickeners in all of its greases, except in the GXC Food Grade grease where an aluminum complex thickener is used, to create varying consistencies of greases for virtually every application.

“The advantage of using the lithium thickeners is that they have the highest degree of compatibility with

other thickeners,” said Technical Services Manager Ed Kellerman. That means AMSOIL greases can be added where other greases have been used without the need to flush the entire system.

The most common reasons for grease-related failures are using the wrong grease, incompatibility with other greases used in the system and too much or too little grease.

“Too much grease is as detrimental as too little,” Kellerman said. “Over-lubrication can cause heat buildup and seal failure. It’s very important to follow the specifications.”

The consistency, or hardness, of grease is often its most important attribute. The correct consistency is determined by the application for which it is used. Consistency is tested by dropping a cone into grease that has been stirred (worked) to the point of its intended use, and that determines its NLGI grade.

Greases are rated in six classifications by the National Lubrication and Grease Institute (NLGI). They range from 000 to 6, and are referred to as grades. The 000 grades are nearly fluid, while the 6 grades are nearly solid.

“AMSOIL greases meet the highest NLGI classification of LB/GC,” Kellerman said.

The most commonly used grease is NLGI 2. Softer grades, especially 0 and 1, are often used for improved pumpability or low-temperature service. Higher consistency numbers are used where leakage or sealing are particular concerns.

AMSOIL has a diverse line of greases for virtually every application.

The following charts and graphs detail the AMSOIL line of greases, their characteristics and applications.

Technical information for all of the AMSOIL greases can be found in the data sheets on the AMSOIL Corporate Website at www.amsoil.com in the Dealer’s Zone.

NLGI Number	AMSOIL	Worked Penetration at 25°C (in mm)
<i>Semi Fluid</i> 000	N/A	445-475
00	N/A	400-430
0	GLA	333-385
1	GFW, GLB, GHB	310-340
1.5	GWR	295-310
2	GRG, GHD, GLC, GXC, GVC	265-295
3	N/A	220-250
4	N/A	175-205
5	N/A	130-160
<i>Brick</i> 6	N/A	85-115

Chassis	LA	Mild duty, frequent relubrication
	LB	Infrequent relubrication, high loads, water exposure
Wheel Bearings	GA	Mild duty
	GB	Moderate duty, typical of most vehicles
	GC	Severe duty, high temperature, frequent stop and go service