Which lube to use

In short, **Synthetic Greases with PTFE**, especially good ones are Super Lube 21014, SL21030 and 41150. They are all the same, just different bottle sizes. SuperLube also sell ~200kg (~440lbs) trums, 1ml (1cc) packets and everything in-between

If using carbon-fiber rods, then lubrication is different. Generally speaking rods themselves won't need lubrication, just cleaning. Lineral bearings need lubrication tho. Wear on carbon fiber rods happens mostly because of rusty or chipped bearing, which smashes parts out from CF rods. It's safe to use syntethic greases, but should avoid petroleum and mineral oils, since they aren't compatible with resins used to bind carbon-fibers together

Synthetic lubricants

- **Properties**: Excellent temperature stability, resistance to degradation, superior performance at extreme temperatures (~200C and above). Does not get crusty or gummy over time
- **Uses**: Automotive engines and high-performance applications
- **Ideal For**: Situations requiring durable, high-performance lubrication under varying conditions

Synthetic greases with PTFE

- **Properties**: Low friction (due to PTFE), stable across a wide temperature range. Does not get crusty or gummy over time
- **Uses**: Precision instruments, bearings in high-performance and high-temperature applications
- **Ideal For**: Applications where minimal friction and wear are critical

Silicone-based greases

- **Properties**: Excellent thermal stability, non-reactive, good plastic and rubber compatibility. Does get crusty and gummy over time, especially with temperature fluctuations
- **Uses**: Electrical insulations, plumbing, automotive components, food-grade applications
- **Ideal For**: Moisture-rich environments and applications requiring material compatibility

Lithium-based Greases

- **Properties**: Good temperature tolerance. Will get crusty and gummy overtime. Especially with high temperature fluctuations. Will damage carbon-fiber rods over-time
- **Uses**: Automotive, industrial heavy-duty bearings

- **Ideal For**: General-purpose, heavy-load applications, especially where moisture is present

Dry lubricants

- **Properties**: Do not attract dust or dirt, function well under high temperatures, up to 1100°C (2012°F). Get crusty when overapplied, doesn't reduce friction nor protect as good as liquid ones
- **Uses**: Locks, hinges, super-high-temperature environments
- **Ideal For**: Situations where cleanliness is crucial and temperature is too high for liquid alternatives

Sewing machine oil

- **Properties**: Fluid at low temperatures, need to be applied often (daily). Can't take temperatures above 100°C. Will get gummy over time, especially with temperature changes
- **Uses**: Small bearings, household tools, precision instruments, not ideal for carbon-fiber parts - petroleum based. Shouldn't be too bad, since it's so light with refined nature, but still not recommended
- **Ideal For**: General-purpose lubrication at room temperature

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