

13. Other products

13.2 Lubrication of O-rings during assembly- O-Lube and Super-O-Lube

Lubricant or grease is used with all types of O-ring seals to

- ease assembly
- lower friction
- extend working lifetime

Without doubt the greatest advantage of O-ring lubrication is the ease of assembly. Both the force required during assembly and the risk of damage by twisting will decrease. Improperly assembled O-rings can lead to machine failure (see Section 10. Assembly hints).

The use of lubricant is particularly important in dynamic pneumatic applications.

A lubricant should meet the following requirements:

1. The lubricant (and its additives) should not cause an elastomer to swell or shrink.
2. The lubricant properties must remain constant over the whole working temperature range. This means that the lubricant should not flow like a liquid at high temperatures nor become solid at low temperatures.
3. The lubricant must be stable with no free constituents which might gather on the running surface.
4. The lubricant should have adhesive properties to ensure that the lubricating film is not removed by the O-ring.
5. Compatibility with the contact medium.
6. The lubricant should not block system filters.

Parker offers two lubricants covering together a wide range of applications: Parker O-Lube and Parker Super-O-Lube.

Parker O-Lube is a mineral oil based lubricant containing barium soap. It eases assembly problems and contributes to a longer seal working life.

The best results are obtained when both the seal and the running surface are treated with the grease.

Parker-O-Lube has a good resistance to water, adheres well to surfaces and offers good lubricating properties.

It is particularly suitable for low pressure applications with slow dynamic reciprocating, oscillating or rotating motion.

Parker-O-Lube is not recommended for systems with micro-filters or for seals which are not compatible with mineral oils (e.g. butyl, ethylene-propylene).

Parker O-Lube is available in 110 g tubes and in 16 kg buckets.



O-Lube lengthens O-ring working life

Technical data

Content: appr 80 % mineral oil

appr. 20 barium stearate

max 0.2 % water

Stock point: -4 °C

Flame point : +224 °C

Recommended temperature range: -30 °C to +120 °C

Parker Super-O-Lube is a silicone based lubricant and completes the range compatible with all elastomers (silicone compounds have to be handled carefully; apply only a minimum quantity of Super-O-Lube). This lubricant is noted for its adhesive properties, adhering well to both metal and rubber parts. It exhibits an unusually wide temperature range.

A thin layer of Parker Super-O-Lube protects certain elastomers from ageing. Unsaturated compounds, e.g. NBR, are particularly sensitive to ozone cracking unless they are protected with a fine film of grease.

Super-O-Lube offers the best results when applied as a thin film and being neutral, it does not react with a contact medium.

Super-O-Lube is equally suitable for high pressure and vacuum applications; it is non-toxic and does not jam systems with micro-filters (to 30 µm).

Parker Super-O-Lube is available in a 55 g tube and in 3,6 kg or 18 kg buckets.



Parker Super-O-Lube: for a longer working life

Technical data

Content: Silicone grease

Stock point: -33 °C

Flame point: +321 °C

Recommended temperature range: -55 °C to +200 °C