

# Aeriol

## ThixO SYN Aviation Grease

Aeriol ThixO SYN Aviation Grease is a specialty lubricant designed for specific aviation applications including helicopter rotor shafts, splines and hub assemblies for the Bell 206A/B and 206L Models

This high performance fully synthetic grease combines the unique properties of a PAO synthetic base oil and advanced EP/AW chemistry with the unique properties of an overbased calcium sulfonate thickener. This special formula provides excellent performance in all aviation applications and long lasting protection for aircraft components.

The low oil separation rate of ThixO SYN Aviation Grease facilitates the use of a high index low viscosity base oil over traditional grease formulations reducing starting and running torque. Advanced EP/AW chemistry provides superior high load and extreme pressure protection to over 1.4 GPa without the use of solid lubricants such as molybdenum compounds.

**Meets or Exceeds the following**  
**MIL-PRF-24139**  
**BELL Consumable Material Ref C-172**

**Aeriol ThixO SYN Aviation Grease:** For use in aviation applications as specified by the manufacturer. Follow all maintenance requirements as designated. Avoid contamination of ThixO SYN Aviation Grease with other grease types.

<b>PART#:</b>	<b>3820-0 (400g Tube)</b>	<b>3822-0 (55kg Keg)</b>
	<b>3821-0 (17kg Pail)</b>	<b>3823-0 (180kg Drum)</b>

TYPICAL PROPERTIES	ASTM METHOD	Aeriol ThixO SYN
NLGI Consistency Grade		2
Appearance		Brown, Smooth, Buttery
Worked Penetration (60 Strokes - mm/10)	D 217	280
Dropping Point (°C)	D 2265	>300 (572 °F)
Oil Separation (% W loss)	D 1742	0.2% W
BASE OIL PROPERTIES		
Viscosity @ 40°C (cSt)	D 445	50
Viscosity @ 100°C (cSt)	D 445	8.4
Viscosity Index	D 2270	144

**Compatibility:** Aeriol ThixO SYN Aviation Grease is compatible with Aluminum Complex, Barium Complex, Calcium Stearate, Calcium 12-Hydroxy, Lithium Stearate, Lithium 12 Hydroxy, Lithium Complex and some Polyurea thickening agents.

ThixO SYN Aviation Grease is not compatible with Calcium Complex, some Polyurea and most Clay thickeners. (If uncertain about a specific polyurea agent, compatibility testing should be performed)

**IMPORTANT NOTICE:** Mobilgrease 28 aviation grease which contains PAO base oil and clay thickeners IS compatible with ThixO SYN Aviation Grease. **Special care should be taken if purging bearings designed to be purged by the seals; progressive introduction of grease while rotating the bearing will protect seal integrity.**



TYPICAL PROPERTIES	ASTM METHOD	Aeriol ThixO SYN
<b>PERFORMANCE TESTING</b>		
Timken OK Load (kg)	D 2509	30 (66 lbs)
4 Ball EP - Load Wear Index	D 2596	79.26
4 Ball EP - Weld Point (kg)	D 2596	500
4 Ball Wear (mm)	D 2266	0.42
Water Washout (% loss @ 79°C (175°F))	D 1264	<0.10 %
Wheel Bearing Leakage (g loss)	D 4290	4.00
Low Temperature Torque (Start - Nm @ -40°C)	D 1478	0.785
(1 hr - Nm @ -40°C)	D 1478	0.113
(Start - Nm @ -20°C)	D 1478	0.177
(1 hr - Nm @ -20°C)	D 1478	0.019
Mobility @ -35°C (g/mm)	US Steel Method	9.0
Corrosion Prevention	D 1743	Pass
Salt Fog Corrosion 1 mil d.f.t (hours)	B 117	>300
Bomb Oxidation - PSI drop @ 100 hrs	D 942	2.2
PSI drop @ 500 hrs	D 942	5.4
PSI drop @ 1000 hrs	D 942	6.0
<b>MECHANICAL STABILITY</b>		
Worked 10 000 strokes (% change)	D 217	2.4
Worked 100 000 strokes (% change)	D 217	2.9
Worked 10 000 strokes, 50/50 water (% change)	D 217	8.0
<b>ELASTOMER COMPATIBILITY</b>		
NBR-L 70 hrs @ 150°C	D 4289	BUNA-N
% Swell	D 4289	2.96
Hardness Change, Durometer A	D 4289	-1
CT TYPE 70 hrs @ 100°C	D 4289	NEOPRENE
% Swell	D 4289	7.66
Hardness Change, Durometer A	D 4289	-4
Particle Count 25-74 micron (per cc)	FTM-3005	0
Particle Count > 75 micron (per cc)	FTM-3005	0
Apparent Viscosity, 0°C @ 200 sec (poise)	D 1092	200