TRIBOLUBE®-1N

Special Purpose Grease

CHARACTERISTICS

Conforming to MIL-PRF-83363 requirements, the outstanding characteristics of this grease are its operating temperature range (-65ºF to 350ºF), its extreme pressure and anti-wear properties, and its ability to function in heavily loaded gear boxes and transmissions without excessive heat buildup of temperature. This grease was developed for lubricating helicopter transmissions, screw actuators, fine pitch gear trains and servo mechanisms. It is also used in aircraft windshield wiper motor gearboxes. Cost effective industrial uses for this lubricant are increasing rapidly as indicated by the following partial list of applications.

APPLICATIONS

Stepping motor drive - excellent adherence and lubricity coupled with long life eliminating severe maintenance problems in a large telescope drive mechanism.

Missile guidance controls - long shelf life, high lubricity, and seal compatibility.

Ball screw actuators - required high lubricity, high load capability, seal compatibility, and low start run torques at -65ºF.

PERFORMANCE TEST	TEST METHOD	CONDITION	MIL-PRF-83363 REQUIREMENTS	TYPICAL VALUES
Temperature Range				-65ºF to 350ºF
NLGI No.				1
Unworked Penetration	ASTM D-1403	@77ºF	340 max	295
Worked Penetration	ASTM D-1403	60 Strokes	340 max	330
Worked Stability	FED-STD-791 Method 313	100,000 Strokes	375 max	325
Dropping Point	ASTM D-2265			+550ºF
Evaporation	ASTM D-2595	22 hrs @ 300ºF	5.0% max	2.80%
Oil Seperation	FED-STD-791 Method 321	30 hrs @ 300ºF	10.0% max	5.00%
Density				1.20 gm/cm
Dirt Count	FED-STD-791 Method 3005	25-74 microns		24/cc
		Over 75 microns		0
Coef. of Friction		1,200 rpm, 90ºF, 15 kg load		0.08
Load Wear Index	ASTM D-2596		90 min	146.1
Last Non-seizure		Load/Wear Scar		None
Last Seizure		Load/Wear Scar		315 kg/1.10 mm
Weld Point		Load		+800 kg
Steel-on-Steel Wear	ASTM D-2266	1200 rpm, 40 kg, 167ºF, 2 hrs, 52100 Steel	1.3 mm max	1.06 mm
		1200 rpm, 40 kg, ambient, 4 hrs, 52100 Steel	1.3 mm max	1.16 mm
High Temperature Performance	ASTM D-3336	10,000 rpm, 300ºF, 5 lbs		1,300 hrs
Low Temperature Torque	ASTM D-1478	@-65ºF, Starting	3,000 gm-cm Max	2,179 gm-cm
		Running	1,000 gm-cm Max	670 gm-cm
Rubber Swell	FED STD-791 Method 3603			
Buna "N"		168 hrs @ 158ºF		31.70%
Buna "N"		72 hrs @ 275ºF		36.90%
Viton "B"		168 hrs @ 158ºF		-0.03%
Viton "B"		168 hrs @ 300ºF		15.80%
Fluorosilicone		168 hrs @ 158ºF		9.00%
Fluorosilicone		72 hrs @ 300ºF		-7.00%