



Liquid-O-Ring® *Lubon* 404EU

Made with LIQUILON®

OIL CENTER RESEARCH INTERNATIONAL, L.L.C.

Lubon 404EU is an all-purpose lubricant and sealant for applications that require the best lubrication available. *Lubon* 404EU's processing and formulation enable it to provide a versatility not found in conventional lubricants. The uses of *Lubon* 404EU are varied. In general, *Lubon* 404EU may be applied to threaded connections, gaskets, gear boxes, gear and chain drive units, draw works, direct rotary drives, outboard motor lower units, stopcocks, wellheads, swivel joints, and universal joints, as a pump and valve packing, and additive to truck rear ends. *Lubon* 404EU possesses a unique plating and coating ability, which provides a residual lubricating film that eliminates metal to metal contact and prevents rust and corrosion.

THREAD SEALANT

For maximum effectiveness, *Lubon* 404EU should be applied to the female (box end) and male (pin end) threads of the connections. Application to both threads allows the *Lubon* 404EU to be pushed in by the screwing motion during make-up and provides a pack-off in the helical leak path. A "bead" of *Lubon* 404EU is formed between the leading edge of the male connection and the female threads. When the connection is made up, there will be a torque reduction of approximately 15%.

Lubon 404EU provides the best possible sealing and protection from galling and seizing, even on connections of stainless steel, iron, aluminium, brass, fiberglass, and plastic. Unlike tape sealants, *Lubon* 404EU will coat the entire thread surface. Threads that are worn, corroded, or badly machined are easily sealed by *Lubon* 404EU. Still another advantage is that the make-up and break-out torque will be approximately the same, a feature not found in any other sealant.

1. Apply *Lubon* 404EU using a dope brush. For best results, apply to both male and female threads. NOTE: For large connections use *Liquid-O-Ring*® Thread Sealant 104EU or 105EU, depending on the condition of the threads.
2. As the connection is being made up, *Lubon* 404EU will plate out evenly over the threads. It is highly recommended for all metal and non-metal threads.

Lubon 404EU is presently being used as a thread sealant by a leading manufacturer of sprinklers due to its non-hardening and residual lubrication properties that allow for easy breakout, even after many years of service.

TYPICAL OBSERVATIONS

Color	Green
Active Component	LIQUILON®
Manufacturing Process	Fluoromation
Density, lb/gal @ 77°F (25°C)	8.50
Specific Gravity @ 77°F (25°C)	1.018
Dropping Point, ASTM D-2265	>500°F (>260°C)
Flash Point, ASTM D-92	>450°F (>232°C)
Lowest Service Temperature	0°F (-17°C)
Penetration, ASTM D-217 worked @ 77°F (25°C)	265-295
Base Oil Viscosity	
cSt, 40°C	170
cSt, 100°C	16.35
Corrosion Preventive Properties, ASTM D-1742 @ 125°F (51°C)	Pass
Water Washout Characteristics, ASTM D-1264 @ 100°F (37°C)	Nil
Evaporation Loss, ASTM D-972 @ 210°F (98°C)	2.7%
Oil Separation, ASTM D-1742 @ 77°F (25°C)	0.10%
Oxidation Stability, ASTM-942 @ 210°F (98°C), 72 hrs PSI Loss	3
Friction Factor	0.89
Shelf Life (unopened container)	Two years

CONTAINER SIZE

Small Case (12 jars)
Standard Case (6 jars)
1 gal (4 L)
2 gal (8 L)
3½ gal (13 L)
16 gal (120 L)
55 gal (208 L)

Lubon 404EU VERSUS TEFLON TAPE

Lubon 404EU has proven to be an excellent replacement for Teflon tape because of its ease of application and the elimination of the danger of a piece of shredded tape blocking instrument lines or small openings. *Lubon* 404EU will outperform tape in sealing, preventing galling and seizing, and protecting threads.





GEARBOX ADDITIVE

Lubon 404EU may be added to any gearbox that does not contain small ball or roller bearings, oil circulation systems, or filter systems. For gearboxes containing any or all of the above components, use GX Seal 753. A symptom of a problem is a gearbox that is running hot, making noise, and/or showing signs of leakage around seals or gaskets.

