TRIBOLUBE®-15,-15MS,-15RP,-15V

Fluorinated Polyether Greases

CHARACTERISTICS

These greases are especially useful in vacuum and other systems where nonreactivity with chemicals, strong acids and oxidizers, fuels, and solvents is required. Each grease is suited for different operating environment temperatures.

Tribolube-15 and Tribolube-15MS respectively meet the requirements for MIL-PRF-27617 Types 4 & 5. Although this lubricant is very inert, newly exposed rubbing surfaces of aluminum and magnesium may react with the greases under certain conditions.

APPLICATIONS

Tribolube-15V is recommended for vacuum applications. Tribolube-15RP is available with three different corrosion inhibitors designated by the letter RPA, RPB, & RPC. Please consult with an ALI lubrication engineer to select the correct one for your application. These greases are suitable in applications including small and large diameter ball, roller, needle, and plain bearings, electrical contacts, threads, valves, gears, contacts, splines, ball screws, and screw actuators. It is compatible with most elastomers and plastic seals, gaskets and O-rings.

PERFORMANCE TEST	TEST METHOD	CONDITION	TYPICAL VALUES			
			TRIBOLUBE-15	TRIBOLUBE-15MS	TRIBOLUBE-15RPA	TRIBOLUBE-15V
Temperature Range			-100ºF to 450ºF	-100ºF to 450ºF	-100ºF to 450ºF	-100ºF to 450ºF
NLGI No.			2	2	2	2
Unworked Penetration	ASTM D-1403	@ 77ºF	291	294	287	292
Worked Penetration	ASTM D-1403	60 Strokes	295	295	275	295
Oil Seperation	FED-STD-791 Method 321	30 hrs @ 400ºF	9.66%	5.70%	11.35%	11.2%
		30 hrs @ 450ºF	10.24%	22.5%		
Evaporation	ASTM D-2595	22 hrs @ 400ºF	4.31%	0.12%	0.08%	
		30 hrs @ 400ºF	4.51%			0.08%
		22 hrs @ 450ºF		0.18%	0.18%	
		72 hrs @ 450ºF		2.13%		
		22 hrs @ 500ºF		0.80%		
Rust Preventative Properties	ASTM D-1743	48 hrs @ 125ºF			Pass	
Low Temperature Torque	ASTM D-1478	@ -65ºF, Starting	520 gm-cm			910 gm-cm
		Running	163 gm-cm			390 gm-cm
		@ -100ºF, Starting	1,450 gm-cm	3,283 gm-cm		3,185 gm-cm
		10 min Running		2,990 gm-cm		
		60 min Running	618 gm-cm	2,470 gm-cm		975 gm-cm
Copper Corrosion	FED-STD-791 Method 5309	24 hrs @ 212ºF	1b	1b	1b	
LOX Impact Sensitivity	ASTM D-2512	20 impacts from 43.3 in	No Reactions	No Reactions	No Reactions	No Reaction
Load Wear Index	ASTM D-2596		170.29	152.25	151.25	152.25
Last Non-seizure		Load/Wear Scar	80 kg/0.52 mm	32 kg/0.31 mm	40 kg/0.40 mm	40 kg/0.40 mm
Last Seizure		Load/Wear Scar	600 kg/1.71 mm	800 kg/1.70 mm	800 kg/1.50 mm	800 kg/1.52 mm
Weld Point		Load	800 kg	1,000 + kg	1,000 + kg	1,000 + kg
Steel-on-Steel Wear	ASTM D-2266	1200 rpm, 40 kg, 1 hr @ 167ºF, 52100 Steel	0.70 mm	0.97 mm	0.90 mm	0.90 mm
		1200rpm, 40 kg, 1 hr @ 400ºF 52100 Steel	1.12 mm			1.33 mm
High Temperature Performance	ASTM D-3336	10,000 rpm @ 400ºF 5 lbs	1,600 + hrs	2,250 + hrs		1,800 + hrs
		10,000 rpm @ 450ºF 5 lbs	500 + hrs	1,000 + hrs		500 + hrs
Film Stability and Corrosion	FED STD-791 Method 5414	168 hrs @ 212ºF	Pass	Pass		Pass
Vapor Pressure	Knudsen	@ 68ºF		10^{-12} Torr		10^{-12} Torr
Dropping Point	ASTM D-2265					438ºF
Vacuum Thermal Stability	NASA SP-R-0022A	24 hrs@ 6 X 10-6 Torr				
Weight Loss				0.15%	0.12%	0.07%
Volatile Condensables				0.03%	0.01%	0.00%
Water Vapor Recovery				0.01%	0.01%	0.01%