

# Mobil Aviation Grease SHC 100

Synthetic Aviation Grease

## Product Description

Mobil Aviation Grease SHC 100 is a supreme performance synthetic grease which combines the unique features of a polyalphaolefin (PAO) synthetic base fluid with those of a high quality lithium complex soap thickener. The thickener system provides a high dropping point, excellent resistance to water wash, and a tenacious structural stability. The unique physical properties of the synthetic base oil, combined with selected additives, provide outstanding protection against wear, rust, corrosion, and high temperature degradation. The wax-free feature of the synthetic base oil allows for low-temperature mobility/pumpability and low starting and running torque values. Also, the traction property of the synthetic base fluid is considerably lower than mineral, allowing for temperature reductions in the load zone of rolling element bearings. Mobil Aviation Grease SHC 100 is the product of choice for aircraft wheel bearing applications.

## Applications

Mobil Aviation Grease SHC 100 is recommended for aviation applications which need a lubricant that can perform normal functions, yet go far beyond in terms of high and low temperatures and long-life performance. It is a NLGI Grade 2/ISO VG 100 grease having the cold-temperature pumping resistance of most mineral-oil NLGI Grade 0 greases. It provides outstanding protection at operating temperatures from -54°C (-65°F) to 177°C (350°F).

Mobil Aviation grease SHC 100 is recommended for high speed, heavy load applications such as wheel bearings, as well as for slower speed, high load applications such as landing gear bearings, slides, and joints.

Approved as wheel bearing grease by:

- ABSC
- Dunlop
- Goodrich
- Honeywell (formerly AlliedSignal)
- Messier-Bugatti
- Parker-Cleveland

## Advantages

Mobil Aviation Grease SHC 100 synthetic grease provides these advantages when compared with mineral-oil greases intended for similar service:

- Operating range of -54°C (-65°F) to +177°C (+350°F)
- Excellent resistance to rust, corrosion, and oxidation
- Outstanding structural stability in the presence of water
- Excellent wear protection under heavy loads and high temperatures
- Power-saving capabilities
- Extended relubrication intervals
- Low volatility

## Health and Safety

Based on available toxicological information, it has been determined that this product poses no significant health risk when used and handled properly. Information on use and handling, as well as health and safety information, can be found in the Material Safety Data Sheet which can be obtained from your local distributor; via the Internet on <http://www.exxonmobil.com>; or by calling 1-800-662-4525 and selecting prompt 2.

For additional technical information or to identify the nearest U.S. ExxonMobil supply source, call 1-800-662-4525.

Characteristics	Test Method	Mobil Aviation Grease SHC 100* Specification Limits	
NLGI Grade		Normal 2	
Soap Type		Lithium Complex	
Structure	Visual	Smooth; Slight Tack	
Color	Visual	Red	
Penetration @ 25°C (77°F)	ASTM D 217		
Worked, 60 strokes		275	255-300
Worked, 100,000 strokes		305	
Dropping Point, °C (°F)	ASTM D 2265	277 (530)	246 min
Base Oil Viscosity, cSt	ASTM D 445		
@ 40°C		100	
@ 100°C		14.5	
Four-Ball Wear, Scar dia, mm	ASTM D 2266	0.5	0.7 max
Four-Ball EP, Weld Load, kgf	ASTM D 2596	250	
Four-ball EP, Load Wear Index	ASTM D 2596	40	
Water Washout, wt %	ASTM D 1264		
1 hr @ 79°C (175°F)		7	
Rust Protection, > 1mm dia Corrosion Spots	ASTM D 1743		
48 Hrs @ 125°F		0 in 2 out of 3 bearings	
Bomb Oxidation, pressure drop in psi	ASTM D 942		
100 hr @ 99°C (210°F)		1.5	
500 hr @ 99°C (210°F)		5	
Oil Separation, wt %,	ASTM D 6184		
30 Hrs @ 177°C		8	
Evaporation, wt %	ASTM D 972		
30 Hrs @ 177°C		5	
Dirt Count, Particles/mL	FTM 791.3005		
25-125 Micron		Pass	1000 max
Larger than 125 Micron		0	0
Grease Mobility @ 18°C(0°F), g/min	USS	40	

\*Values shown may vary within modest ranges.