

Aeriol ThixOSYN Aviation Grease is a specialty lubricant designed for specific aviation applications including helicopter rotor hub, trunnion and pitch horn bearing assemblies, swashplate bearing and tail rotor trunnion and pitch assemblies for the Bell 206A/B, L, L1, L3, L5, TH-67, and other legacy series as well as the new 505.

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

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

<b>Product ID#</b>	<b>3820-3 (400g Tube x 30)</b>	<b>3821-0 (17kg Pail) 3822-0 (55kg Keg)</b>	<b>3823-0 (180kg Drum)</b>
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<u>TYPICAL PROPERTIES</u>	<u>ASTM METHOD</u>	<u>Aeriol ThixOSYN</u>
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
<b>BASE OIL PROPERTIES</b>		
Viscosity @ 40°C (cSt)	D 445	50
Viscosity @ 100°C (cSt)	D 445	8.4
Viscosity Index	D 2270	144

**IMPORTANT NOTICE:** Mobil grease 28 aviation grease which contains PAO base oil and clay thickeners is compatible in small volumes (<10%) with Aeriol ThixOSYN Aviation Grease. Special care should be taken if purging bearing designed to be purged by the seals; progressive introduction of grease while rotating the bearing will protect seal integrity.

The low oil separation rate of Aeriol ThixOSYN 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
- BELL Specification 299-947-554

TYPICAL PROPERTIES	ASTM METHOD	Aeriol ThixOSYN
<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 (kgf)	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	4.0
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. (hrs)	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

GREASE COMPATIBILITY											
	Thickener	1	2	3	4	5	6	7	8	9	10
1	Ca sulfonate complete		NC	NC	FC	FC	NC	FC	FC	NC	NC
2	Aluminum complex	NC		NC	FC	NC	NC	NC	NC	NC	NC
3	Barium	NC	NC		FC	NC	NC	NC	NC	NC	NC
4	Anhydrous calcium	FC	FC	FC		SC	FC	FC	FC	NC	NC
5	Calcium complex	FC	NC	NC	SC		NC	NC	FC	FC	NC
6	Clay	NC	NC	NC	FC	NC		NC	NC	NC	NC
7	Lithium	FC	NC	NC	FC	NC	NC		FC	NC	SC
8	Lithium complex	FC	NC	NC	FC	FC	NC	FC		NC	SC
9	Polyurea	NC	NC	NC	NC	FC	NC	NC	NC		NC
10	Sodium	NC	NC	NC	NC	NC	NC	SC	SC	NC	

**Legend:**

FC - Fully compatible

SC - Somewhat compatible: Mixture soften, but remains grease like

NC - Not compatible: Mixtures soften severely and do not remain grease like

All precautions were taken to ensure that the data in this table are correct, however it is recommended that you consult the manufacturer before mixing two different products.