

# TRIBOLUBE<sup>®</sup>-12 and 12T

## Synthetic Hydrocarbon Greases

### CHARACTERISTICS

**Tribolube-12** is a multipurpose synthetic grease originally developed for military aircraft high-speed turbine engine bearings (conforms to the performance requirements of MIL-PRF-81322). It has excellent long life and antirust properties for service at temperatures ranging from -80°F to 400°F. It can be operated to 600°F depending upon speed and load, environmental factors, and relubrication frequency.

**Tribolube-12T** is similar to -12 except it contains a special EP additive to enhance its load carrying properties.

### APPLICATIONS

**Tribolube-12** is highly recommended for use in a wide range of industrial equipment. Use on O-rings, seals, gears, ball, roller, and plain spherical bearings.

**Tribolube-12T** is suitable for use in miniature ball, roller, needle, and plain spherical bearings, gears and screw actuators. It is especially suitable for use in aircraft wheel bearings with internal brake wheel assemblies.

PERFORMANCE TEST	TEST METHOD	CONDITION	TYPICAL VALUES	
			TRIBOLUBE-12	TRIBOLUBE-12T
Temperature Range			-80 to 400°F	-80 to 400°F
NLGI No.			2	2
Unworked Penetration	ASTM D-217	@77°F	270	270
Worked Penetration	ASTM D-217	60 strokes	285	265
Worked Stability	FED-STD-791 Method 313	100,000 strokes	310	297
Dropping Point	ASTM D-2265		550°F	550°F
Evaporation	ASTM D-2595	22 hrs @ 210°F	0.50%	
		22 hrs @ 350°F	5.40%	3.67%
Oil Separation	FED-STD-791 Method 321	30 hrs @ 212°F	0.80%	
		30 hrs @ 350°F	3.50%	4.80%
Water Washout	ASTM D-1264	1 hr @ 105°F	7.00%	7.00%
Oxidation Stability	ASTM D-942	100 hrs @ 212°F	-2.5 psi	
		500 hrs @ 212°F	-9.0 psi	
Dirt Count	FED-STD-791 Method 3005	25-74 Microns	65/cc	65/cc
		over 75 Microns	0/cc	0/cc
Rubber Swell	FED-STD-791 Method 3603	"L" stock 168 hrs @ 158°F	4.0%	
Rust Preventative Properties	ASTM D-1743	48 hrs @ 125°F	1	1
Load Wear Index	ASTM D-2596	@ 77°F	48.0	50.00
Last Non-seizure		Load/Wear Scar	100 kg/0.454mm	100 kg/0.44 mm
Last Seizure		Load/Wear Scar	126 kg/2.590 mm	200 kg/2.17 mm
Weld Point		Load	250 kg	250 kg
Steel-on-Steel Wear	ASTM D-2266	1,200 rpm, 40 kg, 1 hr @ 167°F, 52100 Steel	0.7 mm	0.69 mm
		1,200 rpm, 40 kg, 1 hr @ 350°F, 52100 Steel	0.8 mm	
Coef. of Friction		1,200 rpm, 90°F 15 kg Load	0.09	
Gear Wear	FED-STD-791 Method 335	1,000 Cycles 5 lb Load	0.68 mg	
		1,000 Cycles 10 lb Load	1.60 mg	
High Temperature Performance	ASTM D-3336	300°F, 10,000 rpm, 50 lb	2,500 hrs +	
		350°F, 10,000 rpm, 50 lb	525 hrs	
		350°F, 10,000 rpm, 5 lb	1,000 hrs +	
		400°F, 10,000 rpm, 5 lb	264 hrs	
Low Temperature Torque	ASTM D-1478	@ -65°F, Starting	1,534 g-cm	1,885 g-cm
		running	649 g-cm	890 g-cm
Corrosion on Copper	ASTM D-4048	24 hrs @ 212°F	1a no Stain	1b