

# LSG LITHIUM COMPLEX 320 GREASE NO. 000

Semi-Fluid Lithium Complex Grease for Gear Box Lubrication and  
Plunger Systems

Supports Pressing and Plunger Machinery in High-Pressure Die  
Casting and Fracking Applications.

# LSG LITHIUM COMPLEX 320 GREASE NO. 000

**LONE STAR**  
GREASE & LUBRICANTS

Is a high-performance, semi-fluid lithium complex lubricant designed for open and enclosed gear drives requiring superior low-temperature flow and wear protection. Engineered for use in demanding operating environments, it provides exceptional film strength, low torque resistance, and excellent protection against rust, corrosion, and mechanical degradation, crucial for the longevity of plunger-driven machinery.

This grease is formulated with a robust lithium complex thickener and a proprietary additive system that ensures long service life even in high-load and high-contamination applications. It contains no environmentally harmful ingredients, reducing the risk of environmental issues—making it a smart and sustainable option for lubrication systems in industries such as high-pressure die casting, hydraulic fracturing (fracking), mining, steel production, and heavy equipment operations requiring semi-fluid grease.

## KEY FEATURES

- Semi-fluid NLGI No. 000 consistency for cold-weather and gear box systems, ensuring optimal flow.
- Formulated with ISO 320 base oil for enhanced film strength, critical for plunger tip and shot sleeve protection.
- Resists rust and corrosion in harsh industrial environments.
- Lithium complex thickener ensures mechanical and thermal stability under demanding conditions.

## CUSTOMER BENEFITS

- ✓ Ideal for plunger lubrication in reciprocating pumps, die casting machines, and high-pressure fracking pumps.
- ✓ Prevents premature and extends component lifespan.
- ✓ Performs reliably in low-temperature and high-temperature environments, ensuring year-round operation.
- ✓ Minimizes maintenance with long-lasting protective film, reducing downtime.
- ✓ Reduces metal-to-metal contact under loads and vibration, enhancing operational efficiency.

Refined over years of performance optimization, LSG Lithium Complex 320 Grease No. 000 features a carefully engineered viscosity profile that and consistent flow to key friction points. Its semi-fluid nature enables precise delivery to plunger tips, packing, bearings, chain drives, bushings, and other hard-to-reach locations under pressure or gravity feed systems.

This specialized composition delivers superior thermal and mechanical stability, outstanding wear protection, and enhanced resistance to water contamination and oxidation. Whether operating in freezing conditions or exposed to extreme pressure and contamination, it ensures reliable protection, extended component life, and minimized maintenance interruptions for critical plunger machinery.



## APPLICATIONS

**LSG Lithium Complex 320 Grease No. 000 is engineered for use in:**

- High-Pressure Die Casting (HPDC) machines: Lubrication of plunger tips, shot sleeves, and injection pistons.
- Hydraulic Fracturing (Fracking) pumps: Lubrication of plungers, packing, and associated bearing components in high-pressure pumps.
- Other specialized industrial pumps and compressors utilizing plunger or piston mechanisms.
- Enclosed gear cases with grease lubrication, where a semi-fluid consistency is required.
- On- and off-road equipment utilizing gear boxes that require a semi-fluid grease.
- Cold temperature applications requiring flowable grease that maintains low-temperature protection.

It is particularly well-suited for equipment requiring grease that flows under pressure yet stays in place once applied, offering a critical seal and lubrication in demanding plunger operations.

## PACKAGING:



Cartridges  
14 oz.



Pails  
35 lbs.



Kegs  
120 lbs.



Drums  
400 lbs.

\*Custom and Bulk Packaging available upon request.

## TYPICAL PROPERTIES

Property	Value	Test Method
NLGI Grade	000	ASTM D217
Worked Penetration (60X)	445 – 475	ASTM D217
Base Oil Viscosity @ 40°C (cSt)	320	ASTM D445
Four Ball Weld Load (kg)	250	ASTM D2596
Four Ball Wear (mm)	0.50	ASTM D2266
Timken OK Load (lbs)	40	ASTM D2509
Color	Purple	Visual
Texture	Semi-Fluid / Smooth	Visual



Typical properties reflect the expected results within normal production tolerances but do not constitute a specification. Minor variations that do not impact product performance may occur during standard manufacturing processes or at different blending locations. The information provided here is subject to change without notice.

### Health and Safety:

When used as intended, this product is not expected to pose any health risks or safety concerns. To minimize exposure, avoid direct skin contact and wear resistant gloves when handling used lubricants. If contact occurs, wash the affected area immediately with soap and water. For comprehensive guidelines on safe handling and detailed product information, please refer to the Material Safety Data Sheet (MSDS) available on our website. <https://lonestargl.com>