Lubon 404EU is a concentrated material; for correct amount to add, refer to application chart. The gearbox should be run immediately after application to insure circulation of LIQUILON®, to obtain a coating of LIQUILON® on metal surfaces, and to enable the LIQUILON® to reach any areas of leakage.

A gearbox treated with *Lubon* 404EU will have many advantages over an untreated gearbox. Several of these advantages are listed below:

- A noticeable reduction in “play” due to *Lubon* 404EU’s film forming lubrication.
- A reduction in gear noise.
- A reduction of heat and wear.
- Will seal leaks around gaskets or seals as they occur, preventing the loss of gear oil.
- Reduction in power required to drive the gearbox.

Mix one ounce of *Lubon* 404EU per quart of oil in gearbox to provide solid film lubricity, cooler operation, and to eliminate leakage. It may be used in standard transmissions.

LUBON APPLICATION CHART	
System Capacity (quarts)	Lubon (ounces)
1	1
2	2
4	3
8	5
12	6
16	7

GASKET DRESSING

Lubon 404EU is a top quality lubricant and sealant. The resealing properties of *Lubon* 404EU will prevent fluid leakage around the gasket seal and will contribute to good housekeeping. Also, the lubricating properties will permit easy removal of the gasket so that it can be removed intact. The old gasket will not need to be scraped off. This will eliminate the risk of scoring or scratching mated surfaces.

Lubon 404EU should be applied by buttering both sides of the gasket prior to installation. For larger gaskets the following procedure may be followed:

1. Butter on of the metal surfaces of flanges.
2. Place the gasket on the buttered surface or flange.
3. Butter the exposed side of the gasket.
4. Also butter inside edge of the gasket. (*This will help prevent gasket leaks.*)

PACKING SUPPLEMENT

Lubon 404EU will improve the performance of conventional packing by lubricating, sealing, and protecting the shaft.

1. Fully coat each ring of conventional packing with *Lubon* 404EU.
2. Install in the normal manner, seating each ring separately.
3. Replace follower gland and hand tighten lightly.
4. Open lines and start pump.

PUMP LUBRICANT AND SEALANT

Inject *Lubon* 404EU through a standard lantern ring to provide LIQUILON® solid film lubricity and enhance the sealing capability of conventional packing. A button head fitting or *Liquid-O-Ring*® button head stopcock AS1410 must be used in this application, since *Lubon* 404EU will plug a zerk fitting.

404EU VERSUS TEFLON TAPE

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MISCELLANEOUS APPLICATIONS

ANTI-SEIZE COMPOUND: *Lubon* 404EU will not only protect coated parts from rust and corrosion, but will also allow uniform tightening of bolts and nuts, permitting accurate torque reading.

RAILROAD CENTER PLATE LUBRICANT: LIQUILON® particles of *Lubon* 404EU are deformed by the weight of the car. In addition to offering superior lubricity, the solid LIQUILON® film provides total corrosion resistance.

EXPOSED GEAR LUBRICANT: On low to medium speed, *Lubon* 404EU provides solid film lubricity and protection from corrosion.

OUTBOARD MOTOR LOWER UNITS: Small amount of *Lubon* 404EU provides sealing and lubrication to gears.

ELEVATOR APPLICATION: *Lubon* 404EU can be used as a jack packing lubricant on hydraulic elevator units.

O-RING LUBRICANT: To prevent tearing of o-ring after operation, butter with *Lubon* 404EU prior to installation. The life and sealing capability of conventional o-rings can be greatly improved by using *Lubon* 404EU.

PROTECTION FROM CORROSION: *Lubon* 404EU applications in fresh and salt water conditions have been extremely successful. Parts exposed to salt water have shown no sign of corrosion, even after extended periods of use.

VALVE LUBRICANT AND SEALANT: *Lubon* 404EU finds use as a valve lubricant and sealant for industrial valves requiring exterior lubrication injection, including plug valve applications. *Lubon* 404EU will effectively seal and lubricate manual and pneumatic controlled valves. Replace the present zerk fitting with a button head fitting in order to better accommodate the application of *Lubon* 404EU. For specialized application, see the *Liquid-O-Ring*® line of valve lubricants.