

# TRIBOLUBE<sup>®</sup>-23

## Synthetic Hydrocarbon Greases

### CHARACTERISTICS

**Tribolube-23** is a synthetic grease intended for use at very low temperatures, and conforms to the performance requirements of MIL-PRF-23827, Type II. It is suitable for rolling and sliding surfaces of equipment having low motivating power (low torque). Its low volatility is advantageous in preventing oil fogging in optical instruments. Do not mix Type I and Type II material together.

### APPLICATIONS

Useful in ball, roller, needle, and plain spherical bearings, gears, and on sliding and rolling surfaces in such equipment as: instruments, cameras, electronic gear, and aircraft control systems. It is also intended for use on actuator screws and other equipment requiring a lubricant with high load carrying capacity over a wide temperature range.

PERFORMANCE TEST	TEST METHOD	CONDITION	MIL-PRF-23827 REQUIREMENT	TYPICAL VALUES
Temperature Range			-73° to 121°C	-73°C to 121°C
NLGI No.				2
Unworked Penetration	ASTM D-217	@77°F	200 min	284
Worked Penetration	ASTM D-217	@ 77°F, 60 strokes	270 - 310	293
Worked Stability	FED-STD-791 Method 313	100,000 strokes	270 - 375	282
Dropping Point	ASTM D-2265		165°C min	250°C
Evaporation	ASTM D-2595	22 hrs @ 100°C	2.0% max	0.93%
Oil Separation	FED-STD-791 Method 321	30 hrs @ 100°C	5.0% max	3.4%
Water Washout	ASTM D-1264	1 hr @ 38°C	20.0% max	2.00%
Oxidation Stability	ASTM D-942	100 hrs @ 210°F	-10.0 psi max	-2 psi
		500 hrs @ 210°F	-15.0 psi max	-6 psi
Dirt Count	FED-STD-791 Method 3005	25-74 Microns	1,000/cc max	65/cc
		over 75 Microns	NONE	0/cc
Rust Preventative Properties	ASTM D-1743	48 hrs @ 125°F	# 2 max	1
Load Wear Index	ASTM D-2596	@ 77°F	30.0 min	40.00
Last Non-seizure		Load/Wear Scar		80 kg/0.425 mm
Last Seizure		Load/Wear Scar		126 kg/1.64 mm
Weld Point		Load		160 kg
Steel-on-Steel Wear	ASTM D-2266	1200 rpm, 40 kg, 167°F, 1 hr, 52100 Steel	0.7 mm	0.70 mm
Gear Wear	FED-STD-791 Method 335	6000 Cycles 2.3 kg Load	2.5 mg/1,000 cycles	2.2 mg
		3000 Cycles 4.5 kg Load	3.5 mg/1,000 cycles	3.1 mg
High Temp. Performance	ASTM D-3336	121°C, 10,000 rpm, 5 lb	1,000 hrs min	2,250 hrs +
Low Temperature Torque	ASTM D-1478	@ -73°C, Starting	1.0 N-M max	0.39 N-M
		running	0.01 N-M max	0.07 N-M
Corrosion on Copper	ASTM D-4048	24 hrs @ 100°C	1b max	1b

*Extending Component Life with Tribolube Synthetic Lubricants<sup>®</sup>*